

Version of 18 november 2022

External evaluation of the Science Granting Council Initiative in sub-Saharan Africa



Annexes



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1 Case study reports

1.1 Botswana Ministry of Communication, Knowledge and Technology

Summary of the pathways to outcomes / impacts

Botswana joined SGCI in anticipation of the creation of a national fund. The Department of Research, Science and Technology (DRST) participated intensively in a range of activities across the thematic areas of the phase 1 and 2 of the SGCI, including management training, work on STI indicators, international research calls and building partnerships.

Through the participation in the SGCI, Botswana DRST and other stakeholders have gained experience and competencies in research funding management and have developed and improved MEL processes and systems.

Botswana DRST has gained several tangible benefits from SGCI, notably a strengthened internal capacity to carry out its functions; the creation of new, external partnerships; and participation in international calls.

Participation in the SGCI has been an 'eye-opener' and contributed to increase awareness in Botswana of the benefits of a granting council is expected to help strengthen the development and coordination of research and innovation in Botswana more broadly.

Introduction to the Council

The Department of Research, Science and Technology (DRST) was established in 2004 and is responsible for the coordination of research, technology, and innovation at a national level. Following a recent restructuring within government, the DRST has moved from the Ministry of Tertiary Education, Research, Science and Technology to the Ministry of Communications, Knowledge, and Technology.

It is a relatively small department with 32 staff in total and is made up of two Divisions: Coordination and Development, and Policy and Legislation. Each division has three officers with lead responsibilities.

- Coordination and Development Division, including the following responsibilities:
 - Database Management and currently is setting up the research information management system. The system will capture both private and public research data - personnel, projects, funding, partnerships, publications, IP etc.
 - Monitoring and evaluation- finalising the National RSTI Monitoring and Evaluation Framework
 - S&T Information- being the face of government research, science, technology, and innovation. For example, Science Week and institutional collaboration
- Policy and Legislation division, including the following responsibilities:
 - Policy reviews and drafting of legislation
 - International relations
 - Setting the research agenda: focusing, planning, horizon scanning
 - Intellectual property: working with science institutions, strengthening IP regimes – separate but complementary to the dedicated government IP Department.

In addition to the DRST, the **Botswana Institute for Development Policy Analysis** - a non-governmental policy research institute or 'think tank' established in 1995,¹ **Statistics Botswana**, and the **Botswana Digital and Innovation Hub** have participated in SGCI activities. Several other stakeholders such as universities in both the public and private sector were trained on Research Management early on after Botswana joined the initiative.

There is currently no research fund or research funding agency in Botswana. Research has been funded through sectoral development funding. Research funds are distributed to sector ministries within government, each with a different mandate for supporting research-related activities. Recently funds have been made available to energise the research landscape initially through a rather ad-hoc basis based on unsolicited applications. However, the system is being semi-formalised by making calls to restricted research players. The extent to which this happens depends on the amount of funding available.

The DRST hope to be able to enhance the coordination of research and innovation across government and is in the process of establishing a research and innovation fund, possibly by the end of the current financial year. The situation will also benefit the currently on-going Science Technology and Innovation Policy Review and Technology Foresight Study.

Overview of participation in the SGCI

Botswana joined SGCI in 2016 and has participated in both phase 1 and 2 of the initiative.

Since there is currently no research council in Botswana, the country joined in anticipation of the creation of a national fund. At the time of joining, a request to create a research council had just been declined by cabinet due to Government's moratorium on establishment of agencies. In this context, the Department joined SGCI to gain useful experience as a country and an organisation.

Another challenge in Botswana was the lack of private sector participation in R&D activities. Botswana aspires to creating a system more akin to developed countries where the business sector accounts for the majority of R&D investments.

Activities

The DRST participated in all themes across the SGCI 1 and 2. There was a good alignment with the needs of the department: in some cases, to support ongoing activities – such as the use of STI indicators – and in others to learn and build experience across the range of activities in preparation of a future research granting council.

The DRST highlighted the following:

- **Research Management:** Several DRST staff participated in training courses working towards attaining Professional certification in Research Management through the Southern African Research & Innovation Management Association (SARIMA). In addition, DRST have participated in 'learning visits' to the National Research Fund (NRF) in South Africa (2018).
- **Data and monitoring:** The DRST participated in the EVI-POL project² and worked intensively on STI indicators during the first phase of the SGCI.
- **Public-private partnerships:** The Botswana Institute for Development Policy Analysis (BIDPA), a non-governmental research organisation, received support to develop the "Private sector

¹ <https://bidpa.bw/about-us/>

² <https://www.acts-net.org/news/use-of-evidence-in-policy-and-decision-making-sqci-2-evi-pol-project>

engagement strategy for research, science, technology and innovation in Botswana" (June to December 2019).³

In addition, DRST has participated in a number of calls and partnerships facilitated through the SGCI as described below.

Outputs

Participation in SGCI has produced a number of tangible results for the DRST. Particularly important outputs highlighted by the DRST include the following:

- DRST staff have completed several modules in the research management training in building towards professional certification from SAMIRA.
- DRST has submitted their full RDI datasets to the African Innovation Outlook 3 and received feedback on their datasets and monitoring frameworks and support from AUDA-NEPAD to analyse and mobilise insights from the data.⁴
- Botswana has participated in calls organised by the NRF and the IDRC available to researchers in countries participating in SGCI. Supported and facilitated by the DRST, researchers from Botswana were successful in winning several grants.
 - Professor Gizaw Mengistu Tsidu, from the Botswana International University of Science and Technology (BIUST), was awarded a grant as one of ten OR Tambo Africa Research Chairs to pursue research in the area of climate change.⁵
 - Three projects, all led by researchers at the University of Botswana, were funded through the 'Research Strand' of the COVID-19 Africa Rapid Grant Fund (2020).⁶
- The Ministry funded two additional, high-quality projects submitted to the competition from researchers in Botswana.
- Through SGCI, Botswana has been actively involved in international collaboration. This includes participation in the Global Research Council I and in the Africa-Japan Collaborative Research initiative (AJ-CORE). In the latter, researchers from Botswana are involved in three environmental science projects,⁷ addressing contaminants in environments impacted by mining activities, water management for agriculture, and the creation of a Community-based Water, Sanitation and Hygiene model with children and youth, respectively.
- Botswana concluded a collaboration agreement with Zimbabwe in April 2020, and the Botswana Digital and Innovation Hub (BDIH) launched a joint call with the Research Council of Zimbabwe. The call focussed on mining technologies, which is a shared priority for the two countries, and specifically on "Value Addition and Beneficiation of Resource Extraction and Transformation".⁸ The call funded two projects, due to be completed by November 2022, both projects with participation from researchers from the BIUST.

³ See also "Theme 3: Strengthening partnerships among Africa's Science Granting Councils and the Private Sector – Final Project Technical Report" (2020).

⁴ See also SGCI 1 final report (2020), p. 23

⁵ <https://sgciafrica.org/o-r-tambo-africa-research-chairs-initiative/>

⁶ https://sgciafrica.org/wp-content/uploads/2022/03/Project-Abstracts_-Research-Strand-1.pdf

⁷ https://www.jst.go.jp/inter/english/program_e/multilateral_e/aj-core.html

⁸ <https://www.bih.co.bw/wp-content/uploads/2019/09/BIH-RCZ-Joint-Call-for-Proposals.pdf>

Outcomes

Although Botswana does not have a granting council, the SGCI has improved the knowledge and skills within the DRST to undertake grant management tasks in the future. Similarly, through the joint call with the Zimbabwean partner, the Botswana Digital and Innovation Hub has been able to strengthen its ability to manage research competitions and project implementation. The feedback obtained through the SGCI sessions has further improved the use of RDI datasets and monitoring frameworks, although all aspects have been put into practice yet.

Lack of private sector participation in RDI was identified as a key challenge for Botswana. Following the engagement and support received through SGCI, BIDPA has led the development of a national strategy in consultation with private sector stakeholders, and a draft has been submitted to the Government.

Relationships with other councils are seen as indispensable and following the experience gained under the SGCI, DRST is now better able to broker partnerships themselves. For example, the Department recently collaborated with the German Research Foundation (DFG) to promote conferences with participation from the two countries. Botswana is also working towards MoUs with Zambia and Namibia. Although some MoUs may have been achieved regardless, the experience gained as part of the SGCI contributed to the ability of the DRST to achieve this.

Longer-term outcomes and impacts

Considering the longer term, the DRST's participation in the SGCI has had the effect of further highlighting the need to establish a national research fund as well as contributing to building capacity and experience needed to do so. The SGCI has provided support to encourage the government to establish a fund.⁹ Following recent cabinet approval, it is now hoped that this may be realised by the end of the current financial year or soon thereafter.

The participation in the SGCI calls also appears to drive a greater engagement between the DRST and the universities and researchers within Botswana. Successful applicants to SGCI-supported competitions reported new discussions about grant applications and management, reporting of research findings to national policymakers, and support for a positive research environment within the country.

Lessons learned

The DRST has benefited from all parts of the initiative, which has been described as an 'eye-opener' and supported the development of capacity and knowledge across a number of areas related to research funding management and policy development.

Following the SGCI, the DRST is still following up to complete the staff training initiated during the programme period.

External factors

The primary external factor constraining the DRST's capacity to pursue the aims described above is the lack of resources. The Department acknowledges the need for recruitment, but this is currently not possible due to structural constraints. Similarly, the Department has relied on the SGCI for staff training but following up to complete the training and certification started under

⁹ See also SGCI 1 final report (2020), p. 41.

the SGCI is proving to be challenging and is progressing somewhat slowly. Before the SGCI, there has also been a reluctance enter into international funding initiative lest the government is required to provide co-funding.

The mining sector plays a key role in Botswana's national economy, which makes this a relevant topic for research and innovation projects. This is reflected in the focus of projects funded in joint calls with Zimbabwe and Japan (see above).

Botswana has had a positive economic development and is now classified by the World Bank as a "upper-middle-income economy". This, however, reduces the access to international donor funds and research calls which are reserved for the poorest countries.

1.2 Uganda National Council for Science and Technology (UNCST)

Summary of the pathways to outcomes / impacts

The Ugandan Council UNCST joined the Science Granting Council Initiative (SGCI) with an interest to improve i) its grant management capacity (from call design, administration to supervision and monitoring, and reporting); ii) its research management; and iii) its knowledge and technology exchanges with the private sector. It also aimed at exploring how the funded research could translate into industry, society, as well as influence and support policy formulation.

With support from the SGCI, UNCST has: (i) strengthened its grants and research management processes and systems (e.g. an end to end online grants management system was developed); (ii) strengthened knowledge exchange and uptake between the private sector and the 'knowledge generators' (academia and research institutes); (iii) influenced gender and inclusivity sensitisation and integration into its programs and more widely in the Science, Technology and Innovation (STI) ecosystem in Uganda; and (iv) increased partnerships and networking with other STI ecosystem players nationally and internationally.

Over time, UNCST expects to strengthen its capacity to use data to influence policy decisions. It also expects to continue to strengthen partnership building among Africa's Science Granting Councils, and to build on its knowledge on gender and inclusivity in STI.

Introduction to the Council

UNCST was established by an act of parliament (CAP 209 of the laws of Uganda) in 1990. The Council is semi-autonomous government entity under the Ministry responsible for STI (under the new government re-arrangement of government entities, UNCST has been placed under the Office of the President) and provides the route to government funding for the Council. The Minister responsible for STI appoints the UNCST Governing Council (executive board). The Governing Council is responsible for setting UNCST's strategic direction, taking key decisions and ensuring that UNCST fulfil its mandate.

The Council has 60 full time staff members and is currently growing. The National Science, Technology, Engineering and Innovation Skills Enhancement project aims to strengthening the UNCST through provision of shared /or common user Research Equipment and Facilities (including a Technology and Business Incubation Centre) and is expected to influence UNCST's structural growth.

Historically, the Council was in charge of advising the national government on all issues of Science and Technology and it had a tactical role of developing and implementing strategies for integrating Science and Technology into the national development process. In 2016, a Ministry of STI was set up with the intent to play a policy advisory role. With the establishment of the new Ministry, the Council underwent a structural review. The Council's focus shifted towards

research regulation, policy promotion, technology transfer, granting and partnerships. In 2021, the Council underwent another review, in alignment with the dissolution of the Ministry of STI.

The Ugandan National Council for Science and Technology was moved under the office of the President (OP), and directing reporting to a de-facto STI Secretariat created under the OP headed and directly managed by a Minister for STI. This has presented some strategic challenges and benefits. This makes the UNCST much closer to government decision making, and it has a higher chance of influencing agenda and the presidents strategic thinking. However it comes at a cost of less autonomy than some other national Councils.

Government funding has increased, the Council has seen a particular growth in co-funding support from the government, and a growing interest in increasing funding. However, funding is still not at a level that the Council is aspiring to. The funding does not surpass 1% of GDP, and relative to other sectors such as education, the budget remains low. However, there has been growing interest in increasing funding for research specific areas, especially since COVID-19 outbreak.

Organisational structure

The Governing Council (executive board) is UNCST's oversight and supreme body and is responsible for setting UNCST's strategic direction, take key decisions and ensure that UNCST fulfil its mandate. The Governing Council is appointed by the Minister Responsible for Science, Technology and Innovation.

The Executive Secretary (ES) is the Chief Executive Officer of the UNCST and be responsible for the day-to-day overall administration and management of operations, programs and achievement of the organization vision, mission and objectives. Of the council. The ES and Deputy ES are appointed by and report the UNCST Governing Council.

There are five divisions in the council namely: (i) **Science Technology Innovation Research and Development Support Division** (STIRDS), Research Development and Technology Management (RTDM), Corporate Affairs and International Collaboration (CAIC); Science and Technology Policy Coordination (STPC) and Finance and Administration. All five divisions are supported by other units (Procurement, Human Resource, Internal Audit) that report directly to the office of the ES.

1. **STIRDS** is responsible for administering research grants, technology transfer and adaptation, commercialisation, and intellectual property management.
2. **RTDM** is responsible for research regulation, quality assurance, ethics enforcement, and accreditation, supervision of institutional Research Ethics committees and biosafety regulation.
3. The **STPC division** focuses on Science and Technology policy Analysis and coordination. It brings together policy and evidence building and, for example, includes a focus on statistical data collection and S&T policy studies, monitoring and evaluation, planning and budgeting aspects.
4. The **CAIC division** focuses on Outreach and Science promotion, local and international collaborations and partnerships, and corporation communication. This division is the 'face of the organisation', engaging with other partnerships, local and international stakeholders, and is in charge of knowledge management.
5. **Finance and Administration division** focuses on financial management, accounting and other support functions such as security, fleet management, and institutional ICT support.

Overview of participation in the SGCI

UNCST has participated in SGCI implemented in two phases: SGCI-1 (2015-2020) and SGCI-2 (2018-2025).

Before SGCI, the Council faced challenges with their online grant management system, since only half of the grants management process could be done online. Under the SGCI, with technical support from a CTAs (SARIMA and AAU), UNCST was able to full digitalise its grant

management system end-to-end, allowing the Council to fully manage funded research projects through this platform.

Activities

Research management: staff training, online management system and grants management processes

Staff in the grants management division participated in trainings in SGCI 1, which covered global practices in grants management systems, intellectual property, policy studies and technology transfer and commercialisation.

The SGCI supported the Council in developing and streamlining grants management processes then developing a full online grants management system (initially it was partially online). In addition, the Council was also supported to acquire a new server with enhanced storage capacity to support many new ICT platforms to improve efficiency of service delivery.

Together with Association of African Universities, UNCST supported other councils to digitalize their granting systems

Strengthening Partnerships among Africa's Science Granting Councils and private sector/support management research calls

UNCST received technical support from ACTS and SARIMA during SGCI I, to build capacity, facilitate and manage research grants that bring together the private sector as knowledge users and the academia as knowledge generators. It received grants to launch calls.

The SGCI provided the opportunity to meet other Councils, and UNCST attended networking events and hosted a learning visit for other councils

UNCST is currently supported by IDRC, to develop an online gateway/platform called Technomart which links the private sector and the academia. The platform shall act as an online technology supermarket to facilitate technology transfer, commercialization, and knowledge uptake.

Gender and inclusivity

The Council has been exposed to discussions and material to develop an institutional gender and inclusivity strategy.

Outputs

Research management: staff training, online management system and grants management

Through the staff training in SGCI 1, the Council has built its internal capacity to better manage grants. With the help of the technical support from CTAs, they have improved their grant management tool in relation to grant agreements, in order to capture more detail and streamline the process.

Online grants management system has been developed and streamlined.

The Council has brought learnings gained from the SGCI into their call management process. The Council has developed training material, including the development of a grants management manual which helps guide applicants through the entire process.

Strengthening Partnerships among Africa's Science Granting Councils and private sector/support management research calls

The Council has built partnerships and agreements with research teams, and other SGC's, which has led to joint calls between the Council and other Councils. This includes a joint call with the Ivory Coast, as well as a joint proposal from researchers in Kenya, Tanzania, Rwanda and Uganda. Through annual SGCI meetings, the Council believes it is able to engage on a deeper level with

other Councils. UNCST believes it provides a platform for peer-to-peer interactions, and a feedback loop that enables them to keep improving their practices and platforms.

UNCST is currently funding seven ongoing Public Private Partnership Research projects under SGCI II funding. Research projects are focused on solving bottlenecks facing the manufacturing sector in Uganda.

Gender and inclusivity

The Council is more sensitised to gender and inclusion in Science, Technology and Research. The Council has developed a gender and social inclusion strategy, taking gender and inclusion into consideration in grant selection. A certain number of points are given to proposals that include elements of gender and inclusion (against criteria). Their evaluation process is blind, with the aim of eliminating gender bias, and thus makes the selection process more inclusive. In addition, track record is not considered as part of their grant processes, which the council argues makes the process more inclusive to both women and younger researchers. Due to limited funds the council has not been able to launch calls that target specific groups, such as early career researchers or women in science, and so feel that the blind and removal of track as a criterion enables them, at this point in time, effectively increase opportunity for marginalised groups.

Outcomes

Research management

UNCST has undergone a shift in mindset in understanding the value of grant management processes. The Council is now using a digital grants management system and is leveraging funds from the Ugandan government. The Council feels empowered to feed learnings from the SGCI into their call management processes.

Strengthening Partnerships among Africa's Science Granting Councils

UNCST has increased its ability to foster cross-country research collaborations between African higher education and research institutions. Additionally, the UNCST has an improved capacity in managing cross-country research and scientific collaborations and managing collaborative research grants.

Public-Private Partnerships in Research

The Council was seen as lacking confidence in their understanding of the underlying issues or challenges between industry and academia. The Council was said to have made substantial progress in this area since taking part in the SGC initiative. Some partnerships did exist before the Council participated in the initiative, but the SGCI enabled them to better support, encourage, and raise awareness for participatory project. UNCST has a greater understanding of the challenges that surround public-private partnerships. The SGCI helped the Council to access resources, in terms of gender inclusivity, grant management, and online systems, and all these competencies together enables the Council to better understand and manage public private partnerships. It enabled the council to improve efficiency and effectiveness in management structure. This includes marketing and public relations. They were able to signpost these partnerships in a productive and collaborative direction.

Policy perspective

Prior to taking part in the SGCI, there was low interest in obtaining knowledge products other than journal papers and project reports. Taking part in the SGCI led the council to realise the importance of obtaining information on impact in order to gain additional resources for policy formulation and to feed into the Councils' ability to advocate for more research funding. As a requirement, PIs are now required to at least produce one policy brief before project completion. Taking part in the initiative also increased the Council's capacity in data management, policy evidence generation, and policy communication, advice, and instruments.

Gender and inclusivity

UNCST has developed a greater understanding on what gender is and are more sensitised to gender and inclusivity issues in Science Technology and Innovation research.

Gender was said to have become mainstreamed, visible, and prominent in grant management policies and practices (including SGCI supported research projects).

Notable points from interviews with researchers (Researchers views)

Online grants management system

Interviewees rated the online management system highly, noting the rapidity of notification of awards, as well as the clear feedback on proposals received from UNCST. Interviewees responded positively to the application of a staged funding processes. Interviewees encouraged the increased digitalisation and efficiency of the grant management process.

Grants management process

Interviewees commented to have seen a notable improvement in the Councils grant management process, noting increased efficiency and speed.

Strengthening Partnerships among Africa's Science Granting Councils

Interviewees spoke highly of the benefits of international collaborations and shared resources with other researchers across the continent. Interviewees would like to encourage the continuation of this practice.

Public private partnerships

Interviewees noted increased collaboration with the private sector, elaborating on partnerships created through SGCI/IDRC funding of their projects. Interviewees noted an enthusiasm for ensuring projects are taken up and commercialised by the private sector. Interviewees were positive about the public-private Councils funding criteria. Interviewees noted how UNCST helped with networking and formulation of agreements.

Gender and inclusivity

All interviewees were conscientious of gender and inclusivity, noting efforts that have been made to take gender and inclusivity criteria into account in their project team compositions.

Longer-term outcomes and impacts

Strengthened Capacity in Research Management

Through SGCI's support to run calls that support PPP in research, UNCST expects to use this funding window to demonstrate to policy and decision maker in government and private sector the benefit of supporting industry relevant research that has both commercial and social application. Through this, UNCST expects that the local industry will again confidence and interest to work with research institution to find research-based solutions to both industrial and social challenges through contract research opportunities. In addition, the capacity of Ugandan researcher to carry out industry relevant will be strengthened.

Strengthen capacity for use of data and evidence in policy and decision making

Before engaging in the SGCI initiative, UNCST had previously used data from projects funded under the 'millennium science initiative' to advocate for increased funding. Through the SGCI, UNCST has an improved understanding on how to use project data more efficiently and productively. The council expects to continue to update its grant management system to increase the efficiency of collecting data from grant holders. UNCST expects that the introduction of project policy brief requirements will help to demonstrate impact and make stronger cases for increased government support and investment in STI.

The Council expects to increase its national and regional value recognition, whose resources can be relied upon to influence practices within national science systems. It also expects to contribute to economic and social development in Uganda.

Strengthening Partnerships among Africa's Science Granting Councils

The Council expects to keep building strong Networks of SGCs and Science System Actors, in order to discuss the regions science technology and innovation issues and (jointly) provide recommendations. The Council expects to increase its capacity to coordinate and facilitate other science system actors and influence policy practice.

Gender and inclusivity

The Council expects to increase its knowledge on structural gender and inclusivity issues in research and increase participation of female scientists in research and innovation. The Council expects to increase its capacity to mainstream gender and inclusivity in its research grants management policies.

Lessons learned

The Council would like to increase the national funding for research to 1% of GDP. They believe the capacity, reach, goodwill, and elasticity is there for the council to manage a larger budget. They are building strong partnerships with research entities, industry associations, the higher education network, and have, internally, a lot of goodwill and further support/interest from partners.

PPPs in research projects produced more industry relevant research outputs and are more appreciated and more likely to be taken up by industry and social applications. Therefore, the Council is focusing on building capacity in the national STI ecosystem to support research that can produce technologies needed in the industry.

External factors

Gender and inclusion

The council has plans to launch calls for early career researchers, as well as calls that target universities that are not traditionally research focused. They also had plans to establish support mechanism to aid female researchers. However, these plans have not been put in place due to funding limitations.

Changes in national roadmaps and policy

National roadmaps and policy have undergone two changes since 2009. These changes have included new priorities and new demands. As changes and reorganisation occur in the STI ecosystem, the role of data and evidence has become more paramount. The Council was able to contribute more meaningfully to this process with its capacity that had been built under the SGCI theme that focused on use of data for policy evidence.

1.3 Malawi National Commission for Science and Technology (NCST)

Summary of the pathways to outcomes / impacts

Science granting is one of the core functions of NCST-Malawi and it therefore took an interest in SGCI from the programme's early inception discussions in 2014.

Since 2015, throughout Phase 1 and Phase 2, NCST-Malawi has undertaken training and capacity building and then engaged in granting and supporting nine SGCI-funded projects — six around agriculture and three around renewable energy. This portfolio includes national, bilateral and trilateral projects.

Through participation in SGCI, NCST-Malawi has been able to train its staff and build its capacity as well as gain practical experience in science granting in two important thematic areas for Malawi and the African continent. It has also used SGCI as a platform and stimulus to leverage progress on a long-promised national S&T fund from government.

Phase 1 benefits include NCST-staff being trained in science granting skills and competences (including research management and research ethics) and able to make use of this training in rolling out phase 2. Phase 2 has generated successful projects, demonstrations of bilateral and trilateral working and built appetite for further science granting from NSCT-Malawi, as well as identifying lessons learned for future science granting activity.

The new Malawi S&T fund is expected to be operationalised by the Malawi Treasury in 2023. Significant national science grants can then be made in a systematic and competent way using the skills and experience gained from SGCI, building on SGCI experience and networks.

A review of Malawi national S&T policy was supposed to take place but there have been changes in government and they have decided to completely redo the review. This has meant slower progress than planned on NCST-Malawi analysis and work to complement national policy activity in the context of SGCI.

Introduction to the Council

NCST-Malawi began its work in 2010, having been created in law via the Science and Technology Act Number 16 of 2003, taking over the functions of the Department of Science and Technology and the National Research Council of Malawi.

The Commission derives authority from the Minister responsible for Science and Technology. Headed by a Director General, NCST-Malawi has two directorates, each with two main divisions with the Chiefs of Division fully engaged with SGCI:

- The Research and Tech Transfer Directorate, where all departments are involved with SGCI. This is responsible for
- Health, social sciences and humanities research
- Tech transfer
- Renewable energy, engineering and regulatory affairs
- Agriculture and natural sciences

Renewable energy and agriculture workstreams are particularly engaged as SGCI thematic areas.

The Directorate of Planning Services, which leads on monitoring and evaluation among other areas. Key features relevant here include:

- A desk officer covering SGCI Theory of Change
- A Chief Information Officer and department responsible for overseeing publicity, project materials and policy briefs, including for SGCI work
- A finance and administration department with an SGCI role and personnel. For example, a specific project accountant dealing with SGCI expenditure, IDRC and Principal Investigators' (PIs) contacts, and keeping records of all expenditure and reporting

NCST-Malawi's mandate is "to advise the Government of Malawi and other key stakeholders on all Science and Technology matters in order to achieve a science and technology-led development".

The Office of the Director General is the PI for SGCI overall in the agreement with IDRC. Further information on the working structures of NCST, its board and individual operational and thematic committees can be found on the [NCST-Malawi website](#).

Overview of participation in the SGCI

With science granting being amongst NSCT-Malawi's core functions, SGCI was of interest from the start. They therefore took part in the international meeting in Capetown in 2014 where IDRC, DfG and South African counterparts met to develop the programme. Since then, they have participated fully since 2015 throughout Phase 1 and Phase 2.

An S&T fund was theoretically established by the 2010 act which created the NCST, but this was never taken further than the original legislation. This meant that NCST-Malawi could only gain limited experience of small science granting activities and could not develop a full national (or international) competence.

Participation in SGCI has allowed NCST-Malawi to develop these skills and experience and showcase the benefits of science granting to issues of national priority in agriculture and renewable energy. This has given them a platform to engage Ministers and other key stakeholders, stimulating further progress towards full creation of a Malawi S&T fund. Next steps on the fund are now with Malawi's Treasury.

Activities

Staff across NCST-Malawi all went through SGCI Phase 1 and Phase 2 training which covered areas including global practices in grants management systems, IP, financial management and research ethics.

NCST-Malawi had nine research projects in **two thematic areas: agriculture and renewable energy**, both high priorities for the NCST and Malawi as a nation. Activities such as boosting sustainable food production (e.g. improving fish farm yields through natural systems and selective breeding; reducing post-harvest losses of fruits and vegetables through solar drying technology), or upscaling and commercialisation of biogas have the potential to make strong positive development impacts. These thematic areas are also well-aligned with priorities under the UN SDGs and the Africa 2063 agenda.

Two of NCST-Malawi's SGCI projects are collaborations with neighbouring countries. A trilateral project on renewable energy has been managed between NCST-Malawi and counterparts in Zambia and Mozambique. PIs in the three countries have been working together on this project with individual components in each country. A bilateral collaboration has been managed with counterparts in Zimbabwe around agriculture and natural sciences. Again, this is a single project with national components for each country.

Individual researchers spoke of how their research could **initiate or inform further projects in agriculture and renewable energy**, often describing SGCI projects as being the start of something bigger, "catalytic" funding and activity, or similar to seed funding which would grow ideas and results enough to bid for a much larger future project.

NCST-Malawi takes gender and inclusion into consideration in grant selections. A number of SGCI projects involved several female PIs/researchers, with others balancing gender through recruitment of female postgrad assistants in the absence of senior female colleagues with relevant expertise.

Several PIs described a **positive evolution in NCST-Malawi's activities**, moving from a more academic research focus to become more innovation and technology-oriented over time. This was encouraging scientists to look at supporting societal needs and changing the context of thematic work. One researcher described their SGCI project and NCST-Malawi's original call as being "definitely **about innovations, not dissertations**".

Outputs

Results of taking part in the SGCI include:

- Thorough staff training and capacity building across all divisions and departments in Phase 1 has enabled stronger engagement and delivery in Phase 2. Various CTAs and SARIMA were involved in delivering the training. While all NCST-Malawi staff were trained at the time, more training and capacity building on an ongoing basis is now needed for new staff who have since joined the organisation. This is particularly important for work on bilateral and trilateral

projects where it's important for staff from all countries involved to be at the same level of knowledge and competence.

- An online grants management system has been developed and partly rolled out. The management system itself is now web-based but reporting from project leads is still being done offline. PIs need training to understand the system and make them capable of providing more automated and meaningful reporting. NCST-Malawi grants officers also need more training and SARIMA have promised to do more on this with the Commission.
- NCST-Malawi collects regular and monitoring and evaluation reports on SGCI project progress throughout delivery, including finance, outputs and outcomes. Grantees do need more training around financial reporting – some have this expertise, but others don't. Currently, pressure from NCST-Malawi is needed to obtain full technical reporting from grantees, something which should be automatic according to workplans. PIs themselves comment positively on the level of support provided and their confidence in NCST-Malawi guidance and oversight.
- Successful individual project output delivery under both the renewable energy and agriculture themes. PIs describe smooth, clear and straightforward application, approval and disbursement processes from NCST-Malawi. Workplans and contracts were discussed and prepared during partner meetings with NCST-Malawi by thematic area.
- Broadening of PI thematic networks, especially bilaterally and trilaterally.
- Gathering of lessons learned for future granting activity.
- MEL (Monitoring, Evaluation and Learning)
- NCST-Malawi has a Monitoring and Evaluation officer who is fully engaged across SGCI, both in Phase 1 and Phase 2, providing support and coordination around policy monitoring and evaluation, while gathering learning from SGCI. PIs described MEL as being particularly strong from NCST-Malawi, with regular progress checks, monitoring and site visits to keep projects on track. One PI noted an "amazing" step-change in NCST-Malawi's monitoring and support to projects around progress, budgets and delivery, compared to an earlier project experience when the organisation was still relatively new.
- COVID did present challenges to planned MEL in terms of delays to projects and non-availability of stakeholders. PIs feel positively about the level of monitoring and evaluation provided by NCST-Malawi, along with other intervention, guidance and support.
- The review of national S&T policy is an important consideration when looking at MEL for SGCI. On original timelines, there would have been analysis by now on relevant areas of the national policy review and implications for SGCI activity. With changes in government the S&T policy review is being completely redone. NCST-Malawi has made some progress around policy but it's slow so far due to the national picture — the lack of a consultant to carry out data collection is also a factor.

NCST – Malawi encountered a number of challenges.

- **COVID-19 was a major issue.** It halted visits between countries, slowed down procurement of equipment for projects, and disturbed the overall SGCI workplan. Lockdowns and delays meant that Masters and PhD students originally recruited for projects had often moved on by the time work resumed and PIs had to restaff.
- A current and future challenge for NCST-Malawi is an **increased demand for stakeholder granting** from researchers. They must maintain existing momentum and interest while the new national S&T fund is fully operationalised and be ready to deliver science granting at national level when it is released. The S&T fund was legally established in 2010 but not taken further until the stimulus of SGCI. More practical commitment has now been made by the government, but no money has yet been released for this fund.

- Lack of **alignment between Malawi government's national funding cycles and SGCI programme cycles** has sometimes been another challenge managed by NCST-Malawi. Similarly, there were cyclical challenges for some SGCI projects which were affected by heavy seasonal rains and therefore experienced delays (especially those on agriculture and biotech). Future projects will consider and tie in with irrigation cycles, rains etc..
- All SGCI activities are **undertaken on top of existing fully loaded NCST-Malawi roles** and with a government-provided admin budget already insufficient for the Commission's needs.
- On the ground, SGCI grantees have most commonly experienced challenges in project delivery due to **bureaucracy and delays around procurement of equipment and reagents** for their work from university procurement offices and wider parts of the system. Several found short-term workarounds to enable project delivery (e.g. procuring via a stakeholder or NCST-Malawi rather than their university, or paying for private lab facilities in lieu of delayed equipment) but long-term solutions will be required. In some cases there were also university office-linked bottle-necks in releasing funding (e.g. bureaucratic processes for accessing funding in a shared account; a university taking a 10% fee from the funding granting). These experiences can lead to PIs feeling obstructed rather than supported by their institutions. NCST-Malawi are fully aware and engaged in developing solutions to facilitate simpler, faster and more efficient working with HEIs on science granting. This will include procurement training for PIs, and direct NCST-Malawi intervention with universities or more direct granting as necessary. Overall, the status quo at universities is being affected, and there are reactions to this.
- Another challenge affecting some SGCI projects has been the **rising global market price of raw materials**. Following COVID and/or bureaucratic delays, this has meant that equipment or reagents needed could cost significantly more than originally budgeted.

Outcomes

Summary of outcomes realised

- Political commitment to creation of new national S&T fund, following NCST-Malawi involvement of government ministers in SGCI project launches and events.
- On renewable energy, the SGCI funded biogas project is now supplying gas to local stakeholders. This project has enhanced public private partnership, while testing and establishing a marketing model. Wider households now want to know how they can access the biogas too.
- The SGCI project on enhancing farmed fish production through natural means has galvanised a great deal of government interest and support. The Department of Agriculture has picked this as a focal project for wider replication and want to use the SGCI work as a pilot, feeding results and expertise into Malawi's agricultural systems for broader development benefits.
- Successful delivery of SGCI-supported models for effective bilateral and trilateral science granting activity.

Summary of expected outcomes

- Further engagement of universities and industry stakeholders in science granting activities.
- Malawi's research community is aware of good practice in science granting and research management and keen to engage in further science granting activity with NCST-Malawi.

Expected challenges

- The status quo at universities in Malawi around procurement and financial management could clash with the needs of a modern science granting system.

- The government of Malawi may need further encouragement and support to continue progress on their national S&T policy review and full operationalisation of the national S&T fund.
- Some researchers were aware of the national S&T policy review with one noting that they had lobbied the government on important social and economic development elements missing from the current national S&T policy programme around commercialisation and deployment of technologies.

Longer-term outcomes and impacts

Summary of impact realised

Through SGCI engagement, NCST-Malawi has upskilled in science granting, including cooperation at bilateral and trilateral level. SGCI has supported or leveraged steps towards operationalisation and release of the new national S&T fund. Malawi's research community have the right knowledge and skills to participate competently and effectively in national and international science granting activities in priority thematic areas.

Expected impact

It is expected that the NCST will build effective alignment of national S&T policy, funding and research granting through the new Malawi national S&T policy, the new national S&T fund and upskilled NCST-Malawi science granting activity.

It is also expected that Malawi will proactively participate in regional and international science granting activities and able to showcase science granting competence and good practice to neighbouring countries.

Lessons learned

Mode of implementation

NCST-Malawi and grantees have both identified procurement and financial processes at universities as areas where lessons can be learned and processes improved. NCST-Malawi are exploring possible solutions to the problems encountered by PIs in this area. Some have already been resolved. University institutional mindset, management systems and a need for training may all be relevant factors which need addressing.

While timing and delays in 2020-21 were often intractable due to COVID-19 impacts, implementation might also be strengthened through alignment of SGCI activities with national funding cycles and local weather and agricultural cycles.

The level of support, guidance and oversight currently provided by NCST-Malawi is widely appreciated by SGCI grantees and needs to be maintained in order to achieve further science granting outcomes and impacts. Working with SARIMA (or other CTAs), continuous training for staff should be a priority, especially for newcomers who did not receive earlier Phase 1 and Phase 2 training.

Reflection on resources provided

Among PIs the size of SGCI grants is considered to be relatively small compared to other funding sources (e.g. from the World Bank) but very useful, nationally competitive and carrying prestige. Sometimes characterised seen as catalytic or seed funding, PIs often perceived SGCI projects as the start of something bigger in terms of further research and future funding bids. One PI described the SGCI calls and projects as "opening eyes to research beyond academia".

Some researchers found it challenging to fit their projects into SGCI parameters but NCST-Malawi supported PIs in scoping out projects to fit the size of funding and time window available. Recruitment of Masters and PhD students to work on projects with PIs has relieved the workload in some cases.

As an organisation, NCST-Malawi is delivering SGCI activities without additional staff or funding, on top of an already overstretched admin budget. Staff take on SGCI work according to need. There is more to be done on capacity building, especially for new staff. SARIMA have offered further support.

Engagement

NCST-Malawi have been highly engaged with IDRC and in the SGCI since its inception. They have appreciated and made good use of SGCI opportunities for training, capacity building and science granting implementation. There are still important steps to take along the road for science granting in Malawi around both policy and funding, and lessons to be learned and integrated from Phase 2 projects. NCST-Malawi would like to continue working towards fully functioning science granting activity aligned with national and international policy in Malawi, including through SGCI.

PIs report a positive experience of engaging in the SGCI and its processes, including the support and guidance they have received from NCST-Malawi. IDRC is perceived positively where mentioned but PIs have not had direct contact. (While not presented as a problem, some PIs observe that there is more direct donor contact with other funds.) Grantees are very keen to continue to take part in SGCI, and for NCST-Malawi to evolve into a fully-fledged science granting council with a national S&T fund to draw on. SGCI is seen as running smoothly, being well-supported by NCST-Malawi, focusing on areas which are important for Malawi's development, and enhancing prestige and wider opportunities for the grantees.

Several PIs asked about the possibility of IDRC upscaling SGCI and/or had specific ideas and suggestions for activities and outcomes they could produce with further SGCI funding and support for their projects.

External factors

No factor is to be mentioned here.

1.4 Burkina Faso Fonds National de la Recherche et de l'Innovation pour le développement (FONRID)

Summary of the pathways to outcomes / impacts

FONRID is a young institution created in 2011 and is the only body responsible for funding research and innovation for development in Burkina Faso. There was a need to strengthen the capacity of the organisation so that it could fully perform its mission.

Participation in SGCI since Phase 1 has been a rewarding opportunity for training, peer learning and experience sharing. Through, SGCI FONRID, has been able to train its staff and build its capacity in science granting, which has enabled it to improve its practices in research funding management related to national priorities. SGCI has also served as a platform for networking and collaboration with other subregional organisations (Senegal, Côte d'Ivoire).

FONRID is in transition to a full digital management system for research calls and is committed to effectively fulfilling its mission of funding research and innovation that contributes to the economic and social development of Burkina Faso.

Thanks also to the funding obtained, it has obtained a renewed interest for research in the country's STI ecosystem and has increased coordination and collaboration among the actors of STI in Burkina Faso.

Introduction to the Council

The National Fund for Research and Innovation for Development (FONRID) is a national funding body created by Decree No. 2011 828/PRES/PM/MRSI/MEF of 27 October 2011. It has a legal personality and managerial autonomy. It is placed under the technical supervision of the Ministry in charge of Scientific Research and Innovation and under the financial supervision of the Ministry in charge of the Economy and Finance of Burkina Faso. From 2011 to 2014, it was a simple directorate attached to the Ministry in charge of research and innovation. It obtained full management autonomy in 2014 with the appointment of a Director General.

The objective entrusted to FONRID is to provide a secure framework for research and innovation funding activities nationwide so that the results produced are truly beneficial to the population and generate richness and prosperity for the entire country.

It is structured around:

- A Board of Directors (BD, chaired by the Ministry in charge of Finance
- A Scientific and Technical Committee (STC), composed of 20 national and international experts in a wide spectrum of disciplines, which analyses the full range of projects submitted to the fund
- A Managing Directorate, an executive body with seven (07) technical, administrative and financial departments. It is a relatively small department with 40 technical and support staff in total. The executive body is made up of two operational divisions: i) Planning, Monitoring, and Evaluation of Projects and ii) Programmes and Resource mobilisation. The support divisions are respectively finance and Accounting, Human Resources, Communication, Management Audit, Procurement Officer.

The organisational structure has not changed since FONRID was set up and following its participation in SGCI, but it is worth mentioning that it seemed to us the technical team seems understaffed compared to the support team. Only 3 staff are dedicated to research calls management and two of them were recently appointed. During this assessment, there was a shift in the leadership of FONRID with the departure of the DG and his replacement by the former Director of Projects and Programmes, which created an imbalance in the organisational chart. Pending the appointment of the next director of projects and programs, this responsibility has been entrusted to the director of resource mobilization.

Overview of participation in the SGCI

FONRID participated in the SGCI since its first phase. The existence of this initiative was brought to the attention of FONRID in late 2014 in South Africa, during a meeting attended by the outgoing Director General.

The initiative came at the right time for FONRID, a young entity that needed to build and strengthen its operational and technical capacity in the realm of research funding management.

The proposed activities and topics were aligned with FONRID's need for support, training, peer learning and networking and in this regard the initiative also offered FONRID the opportunity to share experiences and best practices with the other research funding agencies involved in the project.

The expectations of FONRID from the phase 1 were twofold:

- to obtain financial resources to launch joint calls and participate in calls for projects in partnership with other research funding agencies
- to have access to a platform for exchange, and cooperation between research funding bodies in Africa

These two major expectations echoed the challenges faced by FONRID, namely, to have financial resources to fund calls for projects, but also to build and strengthen capacity in good practice in research management and funding, particularly through peer learning.

Another key challenge was digital project management, as the council lacked the skills and tools to manage the calls for projects effectively. It was therefore a major challenge for the fund to have a digital research management system. The issue of gender and inclusion was also a major challenge, especially in the evaluation of research projects.

It appears clearly that the expectations were not fully aligned with the objectives of the programme during the first phase of implementation and the participation in the first phase has yielded mixed results.

Participating in the second phase has really helped to strengthen the technical and managerial capacities of FONRID staff. It has strengthened the institution, as it contributed, through sharing of experiences, to improve FONRID working procedures and processes, and in particular, map the actors in the Burkinabé STI ecosystem and their involvement in the decision-making process. Thanks to SGCI, FONRID is better equipped to draft policies and research or innovation strategies and to choose indicators. Communication of research results to public decisionmakers, the private sector and society in general has also been improved in terms of the channels chosen and the type of messages to be conveyed. However, the need for training and capacity building in this area still remains enormous.

The initiative has enabled FONRID to move forward more quickly and to be more effective. The sharing of experience with other councils and the diversity of participating bodies has been invaluable to FONRID's progress.

Activities

SGCIs proposed thematic areas were in line with FONRID's needs, which participated in almost all the activities. Some activities were more relevant and beneficial to the council in particular thematic area 1 on research management, since it was crucial for FONRID to have an online management system. As of today, the current step is to operationalise a research management information system.

Research ethics is also recalled as a cross-cutting issue whose relevance is unambiguous and on which they received training and capacity building activities.

In terms of capacity building, FONRID was more concerned by the identification of relevant themes for calls for proposals, the drafting of calls for grants, the practical organisation of project selection, project evaluation, etc.

FONRID also participated in activities related to Thematic area 2 (Strengthening the capacity to use data and evidence in policy and decision-making),

FONRID was exposed to support in the third theme which is the communication strategy even though there is still a need to strengthen the capacities of agents in communication.

FONRID also received funding to launch two calls for projects during phase 1 of the initiative (collaborative projects with Senegal). These calls were funded by ACTS to the grantees. In phase 2 of the initiative, funding was granted directly to FONRID, which conducted the entire procedure and financed 4 collaborative projects with Senegal and 5 national projects, which are currently being implemented.

The FONRID mentioned the following activities: support on i) Online grant management systems; ii) Research ethics ; iii) Research quality;

Training and workshops on theory of change, etc. as topics on which they received training without any precision on the type of activities and outputs or outcomes.

Outputs

Participation in the programme has generated a number of tangible results, the most salient of which are the following:

- A digital research management system (inspired by the Ugandan model) has been developed and is customised for Burkina Faso. Training in its use has been provided but the tool is not yet operational
- FONRID now has an improved system for managing research calls. Many staff members have been trained and the technical, managerial and operational capacities necessary for the proper functioning of the Fund have been strengthened Burkina Faso's leadership and commitment to activities related to thematic area 1 among the francophone countries was welcomed by the lead CTA.
- Several calls for projects have been launched and financed thanks to the initiative. The SGCI has enabled financing 9 research projects, 4 of which were jointly launched with Senegal in the field of agriculture and health; for instance, research on the Management of chronic diseases in the elderly the results of which were communicated on 24 and 25 June 2022.
- FONRID has also set up a COVID fund which has financed clinical studies (CHLORAZ group)
- The Initiative has played an important role in creating a network of funding agencies and a platform for exchanging good practices and sharing experiences. An initiative of reviving the West African Research and Innovation Management Association (WARIMA), the SARIMA equivalent has emerged but has failed to sustain.
- Framework agreements have been signed and are being signed with the Burkinabé private sector and NGOs. A framework for consultation between the private sector and the research community is also being created and made operational.
- Through SGCI, the University KI ZERBO has participated to the O.R. Tambo Africa Research Chairs Initiative and has been established as a cancer centre of excellence.
- Thanks to the capacity building carried out under the SGCI, FONRID regularly organizes training on techniques for research and innovation projects writing for researchers.

Some activities however did not yield to significant results, notably the activities related to Thematic area 2 (Strengthening the capacity to use data and evidence in policy and decision-making). Similarly, there is little to no evidence of the outputs produced by the activities performed under the communication strategy topic.

Challenges experienced

- FONRID is facing insufficient human resources for an effective participation in all the proposed activities.
- Training on communication activities is deemed not effective.
- The activities of the SGCI, although beneficial and of high added value, constitute a significant workload. Additional staff is needed for monitoring and evaluation purposes. This kind of support was expressed to SGCI, but the request was declined;
- Funding for research is always a challenge. The resources available are small compared to the needs.
- The programmes of activities of the collaborating technical agencies are not shared in advance with the different participating countries. It is sometimes difficult to make oneself available to participate in these activities due to lack of preparation time.
- Language barrier appears to have significantly hampered the quality of the programme results as FONRID considers it did not fully benefit from the activities because the CTA are all English speaking.

Outcomes

Outcomes

- FONRID has significantly improved its management of grants and research projects. The capacity building that staff have received through the initiative, as well as internal capacity building activities (led by the technical ministry in charge) have brought about many changes and a better understanding of the full dimension of its mandate as a young and new institution. Of course, there is still a need to strengthen the capacity of staff (departures and arrivals) but FONRID has made considerable progress. On average, one call for projects is launched each year for Burkinabé researchers.
- The identification of the most relevant research themes for the Burkinabé context has been improved.
- A renewed enthusiasm scientific research system in Burkina has been noticed in the ecosystem.
- FONRID has brought the actors of the national research ecosystem closer together over time. FONRID has improved the relationship between academics (fundamental research) and researchers (applied research), which is fundamental to the quality of research and innovation. Collaboration between the main actors in scientific research has improved the quality of research and higher education. This is one of the main achievements.
- FONRID is in the process of adopting a digital system for managing calls for projects. Once the new platform is deployed, the entire process will be done online, from the submission of concept notes and full proposals to the analysis, acceptance of projects, awarding of grants, to the monitoring and evaluation of projects.
- The achievements of the capacity building activities have been integrated into the management of calls for projects within FONRID.
- With 4 collaborative research projects funded to date, FONRID's capacity to manage transnational research and scientific collaborations, as well as collaborative research grants, has improved considerably.
- Gender issues and inclusion (e.g. gender impact) are part of the evaluation criteria for research projects submitted to the fund. FONRID has a better understanding of gender and inclusion issues and is more aware of how to take gender and inclusion into account in calls for proposals.
- FONRID organises training sessions for research actors, in particular researchers and associations, to strengthen their capacity to write research and innovation projects. This transfer of knowledge and sharing of experience contributes to the improvement of the research ecosystem in general. The aim is to train 120 researchers per year.
- FONRID has been able to secure additional resources for research funding.

Expected challenges

- The lack of internal KPIs at the council level other than those required by the institutional and regulatory framework is an impediment to monitor the progress of FONRID
- Collaboration with the private sector remains a challenge. Framework agreements are signed but the local private sector is reluctant to contribute to research funding.
- Diversification of funding sources remains a challenge. Considerable progress has been made to secure additional funding from other organisations but it is sporadic. The funds allocated remain low in relation to existing needs. And more structural support is needed.
- The lack of upstream planning (in the form of a fixed calendar of periods when calls are launched) can hinder the quality of projects submitted by researchers.
- The process of budgeting and financial management of grants is cumbersome and inflexible, which does not facilitate the implementation of projects by researchers. The budgetary procedures for grants should be more flexible than the procedures to which FONRID itself is subject.

- FONRID funding should also cover transverse aspects of research (administrative and financial management of projects, training, scholarships, etc.).
- The COVID pandemic had a positive impact as it triggered many research projects, some of which were funded through SGCI and national funding.

Longer-term outcomes and impacts

- FONRID has become more efficient in carrying out its missions and contributes more effectively to the financing of research and innovation activities in favour of Burkina Faso's priority development themes. For instance, the processing time for calls for projects has improved. Unfortunately, in the absence of an effective performance measurement system, this improvement could not be quantified.
- The various actors in scientific research and innovation are mobilised and research is increasingly dynamic since FONRID offers the possibility of working on national priorities. The identification of research themes linked to national priorities has improved and the number of applicants to the various calls for projects has tripled.
- FONRID has gained influence and visibility in the realm of research funding both nationally and at the sub-regional level according to the researchers and the ecosystem. They were able to launch successful calls at national level and joint calls with regional partners and to regain the interest of researchers. The autonomous nature of this institution is an advantage in this positioning.

Lessons learned

FONRID has benefited from the SGCI, which has contributed to its current position at the national and sub-regional levels through the successful joint calls launched with Senegal under the AJ CORE programme. According to the Burkinabè beneficiaries, it was a success, however unfortunately we were not able to discuss with Senegalese grantees to gather their opinions. There is room for significant improvement in the implementation of the programme in order to improve the quality of results.

- Strengthen training activities on the strategic communication aspect. There is no tangible result for FONRID on this area who still need capacity building on this topic.
- Improve the communication and visibility of activities organised by the SGCI. According to FONRID, the CTAs do not communicate sufficiently in advance the calendar of activities to be carried out, which would give them sufficient time to prepare their participation and select the most relevant staff to participate in the activities.
- The MEL and reporting activities are carried out by each CTA do not seem to add value or benefit and is an additional workload for FONRID.
- All but one CTAs are English speaking, which somehow hinders the participation of FONRID in some activities because of language barrier.
- FONRID reiterates its commitment to participate in the activities of the SGCI and would like to see more targeted and substantial support, especially in terms of funding.

Reflections from researchers and other stakeholders

- The amounts allocated are small, which potentially limits the extent of the results that can be achieved.
- Emphasis needs to be placed on popularising and communicating research results to the public, particularly to the private sector, in order to get their buy-in and more active participation.
- The project selection and grant award process is rigorous. There is no difference depending on the origin of the funds. However, the budgetary procedures and rules for allocating,

disbursing, and justifying the use of funds could be differentiated according to the nature of the research project funded.

- Risk of capture of funds by seasoned researchers. The establishment of different windows within the fund according to the age or experience of the researchers would be a plus.
- The eligibility criteria for FONRID funding (obligation to form a research team in most cases) encourage collaboration between researchers. Greater collaboration between basic and applied research is desirable.

The many challenges still to be met for FONRID to become an effective and efficient research granting organisation are an indicator of the scale of the needs that FONRID faces and still need support from SGCI.

External factors

FONRID has an internal capacity-building plan for its agents, who also participate in training and retraining activities organised by other government structures (training in monitoring, evaluation and data management organised by the General Directorate of Economy and Sectoral Statistics, capacity building on performance measurement, etc.).

Concerning the employees, they are recruited either by calls for applications or assigned by the State, depending on the case. There is a high turnover of staff which can hamper the sustainability of some results.

1.5 Senegal Ministry of Higher Education and Research

Summary of the pathways to outcomes / impacts

In Senegal, the "Council" per se exists as an entity spread over two directorates within the Ministry of Higher Education, Scientific Research and Innovation (commonly called MESRI). SGCI has contributed to the strengthening of South-South cooperation in scientific research among Sub-Saharan African countries over the past five years in two ways including study tours and joint research proposals.

Senegal and Burkina Faso have seized this opportunity to find common ground and work together on two scientific projects of common interest for both countries. The first project, in healthcare is entitled "How to improve the multisectoral management of chronic diseases among the populations of Burkina Faso and Senegal". This research-action addressed strategic issues of chronic disease management that are common to both countries. The second project, dealing with environmental matters in the Kaolack region (south-eastern part of Senegal) focused on "the development of saline lands to help improve the lives of vulnerable populations in the context of climate change in West Africa. As a result, researchers from different disciplines and universities were thus able to work in the same research teams. Thanks to these two transnational projects, sociologists, anthropologists, doctors, health economists and geographers from Senegal and Burkina Faso were able to easily share their knowledge and implement their research projects.

This is an important achievement as most of the scientific research projects in Africa concern cross-border or transnational problems because African countries share the same health, environmental and economic problems.

In short, there is a need to work beyond national boundaries on the same development problems and SGCI-funded projects in Senegal and Burkina Faso has enabled this, not only for basic research, but also to deal with funding scientific research and innovation. Senegal's approach is

therefore to continue to work for better South-South collaboration that will make it possible to better use resources – often limited – to obtain better results.

The experience with Burkina Faso could lead to a long-term collaboration aimed at better using the resources of the two countries to finance transnational research projects. South-South cooperation has opened up an avenue that Senegal wants to promote it in order to find new partnerships at the international level. As a result, Senegal has joined AJ-CORE, Africa-Japan Collaborative Research, for research projects in the field of the environment. Interestingly, both the training workshops and other SGCI activities have triggered the preparation of a national ITS policy, which is yet to be approved. The key future impacts include the capacity of the council to engage the private sector in research funding and to enhance its internal processes as an entity within a ministry operating with shared resources.

Introduction to the Council

The “Council” was established in 2013, following the national consultation on the future of higher education. Following the consultation, the Ministry of Higher Education was mandated by the President of Senegal to create a Directorate General for Research and Innovation (DGRI). Placed under the authority of the Minister of Higher Education, Research and Innovation (MESRI), the DGRI is responsible for ensuring the coordination, harmonization of research and innovation activities as well as pooling Resource. It assists the ministry in the implementation of the research and innovation policy. As part of its missions, the DGRI:

- Ensures the strengthening of links between the various components of the national research system in order to promote synergies;
- Promotes the dissemination of research results and their exploitation;
- Ensures the promotion of research;
- Contributes to the establishment of a funding system for research activities and the diversification of funding resources;
- Ensures the promotion of scientific and technical culture;

To do this, the general direction of research comprises 4 directorates or departments namely:

- **The Directorate of Research Strategies and Planning;**
- The Directorate of Innovation, Development, Intellectual Property and Technology Transfer;
- **The Directorate of the financing of scientific research and technological development;**
- The Directorate for the promotion of scientific culture;

The council sits within the research funding directorate. However, when it comes down to implementation and execution, the Directorate of Research Strategies and Planning is in charge and no longer the funding directorate. These two directorates intervene parallelly and in a complementary way. The focal point of the SGCI is the research funding department.

The Directorate General for Research, through the Funding department, joined the initiative of the scientific research granting agencies, which joined the SGCI at the on-start. To note, it is at the level of the funding department that the Fund for scientific and technical research is housed, intended to finance scientific research. Initially, this fund was endowed exclusively with financial resources from the State, without any additional subsidies from other countries, and its management is based on a government's manual of procedures.

The government has the objective to replace in the long term the current fund with a national research and innovation fund which shall draw many more resources from the State, and still be

housed at the level of the Ministry of Research. For now, the structure will remain as it since it is involved in several consortia (e.g. European Union, International Waters, etc.).

Overview of participation in the SGCI

At the on-start of the SGCI initiative, the council had already procedures in place and sought to improve its funding, research, and learning, etc. For instance, there was already a manual of procedures in place for granting. At that time, the entire granting process occurred manually while today, part of the procedures is done digitally.

The project enabled the Council of Senegal to considerably strengthen its capacities for managing research projects and data collection, thanks to training workshops and to the SGCI for having served as a trigger preparation of a national ITS policy. It also allowed to the council to update their administrative documents for the research funding fund.

Preparation of an STI policy

In addition to boosting capacity building of the "research and technological development funding" department, one of the major successes of the SGCI in Senegal lies in that it contributed to stimulate the preparation of a national policy document on Science and Technology. The document is still currently in a draft form. In addition, the Senegalese government decided to set up a National Research and Innovation Fund (FNRI) which shall replace the current Scientific and Technical Research Impulse Fund (FIRST).

Fruitful collaborations

During the first phase, the action of the council of Senegal mainly took on the trappings of cross-border collaboration. It was fruitful in terms of networking and collaborating with colleagues from other parts of the continent. The first phase also saw the execution of two projects carried out jointly with the granting council of Burkina Faso, namely the National Fund for Research and Innovation for Development (FONRID). This collaboration resulted in the selection of two projects jointly executed in the countries. This is an agricultural project on the recovery of salinized land and another on chronic diseases in the elderly.

Private sector

Despite the overall satisfactory results, there is a weak involvement of the private sector in collaborative research in Senegal, while it is much needed. The second phase of the SGCI might see an increase in private sector participation, under the impulse of a more substantial funding.

Networking

Some additional donors expressed their interest to co-fund research projects in Senegal. Nine projects have been already selected, in alignment of the priorities of the Emerging Senegal Plan.

Activities

Activities that stood out are the launch of joint (transnational/regional) calls as well the opportunity seized by the Council to join international networks.

Outputs

SGCI-1 has enabled to improve procedures for grant management, from manual to digital. In addition, it has enabled to initiate joint transnational/regional research projects, which has been a trigger for Senegal to actively join other international networks. The main challenges that have been encountered are often related to i) the fact that the council in Senegal is not a standalone

structure but rather an entity spanning over two directorates; ii) the consequences of having to deal with coordination across various departments within the same ministry.

Outcomes

The thematic areas of SGCI-1 were in line with what is needed by the Council. As exemplified above, the Council in Senegal has benefited from the initiative in many ways including:

- Capacity building including digitalization of the granting process.
- Networking effect and Peer-to-Peer learning: Strong benefits from the network approach, which helped us a lot in terms of providing peer-to-peer learning and the cross-fertilization.
- Networking effect and joining other international networks

Going forward, there are expected challenges linked to the fact that the council is embedded within a ministry.

- There are little human resources fully allocated to the Council. Core functions such as administration, finance and communication are usually shared with other directorates.
- The lack of administrative autonomy has detrimental impacts on the speed of fund disbursement.
- The communication team usually depends on the agenda of the Minister.

Longer-term outcomes and impacts

No elements at this stage of the case study.

Lessons learned

No lessons at this stage of the case study.

External factors

No factor is to be mentioned here.

1.6 Rwanda National Council for Science and Technology (NCST)

Summary of the pathways to outcomes / impacts

The participation in the SGCI has enabled capacity building to an organization under construction, peer-to-peer learning through the networking effect and formal collaborations with other councils through the signing of Memorandum of Understanding (MoU). This however has happened within a very dynamic and evolving institutional context and framework to a point where the sole SGCI's contribution is difficult to discriminate from the implementation of the country's vision. The Rwanda NCST is now a central piece of the national research and innovation ecosystem. For instance, NCST has been instrumental in drafting the Science, Technology and Innovation (STI) Policy that was adopted by the Cabinet in June 2020. The primary reason for producing such a policy was to foster alignment between Vision2050 and the National Strategy for Transformation. Among other things, the policy underscores the need for R&D and innovation financing as well as the need to bridge the gaps between basic research and technology development and commercialization of new products as part of "Made in Rwanda" policy.

Equally important, NCST is involved in budgetary discussions along with the Ministry of Finance to define priority areas for the national budget.

The future impact of the NCST's role resides in the enhancement of the council capacity (1) in delivering its mandate with more focus on seeing fundamental/experimental research supporting applied research to enable concrete market delivery of products and services and (2) effectively engaging the private sector in research and innovation activities and projects

Introduction to the Council

The NCST was established in October 2012. Its role mainly consisted in providing capacity building and policy advisory in STI. The NSCST was officialised in 2017 under the law (revised) n° 40/2017 of 16/08/2017 determining its mission, organization and functioning. Its core mission became 'To advise the Government on policies, legislation and regulation in the fields of science, technology, research and innovation and monitor the implementation of such policies and legislation'. It coordinates and funds research through the National Research Innovation Fund.

The NCST is led by an Executive Secretary reporting to a Council. Its structure is as follows: Under the Executive Secretary office, are the Science Technology Development and Outreach Department and the National Research Innovation Fund Department, and the Finance and Administration Unit. The office of the Executive Secretary Office comprises an advisor, an administrative assistant, the procurement officer, the internal auditor and the legal affairs officer. The Finance Unit is under the leadership of a director with a team consisting of an accountant, a human resource management specialist and secretary to finance. The Science Technology Development and Outreach department comprises a head of department, an analyst in charge of STI and Foresight, an analyst in charge of STI policy, an analyst in charge of data mining, a specialist in charge of regulations and accreditation and a specialist in charge of STI's community outreach. The National Research Innovation Fund department consists of a head of department, an analyst in charge of technology, innovation and intellectual property, an analyst in charge of research and development, a specialist in charge of strategic partnership and a specialist in charge of research, innovation grants management.

The National Industrial Research and Development Agency (NIRDA), the Rwanda Agriculture Board (RAB) and Rwanda Biomedical Center (RBC), are government implementing agencies, which conduct research and can be founded through research calls by the NCST.

In 2020, the NCST established the Research Coordination Committee, to help coordinate all research efforts. It is composed of representatives from NIRDA, MINICT, RAB, RBC, Education Sector and various ministries focusing on joint planning for the fiscal year starting each year in July. Plans are then reviewed jointly with the Minister of Finance the same year in October, to (i) validate alignment of research activities with the government planning, especially with vision 2050 and the national strategy for transformation; ii) analyze if there is no possible duplication so as to advise upon it; iii) give advice to the government on collaboration country wide.

Overview of participation in the SGCI

NCST joined SGCI as a very young institution. At that time, with very few staff members the primary focus was to operationalize the institution. Joining SGCI was timely for capacity building on how to manage such an institution in delivering its mandate including benchmarking with other Councils to better understand staffing needs, activities to primary focus on etc. NCST was involved in all activities under the objectives of SGCI including research management, monitoring and evaluation, policy and networking.

Activities

- Capacity building and peer-to-peer learnings through networking are certainly the two activities that impacted the most the NCST directly or indirectly. An example of enhanced capacity building and ability to carry out its mandate is the Rwanda National R&D survey published as a report under reference to 2018/19. The R&D survey report indicates that although overall Gross domestic expenditure on R&D (GERD) increased with 3 years from 2015/16 to 2018/19 from over Frw 44 billion to Frw 70 billion, and GERD as a percentage of GDP increased from 0.66 to 0.69. This highlights several challenges, where policy interventions might be needed. First, the rate of GERD change from 0.66 to 0.69 is low. Second, the proportion of experimental research that leads more to innovation decreased from about 55.6% to 24.7% as opposed to increase in proportion of basic research (from 18% to 40%) and increase in applied research (25.5% to 35.1%). Third, the government of Rwanda still has the largest proportion of funding to R&D with over 85% funding of R&D compared to private sector (2.8%).
- The team attended almost all SGCI regional and annual meetings in particular the ones in South Africa, Zambia, organized in collaboration with DFG in Germany. In South Africa the focus was on a SGCI-DFG partnership to funds three multilateral projects of African research teams until 2024), in Zambia the focus was on how to improve effective public-private partnerships.
- Concerning grant and research management, the team received a training in Nairobi on research management basics and intellectual property. They received support from SARIMA, a technical agency, to draft the first call for proposal before they could manage the entire process on their own.
- Concerning policy design, the team attended various workshops in Nairobi on STI policy development. Finally, NCST organises frequently sector-specific panel discussions to capture the needs of specific economic sectors, which underscores the willingness to better the need of other economic sectors, the importance to foster cross-sectoral collaborations and ultimately to have a comprehensive approach to R&D&I funding priorities at national level.

Outputs

Activities have helped the NCST to get on top of calls management and solve some structural challenges being faced by the organization.

Outputs

- A performing organization within a 10-year timeframe through its various initiatives in particular capacity building and peer-to-peer learning; for instance, NCST has been at the helm of drafting a National STI policy, recently approved by the Ministerial Council; Note that very few countries in Africa are equipped with a National STI policy aligned with a national vision, which includes long term objectives and budgets.
- NCST is now launching call for proposal by its own while in the past, this was done with the support of non-Rwandan entities; A point of attention is a lack of effective tracking of the results of various research for subsequent implementation.
- From peer-to-peer learning, NCST is using best practices for other councils in the region to improve the way it operates within the local ecosystem. A good example is the recent re-structuring of research management in Kenya, with the splitting of the council in three entities. NCST is currently reflecting on the rationale behind this spitting not necessarily anticipated in SGCI.
- An organization capable of structuring itself, recruiting at the right level and launching several calls for proposal, per year. As far as structure is concerned, NCST has identified gaps in the staff competences, and initiated recruiting processes to fill these gaps.

- NCST collaborated, with the Council in Uganda, Kenya, Tanzania and networked with various other councils. As an example, an MOU was signed with the Science and Technology Council in Zambia and that was in 2018 aiming for joint funding of research in ICT, Mathematics, Mining and any other mutually agreed on, STI areas

Challenges experienced

The challenge of **building capacity** remains as NCST grows but also as the different national agencies (NIRDA, RAB, RICA, etc. ...) are structuring themselves and equipping themselves with their own strategies and research agendas in-line with the 2050 country vision. This complexity of the evolving national research ecosystem involving both the need to integrate research agendas and most importantly into a national budget was not addressed with the support of SGCI. Nevertheless, the NCST managed to play an advisory role to the Ministry of Finance in integrating and prioritizing research objectives every fiscal year. The above prompted a second challenge regarding the need for enhanced **coordination**. For instance, NCST worked on drafting an STI policy in 2015, which was only approved recently in 2020, five years down the line. Until 2015, NCST had no supervisory Ministry in charge of science and technology. This changed when the Ministry of ICT and Innovation (MINICT) was established. The related challenge is how to coordinate research given that the need to serve both the core component of research and sector-specific research (e.g., agriculture, health) within a constantly evolving institutional landscape. While this is not a priori addressed through SGCI, peer-to-peer learning could help address this challenge and come up with workable solutions.

Outcomes

Summary of outcomes

- Capacity building: Even if it is still needed as the organization is still evolving, it has enabled the Council to understand better its exact mandate as a young and new institution.
- Transfer of knowhow: Last year, NCST published more than three calls for research proposals on its own, while the very first call was done with the support of an expert from SARIMA through SGCI.
- Peer-to-Peer learning: Strong benefits were gained from the network approach, which helped NCST a lot in terms of providing peer-to-peer learning and the cross-fertilization.

Thematic areas of SGCI-1 are in line with what is needed in NCST and this actually was a strong incentive for NCST to join the initiative. In addition, NCST is currently preparing a proposal for the SGCI phase two.

Expected challenges

- NCST ambition is to ensure that it contributes to the development of the country through STI and as such it must ensure quality researchers are available to carry out impactful research. This requires the availability of sufficient fund for implementation which are not yet secured.
- NCST ambition is also to start seeing innovation and not only publications, to start seeing see how applied research is supporting experimental research. For that, there is need for more competent staff.
- There is a lack of coordination and collaboration between academia, between private sector and industry. This another challenge for which SGCI has provided some advice in 2020. NCST has subsequently published a call requiring academia industry collaboration. This challenge remains because some of the private sectors are not really willing to spend co-fund such research even at 20%.

Longer-term outcomes and impacts

The NCST has two important mandates:

- to advise the Government on setting national priorities in the fields of science, innovation, technology, research and development as well as modalities for financing such activities.
- to mobilize funding to leverage National Research and Innovation Fund in order to support increase investment in R&D.

On its first mandate, NCST has made great progress. It is however difficult to discriminate whether such progress is solely due to its participation to SGCI or to the fact that NCST as a national body has been empowered by the government to play its role or both. On the second part of its mandate, the opportunities offered by SGCI support the R&D investment levels. However, access to funding with the ambition to strengthen its research funding function and drive forward academia-industry collaborations has so far failed.

Lessons learned

Model of implementation

On the SGCI model of implementation, NCST found that being able to directly manage the funds for research is a real improvement.

Continuation

NCST is willing to pursue with the SGCI notably in the light of its continuous need for i) capacity building, ii) enhancing its ability to influence collaboration with the private sector and among different line ministries in Rwanda. Today, NCST is effectively engaging in bilateral discussions with sectorial agencies to better understand and capture their research needs.

External factors

Training

NCST staff have exposure to other initiatives. The Ministry of Public Service and Labour provides some trainings to institutions and the Rwanda Development Board also has a department headed by the Chief Skills Officer dedicated to capacity building. These trainings are supported by the government. In 2021 all staff from public institutions were allowed to look for trainings while the Government of Rwanda through Rwanda Development Board had signed a contract with Coursera, so that public servants were allowed to register for trainings and get a certificate. Training in research management can now be done through the Ministry of Public Service and Labor.

Recruitment

Today, NCST can recruit staff with the right level, locally for permanent positions but when there is a need for specific expertise, positions are published in international journals and recruitment happens internationally in collaboration with the Ministry of Public Service and Labor. NCST also recruits experts either nationally, regionally or internationally. As an example, in 2020 they recruited an expert for 2 years in charge of advising the National Council for Science and Technology on all matters regarding the implementation or the operationalization of the National Research Innovation Fund. This expert is a German who worked for so many years in the Department of Science and Technology under the Ministry of Science and Technology in South Africa, but currently working in a university in Germany.

Currently, NCST is in the recruitment process for a research fund mobilization expert. The announcement was published in local and international journals. Mobilizing experts can also be done through SGCI, an avenue NCST is exploring to recruit an expert in Monitoring, Evaluation and Learning (MEL) with the aim to improve their M&E frameworks. NCST has also benefited from World Bank experts to train their stakeholders in STI development matters.

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Appendix B. Interviews conducted

B.1. List of Collaborating Technical Agencies interviewed

SGCI Phase	Lead Collaborating Technical Agency (CTA)*	Project leader/coordinator
SGCI 1	Southern Africa Research and Innovation Management Association (SARIMA)	<ul style="list-style-type: none"> • Dr José Jackson-Malete
	The African Centre for Technology Studies (ACTS)	<ul style="list-style-type: none"> • Prof Rebecca Hanlin • Dr. Maurice Bolo
	African Technology Policy Studies Centre (ATPS)	<ul style="list-style-type: none"> • Dr Nicholas Ozor
SGCI 2	Association of African Universities (AAU)	<ul style="list-style-type: none"> • Prof Damtew Teferra • Nodumo Dhlamini • Ruth Nyarko
	African Centre for Technology Studies (ACTS)	<ul style="list-style-type: none"> • Prof. Rebecca Hanlin
	The Scinnovent Centre	<ul style="list-style-type: none"> • Dr. Maurice Bolo
	Human Sciences Research Council (HSRC)	<ul style="list-style-type: none"> • Dr Lorenza Fluks • Dr Ingrid Lynch • Lyn Middleton

B.2. List of key donors interviewed

Agency	Contact	Title	Interview date
Japan Science and Technology Agency (JST)	Mr Osamu KOBAYASHI	Director / Department of International Affairs	02 August
UKRI / GRC	Mr Michael Bright	Associate Director, International Policy and Stakeholder Engagement	12 July
FCDO	Ms Sue Kinn	Head Southern Africa Research and Innovation hub Pretoria	21 July
DfG	Mr Marcus Wilms	Director for International Affairs with Africa and the Middle East	27 June
SIDA	Dr. Maria-Teresa Bejarano	Senior Research Advisor	10 August
NORAD	Dr Kjersti Thorkildsen	Adviser	11 August

Agency	Contact	Title	Interview date
NRF	Dorothy Ngila	Director: Knowledge Networks and SGCI	04 August
IDRC	Ann Weston	Senior Program specialist	04 August
IDRC	Naser Faruqi	Director, Education and Science	

B.3. List of interviews at national level

Country	Type of interviewees	Organization	Name(s)	Role(s)	Date of interview(s)
Botswana	Council	Department of Research, Science and Technology	Ms Lesego M Thamae	Director	23/06/2022
		Department of Research, Science and Technology	Mr Tebogo Tseetse	Principal Research Science & Technology Officer- Monitoring & Evaluation	23/06/2022
	Beneficiary	University of Botswana	Professor Oitshpile Mmab Modise	Associate Professor	08/07/2022
Burkina Faso	Council	FONRID	Dr Inoussa Zongo	Former Director of Projects and Programmes/ New Exec Director	11/07/2022
		FONRID	Dr Aminata Kabore	Head of Resource Mobilisation	11/07/2022
		FONRID	Dr Ali Doumounia	Director of Resource Mobilisation	09/08/2022
		FONRID- Projects and Programmes Directorate	Pascal Ouedraogo	Officer	09/08/2022
		FONRID	Robert Gansonré	Head of Studies and Planning	09/08/2022
		FONRID- Projects and Programmes Directorate	Karim Nikiema	Officer	09/08/2022

Country	Type of interviewees	Organization	Name(s)	Role(s)	Date of interview(s)
	Beneficiary	Clinical Research Unit of Nanoro	Dr Marc Tahita	Researcher/ PI for SGCI project	04/08/2022
		INERA INERA	Dr Julienne Gué	Sociologist/ PI for FONRID project	09/08/2022
			Dr Isabelle Dabiré	Agricultural development economist/ PI for SGCI project	09/08/2022
		Centre MURAZ	Pr Abdoulaye Diabaté	Entomologist, Director of ACE/ITECH-MTV/ PI for SGCI project	11/08/2022
			Dr Moussa Namountougou	Entomologist	12/08/2022
	Ecosystem	Ministry of Higher Education, Scientific Research and Innovation	Pr Idrissa Kaboré	Director General for Scientific Research and Innovation	05/08/2022
	Ecosystem/FONRID	Ex-DG FONRID	Dr Hamidou Tamboura	Former FONRID Exec. Director	01/09/2022
Cote d'Ivoire	Council	Fonds pour la Science, la Technologie et l'Innovation (FONSTI)	Zeinabou Ouattara	Monitoring and Evaluation Officer	13/07/2022
Ghana	Council	Ministry of Environment, Science, Technology and Innovation (MESTI)	Cephas Adjei Mensah	Deputy Director STI	25/08/2022
Kenya	Council	National Research Fund (NRF)	Jemimah Onsare	CEO	14/07/2022
Malawi	Council	National Commission for Science and Technology	Mr. Mike Kachedwa	Chief Research Services Officer for Health	15/06/2022
			Victor Gondwe	Chief Planning Services Officer	22/07/2022
			Mr Frederick Munthali	Chief Research Services Officer - Renewable Energy, NCST	22/07/2022

Country	Type of interviewees	Organization	Name(s)	Role(s)	Date of interview(s)
	Beneficiary	Natural Resources College	Professor Limbikani Mathumba	PI for SGCI project	22/07/2022
	Beneficiary	Mzuzu University	Professor Wales Singini	PI for SGCI project	05/07/2022
	Beneficiary	Lilongwe University of Agriculture and Natural Resources	Dr Wezi Mhango	PI for SGCI project	25/07/2022
	Beneficiary	Malawi University of Science and Technology	Dr. John Taulo	PI for SGCI project	05/07/2022
	Beneficiary	Lilongwe University of Agriculture and Natural Resources	Dr. Judith Kamoto	PI for SGCI project	27/05/2022
	Beneficiary	Malawi University of Science and Technology	Dr. Mapereka Chagunda	PI for SGCI project	27/05/2022
Namibia	Council	National Commission on Research, Science and Technology (NCRST)	Genot Piepmeyer	Manager: Policy and Programme Development	18/07/2022
Rwanda	Council	National Council for Science and Technology	Mr Felly Kalisa	Head of STI promotion and development	29/07/2022
	Beneficiary	University of Rwanda, College of Agriculture and Veterinary Medicine)	Dr Didace Ndahimana	Researcher	
Senegal	Council	Ministry of Higher Education and Research/ Directorate-General for Research and Innovation	Mr Tafsir Babacar Ndoeye	Directorate for Research and Technological Development Funding/ Coordinator of the Scientific Research Impulse Fund	01/07/2022
	Council	Ministry of Higher Education and	Mr Daouda Diouf	Directorate for Research Strategies and Policies,	01/07/2022

Country	Type of interviewees	Organization	Name(s)	Role(s)	Date of interview(s)
		Research/ Directorate-General for Research and Innovation			
Tanzania	Council	Tanzania Commission for Science and Technology (COSTECH)	Neema Tinda	Program Officer	28/06/2022
Uganda	Council	Uganda National Council for Science and Technology	Mr Geoffery Sempiri	Science Officer, Grants Management	18/07/2022
	Beneficiary		Geoffrey Ssepunya	Researcher	22/08/2022
			Deborah Amulen	Researcher	21/07/2022
			Francis Omujal	Researcher	19/07/2022
			Joseph Mulindwa	Researcher	19/07/2022
Zambia	Council	National Science and Technology Council	Atridah Mulonga	Head: Research and Grants	11/07/2022
		National Science and Technology Council	Mupande Nambala	Programme Officer Policy, Regulation, Monitoring and Evaluation	11/07/2022
		National Science and Technology Council	Clement Kasaro	Programme Officer	11/07/2022

Appendix C Additional SGCs interview reports

C.1. National Science and Technology Council – Zambia

Summary and Context

Council name	<i>National Science and Technology Council (NSTC)</i>
Summary of the pathways to outcomes / impacts	
<p>The NSTC participation in the SGCI revolved around three core themes: The need for increased national and international research collaborations; the need to leverage opportunities for further funding; and the need to upgrade their grant management system.</p> <p>The NSTC has benefitted from their participation in the SGCI, increasing their number of international collaborations, as well as increased collaboration on science technology and innovation (STI) with the Ministry of Technology and Science. Additionally, the NSTC has benefitted from the digitalisation of their grant management system.</p> <p>The Council wants to be recognised internationally, as well as increase support and recognition from policy makers and the government. It expects to further its ability to fund, manage and administer grants and calls. The NSTC is expected to manage grants more efficiently due to the implementation of an online grants management system.</p>	
Introduction to the Council	
<p>The NSTC was established in 1997 by an Act of Parliament; the Science and Technology Act No. 26 of 1997. It began to operate in 2000 and began administering research and innovation grants in 2007. The NSTC receives funding from the Ministry for Technology and Science, and its main responsibilities involve the management and administration of those funds.</p> <p>The NSTC has 25 employees. At the head of the council sits the Executive Secretary, and under the head sit two managers. One is responsible for the technical side of grant management, such as programme development and implementation. The other is responsible for administrative and management of finances, as well as general support of programme implementation.</p> <p>Under the Technical Manager, there are four units: The Department of Documentation and IT ; The Department for Grants; The Department for promotion and the department for Policy, Regulation, monitoring and evaluation. Each of these units are led by Programme Officers, who under them have programme assistants to help support them.</p>	
Overview of participation in the SGCI	
<p>The NSTC took part in both phase one and two of the SGCI, and would welcome participation in phase three.</p> <p>Strengthening Partnerships among Africa's Science Granting Councils</p> <p>Prior to SGCI, the council had implemented some collaborative research programs, with South Africa and Mozambique, which were set up on the back of national agreements for cooperation in science and technology (signed as a national entity). However outside of these collaboration the council had not formed new collaborations, in part because there were no/few prior agreements or entry points. Joining the SGCI gave the NSTC the opportunity to network with similar international researchers and councils in the field of STI, increasing the possibility of bi-lateral and tri-lateral international research collaborations. It also gave the NSTC the opportunity to benchmark national researchers against international trends in their respective fields. Further to this, increased collaborations among national and international researchers was seen as an opportunity to increase the national and international recognition of the NSTC.</p> <p>Leverage opportunities for funding</p> <p>The NSTC have historically got their funding from the national government. Participating in the SGCI was viewed by the NSTC as providing an opportunity to mobilise resources and leverage additional opportunities for funding.</p> <p>Upgraded and digitalised grants management system</p> <p>The NSTC had historically management their grants through a manual system, which was said to have been inefficient. They have sought to upgrade and digitise their grants management process and the SGCI provided some technical assistance during this process. The NSTC is, however, still in this process and thus still needs any available assistance from the SGCI.</p>	
Activities	

The NSTC participated in the digitalisation of grant management process, as well as bi-lateral or tri-lateral research cooperation. They have also participated in mainstreaming gender and inclusion processes in their grant management processes.

Outputs

Digitalisation of grants management system

Involvement in the SGCI enabled the NSTC to gain knowledge from other councils, in how they managed their online grant systems. The council learnt about the efficiency benefits of an online system, and it encouraged them to push for the implementation of an online grant management system, which came into effect this year (2022). The influence from the other councils they collaborated with pushed them to invest in the online grants management system, now rather than later. The Council has, to a large extent, aligned their online grant management system to that of other Councils they have collaborated with. For example, with online applications, which previously were done through emails or hard copied of proposals, is now done through an online form.

Strengthen capacity for use of data and evidence in policy and decision making

NSTC has advanced their capabilities in updating data collection tools for SGCs, as well as analysing datasets and key messages produced from national user bases.

Strengthening Partnerships among Africa's Science Granting Councils

The NSTC have formulated cooperation agreements involving other Councils, bringing learnings into their call management systems. The Council has built partnerships with the research teams from other councils, The Council has launched calls for proposals, receiving grants from IDRC.

Gender and Inclusion

The NSTC have increased their sensitivity to gender and inclusion, testing change using an exploratory approach by applying gender quotas in calls.

Outcomes

Increased number of projects, due to additional funding from IDRC and SGCI

The NSTC was able to attract funding from the IDRC and SGCI, and from that have been able to fund an additional ten projects – a substantial increase in projects funded, from what the council normally funds in any given year, using local financing.

The NSTC is also leveraging funds from the national government.

Increased expertise of Council members in grant management

Representatives of the Council commented that there has been a noticeable increase in their expertise, in comparison to five years ago in grant management. There has been a shift in mindset in understanding the value of grant management systems.

Strengthening Partnerships among Africa's Science Granting Councils

Due to their participation in the initiative, the Council has been able to engage in collaborative projects. The Council believes this has helped raise their profile and facilitated the building of networks. Additionally, researchers in Zambia have been able to access facilities outside the countries, such as laboratories and other specialised equipment as well as to participate in international conferences. The Council has also been able to increase the triple helix arrangement in Zambia, increasing private-public partnerships. Malawi is a new partner. Zambia began their engagement with Malawi after joining the initiative, Co-Hosing the Africa regional forum in 2017. From there, they have had tri-lateral cooperation between them, Malawi and Mozambique

National recognition of skill and knowledge gain as well as growth trajectory in national research

The NSTC has increased collaboration with the national government on channelling resources into researchers. The NSTC is in the process of engaging the government on Intellectual Property issues and in its relation to research.

Digitalisation of online management grants

The NSTC expects to increase the level of efficiency at every stage of the grant management process, by implementing an online grants management system. They made this decision in the context of increased demand and larger projects. The NSTC expects to improve and streamline the application process, enforcing stricter adherence to call requirements, eligibility and deadlines. At the review stage the NSTC expects to move from a manual system to an online one, allowing reviewers to review proposals remotely, without having to be provided with hard copies. At the 'process stage' the NSTC expects that the move to an online management system, will enable the Council to more effectively manage grants; for example, it will provide prompts for when reports are due.

Gender and Inclusion

The Council would like to further increase capacity of female researchers to improve the quality of their proposals and have a greater chance of competing in the wider landscape. Even with the allocation of quotas, the Council recognised the number of applications from female researchers has not increased satisfactorily. The council proposes training

workshops in proposal writing, peer to peer learning activities, as well as an analysis of external factors that may be hindering female researchers from being able to compete.

Longer-term outcomes and impacts

Increased number of grants and calls

Due to the implementation of an online system and the capacity to manage such a system, the Council believes the number of grants available, and calls administered may increase. It also believes it will be equipped to deal with a larger number of projects and calls. Additionally, it will have the ability to manage larger budgets, they expect to be managing double of what they are managing now.

Strengthening of internal expertise in grant management

The Council believed that due to their participation in the SGCI initiative, they will continue to increase the strengthening of internal expertise of grant management.

National recognition of skill and knowledge gain as well as growth trajectory in national research

The Council is aiming to support the implementation of the national research agenda, particularly supporting research areas that the nation has large potential to excel in. The NSTC expects to increase the ability to demonstrate the impact of the work and make stronger cases for increased government support and investment in science technology and innovation. The Council would like to make strides in budget commitments that Zambia has made as a country – a certain part of national GDP should be put towards R&D.

Gender and inclusion

The NSTC expects to mainstream gender and inclusion in their grant management policies and practices. They have partially achieved this. They expect to increase their knowledge on structural gender and inclusivity issues in research, as well increase participation by female scientists in research and innovation.

Lessons learned

The NSTC suggested a change in how the CTA's engage with Councils. The Council suggested a more structured plan of engagement, where one CTA is engaging the Council at a given time rather than two or more CTAs engaging the council at the same time. This is mainly because the staffing level at most Councils is low, and therefore the same officers are involved in all the themes managed by the different CTAs. A representative of the Council commented that there was no issue with having a number of CTA's involved in the delivery of SGCI services but they should be encouraged to consult among themselves on the schedules for engaging with the Councils.

The representative of the NSTC spoke positively about their participation in the initiative. The Council was said to be keen in participating in a third wave, due to the substantial potential of increased knowledge gain.

External factors

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Representatives from the Council are interested in peer learning visits (e.g. in Uganda) focused on the Grants Management System.

C.2. National Commission on Research Science and Technology – Namibia

Council name	National Commission on Research Science and Technology (NCRST) - Namibia
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Summary of the pathways to outcomes / impacts [200 words]

The NCRST participated in the SGCI, to improve their management of research calls and grants, to strengthen their research and innovation management capacity, improve resource mobilisation strategies to upscale funding of research projects that are responding to Namibia's national priorities and to increase the visibility and recognition of the Council nationally and internationally. Through participating in SGCI, the Council is also hoping to increase opportunities for research and innovation funding. Additionally, participation in the SGCI under the theme, 'Strengthening Partnerships among Africa's Science Granting Councils and the Private Sector, provided opportunities for the Council to fund shared projects with a range of international stakeholders.

For example, participation in the SGCI has enabled the NCRST to collaborate with FNI, Mozambique, to implement joint projects in an effort to enhance collaboration between Namibia and Mozambican researchers and improve the Councils' management of calls.

The Council expects to use the learnings from the initiative to improve their management of research grants. Additionally, the Council expects to increase their capacity to mainstream gender and inclusivity in their grant management policies.

Introduction to the Council

The NCRST was established in 2013 in terms of the Research, Science and Technology Act, 2004 (Act No. 23 of 2004) to provide for the Promotion, Coordination and Development of Research Science, Technology, and Innovation (RSTI) in Namibia. Since 2014, the commission provided funding to R&D projects and programmes in Namibia, considering the need to advance research, technology, and innovation.

As of 2022 the NCRST has a staff compliment of 38 members. The .Council has four departments of which two are technical departments. The Resource mobilization & Grant management division falls under one of the technical departments, that is, Research, Science, Technology and Innovation Coordination and Support (RSTICS). The Resource mobilization and Grant management division manages the development of funding mechanisms and facilitates the development of projects for funding from national and international institutions. The division also manages the process of funding research and innovation projects.

Prior to the NCRST's participation in the SGCI, the Council had a portfolio of 183 projects over the period of 2014 – 2017. As a result of governmental budget cuts, funding for several projects has been put on hold, consequently delaying the completion of these projects.

The NCRST is currently managing nine projects under the SGCI phase two funding, six (6) research projects and three (3) innovation projects for women. Funds awarded to projects are transferred to research institutions, with the institution then managing the funds internally. The NCRST co-funds 30% of the awarded projects, co-funding is provided by the national government. The Council also manages one project collaboratively with Mozambique.

Prior to participation in the SGCI, the NCRST managed more individual projects. The SGCI provided the first platform for the NCRST to fund collaborative projects that involve other partner countries other than South Africa.

The NCRST anticipates more budget cuts from the government in the near future, but wishes to channel that funding into fewer, but more impactful projects. The NCRST continues to make a case for the importance of science, technology, and innovation in the developmental agenda of the country. It aspires to receive increased recognition when the results of funded projects are shown.

Overview of participation in the SGCI

The NCRST has participated in SGCI Phase One and Phase Two. As mentioned above, the Council is currently managing nine projects with SGCI funding (one of those nine funded projects is in collaboration with Mozambique).

The NCRST participated in the SGCI initiative to improve their grants management process, including via the implementation of an online management system. The Council aims to increase the national recognition of the Council, with increased opportunities for funding. Additionally, the SGCI provided a platform for the NCRST to collaborate with other SGCI participating countries.

Activities

Online management system

Since the formation of the NCRST in 2013, grants have been managed manually. There was no internal funding set aside for an online system. However, there was a need to digitise their grant management process. Thus, SGCI have offered a system created by the Uganda National Council for Science and Technology (UNCST) in association with the Association of African Universities (AAU), but the NCRST has not yet begun the process of implementation as it is currently in the process of recruiting temporary systems developer to customise the online system based on the council's needs.

Gender and inclusion

The NCRST are keen to take learnings from the SGCI into future calls. The Council ensure that when award calls are made, the call guidelines stipulate criteria pertaining to gender and inclusivity. The Council prioritises gender and inclusivity in its awards, on the condition that proposals are up to standard.

Strengthening Partnerships among Africa's Science Granting Councils

The NCRST took part in a joint call with Mozambique, co-funding one project.

Outputs

Strengthening Partnerships among Africa's Science Granting Councils

The NCRST works in collaboration with FNI, Mozambique on one project. The collaboration was derived out of SGCI Phase one. The Council was tasked with collaborating with another council and chose to work with Mozambique on shared interests. The collaboration began in 2017, after a MOU was signed in an effort to enhance collaborate on specific STI priority areas. Funding was provided and both councils created a joint call, and co-funded the awarded project.

During SGCI phase two, NCRST decided to work again with Mozambique due to the success of the first phase, and the growing strength of the two councils relationship.

Mozambique's grant processes are more rapid than those of the NCRST. Mozambique have a generic granting system which streamlines processes. Namibia's system is tailored, and thus takes longer. For example each grant agreement is drafted by NCRST's legal division, then sent to the research institutions, approved by the legal office of the institution, which can cause significant delays - of up to four months. This has provided some challenges. However, the NCRST is confident these challenges have not significantly impacted the collaboration with Mozambique. A representative of the NCRST spoke of highly of the open, proactive and communicative nature of the relationship.

Management of grants and projects

The NCRST has begun to bring the learnings from the initiative into their call management process. The Council is currently funding nine projects with IDRC funding.

Gender and inclusivity

The NCRST has increased its sensitivity to issues of gender and inclusivity in science technology and innovation.

Outcomes

Strengthening Partnerships among Africa's Science Granting Councils

Due to the knowledge exchanged derived from the collaboration with Mozambique, the NCRST has increased knowledge in certain aspects of grant management, as well as a shared knowledge in the internal logistics of how each council operates. The relationship has grown to a status of collegial familiarity, with the NCRST reporting an easy and accessible rapport with Mozambique. The Councils have access to shared infrastructure, which opens up access to equipment and resources for the councils call awardees. The NCRST recognises the benefits of co-funding a project, including the ability to "do more with less", to be flexible, and increase the impact of projects being funded, which in turn can lead to increased recognition from national politicians and policy makers. This recognition has led the NCRST to enquire into possibilities of forming similar agreements with other Councils.

Management of grants and projects

The NCRST has improved their management of projects, including improving their reporting templates and research agreements. The NCRST have changed their funding mechanisms. Prior to this change, they would award funding in a lump sum. Now, the funding is spread out over the duration of the funded project. 25% of funding is given at the award stage, 50% is given after the first update on progress, 80% at the second report of progress and then finally the rest of the amount at the end. This has added an element of financial accountability to the NCRST's management of funded projects.

Gender and inclusivity

The NCRST is developing a greater understanding on what is meant by gender and inclusive representation.

Longer-term outcomes and impacts

Grant management processes

The NCRST has gained knowledge in grant management processes, including their areas of weaknesses, the benefits of collaborating with international councils, issues around gender and inclusivity, and the benefits of an online grants management system. The NCRST expects to keep building on this knowledge gain, with the hope to increase the national and international recognition of the council, as well as international research collaborations. It hopes to fund more impactful projects, whose results can be utilised to build the case for the importance of funding STI research.

Strengthening Partnerships among Africa's Science Granting Councils

The Council expects to continue collaborating with other SGC's, strengthening partnerships and increasing networking opportunities.

Online management system

The Council expects to move from a manual grants management system, to an online one, increasing its ability to efficiently manage research calls.

Gender and inclusivity

The Council expects to increase its capacity to mainstream gender and inclusivity in research and grant management policies. The Council expect to increase its knowledge on structural gender and inclusivity issues in research, increasing the participation of female scientists in research and innovation.

Lessons learned

The NCRST spoke positively of their experience in the SGCI initiative.

Public-private partnerships

The NCRST recognises it needs to improve building public private partnership. The lack of collaboration is recognised as a weak point.

Recognition and awareness of impact of the Council

The NCRST recognises there is a need to advocate nationally for science technology and innovation but does feel it is in the right position as an institution to be spearheading advocacy. It faces difficulties in being recognised nationally and there is a lack of awareness of results of funded projects.

External factors

Government budget cuts have led to a significant loss in the ability of the Council to fund projects, with only a small number of projects coming to completion.

C.3. Tanzanian Commission for Science and Technology (COSTECH)

Council name	<i>Tanzania Commission for Science and Technology (COSTECH)</i>
Summary of the pathways to outcomes / impacts [200 words]	
<p>The Tanzanian Commission for Science and Technology (COSTECH) joined the Science Granting Councils initiative (SGCI) to increase opportunities for increased funding, increased collaboration and networking opportunities with other councils across the continent, and to increase opportunities for knowledge exchange and increased learning.</p> <p>Participation in the SGCI has enabled COSTECH to improve their monitoring and evaluation capabilities, as well as increase their staff expertise in managing research and innovation grants. Participation in the initiative has additionally increased the Councils ability to foster and participate in cross-country research calls, strengthening their partnerships and relationships with other council across the continent. Moreover, participation in the SGCI has increased their funding and opportunities for increased funding.</p> <p>COSTECH expects to continue mainstream gender and inclusion into their research calls, increasing the number of female led research. The Council expects to increase their visibility and recognition, at both a national and international level, increasing the opportunity for knowledge exchange and knowledge sharing.</p>	
Introduction to the Council	
<p>COSTECH was established by the Act of Parliament No.7 of 1986.¹⁰ It was established as the successor to the Tanzanian National Scientific Council (UTAFITI), as a parastatal organisation, responsible for coordinating and promoting the national development of research and technology activities in Tanzania.¹¹ The council sits under the Ministry of Education Science and Technology. The main responsibilities of the Council include¹²:</p>	

¹⁰ <https://costech.or.tz/read/submenu/establishment>

¹¹ <https://costech.or.tz/read/submenu/establishment>

¹² <https://costech.or.tz/read/submenu/establishment>

Advising the Government on formulation and reviewing of national science, technology, and innovation programs, including dissemination and transfer of technology

Monitoring and coordinating the activities relating to scientific research, technology development, and innovation of all persons or body concerned with such activities

Acquiring, storing and disseminating scientific and technical information. It may, for that purpose hold or sponsor conferences, symposia, meetings, seminars or workshops, or publish any news – paper, journal or periodical, etc., to promote interest in science, technology and innovation

Registering scientific research institutions operating in the United Republic of Tanzania

Advising the Government on matters such as: priority areas for scientific research; the allocation and utilisation of research and innovation funds according to priorities scientific research and regional and international cooperation in scientific research, innovation and technology development and transfer; matters relating to the training and recruitment of research personnel

Organisational Structure¹³

The COSTECH is led by a Directorate General. Under this Directorate General are four units: The Unit for Internal Audits; The Unit for National Fund for Advancement of Science and Technology; The Unit for Procurement Management and the Unit for Legal Services. All Units are led by Managers.

There are also four Directorates: The Directorate of Research Coordination and Promotion; The directorate of knowledge Management; The Directorate for Development and Transfer of Technology; and the Directorate of Corporate Service. All Directorates are led by a Director.

Under the directorate of Research Coordination and Promotion are three Sections: The Life Science Section; the Physical Science Section; and the Social Science Section. Under the Directorate of Knowledge Management sits two sections: the ICT system and Networking Section; and the Documentation and publication Section. Under the Directorate for Development and transfer or Technology, sits three Sections: Technology Acquisition and development Section; Technology Management and transfer Section; and the Innovation, Foresight and Emerging Technology Section. Under the Directorate of Corporate Service, sits three Sections: The Finance and Accounts Section; The Administration and Human Resource Management Section; and the Planning, Monitoring and Evaluation Section. All Sections are led by Managers.

Overview of participation in the SGCI

COSTECH has taken part in Phase One and Two of the SGCI.

The rationale for their participation revolves around two core areas.

COSTECH sought to internally connect their science, technology and innovation activity, improve their grants management system and increase opportunities for funding, national recognition of the Council.

COSTECH additionally sought to connect with other international councils focused on Science Technology and Innovation in the East African region. The Council already had a history of providing support to regional entities, such as Higher Education Institutions. This networking began during Phase one of the SGCI. The Council received feedback from the SGCI on how to better position itself in the wider landscape. COSTECH shared the

¹³ <https://costech.or.tz/read/submenu/organogram>

experience gained and other opportunities/challenges regularly with stakeholders from other councils during annual and regional meetings. The SGCI provided an accessible platform to connect with other councils.

Activities

Online management system

COSTECH participated in the online development activity. The Council had already moved from a manual paper system to an online grants management system, which they did separately from the SGCI initiative. They had received support and funding from the Swedish International Development Cooperation Agency (Sida), which has led them to obtain a standardised grants management system.

Supporting management of research calls

COSTECH has been using its grants management system to issue and manage research calls. The additional funding from the IDRC has continued to support the use of system with additional/new insight documented that has enabled review of the grants manual. The council has begun bringing learnings into their call management processes, launching calls for proposals. The Council have built partnerships with research teams and have built partnerships and agreements among SGC's.

Strengthening Partnerships among Africa's Science Granting Councils

Participation in the SGCI gave COSTECH the opportunity to be part of the Global Research Council, which increases network and funding opportunities.

Not all countries that are part of the SGCI initiative have been able to participate to the ongoing Sustainable Development Goal call for concept note. Only eleven countries (11) are participating with only three from the SGCI: Tanzania, Kenya and Ivory Coast. The concept note published in May 2022, and closes in August 2022. COSTECH has taken part, co-funding the initiative. The initiative provides opportunities to expand partnerships and collaborations, opening doors at a global level.

Outreach

The council is working with R&D institutions (including universities) in both Tanzania Mainland and the Island to set up research standards and frameworks such as integrity framework, research chair and excellence frameworks, gender framework etc. The goal for these frameworks is to support the R&D institutions to have clear mechanism to strengthen research culture, attract large funds, conduct high quality research, support young researchers and foster collaboration within and outside the country. A council representative spoke about the benefit to research of working in collaboration in a team. This was said to provide different roles in the team for mentoring and supervision and capacity building.

Monitoring and evaluation system

Before participating in the SGCI initiative, COSTECH, had previously worked with a system developed by the regional New Partnership for Africa's Development (NEPAD). Through participation of the SGCI, they have improved their own M&E system.

Gender and Inclusivity

COSTECH acknowledge the participation of women in STI ecosystem though at the moment their involvement is minimal. COSTECH in its new grants manual is planning to

introduce a window for women only, this will be a call specifically for female researchers to lead. The council had found that in a standard call (open to male/female researchers) the calls are judged on multiple criteria, separate to the gender component, which female PI's may not meet. COSTECH decided to hold a separate call for researchers in order to encourage and increase female PI's participation in the call process. This has been documented in the report submitted to IDRC. They had a meeting with CTA Scinnovent that shared their experience and insights on this.

Staff Training

The staff at COSTECH have received training on research management, M&E, influencing policy, policy briefs development, gender mainstream and inclusivity, research integrity.

Outputs

Research Management

COSTECH has improved their research management instrument and system, including the design of research calls, and the management of grants. The Council has adapted their grant manual. The council now issues calls that require collaboration with industry.

Gender and inclusivity

COSTECH has become more sensitised to gender in science technology and innovation in research. COSTECH have developed a gender and inclusion strategy, introducing a separate research call which is exclusively for female researchers.

Grants management practices

COSTECH are adapting emerging grants management practices, sharing best practices on grant management. There has been a shift in mindset in understanding the value of grant management systems. COSTECH have changed their monitoring and evaluation system from one developed by NEPAD, to one they have developed internally.

Staff Training

COSTECH have developed grants management manual on how to manage funding.

Outcomes

Monitoring and evaluation system

COSTECH have benefited from improvements on their monitoring and evaluation system and are continuing to develop on this.

Strengthening Partnerships among Africa's Science Granting Councils

COSTECH have enhanced their ability to foster cross-country research collaborations between African higher education and research institutions.

COSTECH have strengthened their partnerships and networks, which now includes 16 countries and beyond. COSTECH has prepared a case study on equitable research partnership which has been accepted and published; and will be presented during Science Summit at United Nations General Assembly 77 (UNGA77) to be held on 26 September, 2022.

The Covid 19 African Rapid Grand Funds three Tanzanian institutions namely UDSM, MUHAS and UDOM. While the initiative ORTARChI funds two Tanzanian institutions namely SUA and NM-AIST. These two institutions are implementing a five year programme and each chair holder receives 1M USD. The chairs work collaboratively with partners across the whole continent. At the country level COSTECH coordinates the institutions which have received the funds.

COSTECH have worked closely with Sida, setting up bi-lateral Swedish and Tanzanian research teams.

Increase in funding

For the financial year 2021 to 2022, COSTECH received 3.5 billion Tanzanian Shilling (or 1.3 million USD). For the financial year 2022 to 2023, this tripled to 9 billion Tanzanian Shilling. This increase in funding includes a development fund for activities. This increase in funding is exclusive of the cost of running the commission, which is paid for by a separate budget.

Increased visibility and recognition

Due to the new monitoring and evaluation systems put in place, increase in partnerships and networks, and the weight of what they are doing, the council has increased their visibility nationally and internationally.

Staff training on Research management

Due to the training that COSTECH staff received on research management, research integrity and others, they are now more efficient in coordinating and promoting research. Due to the formulation of guidelines on how to manage funding they have enhanced their skills in developing (similar) manuals. The skills and expertise gained was commented to have been extended to R&D institutions.

Longer-term outcomes and impacts**Strengthening Partnerships among Africa's Science Granting Councils**

COSTECH commented to have strong collaboration with Sida and NRF South Africa and to have ongoing discussions for collaboration with NORAD and the Research Council of Zimbabwe. COSTECH expects to increase its connection with other councils and development partners. Providing increased opportunity for collaboration between researchers from different councils, as well as connecting to opportunities outside the SGCI initiative. The Council expects to set up cross-country calls in the future. The Council expects to create strong networks among other SGC's, discussing regional science technology and innovation issues, providing recommendations, and institutionalising collaboration frameworks.

Grant management

COSTECH expects to increase the effectiveness of its grant management practices, using learnings from the SGCI to influence practices within the national science systems. The Council expects to increase opportunities for knowledge transfer through cooperation with other councils. The Council expect to increase its ability to demonstrate the impact of its activities, making stronger cases for increased government support and investment in science technology and innovation.

Gender and inclusion

COSTECH expects to mainstream gender and inclusion into their grant management processes, increasing their knowledge in structural gender and inclusivity issues in research, increasing participation of female scientists in research and innovation.

Increased visibility and recognition

COSTECH expects to support the strengthening of national science systems, that leads to nationally led research, that contributes to regional development. The Council expect to use learning from the SGCI to influence practices within the national science systems, increasing their visibility and recognition, both nationally and internationally, and consequently increasing funding opportunities.

Lessons learned

COSTECCH spoke positively about their participation in the SGCI. The Council would like to continue being a part of the SGCI in phase 3. They believe the SGCI could be expanded to other countries across the continent.

External factors



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