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

Final report - volume 1

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

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## **Executive Summary**

## Context of Science Granting Councils in sub-Saharan Africa

Well-functioning Science Technology and Innovation (STI) systems are considered vital to solving the sustainable development challenges of countries in sub-Saharan Africa. Nationallevel Science Granting Councils (SGCs) have also received renewed interest and resources and increased recognition as crucial sites for developing ownership of science funding agendas and for supporting the STI Strategy for Africa (STISA) 2024 under which African Union (AU) members would increase R&D funding to 1% GDP. The renewed interest in STI has led to a proliferation of STI policy frameworks and strategies at the national level and to the establishment of new SGCs and/or the strengthening of existing SGCs. Several initiatives have emerged to strengthen national STI systems. The Science Granting Councils Initiative in sub-Saharan Africa (SGCI) is one of the few initiatives focused on strengthening SGCs' capacity.

SGCs face a set of significant challenges in implementing their core functions. Perhaps the most significant is the lack of sustained and sufficient financial resources from national governments. Further challenges are capacity issues within SGCs and deciding how to target their limited funding in terms of research disciplines and the spectrum of basic to applied research. It is important to emphasize that these challenges arise to differing extents and in differing ways in the context of each nation as some of the SGCs have just been created or are still being set up whereas others have been functioning for decades; there is also a broad variety of institutional arrangements in terms of whether SGCs are embedded in a parent ministry or are set up autonomously. These institutional arrangements have profound implications for the level of influence the SGC can be expected to have on different elements of the STI system. The SGCs also differ markedly in terms of their engagement with international funding actors, each being embedded in a specific web of relationships and influence.

#### The SGCs initiative

The SGCI was launched in 2015 following a scoping study funded by Canada's International Development Research Centre (IDRC), to identify strengths and weaknesses of SGCs in Africa, which was discussed with African Councils and helped shape SGCI 1. The first phase was supported by IDRC, South Africa's National Research Foundation (NRF), and the UK's Department for International Development (now Foreign, Commonwealth and Development Office, FCDO). Its objectives were to strengthen the ability of SGCs to: 1) manage research; 2) design and monitor research programmes based on the use of robust STI indicators; 3) support knowledge exchange with the private sector, and; 4) establish partnerships with other science system actors. A new IDRC partnership with the Swedish International Development Cooperation Agency (Sida) started a second phase, SGCI 2, in 2018. Additional support from other funders (FCDO, the Norwegian Agency for Development Cooperation or Norad, IDRC, the German Research Foundation or DFG, and NRF) will take the SGCI to 2025. Councils from 15 countries in East, West and Southern Africa have partnered in the delivery of the program.<sup>1</sup> SGCI 2 aims to continue strengthening the capacities of these Councils in order to support research and evidence-based policies that will contribute to economic and social development.

#### The External Evaluation

<sup>&</sup>lt;sup>1</sup> They were joined in 2021 by Nigeria and in 2022 by Sierra Leone

After 7 years of implementation, IDRC commissioned an external evaluation (EE) to assess the extent to which the Initiative is achieving its strategic objectives. The evaluation assesses the achievements, the role of the SGCI in actual and perceived changes, and how results have been achieved, as well as key lessons learned. The evaluation recommends actions for strengthening the overall performance of the Initiative over the next three years and certainly beyond.

This final EE report is based on a thorough analysis of the literature and documentation made available to the consultants, interviews with the SGCI Initiative Management Team (IMT) and the SGCI monitoring, evaluation and learning (MEL) consultant, a workshop held in April 2022 with SGCI participating Councils and Collaborating Technical Agencies (CTAs), additional consultations with bilateral funding partners, the CTAs and all the Science Granting Councils (SGCs), and a specific engagement for conducting case studies with six (6) selected SGCs and their research communities and external stakeholders (ministries, other research partners) in Uganda, Malawi, Botswana, Rwanda, Burkina Faso and Senegal. All in all, 56 interviews were conducted.<sup>2</sup>

### Key findings: strengths and areas for improvement

#### Strengths

The evaluation has found that SGCI is a unique, ambitious, complex and challenging initiative. It provides much-needed support for the African Science Granting Councils to undertake the transformational journey towards playing their full roles in STI ecosystems on the continent.

Councils have interacted with several global research institutions and SGCI has evolved into a platform that other funding partners and organizations can use to strengthen and engage with African granting councils.

The SGCI has made some well targeted and important contributions to the functioning and positioning of Councils in their ecosystems.

The overall SGCI design including the capacity strengthening themes is aligned with the needs of the Councils and their governments. SGCI has been effective in contributing to capacity strengthening of Councils. There are some flagship results in all strengthening themes which are quite impressive, knowing the length of the pathway to change and the challenges faced by Councils.

SGCI targets the whole spectrum of SGC capacity strengthening needs, starting from the base, i.e., science granting systems, to policy design towards impactful research. The variety and complementarity of capacity strengthening activities (trainings, study visits, peer-to-peer exchanges, technical support, knowledge products) is highly relevant. Some SGCI knowledge outputs are being actively used to institutionalize new practices within the Councils and to address some of their pressing needs and challenges. There are some excellent examples of knowledge products to disseminate more widely.

Progress has been heterogeneous among Councils as all of them had a different point of departure and they are progressing and evolving in very different contexts. They have also shown different levels of commitment to the Initiative.

Some of the key successes are the launching and management of research calls, several in collaboration with one another, which in many countries and many ways were unprecedented:

<sup>&</sup>lt;sup>2</sup> In addition, the lead external evaluator participated in the SGCI Annual Forum in December 2022, during which time she was able to have in-person discussions with key stakeholders including heads of the Councils; this was followed by some further interviews.

- To better their performance, Councils are improving their existing grant management systems, migrating to digital systems and incrementally optimizing their management. Under SGCI, staff have benefitted from training including peer-to-peer learning, and increased their skills and experience.
- To improve Councils' reach, utility and credibility, SGCI enabled the development of new partnerships and grant funding that allowed for the launch of research calls nationally and in collaboration with each other. This enabled Councils to fund research and to develop their credibility.

Progress has been made within the SGCs with respect to them becoming sensitized to the important role of gender and inclusion in STI.

The SGCI has definitely contributed to positioning the participating Councils more visibly at the national and regional levels. Early signs of increased advocacy are evident, for example for funding for national research, for research to address gender equality, and for changes in national STI policy.

Networking has been instrumental and successful (during SGCI Annual Forums and parallel meetings, such as the Global Research Council, for example). New initiatives have emerged, such as the O.R. Tambo Africa Research Chairs Initiative and the COVID-19 Africa Rapid Grant Fund, which are very relevant for Councils in their objective to be strategic business partners, and are highly appreciated.

#### Areas for improvement

While many Councils have demonstrated progress in several aspects of SGCI programming, more time and effort are needed to achieve broad-based structural change across all participating countries. The experience of SGCI since 2015 indicates elements on which to build and those to improve in order to support Councils to become more effective leaders in national STI systems and to contribute to development outcomes.

One is to extend the period of SGCI by securing commitment from key stakeholders i.e. international funders and national governments to allow for longer programming support and participation of Councils, that extends beyond 2025.

National Councils – as both recipients of and actors within SGCI – have shown varying levels of ownership and engagement in the programming, which may explain different degrees of progress. There is limited evidence as yet that Councils have made structural changes in their staffing in grants management as a consequence of SGCI. In many the current level of staffing limits the scope for upskilling and capacities to absorb learning from SGCI, which would need to be addressed in the future. Some Councils have been less active than others in taking advantage of the full range of SGCI activities, for example in using training or technical support to influence government investments in STI systems and participate in policy making. Councils' efforts to mainstream gender, and especially inclusivity, into their policies and practices is still nascent. In terms of networking there is further work to be done on linking the SGCI to other initiatives, and on supporting Councils to be more visible globally.

The SGCI implementation modality is complex, leading to some inefficiencies, but this appears inevitable, due to the large number of partners, contexts, agendas and challenges. A particular opportunity for improvement is with the work of the Collaborating Technical Agencies (CTAs). Various efforts are needed – as well as more time -- for a number of CTA knowledge outputs to be taken up and institutionalized by the Councils. There could also be improvements in the training outputs and the way in which materials are used for strengthening Councils' capacities. Attention to communication between the Initiative Management Team, the CTAs and the Councils may help to improve the quality and uptake of these technical resources by the Councils.

#### Recommendations

From the evaluation findings and conclusions, the following recommendations are offered:

R1. International partners should initiate a follow-up phase to the SGCI beyond 2025 (SGCI 3), to extend the funding available for African SGCs beyond 2025, so that Councils can continue their transformational journeys

R2. Science Granting Councils should fully own and invest in their transformational journeys to ensure these are sustainable

R3. The Initiative should, as much as possible, provide training tailored to the few key critical priorities of Councils and accelerate the uptake of associated knowledge outputs

R4. Science Granting Councils should take a more proactive stance on gender and inclusivity in order to ensure further mainstreaming of these aspects in their work

R5. The SGCI Monitoring, Evaluation and Learning framework should be developed at the level of each Council in order to capture the progress each Council is making on their transformational pathway

## 1 Preamble

This document is the final report of the **External Evaluation (EE) of the Science Granting Councils Initiative (SGCI)**, **in sub-Saharan Africa** hereby called the "evaluation" or "EE", requested by IDRC and drafted by Technopolis Group.

The purpose of the report is to respond to the evaluative questions and formulate conclusions and recommendations related to the evolution of the initiative. Conclusions and recommendations were presented to the Evaluation Steering Committee (November 9<sup>th</sup>, 2022) and individual follow-up discussions took place with some members of the IMT and Executive Committee of the Initiative.

The report is based on a thorough analysis of the literature and documentation made available to the consultants, interviews with SGCI IMT and the SGCI MEL consultant, a workshop held on April 5<sup>th</sup>, 2022 with SGCI participating Councils and Collaborating Technical Agencies (CTAs), additional consultations with bilateral funding partners, the CTAs and all the Science Granting Councils (SGCs), and a specific engagement for conducting case studies with six (6) selected SGCs and their research community and external stakeholders (ministries, research partners, researchers) in Uganda, Malawi, Botswana, Rwanda, Burkina Faso and Senegal. All in all, 56 interviews were conducted.

The report is organized along the following sections:

- The SGCI in the global efforts towards sustainable STI systems in Africa (section 2)
- Objectives of the assignment (section 3)
- A synthesis of achievements of the SGCI from 2015-2021 (section 4)
- Responses to evaluation questions (section 5), notably
  - On the SGCI's contribution to positioning the Councils for influence at national, regional and continental STI systems and internationally
  - On the role of the SGCI in promoting research for impact in individual countries and across sub-Saharan Africa
  - On the SGCI's contribution to new knowledge, ideas and building on existing strengths and developing new areas of work for resilient STI systems
  - On the SGCI's contribution to promoting and embedding systems for gender responsive research and grants management
  - On the appropriateness of the concept and design of the SGCI and effectiveness of the implementation of SGCI over the long term
  - On sustainability
- Conclusions and recommendations (section 6)

Annexes to the report are presented in a separate volume (volume 2) and notably include the 6 case studies.

## 2 Context of the SGCI

## 2.1 Context of Science Granting Councils in sub-Saharan Africa

Well-functioning Science Technology and Innovation systems are considered vital to solving the sustainable development challenges of countries in sub-Saharan Africa.<sup>3</sup> Following a

<sup>&</sup>lt;sup>3</sup> AUC (2014) Science, Technology and Innovation Strategy for Africa 2024. Addis Ababa: African Union Commission

period of decline of international and national interest between 1980 and 2000, in recent years there has been a steady rise in support for STI at international, continental, sub-regional and national levels.<sup>4</sup> At the international level the Sustainable Development Goals (SDGs) include specific reference to STI within SDG 17, with an increase in the number of donors interested, or active, in supporting STI in Africa.<sup>5</sup> At the continental level, the African Union (AU) adopted the STI Strategy for Africa (STISA) 2024, with the African Scientific, Research and Innovation Council being established in 2016 with a mandate to implement the strategy, and with support from the African Observatory of Science, Technology and Innovation to provide statistical analysis and policy reports. A further notable development has been the creation of the Alliance for Accelerating Excellence in Science by the African Academy of Sciences and funded by the FCDO, Wellcome and the Bill and Melinda Gates Foundation. In 2017 the AAS also announced the Coalition for African Research and Innovation designed to consolidate and reduce fragmentation of funding and spur greater investment. At the regional level, there is widespread adoption of STI policy frameworks and supportive institutions e.g., ECOWAS Policy on Science and Technology (est. 2012, West Africa) and the East African Science and Technology Commission (est. 2007, East Africa).

National-level Science Granting Councils have also received renewed interest and resources and increased recognition as crucial sites for developing ownership of science funding agendas and for supporting the STISA 2024 agreement under which AU members would increase R&D funding to 1% GDP. The renewed interest in STI has led to a proliferation of STI policy frameworks and strategies at the national level and to the establishment of new SGCs and/or the strengthening of existing SGCs.<sup>6</sup> Several initiatives have emerged to strengthen national STI systems. SGCI is one of the few initiatives focused on building SGCs capacity.

Another is the African Academy of Sciences (AAS) programme of harmonisation, standardisation and web-based platform building for research grant management, called Good Financial Grant Practice. The European Commission is also funding harmonisation and quality assurance schemes, such as the African Higher Education Harmonisation and Tuning, and the AU Higher Education Harmonization and Quality Assurance initiatives. Another example is the FCDO, Wellcome and IDRC co-funded support of £10m programme to support the National Research Council of Malawi to develop its capacity to manage grant-making processes for health research. Other notable initiatives include the African Observatory for Science, Technology, and Innovation (AOSTI), the Organization for Women in Science for the Developing World (OWSD) and the Southern African Research and Innovation Management Association (SARIMA).

Despite these positive developments, SGCs face a set of significant challenges in implementing their core functions (see figure 1).

Figure 1 Core functions of a science granting council

- Disbursing funds for research and development (R&D)
- Building research capacity through appropriate scholarships and bursaries
- Setting and monitoring research agendas and priorities
- Advising on STI policies
- Managing bilateral and multilateral science and technology (S&T) agreements
- Assessing the communication, uptake and impact of publicly funded research

<sup>&</sup>lt;sup>4</sup> Chataway, J., Dobson, C. et al. (2019) 'Science Granting Councils in Sub-Saharan Africa: Trends and tensions', Science and Public Policy, Volume 46, Issue 4

<sup>&</sup>lt;sup>5</sup> Ibid

<sup>&</sup>lt;sup>6</sup> UNESCO (2021), Science Report: The race against time for smarter development, Paris: UNESCO

Source: Building Science Systems in Africa: Conceptual Foundations and Empirical Considerations<sup>7</sup>.

Perhaps the most significant is the **lack of sustained and sufficient financial resources from national governments**. There has been a marginal rise in GERD as a share of GDP in the region over the last decade<sup>8</sup> — between 2014 and 2018 the overall GERD figure for sub-Saharan Africa rose from 0.49% to 0.51% — but overall, national governments' commitment remains below the 1% target.<sup>9</sup> Support for research in research institutions still comes from primarily external sources.<sup>10</sup> For example, in 2015 circa 73% of Uganda's gross domestic expenditure on R&D (GERD), 60% of Kenya's, and 50% of Tanzania's and Burundi's GERD was financed by external sources.<sup>11</sup>

The lack of funding for research has profound effects on both individual researchers and the research environment. Researchers have low wages and a lack of high-quality facilities to work with including libraries, laboratories, and information technology.<sup>12</sup> In addition, there is little investment in career progression. Most funding to universities is through a block grant and goes to fund teaching rather than research.<sup>13</sup> For many researchers in LMICs the only significant source of research funding is through joining international collaborations and gaining international sources of funding. In addition to the lack of funding, the research environment within institutions can make it difficult for researchers to pursue programmes of research. Many university systems in SSA have undergone 'massification' in the last two decades, whereby huge and unsustainable numbers of students are enrolled in universities. Researchers will often lack attractive career pathways because of poor salary structures and non-transparent promotion and advancement systems.<sup>14</sup> In addition, many institutions lack effective research aovernance structures and well-functioning bureaucratic systems and even when plans are in place, their implementation may be limited.<sup>15</sup> The final key point is the significant lack of adequate ICT infrastructure which significantly hampers research production, management and dissemination.<sup>16</sup> Another issue for research systems in sub-Saharan Africa is that they are heavily skewed towards certain disciplines with medical and agricultural research dominating funding streams.<sup>17</sup>

The research environment matters for SGCs because they rely on a healthy research base to provide high-quality applications to the calls they put out and also to provide peer reviewers

<sup>&</sup>lt;sup>7</sup> Hanlin, R., Tigabu, A. D., & Sheikheldin, G. (Eds.). (2021). Building Science Systems in Africa: Conceptual Foundations and Empirical Considerations. Mkuki na Nyota Publishers Limited. <u>https://www.actsnet.org/publications/books/building-science-systems-in-africa</u>

<sup>&</sup>lt;sup>8</sup> UNESCO (2021), Science Report: The race against time for smarter development, Paris: UNESCO <sup>9</sup> Ibid

<sup>&</sup>lt;sup>10</sup> AAS (2018) Africa Beyond 2030: Leveraging Knowledge and Innovation to Secure Sustainable Development Goals. Nairobi: African Academy of Science

<sup>11</sup> Ibid

<sup>&</sup>lt;sup>12</sup> Fosci, M., Loffreda, L., Velten, L., & Johnson, R. (2019). Research Capacity Strengthening in LMICs: A Rapid Evidence Assessment. United Kingdom: Research Consulting.

<sup>&</sup>lt;sup>13</sup> Cloete, N., Maassen, P., & Bailey, T. (2015). Knowledge production and contradictory functions in African higher education. Cape Town: African Minds.

<sup>&</sup>lt;sup>14</sup> Fosci, M., Loffreda, L., Velten, L., & Johnson, R. (2019). Research Capacity Strengthening in LMICs: A Rapid Evidence Assessment. United Kingdom: Research Consulting.

<sup>&</sup>lt;sup>15</sup> Marjanovic, S., Hanlin, R., Diepeveen, S., & Chataway, J. (2013). 'Research capacity-building in Africa: networks, institutions and local ownership'. Journal of International Development, 25(7), 936–946.

<sup>&</sup>lt;sup>16</sup> Semali, L. M., Baker, R., & Freer, R. (2013). 'Multi-Institutional Partnerships for Higher Education in Africa: A Case Study of Assumptions of International Academic Collaboration'. International Journal of Higher Education, 2(2), 53–66

<sup>&</sup>lt;sup>17</sup> Chataway, J.,, Dobson, C. et al. (2019) 'Science Granting Councils in Sub-Saharan Africa: Trends and tensions', Science and Public Policy, Volume 46, Issue 4

to validate and guide decision making. There is a long line of literature in science policy studies that have shown that SGCs and their research base operate symbiotically, despite sometimes exhibiting divergent interests.<sup>18</sup>

However, it is worth noting that despite these difficult research conditions there are a number of indicators that point to steady improvements across many countries in SSA. The steady rise in interest and international and national investment described above is reflected in changing conditions in East Africa for example, with a rise in the volume of scientific publications across all countries, with particularly impressive growth observed since 2011 in Cameroon, Ethiopia, Kenya and Rwanda.<sup>19</sup> There has also been increased diversification of their research focus towards non-medical sciences and cross-cutting technologies in the region. There is then strong evidence of momentum being built in improving research systems that the SGCI stands to benefit from and to which it can potentially contribute.

A further challenge is capacity issues within SGCs that have been reported extensively by AOSTI<sup>20</sup> and the two rounds of political economy analysis conducted for the SGCI program. Capacity issues span both training and infrastructure development in STI and include core competencies such as designing and running research calls, developing strategies, collecting STI indicators, finding funding, promoting research uptake and innovation, financial management, and complying with legal and regulatory requirements.<sup>21</sup> To this list can be added cross cutting themes such as promoting gender inclusion, equability of opportunity and interdisciplinarity.

A further challenge is deciding how to target the limited capacity in terms of research disciplines and the spectrum of basic to applied research. The first Political Economy study<sup>22</sup> identified a tension between demands to fund more applied science designed to meet national goals and, on the other hand, science based on academic priorities to publish in leading journals or to meet the priorities of international funders. The discourse was found to often take the form of debates around the meaning of scientific "excellence". The second political economy study identified an emerging consensus that "research excellence must include a focus on addressing societal challenges and national development goals (impact) in addition to publishing in journals".<sup>23</sup> Our work with the NCST in Rwanda also highlighted the need to promote and invest in indigenous research, serving the needs of the community through engagement. Part of the difficulty in navigating how to decide priorities for science funding is the need to use established networks between science policy actors to help define agendas. This has been a particular issue in SSA with the lack in many countries of well-developed connections between the triple helix of university/industry/government relations.<sup>24</sup>

It is important to emphasise that these challenges arise to differing extents and in differing ways in the context of each nation. Some of the SGCs have just been created in the last few years

<sup>&</sup>lt;sup>18</sup> See for example the Principal Agent Theory as applied to Research Councils by Braun 1993 and the linked credibility cycles of (Rip, 1994).

<sup>&</sup>lt;sup>19</sup> UNESCO (2021), Science Report: The race against time for smarter development, Paris: UNESCO

<sup>&</sup>lt;sup>20</sup> AOSTI (2013) 'Science, Technology and Innovation Policy-making in Africa: An Assessment of Capacity Needs and Priorities', AOSTI Working Papers No. 2. Equatorial Guinea.

<sup>&</sup>lt;sup>21</sup> Daniels, Chux, et al. (2020) Updating the case studies of the political economy of science Granting Councils in sub-saharan Africa, SGCI publication, Datta, A. (2018). Strengthening research systems: concepts, actions and actors. On Think Tanks Publication

<sup>&</sup>lt;sup>22</sup> Chataway, J., Ochieng, C., Byrne, R., Daniels, C., Dobson, C., Hanlin, R., Hopkins, M. (2017) Case Studies of the Political Economy of Science Granting Councils in Sub-Saharan Africa, SGCI publication

<sup>&</sup>lt;sup>23</sup> Daniels, Chux, et al. (2020) Updating the case studies of the political economy of science Granting Councils in sub-Saharan Africa, SGCI publication

<sup>&</sup>lt;sup>24</sup> Okonofua, Friday, Doyin Odubanjo, and Joseph A. Balogun. 'Assessing the triple helix model for research and development in sub-Saharan Africa'. Proceedings of the Nigerian Academy of Science 13.2 (2021).

or are still being set up whereas others have been functioning for decades and there is a broad variety of institutional arrangements in terms of whether SGCs are embedded in a parent ministry or are set up autonomously. These institutional arrangements have profound implications for the level of influence the SGC can be expected to have on different elements of the STI system.<sup>25</sup> The SGCs also differ markedly in terms of their engagement with international funding actors, each being embedded in a specific web of relationships and influence.

These complex contextual dynamics – location, politics, capabilities, approach to science funding and degree and type of international funding – will have influenced the extent to which the SGCs have been able to embed and use the knowledge and experience gained from the SGCI and need to be taken into account in the approach to the evaluation.

## 2.2 The SGCs initiative

## 2.2.1 Overall presentation

The SGCI was launched in 2015. The initial funding for five years (SGCI 1) came from the UK's Department for International Development (DFID), South Africa's National Research Foundation (NRF) and IDRC, with IDRC and NRF being co-responsible for implementation of the program. The new Sida-IDRC five-year partnership started SGCI 2 in 2018. Additional funding from Norad, FCDO, IDRC, DFG and NRF will take the SGCI to 2025. SGCI 2 aims to continue strengthening the capacities of these Councils in order to support research and evidence-based policies that will contribute to economic and social development. SGCs from 17 countries in Eastern, Western and Southern Africa have partnered in the delivery of the program.

SGCI proposes support on different themes. Each Theme is led by a Collaborating Technical Agency (CTA) (or a consortium with a lead CTA). Each CTA has developed a distinct range of activities that have been implemented flexibly across the participating SGCs.

	SGCI 1	SGCI 2		
Timeline	2015-2020	2018-2023		
Funders	DFID IDRC and NRF Total funding CA\$13M	Sida, IDRC, NRF and DFG (associate funder) Total funding CA\$18M (New partnerships with Norad, FCDO and IDRC, DFG and NRF have extended SGCI 2 to 2025 with an additional CA\$32M)		
Aim		Science Granting Councils (SGCs) in sub- arch and evidence-based policies that will ocial development. d'Ivoire, Ethiopia, Ghana, Kenya, Malawi, la, Senegal, Tanzania, Uganda, Zambia and rt in some activities but is not a full member		
Participating SGCs	Namibia, Mozambique, Rwanda,			
Themes	<ul> <li>Research management</li> <li>Design and monitor using robust STI indicators</li> <li>Strengthen knowledge transfer to private sector</li> <li>Strengthen partnerships with other SGCs</li> </ul>	<ul> <li>Research management</li> <li>Use data and evidence for policy and decision-making</li> <li>Management of research competitions for impact and development</li> <li>Strategic communication, knowledge uptake, and networking among Councils</li> </ul>		

#### Table 1 SGCI 1 and 2 Aims and Themes

 $<sup>^{\</sup>rm 25}\,SGCI$  Political Economy studies 1 and 2

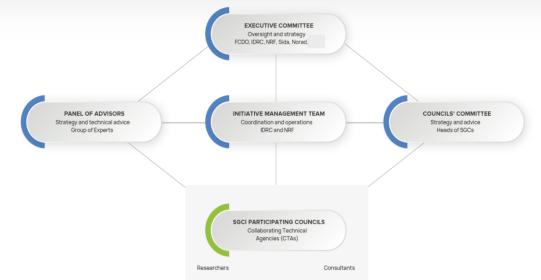
	SGCI 1	SGCI 2
		Gender equality and inclusivity
Lead Collaborating Technical Agencies (CTAs)	<ul> <li>African Centre for Technology Studies</li> <li>Southern African Research and Innovation Management Association</li> <li>New Partnership for African Development</li> <li>African Technology Policy Studies Network</li> </ul>	<ul> <li>Association of African Universities</li> <li>African Centre for Technology Studies</li> <li>Science Granting Councils</li> <li>Scinnovent Centre</li> <li>Human Sciences Research Council</li> </ul>

Source: Technopolis (2022)

## 2.2.2 SGCI governance

The SGCI's governance and management structure includes the Executive Committee (EC), a Panel of Advisors (POA), a Councils Committee (CC) and the Initiative Management Team (IMT).





Source: Governance - SGCI (sgciafrica.org)

The SGCI's governance resides primarily in an **Executive Committee (EC)** comprised of the core SGCI funders (FCDO, IDRC, NRF, Sida, and Norad). As new core funders join SGCI, they are invited to join the EC. A multi-party Memorandum of Understanding (MoU) sets out the roles and responsibilities for all funders and provides for the EC to elaborate its own terms of reference, which have been amended from time to time to accommodate the evolving needs of SGCI. Essentially, the EC provides overall oversight and strategic guidance for the Initiative.

Positioned between the IMT and the EC is the **Panel of Advisors (POA)**, composed of subjectmatter experts who provide strategic advice on various components of the Initiative based on

<sup>&</sup>lt;sup>26</sup> The DFG is an Associate Funder and joins the EC meeting once annually. DFG is not part of the Executive Committee

their individual expertise and interests. They also act as ambassadors. They participate in select meetings of the SGCI to share their views and expertise.

The **Councils Committee (CC)** is composed of the Heads of Research Councils (HORCs). The CC's role is to ensure that the SGCI activities are aligned with the needs and interests of Participating Councils and to prepare for its long-term sustainability. The CC meets annually alongside the Annual Forums.

Both phases have been organized under Themes which add detail to the overarching aim. As shown in the table above there has been an evolution of themes from SGCI 1 to SGCI 2, with the main difference being the addition of gender and inclusion, an injection of funds for SGCs to manage directly research competitions in SGCI 2 and an emphasis placed on strategic communications.

## 2.2.3 The Initiative Management Team (IMT)

The initiative has been overseen by an Initiative Management Team (IMT), composed of staff from IDRC and NRF.

The IMT is responsible for the day-to-day management of the SGCI. At IDRC, the Education and Science programming staff engaged in the IMT are based at the Centre's two regional offices in Africa (the office for Eastern and Southern Africa in Kenya and the office for Central and West Africa in Senegal) and at IDRC headquarters in Canada. They work alongside IDRC grant administration and external partnership officers, amongst others. The NRF is represented by staff from its Planning and Partnership group, based in Pretoria. NRF also brings in the expertise of its technical staff, notably relating to research excellence and grants management. Coordination among the IMT staff from the four locations is maintained through regular virtual meetings and emails, as well as participation in SGCI workshops and forums.

The IMT provides ongoing substantive guidance to the work of the CTAs, the MEL consultant, and the political economy project team, and monitors their progress against the SGCI work plan and the SGCI logframe indicators, identifying opportunities to strengthen their performance.

The IMT also interacts with the Councils to ensure the Initiative remains demand driven, prepares an annual work plan, budget and reports on progress under the SGCI, for review by the EC. The IMT is also responsible for the communication of results to the broader community. It engages with numerous key stakeholders from national and regional science systems, and brokers relationships to further position the CTAs and Councils within the African research landscape, as appropriate.

A critical component of implementing the SGCI is a robust Monitoring, Evaluation and Learning Framework. This framework has been useful in facilitating a common approach to the Initiative's implementation. It is supported by an overarching Theory of Change, a data collection tool known as the Outcome Diary Log Sheet (ODLS) and the Logical Framework which aggregates annual milestones at output and outcome levels. The SGCI organizes biannual MEL meetings with its stakeholders to review and reflect on results, progress and to share lessons. Annual Reports that document progress of activities and the lessons learnt are prepared by the IMT and submitted to the funding partners.

## 2.2.4 The Collaborating Technical Agencies (CTAs)

Implementation of the SGCI is done in conjunction with Collaborating Technical Agencies (CTAs), researchers and consultants who are recruited competitively to perform specific activities including strategic communications, monitoring, evaluation, and learning (MEL).

CTAs have been quite instrumental in implementing the initiative in phase 1 and 2. They were selected through calls for proposals to carry out capacity-building projects, using different approaches, including training, tailor-made technical assistance, peer learning, etc. in different thematic areas. Proposals are reviewed and selected according to key criteria including, to cite a few, the relevance of the proposed interventions and the capacity-building

strategy and plan, the technical feasibility of the project, and the expertise of the project team. The CTAs and allocated budgets are presented in Table 3 below.

Phase	Thematic area	Lead Collaborating Technical Agency (CTA)*	Project period	Budget
	Theme 1: Strengthening ability of Councils to Manage Research	Southern Africa Research and Innovation Management Association (SARIMA)	October 2017 – March 2020	R 6,912,960 and CA \$1,349,900
	Theme 2: Use of STI indicators to design and monitor research programs	New Partnership for African Development – African Union Development Agency (NEPAD-AUDA)	July 2017 – March 2020	CA \$1,989,000
SGCI 1	Theme 3: Strengthen ability of Councils to collaborate among themselves, and for knowledge exchange with the private sector	The African Centre for Technology Studies (ACTS)	February 2017 – April 2020	CA \$ 3,888,733
	Theme 4: Strengthen capacity of Councils to network among themselves and with other science system actors	African Technology Policy Studies Centre (ATPS)	December 2016 – February 2020	CA \$ 949,572
	Theme 1: Strengthen the ability of Councils to manage research	Association of African Universities (AAU)	April 2020 – February 2023	CAD 1,096,568
	Theme 2: Strengthen capacity for use of data and evidence in policy and decision making	African Centre for Technology Studies (ACTS)	October 2020 – February 2023	CAD 1,179,500
SGCI 2	Theme 3: Support management of research calls by Councils (No CTA)	Burkina Faso, Senegal, Côte d'Ivoire, Uganda, Tanzania, Rwanda, Zambia, Zimbabwe, Botswana, Malawi, Mozambique, and Namibia	end in February 2023	CAD 5,000,000
	Theme 4: Support Strategic communications and uptake of knowledge outputs	The Scinnovent Centre	March 2020 – March 2023	CAD 800,000
	Theme 5 : Gender and Inclusion	Human Sciences Research Council (HSRC)	August 2020 – March 2023	CAD 1,735,300

Table 2 Collaborating Technical Agencies and Thematic areas

Source: SGCI internal documentation

## 2.2.5 The Participating Science Granting Councils

The 17 SGCs which have partnered in the delivery of the programme are presented in Table 4 below.

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Region	Country	Participating agency	Nature/Autonomy	Ihematic areas	c arec	20 -			Year of establishment	Year of entry in SGCI	Amount of funds for
				Wanagement Research	Use of data	Strategic Strategic	ıeseaıcy calls Wanagement of	Gender and inclusion			research management (SGCI – 2) CA\$
East Africa	Ethiopia	Ministry of Science and Technology	Ministry	0	0		0	0		2015	N/A
	Kenya	National Research Fund	Autonomous/Fund previously working with National Commission for Science, Technology and Innovation (NACOSTI)	×	×		0	×	2013	2015	N/A
	Rwanda	National Council for Science and Technology	Autonomous/NRIF embedded in the Council	×	×		×	×	2017	2015	510,900
	Tanzania	Tanzania Commission for Science and Technology	Autonomous/Commission- mixed mandates	×	×		×	×	1986	2015	419,200
	Uganda	Uganda National Council for Science and Technology	Autonomous/Council – mixed mandates	×	××		×	×	1990	2015	400,000
Southern Africa	Botswana	Ministry of Tertiary Education, Research, Science and Technology	Ministry works with Botswana Innovation Hub	×	×		×	×		2016	423,900
	Malawi	National Commission for Science and Technology	Autonomous/Commission/ mixed mandate	×	××		×	×	2003	2015	499,900
	Mozambiqu e	Fundo Nacional de Investigação	Autonomous/Fund	×	×		×	×	2005	2015	411,800

Table 3 SGCI participating Councils' engagement

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

Year of entry	establishment in SGCI funds for research management (SGCI - 2) CA\$	2004 2015 410,500	1997 2015 511,000	1986 2015 476,800	2011 2015 400,000	2018 (FONSTI) 2015 325,200	2016 N/A	2021 N/A	2015 409,537
	Gender and research calls Management of	×	×	o ×	×	× ×	× 0	0	×
sas	Strategic communications	×	×	×	~ ×	×	×	×	×
tic are	nse of data	×	×	×	×	×	×	0	×
Thematic areas	Wanagement Research	×	×	×	×	×	0	0	×
Nature/Autonomy		Autonomous/Commission - mixed mandate	Autonomous/mixed mandate	Autonomous/Council – mixed mandate	Autonomous/Fund	Autonomous/previously working with Programme d'Appui Stratégique à la Recherche Scientifique (PASRES)	Ministry – No research funding mandate	Fund	Ministry, funds through la Direction Cénérale de la
Participating agency		National Commission on Research, Science and Technology	National Science and Technology Council	Research Council of Zimbabwe	Fonds National de la Recherche et de l'Innovation pour le Développement	Fonds pour la science, la technologie et l'innovation	Ministry of Environment, Science, Technology, and Innovation	Tertiary Education Trust	Ministère de
Country		Namibia	Zambia	Zimbabwe	Burkina Faso	Côte d'Ivoire	Ghana	Nigeria	Senegal
Region					West Africa				

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Notes :

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



**x**- marks Councils participating in the theme (It is important to note that the themes have several components/activities, and some Councils may have opted not to participate in specific elements. For example, Rwanda participates in other components of Research Management, but is not engaged in the good financial and grant practice activities).

0 – Does not participate in the theme

## 3 The external evaluation

## 3.1 Purpose and objectives

The external evaluation (EE) assesses the extent to which the Initiative – after six years of implementation in two phases – is achieving its strategic objectives. The evaluation assesses the achievements, the role of the SGCI in actual and perceived changes, and how results have been achieved, as well as key lessons learned. The evaluation recommends actions for strengthening the overall performance of the Initiative over the next four years, i.e. the period of the new SGCI partnerships involving Norad, FCDO and IDRC as well as DFG-NRF. More specifically, the evaluation sets out:

- To assess the extent to which the SGCI is positioning the Councils for influence at national, regional (Regional Economic Communities), continental STI systems (African Union), and internationally
- To examine the role of the SGCI in positioning Councils to promote research for impact (and to promote strategic partnerships for a robust research system, including supporting knowledge sharing between researchers and the private sector and the social sector) in individual countries and across sub-Saharan Africa
- To examine SGCI's contribution to new knowledge, ideas and building on existing strengths, or development of new areas of work in the context of creating resilient STI systems
- To explore the contribution of SGCI in promoting and embedding systems for genderresponsive research and grants management
- To identify key lessons learned and make recommendations to enhance opportunities for attaining SGCI objectives
- To assess the overall concept and design of the SGCI including the appropriateness and effectiveness of the implementation approach in strengthening and sustaining the performances of the SGCs over the longer term

The scope of the work covers:

- All partner countries, with a particular focus on six SGCs as representatives of the whole support provided by the SGCI
- Phase 1 and phase 2 of the SGCI, focusing on the period covered by the Sida-IDRC partnership which ends in June 2023. SGCI 1 is finalized, while SGCI 2 is at mid-term
- All themes of SGCI 1 and SGCI 2, i.e., management of research, research competitions for impact and development; designing and monitoring robust STI indicators; strengthening knowledge transfer to the private sector; strengthening partnerships with other SGCs; using data and evidence for policy and decision-making; strategic communication, knowledge uptake and networking among Councils; gender equality and inclusivity
- As units of analysis: i) SGCs, ii) selected partners (dependent on the theme), iii) selected Ministries and regional entities using research outputs, iv) established researchers that have benefited from Council grants in each of the selected countries, notably female researchers

## 3.2 Methodology

Our approach to conducting this evaluation and the methodological tools deployed are presented in the sections below. The methodology was refined during the evaluation inception phase and takes into account the needs of the primary users of the evaluation to inform key choices and prioritization.

## 3.2.1 Conceptual considerations

The evaluation tackles questions across three levels (or dimensions):

- At the programmatic level (SGCI governance, management)
- At the institutional level (SGCs and Partners)
- At the ecosystem level (Researchers, Policy Makers at national and regional levels)

All levels/dimensions were investigated first separately and through distinctive methods, but findings were then aggregated and linked across levels/dimensions to obtain a full assessment of the initiative's effectiveness and impacts.

#### 3.2.2 Evaluation matrix

#### Table 4 Evaluation matrix

Evaluation criteria	Evaluation questions and sub- questions	Proposed indicators	Tools
SCCI capacity	building activities (individual/organiza	itional)	<u> </u>
Effectiveness/ Impact	<ul> <li>Role and contribution of the SGCI in positioning the Councils for influence at national, regional, and continental STI systems</li> <li>Has the training and technical support improved the efficiency of grants management systems of the Councils?</li> <li>Has the SGCI helped the Councils to become more visible at national and regional levels?</li> <li>Are they able to participate more robustly in regional, continental, and global discourses?</li> <li>Has the SGCI helped the SGCs to influence government investments in STI system, and if so, in what ways?</li> </ul>	<ul> <li>Number of staff involved in grant management versus volume/number/themes of grants delivered through time (to be interpreted with care – on the one hand an increase signals capacity building and other the other hand a decrease signals efficiency)</li> <li>Appreciation of the improved efficiency of grants management system; appreciation by Councils' member of staff of the contribution of the training and technical support</li> <li>Mentions of the Councils in policy documents (National, public, STI), participation of the Councils in meetings at national and regional level</li> <li>Perception by high-level stakeholders of the ability of Councils to participate more robustly in discourses</li> <li>Perception of the contribution of the initiative to allow them to influence government investments in STI system</li> </ul>	<ul> <li>MEL framework indicators</li> <li>Interviews with Councils staff</li> <li>Interviews with Council management</li> <li>Interviews with Ministries and regional entities</li> <li>Interviews with funders</li> <li>Interviews with other organizations</li> </ul>
	<ul> <li>Role of the SGCI in enabling strategic partnerships</li> <li>How has the SGCI enabled partnerships between/ among the Councils and between the CTAs, and other stakeholders in the context of research and training?</li> <li>To what extent has the SGCI established partnerships with other Initiatives (including the Global Research Council</li> </ul>	<ul> <li>Perception from Councils, CTAs and other stakeholders on how partnerships were enabled</li> <li>Type of partnerships with other initiatives over the years; quality of the partnership (number of active projects, volume of funds at play, number of staff involved, theme, approach)</li> <li>Number/type of similar</li> </ul>	<ul> <li>MEL framework indicators</li> <li>Interviews with Councils staff</li> <li>Interviews with Council management</li> <li>Interviews with CTAs</li> <li>Interviews with other partners</li> </ul>

Evaluation criteria	Evaluation questions and sub- questions	Proposed indicators	Tools
	<ul> <li>Has the SGCI catalyzed other SGCI-like Initiatives?</li> <li>Has the SGCI evolved into a platform that other funders and organizations can use to engage with Africa's Councils?</li> <li>What are the challenges, risks, and opportunities?</li> </ul>	<ul> <li>projects, volume of funds at play, number of Councils and staff involved, theme, approach)</li> <li>Perception on the role of the Initiative as a platform that other funders and organizations can use to engage with, perception from funders and organizations on the same</li> <li>Perception on challenges, risks and opportunities</li> </ul>	and/or University, etc.) Interviews with Ministries and regional entitie Interviews with funders Interviews with other organizations (international)
	<ul> <li>SGCI's contribution to new knowledge, ideas and building of new fields</li> <li>To what extent have SGCI knowledge outputs been taken up, used and institutionalized by the Councils?</li> <li>Have the outputs influenced discourses on key STI issues at national, regional, continental, and global levels?</li> <li>What are some opportunities available to the SGCI to contribue contributing to new knowledge and supporting new STI fields?</li> <li>How has the SGCI contributed to building a critical mass of researchers in focus thematic/sector areas (cf Entebbe discussions)? (Drivers and pathways) (Be aware that the focus may have evolved)</li> </ul>	<ul> <li>Reports, strategies, organizational charts, description of systems and processes stemming from SGCI knowledge outputs</li> <li>Perception/description on the uptake of knowledge outputs of SGCI</li> <li>Changes in the extent to which Councils are engaging in or contributing to national, continental and global STI and related debates</li> <li>Perception of contribution of SGCI to changes in discourses</li> <li>Perception of the extent to which the SGCI is supporting new STI fields</li> <li>Perception of Councils, donors, other organizations, researchers themselves on how the SGCI contributed to building a critical mass of researchers</li> </ul>	<ul> <li>MEL framework indicators</li> <li>Interviews with Councils staff</li> <li>Interviews with Council management</li> <li>Interviews with Ministries and regional entities</li> <li>Interviews with funders</li> <li>Interviews with researchers/res arch institutions/universities</li> <li>Interviews with other organizations (international)</li> </ul>
	<ul> <li>Contribution of the SGCI in promoting gender responsive research and grants management</li> <li>To what extent has the SGCI contributed to greater attention to gender and inclusion in research management policies and practices of the Councils? And in the work of those they fund?</li> <li>How sustainable are these efforts/processes? What are the unintended effects (positive/negative)? How can these efforts be improved?</li> </ul>	<ul> <li>Comparison of gender and inclusion dimensions in research management policies and practices of Councils and those they found before SGCI and to date; perception of contribution</li> <li>Identification of new attitude, new processes, legal frameworks, process documents; perception of sustainability of efforts and processes</li> <li>Perception on potential improvements of efforts; comparison with similar support to SGC in other geographies</li> </ul>	<ul> <li>MEL framework indicators</li> <li>Interviews with Councils staff</li> <li>Interviews with Council management</li> <li>Interviews with CTAs</li> <li>Interviews with other partners</li> <li>Interviews with researchers/res arch institutions/univ rsities</li> </ul>

Evaluation criteria	Evaluation questions and sub- questions	Proposed indicators	Tools
Relevance	<ul> <li>To what extent are SGCI's capacity strengthening themes and modalities aligned with the needs of the Councils and their governments?</li> <li>Are there lessons from SGCI's adaptation to the Covid-19 pandemic?</li> </ul>	<ul> <li>Existence of an initial needs assessment of the Councils; consistency of the ToC developed (by themes and with specific modalities) to the needs assessed</li> <li>Perception of alignment of the capacity strengthening to the needs</li> <li>Perception of the initiative adaptation to the Covid-19 pandemic; identification of good practices</li> </ul>	<ul> <li>MEL framework indicators</li> <li>Interviews with Councils staff</li> <li>Interviews with Councils management</li> <li>Interviews with CTAs</li> <li>Interviews with other partners</li> <li>Interviews with Ministries and regional entities</li> <li>Interviews with Funders</li> <li>Interviews with other organizations (international)</li> </ul>
Effectiveness	How effective are SGCI's capacity strengthening themes and modalities in producing the desired changes?	<ul> <li>Outputs and outcomes from SGCI; level of achievement of intended outputs and outcomes</li> <li>Perception of effectiveness of themes and modalities to achieve outputs and outcomes</li> </ul>	<ul> <li>MEL framework indicators</li> <li>Interviews with Councils staff</li> <li>Interviews with Council management</li> <li>Interviews with CTAs</li> <li>Interviews with other partners</li> </ul>
Efficiency	<ul> <li>What are appropriate roles for the CTAs, Councils, MEL Consultant and IMT/funders in the design, management, and implementation of SGCI activities?</li> <li>What adjustments need to be made for future interventions?</li> <li>How can governance and management of the SGCI be strengthened (roles of the EC, the IMT, Councils Committee and Panel of Advisors)?</li> </ul>	<ul> <li>Description of roles in the design, management, and implementation of activities</li> <li>Perception on adequacy of roles; identification of potential improvements</li> <li>Description of governance and management; perception on adequacy; identification of potential improvements</li> </ul>	<ul> <li>Initiative reports</li> <li>MEL framework indicators</li> <li>Interviews with Councils staff</li> <li>Interviews with Council management</li> <li>Interviews with CTAs</li> <li>Interviews with other partners (if any)</li> <li>Interviews with funders</li> <li>Interviews with other organizations (international)</li> </ul>
Successes, cho	Illenges, lessons learnt and sustainabil	ity	
Successes, challenges, lessons learnt and sustainability	What are some of the key successes/ challenges of the Initiative and emerging lessons for consideration by the SGCI	Perception on key     successes/challenges and     emerging lessons	Interviews with     Councils staff

Evaluation criteria	Evaluation questions and sub- questions	Proposed indicators	Tools
criteria	questions         stakeholders (funders, IMT, and Councils)?         • What are some of the unintended outcomes that the SGCI stakeholders (funders, IMT, and Councils) need to be aware of?         • What are the potential opportunities to deepen and/or expand the work of the SGCI within the overall goal of	<ul> <li>Perception on unintended outcomes</li> <li>Perception on opportunities to deepen or expand the initiative</li> </ul>	<ul> <li>Interviews with Council management</li> <li>Interviews with Ministries and regional entities</li> <li>Interviews with CTAs</li> <li>Interviews with other partners</li> </ul>
	sub-Saharan Africa?		<ul> <li>Interviews with funders</li> <li>Interviews with researchers/rese arch institutions/unive rsities</li> <li>Interviews with other organizations (international)</li> </ul>

## 3.2.3 Description of methodological tools

We proposed a **mixed-method methodology** to conduct this evaluation, using a variety of tools to collect and generate credible evidence and respond to the evaluation questions. This methodology was designed to **generate learning** throughout the evaluation process. The following table summarizes the tools used.

Data collection/ analysis tool	Brief overview	Objectives and added value
Desk research and data analysis	<ul> <li>Collect, review and analyze available literature and documentation on SGCI (external evaluations, annual surveys, baselines studies, progress and feasibility reports, donors grant documents).</li> <li>This will include a stakeholder mapping (and a review of previous political economy analysis)</li> </ul>	<ul> <li>Understand SGCI's model, objectives, various activities, and governance structure</li> <li>Become acquainted with SGCI performance framework and procedures</li> <li>Develop a clear view of programme intended results, achieved results, partners and beneficiaries</li> <li>Map key stakeholders to fine tune the methodology and the engagement approach, and select stakeholders to be interviewed</li> </ul>
Interviews with the IMT, the SGCI Consultant, and CTAs	<ul> <li>Interviews with programme management to understand the objectives, modes of implementation etc</li> </ul>	Develop a detailed understanding of programme intended theory of change and concrete implementation
Inception workshop	<ul> <li>Interactive workshop involving the Councils, CTAs and PEA team</li> <li>Initial drafts of the logic model and ToC will be discussed and amended</li> </ul>	<ul> <li>Improve understanding of the programme objectives and mechanisms</li> <li>Ensure utilisation-focussed orientation of the design and methods</li> <li>Produce a complete draft of the ToC</li> </ul>

Table 5 Proposed	data	collection	tools fo	or the	SGCI	evaluation
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Data collection/ analysis tool	Brief overview	Objectives and added value
Interviews programme/engagement with SGCs (4-10 interviews per Council for the deep dives)	<ul> <li>Interviews (one-to one), group discussions with select Research Councils / direct beneficiaries</li> </ul>	Gain a first-hand understanding of past and current stakes of SGCI, strengths and weaknesses of the different activities, results and achievements thus far as perceived by stakeholders, issues encountered and recommendations for the future of SGCI
Interviews with the research community (5 interviews per country)	<ul> <li>Interviews with established researchers</li> </ul>	<ul> <li>Collect perception of research community on changes, improvements and remaining expectations</li> </ul>
Interviews with external stakeholders (ministries, regional entities, partners, other organizations) (5 interviews per country)	<ul> <li>Interviews with selected ministries, regional entities, partners, other organizations</li> </ul>	Gain a first-hand understanding of external stakeholders' perception of SGCI's and effects of capacity strengthening activities on Councils
Workshops with Councils/stakeholders	<ul> <li>1 workshop with each of the select Councils to validate the findings (validation workshop)</li> <li>1 workshop inviting all Councils and the CTA</li> </ul>	<ul> <li>Present and discuss key findings for validation with each of selected Councils</li> </ul>
Recommendation workshop	<ul> <li>Closed workshop with the client team to discuss the key findings options for change and recommendations</li> </ul>	<ul> <li>Present and discuss key findings</li> <li>Co-construct actionable and relevant recommendations for the network</li> </ul>

As part of the inception phase the EE reconstructed a ToC and built a consolidated table of the projects' results based on document review and interviews (this consolidated table was presented as a separate document together with the interim report).

## 3.2.4 Selection of the countries for the case studies

The countries were selected for the case studies based on their level of participation in the SGCI objectives. To address all the evaluation questions, we considered countries that have participated as comprehensively as possible, with a high level of participation in the project activities. General responsiveness, regional representation, and legal status and level of autonomy were also key considerations in the countries selection as this might significantly influence the outcomes of the participation in the project. The key criteria considered in consultation with the IMT are listed as follow:

- Geography/region
- Language (French speaking, English speaking, Portuguese speaking)
- Type of Council (autonomous/embedded within ministries) drawing on the mapping of stakeholders and/or political economy analysis
- Coverage of the themes / activities organized by CTAs
- Year of establishment (i.e., as a tentative indicator for pre-existing capabilities/need for support)
- Staffing as an indicator of responsiveness, as in-depth analysis requires having enough interlocutors in the ecosystem

The combination of these criteria led us to select the following countries.

• **Eastern Africa**: Rwanda and Uganda: Rwanda is a newly established Council but very dynamic. It has been setting up structures drawing, to some extent, on its experience within

the SGCI since 2015. For example, NEPAD supported Rwanda to develop/refine data collection tools for the STI survey and Rwanda engaged with SARIMA (including independently) in aspects of research management. Uganda is among the oldest Councils, and there is active engagement from staff

- Southern Africa: Botswana and Malawi: Botswana has been consistently active since 2016 and has introduced the Botswana Innovation Hub as a collaborator in the SGCI. Botswana is also an example of a Council working within a Ministry. Malawi is an example of an autonomous Council which has been consistently active since 2015. Through seed funding from SGCI Malawi has now activated an innovation fund
- West Africa: Senegal and Burkina Faso: Senegal is an example of a Ministry-led Council, and Burkina is categorized as autonomous. Despite working from within the Ministry, Senegal manages the granting function relatively well (even with delays). Burkina Faso (FONRID) has managed to increase funding for research. FONRID has increased the number of staff engaging with the SGCI and the DG has been personally actively engaged in the SGCI since the first meeting in 2015

## 3.2.5 Challenges encountered and limitations of the current study

This evaluation of the SGCI covers the two phases of the initiative, one of which is still ongoing. The evaluation is retrospective with respect to the data collected, assessing outcomes and impacts from 2015 to mid-2022.

The evaluation team faced the following difficulties and limits to the data collection process:

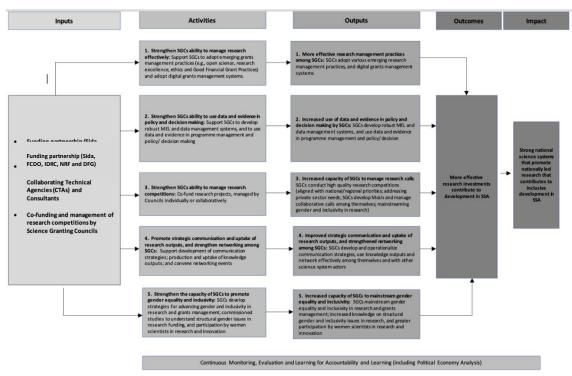
- The main challenge encountered by the EE team was engagement with the Councils. Initially planned over one month, from May to June 2022, data collection lasted more than 3 months with irregular participation of the Councils, despite regular reminders and communications from the IMT. The EE team was unable to engage with the local STI ecosystem in some countries (notably in Senegal and Rwanda). Some Councils mentioned a high workload and low availability to participate in both the evaluation and the activities of the CTAs and the initiative's management team
- As a result, the EE slightly amended the methodology used. Notably, instead of organizing individual validation workshops with the selected Councils to present the initial findings at Councils' level, case study reports were sent in digital form to the Councils for their comments
- Similarly, the EE team experienced limited engagement of some CTAs. As a result, the EE team focused most of its data collection on desk research and their own assessment of the knowledge outputs produced
- The EE team was not able to sufficiently investigate the way in which beneficiary Councils were selected and the nature of any commitments they may have made in signing up to participate in the programme
- Due to the iterative nature of the EE exercise, some aspects of the impact pathways were constructed a posteriori to the data collection. The EE, therefore, could not fully capture the information needed, which limited the evaluation
- The reconstructed Theory of Change (developed by the team as part of the evaluation methodology and validated) was not consistent with the results presented by the CTAs and the current MEL framework. This therefore needed further investigation during the evaluation.

## 4 Impact pathways and early results

## 4.1 The proposed Theory of Change

The SGCI had initially developed a following Theory of Change (Toc) revised for SGCI 2:





#### Source: SGCI MEL reports

The EE developed a more detailed ToC to guide in depth data collection (see table 8 below). To be noted:

- From Phase 1 to Phase 2 thematic areas (TAs) were sightly amended (TA3 and 4) and a TA on gender was added.
- There are numerous crosscuts between different TA. Although TA4 is a specific thematic area (which has changed over time) dedicated to linking with the ecosystem and strategic external communication, there are also other communication activities by each CTA. For example, the workshop in Senegal at the end of Phase 1 was organized by ACTS under Theme 3 but was inclusive to all themes/ CTAs/ SGCs and became more of a closeout workshop for the whole of Phase 1. Similarly, gender considerations were substantially mainstreamed in all the thematic areas.
- Hence the ToC developed for the EE aimed at capturing at best what has been implemented and the subsequent results, with the caveat that it is presented in silos, while in reality there is fluidity amongst the TAs.
- Outputs considered are differentiated between these at CTAs level and at SGCs level. Additionally, some outputs for some Councils could be considered as early outcomes or even mid-term outcomes for others. For a matter of simplification and clarity, and since no ToC is available as of yet at Councils level, the evaluation team grouped results in what is considered an overarching view of a generic pathway to impact.

Long term outcomes/impact	• Strengthened and effective Councils will support research that contributes to economic and social development in their countries
Mid-term outcomes	More effective     research     management     practices among     SGCs
Early outcomes	<ul> <li>GCs have shifted in mindset in understanding the value of grant management systems</li> <li>GCs have adopted emerging grants management practices</li> <li>SGCs have adopted digital grant management systems that allows securitization of data and supports MEL</li> <li>SGCs share best practices on grant management (with peers/researcher funders)</li> <li>Creation of a grant (with peers/researcher funders)</li> <li>Creation of a grant (with peers/researcher funders)</li> <li>Creation of a grant (with peers/researcher funders)</li> </ul>
Expected Outputs	<ul> <li>At CTAS level</li> <li>Training material on grant management and MEL frameworks elaboration (Phase1)</li> <li>Grant management guidelines (Phase1)</li> <li>Grant management practice (Phase2)</li> <li>Pre-certification assessments (Phase2)</li> <li>Pre-certification assessments (Phase2)</li> <li>Digital call management modules (Phase2)</li> <li>Digital call management modules (Phase2)</li> <li>Case studies on research ethics (Phase 2)</li> <li>Case studies on research quality and framework (Phase 2)</li> <li>Mathematical and framework (Phase 2)</li> <li>Curriculum on research quality and framework (Phase 2)</li> <li>Mathematical and framework (Phase 2)</li> <li>Curriculum on research quality and framework (Phase 2)</li> <li>MEL framework (Phase 2)</li> <li>MEL framework (Phase 1)</li> <li>Mel framework (Phase 1)</li> <li>Mel framework (Phase 1)</li> <li>Mel framework (Phase 1)</li> <li>Curriculum on research quality framework (Phase 1)</li> <li>Curriculum on research quality frameworks (Phase 1)</li> <li>Curriculum on research quality framework (Phase 1)</li> <li>Mel framework (Phase 1)</li> <li>Mel framework (Phase 1)</li> <li>Curriculum on research quality frameworks (Phase 1)</li> <li>Curriculum on research quality framework (Phase 1)</li> <li>Curriculum on research quality frameworks (Phase 1)</li> <li>Crants management manual systems</li> </ul>
Thematic area SGCI support activities Expected Outputs	<ul> <li>Training sessions (8 online) on grant management and MEL frameworks- groups based on maturity (Phase1)</li> <li>Introduction of a professional competency framework (Phase1)</li> <li>One-to-one tailored technical assistance to Councils on their MEL framework (Phase1)</li> <li>Dene-to-one tailored technical assistance to Councils on their MEL framework (Phase1)</li> <li>Learning visits, study tour to NRF and benchmarking exercises (Phase1)</li> <li>Irainings and TA on good financial grant practice (precertification assessment) (Phase 2)</li> <li>Support to establish on-line grant management system (Phase 2)</li> <li>Iraining session on the digitalization of the grant management system (Phase 2)</li> <li>Conducted national/regional case studies on research ethics (Phase 2)</li> <li>Development of Curriculum on Research quality and framework (Phase 2)</li> </ul>
Thematic area	Strengthen the ability of Councils to manage research (Theme 1 Phase 1 & 2)

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Long term outcomes/impact	Hypothesis: • SGC align their activities with government priorities for economic development • SGC influence governments and wider stakeholders	Councils are recognized as valued peers in the regional/national community Strengthened and effective Councils support effective research that contributes to economic and social development in their countries' RDI system is more mature and is contributing to sustainable
Mid-term outcomes Lo	Hypothesis: • Shift in mindset concerning the added value/importance of evidence-based policies • SGCs hold transparent calls • SGC well connected to their STI system	<ul> <li>Increased cooperation and collaboration between participating Councils, local private sector and SGCs</li> <li>Increased knowledge transfer between stakeholders</li> <li>Established research groups</li> <li>Funds leveraged from national governments</li> </ul>
Early outcomes	<ul> <li>Hypothesis:</li> <li>Right stakeholders mobilized and trained and little turnover</li> <li>Grant management systems are adapted/rightly designed for sustainability in use Information packaged in a suitable way for policy audience</li> <li>Receptiveness of policymakers on receiving feedback that addresses immediate and long-term issues by citizens</li> </ul>	<ul> <li>SGCs have developed their own communication strategy and action plans</li> <li>SGCs have developed and secured partnerships with the private sector</li> <li>SGCs have improved capacity in managing cross-country research and scientific collaborations and managing collaborative research grants.</li> </ul>
Expected Outputs	<ul> <li>Peer-to-peer groups set up (Phase 2)</li> <li>Revised MEL frameworks and individualized work plans (Phase 2)</li> <li>Hypothesis:</li> <li>Enough budget</li> <li>Right expertise mobilized and trained</li> <li>Right stakeholders mobilized and trained</li> <li>The SGCs incorporate learning outputs to update their policies and manuals</li> </ul>	<ul> <li>At CTAs level</li> <li>Training manual/toolkit on strategic communication (Phase 1)</li> <li>Social media how-to-guide (Phase 1)</li> <li>Needs assessment on design and management of cooperation agreements (Phase 1)</li> <li>Training material on cooperation agreement management (Phase 1)</li> <li>Training material on cooperation agreement management (Phase 1)</li> <li>Attribution of tunding for calls (Phase 1)</li> <li>At SGCs level</li> </ul>
SGCI support activities	<ul> <li>Promotion of peer-to-peer learning and knowledge exchange between Councils and local STI experts (Phase 2)</li> <li>Project systems set up and development of individualized work plans with Councils (Phase 2)</li> </ul>	<ul> <li>Training course on communication (Phase 1)</li> <li>Training workshop on "strategic communication and engagement with the private sector (Phase 1)</li> <li>Research grants funding (Phase 1)</li> <li>Forum on public-private partnerships (PPPs) for research and innovation (Phase 1)</li> <li>Joint research project calls (Phase 1)</li> <li>Needs assessment and training on designing and managing cooperation agreements (Phase 1)</li> </ul>
Thematic area		Strengthening Partnerships among Affica's Science Granting Councils and with the Private Sector/ Support management of research calls by Councils (Theme 3 Phase 1 & 2)

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Long term outcomes/impact	development and the resolution of pressing challenges	Effective science Granting Councils strengthen national science systems,
Mid-term outcomes	Hypothesis: • Relevance of the research call thematic area to national and / or regional development plans • Governments invest funds to co-fund research calls with the SGCI	<ul> <li>Strong Networks of SGCs and Science System Actors discuss the region</li> </ul>
Early outcomes	<ul> <li>Hypothesis:</li> <li>Shift in midset concerning the added value/importance of collaborations</li> <li>SGC empowered/aligned to priorities so as to convince national governments to raise funds available to support new priorities/challenges</li> </ul>	<ul> <li>SGCs and Science System Actors have created networks</li> </ul>
Expected Outputs	<ul> <li>15 country and institution-specific communication action plans (Phase 1)</li> <li>Barriers to effective PPPs identified by the participants (Phase 1)</li> <li>Participation to forum on PPP for research and innovation (Phase 1)</li> <li>Public-private partmership for research and innovation (Phase 1)</li> <li>Public-private partmership for anong SGCs (Phase 1)</li> <li>Public-private partmership for anong SGCs (Phase 1)</li> <li>Public-private partmership for among SGCs (Phase 1)</li> <li>Public partmerships with the research teams (Phase 2)</li> <li>Built partmerships with the research teams (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> <li>Calls for proposals under grants from IDRC (Phase 2)</li> </ul>	<ul> <li>At CTAs level</li> <li>Masterclasses and masterclasses papers</li> </ul>
SGCI support activities	<ul> <li>Training to design, negotiate and manage cooperation agreements (Phase 1)</li> <li>Monitoring funded projects and synthesizing lessons in consultation with the Councils (Phase 1)</li> <li>Providing training for SGCs on STI policy processes (Phase 1)</li> <li>Attribution of twelve SGC grants for management of research competitions (Phase 2)</li> </ul>	<ul> <li>Four (4) Annual Forums (Phase 1)</li> <li>Two (2) Annual Regional Meetings (Phase 1)</li> </ul>
Thematic area		Building networks among Science Granting

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Icomes Long term outcomes/impact	SII issues, provide and lead to recommendations inditinality led research that collaboration frameworks with frameworks with science systems Enhanced capacity of the Councils to coordinate and facilitate other science system actors and influence policy and practice frunds leveraged from national governments	Acreased • Increased capacity knowledge on of SGCs to structural gender mainstream and inclusivity issues gender and in research inclusivity in Greater research and participation by
Mid-term outcomes	• • •	• •
Early outcomes	<ul> <li>SGCs are equipped to develop their own strategic communication plans</li> <li>SGCs demonstrate impact of their work and make stronger cases for increased government support and investment in S11</li> <li>SGCs are using interactive and linked up knowledge and experience sharing platforms among themselves</li> <li>Budget to conduct the activity secured</li> <li>Skilled and trained staff is available to implement the activity</li> <li>Low turnover</li> <li>Activities of SGCs are aligned with national priorities</li> </ul>	<ul> <li>Councils are sensitized to gender in STI and research</li> <li>Councils equipped to monitor gender indicators</li> <li>Councils have tested change through experiments</li> </ul>
Expected Outputs	<ul> <li>3 Policy Briefs, 3 Research Papers, 4 Journal articles, 1 Book Chapter</li> <li>An SGCI Khowledge Management (KM) Strategy</li> <li>Strategic Communication Facilitation Guide and training handbook</li> <li>Online MEL Framework</li> <li>Online MEL Framework</li> <li>At SGCs level</li> <li>6 key meetings (Regional meeting and annual forum)</li> <li>Tools and strategies for strategic communication</li> <li>Hypothesis:</li> <li>Right expertise selected</li> <li>Right expertise selected</li> <li>Right expertise selected</li> <li>SGCs participated effectively to the sessions</li> </ul>	<ul> <li>At CTAs level</li> <li>Assessments of SGCs needs and baseline survey</li> <li>Training material on gender analysis and planning</li> <li>At SGCs level</li> </ul>
SGCI support activities	<ul> <li>Masterclass on new approaches for funding research and innovation in Africa (Phase 1)</li> <li>Training workshops on building networks (Phase 1)</li> <li>Publication-quality research papers/ reviews on key STI themes (Phase 1)</li> <li>Two case studies under the theme of Political Economy and Public-Private partnerships (Phase 1)</li> <li>Training and technical support (Phase 1)</li> <li>Training and technical support (Phase 2)</li> <li>Masterclass papers (Phase 2)</li> <li>Development of tools and strategies for strategic communication (Phase 2)</li> <li>Virtual creative workshop on Strategic Communications and knowledge Management (Phase 2)</li> </ul>	<ul> <li>Hold discussions with Councils on the issue of gender in STI and research</li> <li>Organize policy dialogue sessions on the sides of key regional events</li> <li>Support baseline survey to dotomic bout to CCCC</li> </ul>
Thematic area	Councils and with other Science System Actors/ Stratedic communicatio ns and uptake of knowledge outputs [Theme 4 Phase 1& Phase 2]	Gender and Inclusion (Theme 5 Phase 2)

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Long term outcomes/impact		SGCI is successful
Mid-term outcomes	research and innovation	<ul> <li>SGCI is well- governed and implemented</li> <li>Hypothesis:</li> <li>The donors have compatible objectives in supporting the SGCI</li> </ul>
Early outcomes	<ul> <li>Hypothesis:</li> <li>Inclusivity requires positive discrimination</li> <li>Councils rightly decide what are measurements are/should be, in relation to their readiness for change</li> <li>The policy environment enables readiness for change</li> </ul>	<ul> <li>SGCI is reoriented when necessary</li> <li>Hypothesis:</li> <li>The governance system is well rounded and allows for decision making on the SGCI</li> </ul>
Expected Outputs	<ul> <li>Gender frameworks, policies and guidelines</li> <li>Appointment of a gender focal point</li> <li>A gender and Social Inclusion Strategy</li> <li>Gender MEL indicators integrated in MEL data collection tool according to own agenda</li> <li>Participation to change experiments</li> <li>Participation to change experiments</li> <li>Participation to change analysis</li> <li>The gender mainstreaming framework was accepted by Councils.</li> </ul>	<ul> <li>Evidence to support assessment of relevance and performance of the SGCI</li> <li>Evidence to pilot the SGCI</li> <li>Hypothesis:         <ul> <li>The MEL framework is well rounded and captures the activities performed and results: gender balance</li> </ul> </li> </ul>
SGCI support activities	<ul> <li>national goals for gender equality and inclusivity</li> <li>Support Councils to develop gender framework, policy or guidelines</li> <li>Advocate for appointment of a gender focal person within the Councils</li> <li>Train Councils in gender analysis and planning</li> <li>Incorporate gender</li> <li>Incorporate gender</li> <li>consideration in MEL data</li> <li>collection tool (SiR)</li> <li>Include gender balance as a selection criterion of participants at SGCI events</li> <li>Assign roles to women during SGCI events</li> <li>Series of workshops on gender and inclusivity</li> <li>Peer learning</li> <li>Research on meaning of gender and exclusivity in the context</li> </ul>	<ul> <li>Political economy studies</li> <li>MEL support</li> <li>MEL support</li> <li>IMT meetings &amp; executive committee (implementation/piloting)</li> <li>Advisory board meeting (governance)</li> </ul>
Thematic area		Support activities to the Initiative

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<ul> <li>4.2 Training and knowledge outputs</li> <li>4.2.1 At Thematic area level</li> <li>4.3.1 At Th</li></ul>	i the activition the quality	of participants at SGCI events is well round for adjustme for adjustme	is well rounded and allows for adjustments id grants through the SGCI.	
<ul> <li>4.2 Training and know</li> <li>4.2.1 At Thematic area I</li> <li>4.2.1 At Thematic area I</li> <li>The table below presents i</li> <li>Table 7 CTA level outputs</li> <li>Table 7 CTA level outputs</li> <li>Thematic area</li> <li>Thematic area<!--</th--><th><pre>/ledge outputs level level the outputs from the activities of t the outputs g outputs practice guidelines on the quality of the competitions (French, English, uese)</pre></th><th>he CTA which receive Knowledge outputs</th><th>d grants through the SGCI.</th><th></th></li></ul>	<pre>/ledge outputs level level the outputs from the activities of t the outputs g outputs practice guidelines on the quality of the competitions (French, English, uese)</pre>	he CTA which receive Knowledge outputs	d grants through the SGCI.	
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Table 7 CTA level outputs       Thematic area     Training       Good r     Good r       Theme 1:     Portugi       Strengthening ability     Generia	<b>g outputs</b> practice guidelines on the quality of ch competitions (French, English, uese)	Knowledge outputs SGCI research managem		
ability	g outputs practice guidelines on the quality of ch competitions (French, English, uese)	Knowledge outputs SGCI research managem		
	practice guidelines on the quality of ch competitions (French, English, uese)	SGCI research managem		
of Councils to Manage Research Contra Digital grants	Generic Manual for management of research grants (French and English) Course guides for Research Grants and Contracts Management Digital Call Management Modules of the grants management system	Capacity needs assessment survey : Publication: Perspectives on Gender Saharan Africa's Science Granting C Publication: Scaling up Professionaliz Publication: Strengthening the Role o Integrity in Research and Innovation	SGCI research management newsletters Capacity needs assessment survey : Building sustainable research management in SGCs in SSA Publication: Perspectives on Gender in Science, Technology, and Innovation: A Review of Sub- Saharan Africa's Science Granting Councils and Achieving the Sustainable Development Goals Publication: Scaling up Professionalization of Research Management in Southern Africa Publication: Strengthening the Role of African Science Granting Councils in Promoting Ethics and Integrity in Research and Innovation	gement in SGCs in SSA ation: A Review of Sub- ble Development Goals Southern Africa s in Promoting Ethics and
Theme 2: Use of STI Impact indicators to design and monitor research programs	Impact Oriented Monitoring Guide Course guides for Programme Evaluation	Publication: African Innovation Outlook III Policy Paper 1: Using Micro-Data to Unde Innovation System: The Case of Ethiopia Policy Paper 2: Capacity Strengthening o for SGCs in Sub-Sahara Africa	Publication: African Innovation Outlook III Policy Paper 1: Using Micro-Data to Understand the Interactions within National Research and Innovation System: The Case of Ethiopia Policy Paper 2: Capacity Strengthening on Economic Subsector Innovation Performance Systems for SGCs in Sub-Sahara Africa	lational Research and ion Performance Systems
Theme 3: Strengthen ability of Councils to collaborate among themselves, and for knowledge exchange with the private sector (French	Course guides for Intellectual Property Course guides for Technology Transfer and Commercialization Course guides for Research Ethics and Integrity Science, Technology and Innovation (STI) Science, Technology and Innovation (STI) Policy Training for Africa: A basic module on reconciling theory, practice and policies (French and English	Baseline assessments of public-private partnershi sub-Saharan African Science Granting Councils Building Science Systems in Africa: Conceptual F Policy briefs (15) and draft/ submitted journal pa Policy brief: Political economy insights for science Policy brief: Building a competitive and socially in West Africa through enhancing research, innovo Policy brief: Role of Intellectual Property and Tec	Baseline assessments of public-private partnerships in research and scientific cooperation in 15 sub-Saharan African Science Granting Councils Building Science Systems in Africa: Conceptual Foundations and Empirical Considerations Policy briefs (15) and draft/ submitted journal papers 3 Policy brief: Political economy insights for science system transformations in sub-Saharan Africa Policy brief: Building a competitive and socially inclusive local pharmaceutical manufacturing in West Africa through enhancing research, innovation and intellectual property Policy brief: Role of Intellectual Property and Technology Transfer for the Sector	ntific cooperation in 15 cal Considerations s in sub-Saharan Africa eutical manufacturing in operty Sector

Long term outcomes/impact

Mid-term outcomes

Early outcomes

Expected Outputs

Thematic area SGCI support activities

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Thematic area	Training outputs	Knowledge outputs
	Training manual on strategic communication and engagement with private sector (French and English) Regional IP Training Workshop Report Policy brief outline Scinnovent training	Policy brief: Role of Research, Innovation, and Development Policy brief: Strategies for Enhancing Affordability through Procurement & Related Policy Incentives for the Sector Policy brief: Strategies for Human Resource Development for the Sector Policy brief: Exploring the role of public-private partnerships in health systems strengthening: Experiences from Southern Africa Policy brief: Pharmaceutical Partnerships for Increased Access to Quality Essential Medicines in the East Africa Region Policy brief: A study and Analysis of the Science Technology and Innovation (STI) Ecosystem of Chana Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthening in Southern Africa Poster - PPPs and Health System Strengthen Poster - Poster - Poster - Poster - Post
		Papers: Biomass gasification for decentralized electricity generation in Malawi Papers: Development and transfer of innovation technologies for farm-level cocoa processing and use of by products Papers: Introduction of Solar powered technologies to the smallholder dairy industry in Malawi
		Papers: Optimization of rice production in the Nanan rice perimeter (Yamoussoukro-Côte d'Ivoire)
Theme A: Strendthen		Policy Paper : Open Science in Research and Innovation for Development Policy Paper : Research Excellence in Africa: a discussion paper on perceptions and measurement
capacity of Councils to network among themselves and with	Strateoric Communication Eacilitation Cuida	Policy Paper : Effective public-private partnerships in research and innovation Policy Paper : Towards Effective Public-Private Partnerships in Research and Innovation: A Perspective for African Science Granting Councils;
other science system actors/ strategic	and Training Handbook.	Policy Paper : Public-Private Partnerships in Research and Innovation: Opportunities and Barriers for African Science Granting Councils
communication		Policy Paper : New Approaches for Funding Research and Innovation in Africa, African Technology Policy Studies Network
		Publication: New approaches for funding research and innovation in Africa
		Publication: Open innovation and innovation intermediaries in SSA Publication: New Approaches for Funding Research and Innovation in Africa, African Technology Policy Studies Network

Thematic area	Training outputs	Knowledge outputs
		Publication: Optimising governance capabilities for research and innovation in Africa Publication: Financing African scientific research, translational activities and innovation - the
		crialieriges and rays of hope SGCI newsletter footprints Policy brief: A national framework for research, innovation and commercialization in Ghana
		Policy brief: Biomass gasification for decentralised electricity generation in Malawi
		Policy brief: Building the capacity of small-scale cocoa farmers to conduct on-farm fermentation in Uganda
		Policy brief: The SGCI empowering Africa through innovation
		Policy brief: Promoting ethics and integrity in research and innovation for development in Africa: the role of Africa's science granting councils
		Desk study: how research granting councils and similar organizations have approached social inclusion (process and outcomes)
		SGCI Knowledge Management (KM) Strategy
		MEL Online Framework
Theme 5: Gender and inclusion (HRSC,	Course guides for Gender in Science, Technology and Innovation	Strengthening gender and inclusivity in the national system of science, technology, and innovation (STI): country profiles (Malawi, Namibia, Botswana) Summary of the rapid review of representations of and actions on gender & inclusivity (G&I) in the Science Granting Council Initiative phase one project document
SGCI 2)		Strategy to Mainstream Gender and Social Inclusion in Science Granting Councils in Sub-Sahara in Africa
Source: Applied reports CTAs websites	rte CTA e waheitae	

Source: Annual reports, CTAs websites

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# 4.2.2 At SGCI level

### Table 8 SGCI level knowledge outputs

Kno	owledge outputs
•	Case Studies of the Political Economy of Science Granting Councils in Sub-Saharan Africa (Kenya, Rwanda, Tanzania, Ethiopia and Senegal)
•	The political economy of science granting councils in sub-Saharan Africa: defining a role for science funding in low and middle income countries
•	Publication: Transforming Research Excellence: New Ideas from the Global South
•	Policy brief: How do political economy factors influence the evolution of science funding in SSA
•	Intersectionality in African research: Findings from a systematic literature review
•	African open science platform – landscape study
•	Political Economy Analysis of the Councils
	SCCI knowledge outputs inventory and monitoring tool

- SGCI knowledge outputs inventory and monitoring tool
- Science granting councils initiative online monitoring and evaluation system: user manual

Source: document review and triangulation of data by Technopolis 2022

# 5 Responses to evaluation questions

The following sections bring responses to the evaluation questions. Evaluators want to underscore that councils are at different stages of progress, due to their intrinsic differences, but also to their ability to translate lessons learned into concrete actions and the responsiveness of their own ecosystem. Therefore, the intended effect of the programme is seen at different degrees with respect to each council.

5.1 The role of SGCI in positioning the Councils for influence at national, regional and continental STI systems

Figure 4 Key findings on positioning the Councils for influence at national, regional and continental STI systems

- The SGCI has contributed to position the Councils more visibly in their national STI system. It allowed Councils to make significant progress in their core mandate of funding research, enabling the successful launch of joint research calls with other SGCs and international funding partners. However, the capacity of the SGCs to influence government investments in the STI system is still low. Only three councils have reported some progress in this respect.
- The SGCI has contributed to position the Councils more at the regional and continental level. Councils are more represented and participate massively in the major continental and global research community meetings. Several participating countries have co-hosted (virtually or in co-production) the hosting of these high-level meetings. However, there is still room for improving their participation in the global or regional discourses.

This sub-chapter describes the evaluation findings concerning the role of SGCI in positioning the Councils for influence at national, regional and continental STI systems.

The Councils' influence draws on their ability to manage research grants, to use data and evidence in policy and decision making, to foster partnerships at national and regional level with the private sector and other SGCs, to develop strategic communications, to mainstream gender.

This influence is revealed through the nature and content of their participation in global and regional discourses, their visibility at both national and regional levels, but more importantly, their capacity to drive government investments - as this is both a key constraint to and driver of functional STI systems.

The combined effects of SGCI capacity-strengthening activities, the transfer of knowledge outputs, and funding then co-funding research calls, aimed at resulting in a greater influence of SGCs at the local, regional and continental levels.

# 5.1.1 Has the training and technical support improved the efficiency of grants management systems of the Councils?

Overall, the initiative has made a significant contribution to the progress of Councils in the area of research grant management systems. Councils have improved their existing grant management practices and, while most councils are still in a process of migration to digital grant management system, some have managed to operationalise theirs.

The SGCI sought to support Councils in their ability to manage research with an expectation that participating Councils saw benefit from more than the direct outputs (e.g., training material, grant management guidelines, case studies and curricula). Interviewed Councils all reported that they gained the skills and experience and can showcase the benefits of science

granting management to support national priority policies. These comments have been corroborated by the interviews with the research communities who acknowledged the significant progress that the various Councils have made in the management of research.

The case of Uganda, which has completely digitized its grants management system, is a success story replicated in Burkina Faso and other countries with various levels of implementation. Rwanda has reported being able for the first time, after ten years of existence, to manage the entire procedure of a research call for projects without the involvement of international expertise. Malawi has upskilled in science granting, including cooperation at bilateral and trilateral levels.

Councils also mentioned having begun to share best practices on grant management (with peers/researcher funders) and/or are expected to begin to do this in the next wave.

As baseline indicators of grant management efficiency are lacking at the Council level, it can be challenging to assess the increase in level of efficiency in research grants management which can be attributed to the initiative. The successful conduct of joint calls for joint research projects organized by the Councils themselves illustrates the extent to which the training and technical support have been effective, however.

As corroborated by discussions with some high-level stakeholders, staffing is an important indicator of the level of influence and efficiency a SGC want to achieve. As Councils have become more active in grant management the number of staff in the Grant management division may have increased, which would be a signal of potential capacity building.

Our findings indicate that grant management is in most Councils one division in the broader Council structure with a small team in place. Some Councils had a grant manager in place before they had a grant (e.g., Rwanda). Therefore, the ratio of staff to grant is not an effective indicator of efficiency in terms of grant management in this case, and also Councils are still in their early years and have not reached maturity to have such indicators.

None of the Councils mentioned that the structural changes that have occurred had an impact on staff numbers. Although it can be assumed that the SGCI contributed to this outcome, for some Councils, these changes in structure are independent of participation in the SGCI, and for the most part, are contingent on the normal evolution of the Councils. For example, at the beginning of the initiative, FONRID was staffed with less than 10 people, including the support team and now there are 42 people working in the entire department. Nevertheless, the staff dedicated to grant management remains very low.

The availability of sufficient human resources to participate in capacity-building activities is also a challenge for some organizations, especially those under the authority of a ministry (Senegal, Botswana, Namibia).

A deep analysis of capacity building activities reveals **some aspects to be strengthened in order to increase the benefits for the Councils**, **especially under the first two thematic areas**. Some Councils have found that most of the activities have not produced tangible results, especially during the SGCI 1 - apart from specific activities such as the study tour to the Uganda Council for the implementation of a digital grants management system, and the training sessions on grants management.

Out of 13 Councils, 5 reported they have adopted emerging grants management practices and only one effectively uses a digital grant management system that allows for the security of data necessary and supports the MEL. Regarding theme 2 specifically, we did not find any evidence to the effect that the Impact Oriented Methodology (IOM) approach taught by the CTA in charge has been used by the Councils for project design and implementation. Few Councils have been able to use indicators to design and monitor R&D programs, support data management, knowledge sharing, and prioritize investments.

For phase 2, which is halfway through its implementation, many Councils have not yet benefited from the activities related to theme 1. However, the exposure that this initiative has

given them and the sharing of experiences between participating organizations have contributed significantly to the progress made.

All the thematic areas of the initiative have the ability to contribute to some extent to the objective of increasing the efficiency of the Granting Councils in their core mission of managing grants. There is the potential for cross fertilization across the thematic areas where activities implemented under separate components contribute to the overall goal of building their capacity in research grant management. Under thematic area 3 of the SGCI 2, several Councils already gained first-hand experience in managing grants, certainly applying the knowledge gained in the other thematic areas. This can be further explored and revealed to the Councils as sources of efficiency which they may not have considered, like developing good quality budget proposals, which is an important skill for financial resource mobilization.

It is also important to note that for most Councils, the impact and outputs of the SGCI activities in which they participated have only recently become visible, for example, FONSTI organized training for its officers in the digital grant management system in the third quarter of the year 2022. This reflects that it takes time for some beneficiaries to assimilate and translate the capacity-building activities and technical support received into concrete actions, especially in terms of impacts.

It may also reflect the fact that Councils have different starting points in terms of capacity and mandates and therefore the visibility of results is dependent on their level of absorption and the match between the activities they have participated in and their actual capacity-building needs.

5.1.2 Are SGCs able to participate more robustly in regional, continental, and global discourses? Has the SGCI helped the Councils to become more visible at national and regional levels?

The SGCI has made an important contribution to positioning the Councils more visibly at the **national level**. Several Councils have testified that they gained more visibility and impact on the research system due to their participation in SGCI. According to their perception, which was corroborated by further interviews and desk research, the capacity building activities in research management, and the launch of research calls for projects, (the number of which has increased thanks to SGCI funding in both phases) contributed significantly to this outcome.

The Councils have also gained visibility through increased communication on their activities and frequent meetings with stakeholders in the national STI ecosystems. From the perception of some national STI ecosystem actors and documentation reviews, these communication activities and the increased proactivity of the Councils have helped them being more noticeable and to position themselves as pivotal players in their national science systems<sup>27</sup>.

Regionwide, the visibility of the Councils has enhanced due to the successful joint calls funded by the initiative and its partners, like the AJ CORE project to cite a few. These activities, including the calls managed individually, have also increased the influence of the Councils at national level, as highlighted by the example of Botswana, where 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.

Likewise, organizing and hosting high-level scientific meetings has increased the visibility of the Councils at both national and regional levels. Several Councils co-hosted the regional events with NRF, except for the 2017 and 2021 editions which were hosted respectively by NSTC (Zambia) (physical session) and by RCZ (Zimbabwe), FONRID (Burkina Faso) and DRST

<sup>&</sup>lt;sup>27</sup> Cf Case studies report

(Botswana), in a virtual session.<sup>28</sup> These events have helped to improve the visibility of the institutions at the regional level. We have also noted an increased participation of Councils in these events and in other regional initiatives since the implementation of the SGCI, which illustrates the contribution of the initiative to the achievement of this goal. The Councils are also taking more initiatives and organizing high-level regional meetings on the priority issues of the moment. This is the case in Côte d'Ivoire (FONSTI) with the organization of an International Multidisciplinary Colloquium on governance,<sup>29</sup> which aims to make a comprehensive review of the state of knowledge on Governance in different thematic areas. This output can be interpreted as a perfect illustration of greater visibility at the national and regional levels and participation in regional and continental discourses.

From the interviews, only one Council commented on the visibility outcome at a continental and global level, so it appears that the participating Councils see themselves as far from this level of outcome or have not really incorporated it as a key progress indicator to monitor. This view from the Councils on their visibility at the continental and global levels indicates there is still room for improvement to reach the level of influence/visibility they wish to achieve.

On the robustness of their participation in the global or regional discourses, we do not have enough material or grounds to provide an evaluative statement. The topics discussed in these sessions are often of a strategic and advocacy nature. Assuredly, several activities were conducted to elevate the Councils' profiles, notably by participating and hosting high level meetings of the global science community, including the Annual and regional Meetings of the Global Research Council. In these events, Councils were represented in most cases by the HORC either as panellists or rapporteurs. However, we could not identify evidence regarding the strength in global or regional discourses.

In contrast, at the SGCI meetings, research findings from participating countries are often presented and discussed. These events are also an opportunity to present and discuss the masterclass papers commissioned in both phases of SGCI, evidence that the knowledge produced by the programme have been used and institutionalized by the Councils.

# 5.1.3 Has the SGCI helped the SGCs to influence government investments in STI system, and if so, in what ways?

At this stage of the program implementation, **the results regarding the ability of the SGCs to influence government investments in STI system are mixed**. Only 3 countries, Malawi, Rwanda, and Senegal have said that they are able to demonstrate the impact of their work and make a stronger case for increased government support and investment in STI. For Rwanda and Senegal, it translated into a project to develop a national STI policy. For the remaining, it is an expected midterm outcome and there is little evidence on the Councils' influence on investing in the STI system. However, in contrast, it seems that for newly established Councils there is a noticeable enthusiasm and renewed interest in research and innovation, particularly in Burkina Faso which was able to leverage additional public funding during the Covid-19 pandemic and for Botswana, the government is keen to establish a national research fund.

Unfortunately, for some countries, a shift in the government priorities may have hampered their ability to achieve a similar outcome. In the case of Uganda, the ministry in charge of STI was dissolved in 2021 and the granting Council sits under the Ministry of Finance Planning and Economic Development. This new situation may prove to be an advantage, but in general having a ministry dedicated to the topic of STI makes lobbying/ advocacy more effective.

At the regional level there is evidence, in particular, of less mature Councils being able to advocate more effectively with governments. This is already happening with more mature

<sup>&</sup>lt;sup>28</sup> <u>https://globalresearchcouncil.org/meetings/regional-meetings/</u>

<sup>&</sup>lt;sup>29</sup> <u>https://news.abidjan.net/articles/710100/cote-divoire-gouvernance-et-developpement-en-afrique-au-centre-dun-collogue-international-a-yamoussoukro</u>

Councils. However, beyond advocacy there is little evidence of increased government investment in STI and other concrete outcomes.

# 5.2 Role of the SGCI in promoting research for impact through strategic partnerships in individual countries and across sub-Saharan Africa

#### Figure 5 Key findings on strategic partnerships

- SGCI has enabled partnerships among the Councils and with other stakeholders by supporting Councils in phase 1 to design, negotiate and manage cooperation agreements and in phase 2 co-financing collaborative calls launched by SGCs themselves, based on the learning and capacity built during the first phase.
- SGCI has engaged with several important global research institutions, notably, but not limited to, the Global Research Council (GRC), the Belmont Forum, and the Transformative Innovation Policy Consortium.
- The SGCI successfully catalyzed other SGCI-like Initiatives and evolved into a platform that other funders and organizations can use to engage with Africa's Councils. The German Research Foundation (DFG) joined the SGCI in December 2019, the Japan Science and Technology Agency launched the African-Japan Collaborative Research on Environmental Science (AJ-CORE) initiative, the OR Tambo Research Chairs Initiative (ORTARChI) has funded 10 research chairs in seven SGCI countries.

This sub-chapter describes the evaluation findings concerning the role of SGCI in enabling strategic research for impact through partnerships between the SGCs and knowledge sharing with the private sector and other actors in the research and innovation ecosystem. The ability of SGCs to drive national research and innovation ecosystems and ultimately contribute to economic growth and societal development relies crucially on the strategic partnerships with other system actors nationally and internationally.

Support for strategic partnerships was available in both phases of the SGCI Theme 3 – both under the project Strengthening partnerships among Africa's Science Granting Councils and with the private sector and then under the project to Strengthen the ability of Science Granting Councils to manage research competition for development impact.

Whereas the overall goal in phase 1 was to strengthen the capacity of participating SGCs to establish partnerships with each other, and to foster public-private linkages through training and partnership agreements, the focus in phase 2 shifted to the implementation of calls for proposals by the Granting Councils themselves, based on the experience and learnings from phase 1 activities.

5.2.1 How has the SGCI enabled partnerships between/ among the Councils and between the CTAs, and other stakeholders in the context of research and training?

During SGCI phase 1, the theme was implemented in two related components: (a) strengthening the capacity of Councils to foster knowledge transfer to the private sector and, (b) supporting Councils to design, negotiate and manage cooperation agreements. This involved training and dissemination activation, cross-council partnerships, and support for public-private partnerships. For SGCI phase 2, additional focus was on the implementation of collaborative calls by the SGCs themselves, based on the learning and capacity built during phase 1.

### 5.2.1.1 Training and dissemination

Under phase 1, the theme including several training and capacity building activities were completed, including drawing lessons from the funded projects (see below). The key outputs

from these activities are listed in the table below. The majority of these documents are currently (October 2022) available through the resource section of the SGCI website.<sup>30</sup>

Table 9 Key training materials produced

Description	Quantity
STI Policy workshop (March 2019)	1
Leading to the production of training manual on STI policy	
Intellectual Property Rights workshop (June 2019)	
Baseline assessments of PPPs in 15 SGCs	15
Policy studies on Public-private partnerships	3
- Pharmaceutical manufacturing (West Africa)	
- Health and Industrialisation (Southern Africa)	
<ul> <li>Pharmaceutical Partnerships for Increased Access to Quality Essential Medicines (East Africa)</li> </ul>	
Policy briefs based on projects	15
Journal papers (submitted)	3

Source: Final SGCI-1 Report (Oct 2020); Theme 3 final technical report (Feb 2020)

Although these activities were appreciated by the participating SGCs, the Councils consulted for case studies tended not to highlight these among the most important results from Theme 3, focusing instead on collaborative agreements and projects (see below).

## 5.2.1.2 Partnerships between Science Granting Councils

Collaboration agreements and collaborative projects were among the key activities for the SGCs under theme 3. During the course of phase 1, nine collaborative agreements have been concluded involving 14 SGCI Councils. Seven collaborative projects were implemented. The Theme 3 CTAs, led by the ACTS, further carried out project visits along with the SGCs to speak to national research actors and project PIs.

The main activity supported under Theme 3 in SGCI 2 was support for Science Granting Councils to implement funding calls. This involved several steps:

- Identifying key priorities of mutual interest.
- The SGCI invited the 15 participating SGCs to submit proposals for the joint or individual calls for proposals (September 2019)
- SGCs implement the joint calls in collaboration

As of August 2021, 12 Councils had funded a total of 77 projects, the majority of which were still ongoing.<sup>31</sup> This included some 32 bilateral and 9 trilateral projects.<sup>32</sup>

Specific partnerships were signed at regional level to frame these collaborations among SGCs. Among them:

<sup>32</sup> Ibid, p. 21

<sup>&</sup>lt;sup>30</sup> https://sgciafrica.org/themes/cooperation-projects-resources/ (Accessed 20 October 2022)

<sup>&</sup>lt;sup>31</sup> SGCI2 Annual Technical Report, July 2020-June 2021, August 2021 - Appendix 2.

- the Ivorian FONSTI has signed a partnership agreement with the Uganda National Council for Science and Technology and the Burkinabè Fonds National de la Recherche et de l'Innovation pour le Development (FNI);
- the Ghanaian MESTI has entered into a partnership agreement with the the Uganda National Council for Science and Technology
- the NCST of Malawi has signed partnership agreements with the National Science and Technology Council of Zambia, Mozambique, Research Council of Zimbabwe and Department of Science and Innovation (DSI) of South Africa.

### 5.2.1.3 Public-private partnerships

Several Councils identified a relative lack of engagement with the private sector as an important reason for participating in the SGCI.

A total of 10 SGCs committed to private sector engagement with co-funding pledges during SGCI Phase 1. Six SGCs have engaged in activity to build partnerships with the private sector. 10 projects involving public-private partnerships were funded in four countries (Côte d'Ivoire, Malawi, Mozambique and Uganda), and two Councils (Botswana and Ghana) were supported to develop private sector engagement strategies.<sup>33</sup>

Under SGCI Phase 2, about half of the 77 projects supported by the councils included private sector participation at various levels.<sup>34</sup> Several SGCs have reported clear benefits from the PPP-related activities under SGCI.

- For example, a PPP grant was awarded to the Botswana Institute for Development Policy Analysis (BIDPA) to develop a private sector engagement strategy for STI in Botswana. The project was concluded in 2019 and the strategy has now been further developed in consultation with national stakeholders and a draft has been submitted to the government (Botswana case study)
- There are also examples of projects results contributing directly to societal challenges: For example, a SGCI funded biogas project in Malawi is now supplying gas to local stakeholders. This project has enhanced public private partnership, while testing and establishing a marketing model. Other households now want to know how they can access the biogas too (NCST case study)

### 5.2.1.4 Managing research competitions

The Councils clearly appreciated the opportunity to have a more direct role in the implementation the joint calls under Phase 2. For example, the NCST (Malawi) stated that being able to directly manage the funds for research is a real improvement. Other Councils report having "increased its ability to foster cross-country research collaborations", "improved capacity in managing cross-country research and scientific collaborations and managing collaborative research grants" (Uganda).

### 5.2.2 To what extent has the SGCI established partnerships with other Initiatives?

The primary example of SGCI engaging with other existing initiatives has been the Global Research Council (GRC). The NRF and PASRES/FONSTI (Côte d'Ivoire) hosted the GRC regional meeting for Sub-Saharan Africa in November 2020. This provided an opportunity to discuss the impact of the Covid-19 crisis and potential research priorities for international collaboration. The GRC's 2020 Annual Meeting was subsequently hosted in Africa for the first time (although

<sup>&</sup>lt;sup>33</sup> "Theme 3 : Strengthening partnerships among Africa's Science Granting Councils and the Private Sector – Final Project Technical Report", February 2020, p. 11

<sup>&</sup>lt;sup>34</sup> Ibid. The report text (p. 21) states that 41 of 78 projects included private sector involvement, whereas Appendix 2 suggests that 37 of 77 projects did so.

virtually) by the NRF in collaboration with UKRI. Key topics included mission-oriented research and public engagement.<sup>35</sup> One SGC representative highlighted the importance of the opportunities they had to meet people from other councils and attend classes to support their effort to embed international good practice in within their national council. Another SGC representative noted that closer engagement with the GRC had provided access to funding opportunities. Indeed, interview evidence suggests that the interfaces between GRC and SGCI was important in the DFG's decision to become an associate funder in the SGCI (see below).

SGCI has also provided the opportunity for participating SGCs to be part of projects organized by the Belmont Forum, an international partnership coordinating national funding for research on environmental change. As part of the "Transdisciplinary Research for Ocean Sustainability" initiative, six projects with SGCI participation are now supported, following a call funded by Sida and managed by the NRF.<sup>36</sup>

Further, the SGCI supported the participation of 3 SGCI countries (Kenya, Senegal and Ghana) in the Transformative Innovation Policy Consortium (TIPC) in the period from October 2018 to February 2020. TIPC is a group of STI researchers, policymakers and funding organizations aiming to contribute to the adoption of new transformative innovation policies and practices.<sup>37</sup> With mentoring from the NRF, the three countries completed an exploratory phase to establish an 'Africa Hub' for the TIPC<sup>38</sup> and were able to engage with other members of the consortium during its annual meeting in 2019.<sup>39</sup>

Participation in activities of other international forums provide useful visibility for the SGCI and its members, and also exposes SGCs to international practice in policy and funding collaboration. Few SGCs brought this up when asked to describe the primary benefits of the SGCI, however.

5.2.3 Has the SGCI catalysed other SGCI-like Initiatives or evolved into a platform that other funders and organizations can use to engage with Africa's Councils?

Several new initiatives have been organized with support from international partners, using the SGCI as a platform to support and fund joint research in Sub-Saharan Africa:

- The German Research Foundation (DFG) joined the SGCI as an "Associate Funder" in December 2019 and provided supplementary funding for selected projects originally funded under SGCI phase 1. In collaboration with the NRF, the DFG provided funding for up to 3 years (2021-2023) to continue research and capacity-building activities in order to increase impact. The selection process involved two stages: An initial Expression of Interest from the SGCs providing evidence of their capacity to manage the granting process, followed by an assessment of the quality of the proposed research project. Three projects were funded with up to R1.5 million per project
- African-Japan Collaborative Research on Environmental Science (AJ-CORE) initiative was launched by the Japan Science and Technology Agency in collaboration with the NRF. Two calls have been implemented so far, funding projects from a number of SGCI Councils<sup>40</sup>
- The Covid-19 Africa Rapid Grant Fund (CARGF) was launched with conceptualisation and funding from the SGCI funding partners to support projects that address research questions and implement science engagement activities associated with Covid-19 in select countries

<sup>&</sup>lt;sup>35</sup> SGCI Annual Technical Report, August 2021, pp. 35-36.

<sup>&</sup>lt;sup>36</sup> Ibid., p. 37.

<sup>&</sup>lt;sup>37</sup> https://www.tipconsortium.net/about/

<sup>&</sup>lt;sup>38</sup> https://www.tipconsortium.net/regional\_hub/tip-africa-hub/

<sup>&</sup>lt;sup>39</sup> SGCI-1 Final report, October 2020, p. 39

<sup>&</sup>lt;sup>40</sup> See for example: <u>https://www.jst.go.jp/inter/english/program e/announce e/announce aj-</u> <u>core\_2nd.html</u> (accessed 20 October 2022)

in Sub-Saharan Africa. The initiative covered three main strands of activity: 1) research, 2) science engagement: support to science and health journalists and communicators, and 3) science engagement: support to science advisers. Although managed by the NRF in collaboration with IDRC, with funding also from South Africa's Department of Science and Innovation (DSI), Fonds de Recherche du Québec (FRQ), Sida, UK Research and Innovation through the Newton Fund, SGCs were involved in multiple ways: in co-designing the call, disseminating the call information, screening applications, and monitoring projects, among other things. 80 projects were selected for funding, including 41 in research, 5 in science advice and 34 in science journalism<sup>41</sup>

• The OR Tambo Research Chairs Initiative (ORTARChI) has funded 10 research chairs in seven SGCI countries. With The NRF, the Oliver and Adelaide Tambo Foundation, and IDRC as partners, the chairs were announced in October 2020 for an initial five-year term. In Burkina Faso, for example, an award for two co-chairs at Université Joseph Ki-Zerbo has helped establish a centre of excellence in cancer research at the university.<sup>42</sup> A year into the implementation phase, scientific staff and research students have been recruited, and the chair is contributing to improving the accuracy of data collected by the cancer registries in the country<sup>43</sup>

These initiatives are all highly relevant to the objective of building strategic partnerships and case studies have revealed that these were highly appreciated by researchers and SGCs. For SGCs this includes gaining additional experience with the management of collaborative research calls and addressing national priorities, e.g., sustainable development of the mining sector in Botswana and improving public-private partnerships in Rwanda.

Researchers consulted for the study were also very positive about these opportunities, although they were not always aware of the role played by their national SGCs.

### 5.2.4 What are the challenges, risks, and opportunities?

The partnership building activities under SGCI have revealed a huge interest among, and benefit to, the participating SGCs. There are clearly opportunities to expand the partnerships and learn from international collaboration, as well as engaging with a variety of actors from the national research and innovation ecosystem. Partnership activities have already produced examples of economic and societal impacts, and this is likely to continue in the coming years as results from the funded activities materialize more fully.

SGCs clearly see opportunities to build on SGCI activities to develop partnerships, both international and inter-sectoral, in the future. It has clearly been a benefit for the SGCs to be given a more central role in the implementation of joint calls, with the increased opportunity of 'learning by doing' in the implementation of collaborative call. SGCs with a degree of autonomy within the national system appear be better able to take advantage of these opportunities.

The primary risk and challenge related to the development of strategic partnerships is that of sustainability. Many SGCs have made progress and improved their capabilities in terms of managing calls, but there are several potential risks associated with a discontinuation of support:

• Many SGCs still cite availability of funding and staff as major challenges, and this is also likely to limit their ability to continue partnership activities beyond SGCI.

<sup>&</sup>lt;sup>41</sup> SGCI Annual Technical Report, August 2021, pp. 34-35.

<sup>&</sup>lt;sup>42</sup> See Burkina Faso case study in the appendix volume.

<sup>&</sup>lt;sup>43</sup> https://www.nrf.ac.za/one-year-of-implementing-the-o-r-tambo-africa-research-chair-in-researchand-action-against-cancer/

- A finding from SGCI-1 was that small amounts of funding for PPPs could act as a catalyst for further collaboration, but the ability to scale up is likely to require additional resources and capabilities that cannot be taken for granted.
- Previous findings also suggested that established research institutions tended to be much more successful in implementing projects than less established ones. There may still be a need to support emerging institutions and countries where such institutions are not yet well embedded. Looking at overall target metrics for the SGCI as a whole can therefore be misleading in so far as targets might be met by focusing on institutions that are perhaps less in need of support.

# 5.3 SGCI's contribution to new knowledge, ideas and building of new fields for resilient STI systems

### Figure 6 Key findings on contribution to knowledge

- SGCI knowledge production has been dense and diverse. It has mainly been driven and worn by the CTAs which produced policy papers, policy briefs and research papers.
- At the regional level, it has influenced to a large extent the discourses on key STI issues.
- However, overall, Councils have only to some extent taken up, used and institutionalized knowledge outputs. At this stage, knowledge outputs on discourses on key STI issues remains low. Cross-border collaborations, collaborative research calls, networking, and partnerships have been probably much more effective than knowledge outputs generated.
- Joint research projects at national and regional levels have emerged. These are key opportunities for producing new knowledge and supporting new STI fields.
- The SGCI has not directly contributed per se to building a critical mass of researchers in focus thematic/sector areas while SGCI funds research activities and not researchers. However, by increasing the funding envelope allocated to research in participating councils, SGCI has contributed to boosting research and enabled many scientists to return to research.

This sub-chapter seeks to explore the contribution of SGCI in creating new knowledge, ideas and even new research fields. The SGCI contribution emanates from its production of knowledge outputs, and their uptake by SGCs so that they, themselves, contribute to funding research and strengthening new research fields.

SGCI has put emphasis on the capacity of Councils to manage research, which includes the enhancement of individual skills developed in research work, the quality of the research environment, the availability of funding and adequate research infrastructure, research incentives, time available to the researcher, etc.

While the adequacy of public funding is a crucial condition, there are several concrete programmatic initiatives that could be taken by the national Councils themselves. These include improvements in the management of research, identification and concentration on areas of strength, and pooling resources with other institutions, supporting academics in obtaining funding to undertake research and then supporting the management of those projects, etc. During the SGCI intervention (phase 1 and 2), activities were carried out to generate new knowledge for Councils to acquire the necessary expertise for achieving the above objectives.

# 5.3.1 To what extent have SGCI knowledge outputs been taken up, used, and institutionalized by the Councils?

The knowledge outputs generated through the various activities carried out by SGCI under theme 2, 3 and 4, have been used by the Councils to institutionalize the use of relevant instruments or the design of appropriate strategies to address some of their most pressing needs/challenges and adopt solutions to these as described in the chapter's introduction.

As already described in the other chapters on findings, but wrapped up here, the uptake of knowledge under the initiative resulted in the following:

- Online grants management system has been developed and streamlined in some Councils (e.g., Kenya). Training material and grants management manuals were developed. Digital research management systems have been designed and operationalized.
- Councils including Rwanda and Senegal for instance which have realized the challenge of engaging the private sector in funding research, institutionalized incentives for private sector engagement.
- Political commitment to the creation of a national S&T fund or to re-structure the existing fund has emerged following SGCI's activities along with the need for countries to develop their national STI policies. This is the case in Senegal.

In general, all Councils have institutionalized knowledge outputs to some extent. Cross-border collaborations and collaborative research with the pooling of resources, the joining of other international networks probably much more than knowledge outputs geared towards the improvement of internal processes.

It also appears that the regional approach and the emergence of formal or informal networks between the participating Councils are very positive. This peer-to-peer learning has enabled some Councils to make quick and sustained improvements and their ability to deliver their mandate. Even South Africa, which indirectly participates in this initiative as a stakeholder (NRF) has been able to benefit from this exchange and has improved its grant management system by drawing on good practices from Uganda, despite their level of sophistication otherwise compared to other SGCs<sup>44</sup>.

However, it is important to highlight that compared to the amount of knowledge outputs produced, few have really been taken up, used, and institutionalized. The knowledge actually used is mostly related to themes 1 and 3, which was more readily exploitable, judging by the number of Councils that have optimized their grant management system.

An in-depth analysis of some of the documents produced led us to some findings: the quality and content of some of the knowledge outputs is questionable; some knowledge outputs are not easily available for some Councils as they are offered primarily in English, with no translation in French and Portuguese.

5.3.2 Have the outputs influenced discourses on key STI issues at national, regional, continental, and global levels?

At national level, the key STI issues for the Councils are manifold. Their capacity to ensure that research is aligned with national priorities is an important one. Their capacity to orchestrate research activities within their national ecosystem including private sector engagement country-wide is equally important. Their capacity to influence the share of funds allocated to research in the national budget and thereby to be recognized as a central piece of the RDI system in the country is also a major challenge. Finally, Councils must be the ones ensuring that the policy framework for STI is in place and conducive. In some countries (e.g., Rwanda, Uganda, Malawi, Burkina Faso) this change in discourse is clearly taking place while in other

<sup>&</sup>lt;sup>44</sup> Notes from interviews with stakeholders

countries (e.g., Senegal), this affirmative action of the Council is not that pronounced in all areas where it might be.

At regional level, the outputs produced by the initiative have influenced to a large extent the discourses as many of them were presented during regional meetings of STI actors and SGCs. It should be recalled that in one thematic area of the initiative (TA 4 in both phases) one of the main activities was to organize annual SGCI forums alongside GRC regional meetings. These sessions were opportunities to share and discuss the masterclass papers commissioned by the initiative. For example, for SGCI Phase 1, the key topics addressed in these high-level discussion papers were "Research Excellence in sub-Saharan Africa", "New Approaches for Funding Research and Innovation in Africa", "Open science in research and innovation for development in Africa", which are cross cutting issues in African STI systems.

Councils and also governments have clearly raised the importance of increasing the funding allocated to research. Consequently, Councils are now actively looking at ways to increase research funds either by influencing the national budget (e.g., Rwanda) and governments are looking at ways to restructure research funds to avail more funding resources (e.g., Senegal).

On the importance of national, regional, and continental/international partnerships there is no doubt that the outputs have raised awareness on the need to strengthen partnerships among Africa's Science Granting Councils and private sector and to leverage networking opportunities offered by SGCI to join other international funding consortia. This issue was addressed in a masterclass paper in the 2017 SGCI annual forum in Zambia, "Towards Effective Public-Private Partnerships in Research and Innovation. There is a consensus on the benefits of being engaged in cross-border research collaboration.

Another key issue of Councils is their capacity to drive or to be part of collaborative research projects and to build capacity through peer-to-peer learning. On this important issue of driving cross-border collaborations and reaping the benefits of pooling resources, discourses are clearly evolving in the right direction. All Councils have underscored the benefits of transnational research collaborations.

At continental and global levels, it is unlikely that the knowledge outputs of the initiative have influenced the discourse on key STI issues.

The themes of the SGCI Masterclass sessions are direct recommendations of the SGCs on topical issues that are important to them and other science system actors. The same applies to the papers and other publications that have been produced. They are context-specific or the analysis of an important global issue under the lens of the African context.

Councils must be able to attract funding from other funding agencies, be part of other research funding networks, and be recognized as a central actor of national RDI systems. Some Councils have reported the long-term benefits of joining the SGCI. For example, a researcher from Rwanda reported that while under SGCI he had the opportunity to collaborate with researchers in Kenya, this opportunity led to a longer-term research project funded by the Australian government. The same holds for the Councils in Senegal and Burkina Faso, reporting the fact that joining SGCI gave them opportunities to join other networks.

The importance of research outputs and outcomes from a policy perspective is also emerging but not yet sufficiently recognized.

As for the appropriation and dissemination of these elements of knowledge outside their traditional circles of influence and exchange, we have insufficient information to make a judgement.

5.3.3 What are the opportunities available to the SGCI to continue contributing to new knowledge and supporting new STI fields?

SGCI has contributed to knowledge mostly to improve the overall management of research with a strong focus on funding research but not researchers. It will add value that Councils build

the capacity to also fund PhD researchers through dedicated scholarships. This could be a steppingstone towards fostering career paths for researchers as the next steps could be postdocs and maybe the establishment of research chairs.

Joint research projects at national and regional levels have clearly emerged as opportunities for collaboration among Councils. Strengthening further the capacity of Councils to manage such projects, if there is a need, constitutes an opportunity to build new knowledge.

An area that has been underdeveloped by the Councils under SGCI 1 & 2, is the policy perspective. How scientific research can inform the design of innovative national policies. Building capacity and awareness on the importance of policy design early in the RDI process is essential to foster the uptake of research outputs by society.

Given the interest in joint collaboration shown by Councils, it might be opportune for the SGCI to introduce mission-oriented research focusing on critical matters facing sub-Saharan Africa. This would enable researchers from participating Councils to collaborate on projects that are locally relevant but remain unexplored avenues for research.

5.3.4 How has the SGCI contributed to building a critical mass of researchers in focus thematic/sector areas?

There is no strong evidence that SGCI contributes to building a critical mass of researchers, most because SGCI funds research activities and not researchers. SGCI contributes, in the main, to increasing the funding envelope allocated to research, to fostering cross-border collaborative research and thereby capacity building among researchers from neighbouring countries but these activities do not have a noticeable impact on the critical mass of researchers in focus thematic/sector areas. To achieve such a goal, combining the funding of both researchers and priority thematic areas is an avenue to explore. Some Councils have acknowledged that the boost provided by SGCI funding has enabled many scientists to return to research, but the lack of internal KPIs at the Councils' level makes it impossible to capture such effects.

# 5.4 SGCI's contribution to the creation of gender responsive research systems and grants management

Figure 7 Key findings on gender and inclusion

- The SGCI has contributed to a greater focus on gender and inclusion by Councils that have been sensitized to the need to take gender and inclusivity into consideration in their grant management processes and in STI in general. A quarter of the projects funded involve at least one female Principal Investigator, and two-thirds have female researchers.
- However, the results achieved so far are not sufficient to support the ambition to make gender and inclusion streamlined in SGCs operations. There is little evidence yet to show that the activities set out in the strategy have led to the intended outputs and outcomes.
- Gender and inclusion are emerging areas for most of the councils and are not systemized in their research and grant management policies. Efforts must be made to promote the integration of gender and inclusion in the operationalization of SGCs in a more sustainable way. An improvement at the initiative level will consist of a holistic approach to gender and inclusion issues across all Councils, that can simultaneously be tailored to take into consideration the context and stage of progress of each SGC.

This sub-chapter seeks to explore the contribution of SGCI in promoting and embedding systems for gender responsive research and grants management systems. It does this by examining the activities, outputs, and outcomes of the SGCI intervention, whilst cross-referencing the above criteria and the research questions.

Gender and inclusion are globally recognized as a necessary foundation for sustainability.<sup>45</sup> It is goal five in the United Nations Sustainable Development Goals. Progress has been made in the areas of increased participation of girls and women in education, parliamentary positions, and positions of leadership.<sup>46</sup> Laws and initiatives have been reformed to include gender and inclusion.<sup>47</sup> There are still many challenges including discriminatory laws and social norms, underrepresentation, and exposure to physical and sexual violence. Additionally, the Covid-19 pandemic has exacerbated existing inequalities for women and girls across every thematic area, from security, to health, to economy and social protection.<sup>48</sup>

There has been a mass of literature that recognizes the importance of science, technology and innovation as fundamental to driving national economic growth, contributing to the improved well-being of individuals and the national community.<sup>49</sup> It is globally recognized that science and gender are vital to the achievement of the Sustainable Development Goals.<sup>50</sup> There is a significant gender gap throughout all levels of science, technology, engineering and mathematics disciplines across the world.<sup>51</sup> There has been a large global effort to inspire and engage women in science, and significant progress has been made, yet there are still many challenges and barriers to equal access and participation.<sup>52</sup>

The African continent is no exception, with growing appreciation of STI and emerging examples of good practice.<sup>53</sup> However, there are several challenges, including increased inequalities around the areas of opportunity, wealth and power.<sup>54</sup> There has been a steady increase in emphasis from African policy makers and organizations to integrate gender and inclusion into STI policies and initiatives, yet inequality persists as a key challenge to sustainable development on the continent.<sup>55</sup> For example female representation in science academies on the continent ranges from as little as 4% to 13%, and only 30% of researchers in the region are women.<sup>56</sup> Additionally, most countries in which the SDG's are placed lack national gender disaggregated data to monitor attainment of gender SDG's.<sup>57</sup>

<sup>52</sup> ibid.

<sup>&</sup>lt;sup>45</sup> <u>https://www.un.org/sustainabledevelopment/gender-equality/</u>

<sup>&</sup>lt;sup>46</sup> ibid

<sup>&</sup>lt;sup>47</sup> <u>ibid</u>

<sup>&</sup>lt;sup>48</sup> ibid

<sup>&</sup>lt;sup>49</sup> Innovation: A Review of Sub-Saharan Africa's Science Granting Councils and Achieving the Sustainable Development Goals. Perspectives on Gender in Science, Technology, and. <u>www.frontiersin.org/articles/10.3389/frma.2022.814600/full</u> www.frontiersin.org/articles/10.3389/frma.2022.814600/full

<sup>&</sup>lt;sup>50</sup> https://www.un.org/en/observances/women-and-girls-in-science-day

<sup>&</sup>lt;sup>51</sup> ibid.

<sup>&</sup>lt;sup>53</sup> Innovation: A Review of Sub-Saharan Africa's Science Granting Councils and Achieving the Sustainable Development Goals. Perspectives on Gender in Science, Technology, and. www.frontiersin.org/articles/10.3389/frma.2022.814600/full www.frontiersin.org/articles/10.3389/frma.2022.814600/full

<sup>&</sup>lt;sup>54</sup> ibid.

<sup>&</sup>lt;sup>55</sup> ibid.

<sup>&</sup>lt;sup>56</sup> (2022, March 8). Strengthening capacities of Science Granting Councils in advancing gender and inclusivity transformation: the SGCI intervention SGCI. sgciafrica.org/gender-and-inclusivity/

<sup>&</sup>lt;sup>57</sup> (2022, March 8). Strengthening capacities of Science Granting Councils in advancing gender and inclusivity transformation: the SGCI intervention SGCI. sgciafrica.org/gender-and-inclusivity/

5.4.1 To what extent has the SGCI contributed to greater attention to gender and inclusion in research management policies and practices of the Councils? And in the work of those they fund? What are the unintended effects (positive/negative)?

There is significant evidence that progress has been made by SGCs in their increased sensitization to gender and inclusion in STI. For example, in interviews with the SGCs, most acknowledged the need to take gender and inclusivity into consideration in their grant management processes. Many were exposed to discussions on gender and inclusivity, and some, such as the NCRST (Namibia), expressed keenness to take learnings on gender and inclusivity into future rounds. All the Councils have emphasized and included aspects of gender and inclusivity in their calls.

A quarter of the projects funded involve at least one female Principal Investigator, and two thirds have female researchers.<sup>58</sup>. At the initiative level, in 2017, the SGCI developed a Gender Mainstreaming Framework and Action Plan which was subsequently updated to include specific indicators and targets. At the CTA level, gender disaggregated data is collected as part of CTA reporting.

However, there appears to be a disconnect between ambition and outputs. It is important to acknowledge that change takes time, and it is normal for mid-longer-term outputs to take longer to materialize. Yet, it would be advantageous to see a higher level of progress, in terms of taking the Councils beyond the stage of sensitization and towards mainstreaming gender and inclusion systematically and holistically in the management of their research systems. Progress is diverse and sporadic. There are many references to activities, in the annual reports, yet evidence is limited on outputs, outcomes, and impact. Part of this may be explained by the late addition of the HSRC as a CTA. Another consideration includes the impact of the Covid-19 pandemic and the growing dependence on virtual meetings.<sup>59</sup> Part of this could also be explained by gender and inclusion taking a marginalized role in the hierarchy of priority of the core five thematic areas of the SGCI among the Councils.

Building on the activities of SGCI-1, in 2019 SGCI supported the Global Forum on Women in Scientific research (GoFoWIsEr), organized by the African Women in Agricultural Research and Development. Senior representatives from Burkina Faso, Malawi, Mozambique, and Zimbabwe contributed on the role and experiences of Councils in supporting gender equality. The meeting was attended by 300 participants, 86% of whom were women, from 29 countries in Africa, Europe, and the USA. The main theme discussed included<sup>60</sup>:

- Investing in women's skills and networks
- Sustainable career pathways
- The role of institutions and research institutions in addressing systemic inequalities

The forum contributed to a higher understanding of how the Councils can participate in reducing inequalities.

SGCI-2 built on the lessons learnt during SGCI-1, and formally included the new thematic area of gender and inclusion. This included the addition of a CTA to support the mainstreaming of gender and inclusivity approach in the Councils development, implementation, and monitoring of gender policy, programs and research with the intent of achieving lasting and systemic change.<sup>61</sup>

<sup>&</sup>lt;sup>58</sup> Sida - SGCI 2 Project Year 3 Technical Report August 2021

<sup>&</sup>lt;sup>59</sup> SGCI 2 Project Year 3 Technical Report August 2021

<sup>&</sup>lt;sup>60</sup> Sida - SGCI 2 Project Year 2 Technical Report November 2020

<sup>&</sup>lt;sup>61</sup> Sida - SGCI 2 Project Year 2 Technical Report November 2020

After numerous iterations, HSRC was chosen as the supporting CTA, in partnership with Gender at Work Africa and the Council for the Development of Social Science Research in Africa (CODESRIA). In parallel HSRC was funded by DFG (German Research Foundation) to undertake a study on intersectionality in research within the context of research funding in Africa, in collaboration with the South African National Chapter of the Organization for Women in Science for the Developing World (OWSD).<sup>62</sup>

The HSRC Strategy stipulated that activities undertaken would include<sup>43</sup>:

- A report with country level synthesis on gaps and best practice on gender and inclusivity
- A report on Council capacities, needs and gender inclusivity operational processes (strategies, policies, implementation plans, reviews etc.)
- Peer reviewed articles on gender and inclusivity approaches based on SGC experiences and a Policy Brief on best practices in resourcing SGCs towards gender and inclusivity
- Provision of support in ensuring that the SGCI MEL framework is gender mainstreamed
- Development of guidelines for adapting institutional gender and inclusivity reporting systems
- Development of an updated grant manuals, tools and checklists from a gender lens
- Development of a model on gender impact assessment
- Development of a model contract for public private partnerships
- Strategy to Mainstream Gender and Social Inclusion in Science Granting Councils in Sub-Sahara in Africa

There is little evidence as of yet to show that the activities set out in the strategy (which have been undertaken) have led to the intended outputs and outcomes.

There are several examples of positive progress, in regard to Councils increased sensitization to gender and inclusion in science, technology and innovation research. For example, UNCST (Uganda), developed a Gender and Social Inclusion Strategy, after being exposed to the relevant discussions and materials by the SGCI. The increased awareness of gender and inclusivity was evident in interviews with Council members who were notably conscious of efforts that have been made to take gender and inclusivity criteria into account in their project team compositions. Similarly, Costech (Tanzania) is reviewing and operationalizing its Gender policy (June 2022), according to its strategic plan.

Some of the research councils, such as the NTSC (Zambia), the NRF (Kenya), expect to mainstream gender and inclusion into their grant management processes, increasing their knowledge in structural gender and inclusivity issues in research, and increasing participation of female scientists in research and innovation. The NTSC, (Zambia), for example, has shown enthusiasm for increasing female participation in its award processes. It has proposed plans for training workshops in proposal writing, peer to peer learning activities, as well as undertaking an analysis of external factors that may be hindering female researchers from being able to be competitive.

Other examples include:

• Malawi, Uganda, and Zambia have provided directives to applicants regarding the inclusion of gender and inclusion in their projects. Malawi and Kenya have drafted their gender policies and are in the process of approval and operationalizing them

<sup>&</sup>lt;sup>62</sup> Sida - SGCI 2 Project Year 2 Technical Report November 2020

<sup>&</sup>lt;sup>63</sup> Science Granting Council Initiative Theme6 (Cross-cutting): Strengthen the capacity of SGCs in mainstreaming gender and inclusivity in research: Theory of Change 2021

- (NSTC-Zambia), issued a call on 'Gender Dimensions in Science, Technology and Innovation in Academia-Industry-Research & Development in Zambia', underscoring the importance of gender in that country's STI space."
- FONRID (Burkina Faso), have requested grant applicants to stipulate how their projects will meet the needs of women and men<sup>64</sup>
- The UNCST (Uganda), works through regional representatives to support gender equity within institutions in their region through the GERA, the Gender Equity in Research Agenda
- The NCTS (Rwanda), has set plans in its National Research Agenda 2021 to further monitor the gender composition of awardees of the fund and taking steps to increase gender equity

### 5.4.2 How sustainable are these efforts/processes?

Gender and inclusion are emerging areas. There are increasing levels of activity but fragmented evidence of mid-longer-term outcomes, particularly in comparison to themes 1,2,3, and 4. There has been uneven progress in the integration of gender and inclusion in the operationalization of SGCs, past the inclusion of Gender and inclusion in all calls issued by the Councils. During the interviews with SGCs, gender and inclusivity was evident in either its absence, or at an earlier stage of development, and it is clear there is no holistic approach across all SGCs.

The focus of most SGCs' resources has been on awareness raising, and increased sensitization to gender and inclusivity. Yet there is an evident challenge in moving forward past the activity stage and towards the outputs stage. Evidence is limited on the progression of the systemization of gender and inclusion in the SGCs' research and grant management policies. There are pockets of more advanced cases, such as Rwanda, Tanzania and Uganda, which could be used as benchmarks or inspiration for future SGC roadmaps or future phases of the SGCI.

### 5.4.3 How can these efforts be improved? (Drivers and pathways)

There should be a holistic approach across all Councils, that can simultaneously be tailored to take into consideration the context and stage of progress of each Council. Not all Councils have the same desire and resources to push gender and inclusion forward, and activities should reflect that. Definition of gender and inclusion should be made clearer. Continued effort should be directed into making gender and inclusion a parallel priority for SGCs, in alignment with the other core thematic areas. Pathways to outcomes and impact, whilst correctly ambitious, should concentrate on facilitating the Councils to take the necessary steps to reach the outputs stage. Collection of data on Council participation in activities should be centralized, as well as evidence of early outputs, and any emerging outcomes and impact.

The research into achieving gender and inclusion in research is still early in its development globally. At a European level for example, work has been done in the last 15 years only to move from awareness raising towards integrated policies through to structural changes in the system. Agenda 2063 in Africa calls for the same changes, for gender policies and strategies for STI, collaborative networks and specific programs for women researchers.

As highlighted in the Case Studies of the Political Economy of Science Granting Councils in Sub-Saharan Africa,<sup>65</sup> the strong push to incorporate gender perspectives still predominantly comes

<sup>&</sup>lt;sup>64</sup> Sida - SGCI 2 Project Year 2 Technical Report November 2020

<sup>&</sup>lt;sup>65</sup> Chataway J., Ochieng C., Byrne R., Daniels C., Dobson C., Hanlin R., et al. (2017). Case Studies of the Political Economy of Science Granting Councils in Sub-Saharan Africa. Full report, Canadian International Development Research Centre (IDRC), the UK Department for International Development (DfID) and South Africa's National Research Foundation (NRF) Science Granting Councils Initiative (SGCI).

from international programs and donors. The SGCI is one such example of an international effort encouraging the importance of gender and inclusion. A stronger impetus from national policy makers, associated funded programs and research institutes to engage with gender and inclusion on an equal footing as for example, research excellence could start to impact positively on women in research.

## 5.5 Appropriateness and effectiveness of the implementation of SGCI

Figure 8 Key findings on implementation of SGCI

- Capacity strengthening themes are well aligned with the needs of the Councils and their governments, while they were determined through a participatory approach with the councils. However, some Councils would have appreciated a more bespoke approach in the delivery of the capacity building activities.
- SGCI was effective in contributing to the overall capacity strengthening of Councils, as evidenced by impressive results, like the implementation and adaption of the Ugandan online grant management system in several participating countries, the number of partnerships, collaborative agreements, and calls for proposals launched by 12 Councils funded directly by the initiative. In addition, CTAs did build their own capacities, visibility and influence through the initiative.
- However, absorption and uptake of knowledge outputs are mixed. There are also some mixed achievements which have been observed in the areas of the use of data and evidence in policy and decision-making and the strategic communications at SGC level.
- The adaptation to the Covid-19 pandemic was challenging due to the structural inequalities between countries, and this has translated into a loss of effectiveness of some interventions.
- The modality of intervention of CTAs appears to have positioned SGCs as receivers which has hindered their ownership of the programme implementation, learning and skills transfer.
- The role of the CTAs has been important in producing knowledge outputs. However, the current set up for provision of capacity building activities does not always seem appropriate (in terms of adaptation to Council needs, implementation, and supervision and quality review of delivery).
- The Initiative's management team (IMT) role is adequate, overseeing the design, programming, and implementation of the initiative, including facilitating the exchange and organization of activities between the EC, CTAs and the recipient Granting Councils. Although the SGCI is a complex initiative, the IMT is quite responsive and prone to actioning recommendations to improve the programme.
- The current governance of the initiative is appreciated by current funding partners and Councils, notably how the Executive committee functions. There is room for improvement in the roles assigned for the design, management, and implementation of the initiative for some bodies (Councils Committee, PoA).

5.5.1 To what extent are SGCI's capacity strengthening themes and modalities aligned with the needs of the Councils and their governments? Are there lessons from SGCI adaptation to the Covid-19 pandemic?

# Capacity strengthening themes (the Thematic areas) appear quite aligned with the needs of the Councils and their governments.

The SGCI takes a holistic approach to enhancing STI systems through strengthening capacities of Councils and governments in Africa in complementary thematic areas all aiming at effective and influential Granting Councils which can led research that contributes to sustainable development.

Councils all underline the relevance of the thematic areas of support to their capacity building efforts. CTAs interviewed confirm that they have conducted initial needs assessment of the Councils before delivering their support. As captured in table 2, each SGC has a different starting point in terms of history, autonomy, robustness of internal capacities. Hence, CTAs had to design a support at the intersection of the needs expressed by each of the SGCs.

While many Councils were satisfied with the capacity building activities and knowledge products provided, several Councils underlined that the activities proposed did not always respond to their needs. Some Councils would have appreciated a tailored approach to their experience in grants management activities (which translates into differentiated pathways to impact in the ToC), or to be included in groups having substantially the same challenges and difficulties.

It seems to us that such a tailored approach is important and complementary to the allencompassing theory of change, so as to allow the specificities of the initiative to be highlighted, in particular the structural differences of the beneficiary countries, the level of involvement and participation in the activities, the differences in treatment and impact pathways. Evaluators did not access the initial Councils' needs assessments, nor found evidence at this stage of ToC per Council, which are both important documents to ensure the support provided is rightly tailored. Some Councils mentioned they were not consulted during these needs assessments.

**Regarding the adaptation of the approach in Covid-19 pandemic times, this was challenging due to the structural inequalities in terms of connectivity between countries**. For some Councils, the move to digital or hybrid modes has not facilitated their participation in the activities. Many Councils stressed that they found it difficult to derive similar benefits to the face-to-face experience. Of course, the digital mode can guarantee a greater number of participants, depending on the conditions, but at the expense of the quality of the exchanges. For the Strategic communications and uptake of knowledge outputs and networking component (TA 4) in phase 2, SGCI envisaged a number of activities in this TA to be implemented by the Councils themselves. Unfortunately, the Covid crisis forced a change in the mode of implementation and did not allow the Councils to carry out the activities as originally planned.

Several SGCs and funding partners assess that, while relying on CTAs was instrumental at an early stage of the initiative for developing capacity building material and knowledge products, the modality of intervention of CTA has positioned SGCs as passive receivers. They pointed out the need to put SGCs more in the driving seat to ease the process of defining needs and priorities and easing learning and skills transfer. Additionally, knowledge products could be foreseen to be produced by some 'advanced' SGCs at this stage, which would support and position them better in the STI ecosystems.

5.5.2 How effective are SGCI's capacity strengthening themes and modalities in producing the desired changes?

Overall, SGCI was effective in contributing to capacity strengthening of Councils. There are some flagship results in all strengthening themes, which are quite impressive, knowing the length of the pathway to change and the challenges faced by Councils.

Some of them are as follows:

- the implementation and adaption of the Ugandan online grant management system in several participating countries (theme 1)
- several partnerships among the SGCs in the form of collaborative research calls and cooperative agreements (theme 4): 8 Councils considered they have enhanced their ability to foster cross-country research collaborations between African higher education and research institutions, 9 are confident in their capacity in managing cross-country research and scientific collaborations and managing collaborative research grants and also feel empowered to feed learnings into call management
- calls for proposals launched by 12 Councils funded directly by IDRC (theme 3)

However, there are also some mixed achievements, notably in the areas of the use of data and evidence in policy and decision-making and the strategic communications and knowledge outputs uptake. Only 2 out of 13 participating Councils have achieved the outcome of designing R&D projects and effectively using a digital grant management system as a result of the intervention. Only one Council mentioned the effectiveness of using STI indicators to influence programmes, policies, budgets and regarding the use of the Impact Oriented Methodology, which was taught under SGCI phase 1, none of the participating SGCs recalled it as a tool effectively used to perform activities or implement projects.

Absorption and uptake of knowledge outputs is mixed. In our analysis, we identified some explanatory factors:

- Phase 2 is still ongoing so for some Councils that have not yet benefited from the activities
  of the CTAs, this may be solely due to a matter of scheduling. For instance, one CTA has
  been working with the Councils by cohorts of five and has just finished with the first cohort
  which implies that some Councils have not yet benefited from the support.
- As most of the Councils interviewed pointed out, content delivered in technical materials and activities could range from very grounded and useful to not always appropriate or likely to generate meaningful results for the beneficiaries. Even though the IMT has been working on defining a quality assurance mechanism, it has not yet been implemented so far. Except the technical reports, progress meetings and discussions during SGCI regional meetings and annual forums, there are no audits or performance reviews that can objectively assess the performance of the CTAs related to the progress of participating Councils. <sup>66</sup> Due to the COVID-19 period notably, IMT has performed few in-person visits to assess quality and progress.
- Councils may not have sufficient absorptive capacity, i.e. qualified human resources to translate the knowledge received into operational actions in order to improve the conduct of their activities within a reasonable timeframe and to leverage their impact. Indeed, most Councils are not very large in terms of staff and have many tasks/burdens. There is also a question of resources. In some cases, there are not enough resources devoted to the Council level. For example, in the Ethiopia Political Economy Study, it is mentioned that the staff number in the SGC has been estimated at 5 people in 2020. In Côte d'Ivoire, out of a staff of 20, only 8 people are technical staff and 3 people oversee grant management functions.

<sup>&</sup>lt;sup>66</sup> According to SGCI internal procedures, each CTA commits to a binding performance contract that serves as the basis for assessing each CTA's performance and the quality of the results achieved. The CTAs (and Councils) are also subject to financial audits. SGCI has some performance indicators that link the work of the CTAs to changes in the Councils' policies and practices, but this could be done more a disaggregated way.

- Councils may not have sufficient financial resources. The low level of own resources at their disposal and the lack of managerial autonomy in some cases limit the capacity to recruit and retain talent to better conduct activities and some Councils also face a high turnover<sup>67</sup>.
- Scientific research may not be yet at the core of government priorities, and Councils may not be in a position to bring about change.

As perceived by funding partners and several SGCs, **the implementation modality is complex and leads to some inefficiencies.** While some appear inevitable, due to the large number of partners, contexts, agendas, and challenges, one point should be highlighted: **the implementation modality through the CTAs has positioned SGCs more often as receivers rather than partners and appears to have hampered knowledge sharing and knowledge uptake.** SGCs are largely dependent on the needs assessments made by CTA, and their ability and expertise to deliver capacity building at the right time and follow up of knowledge absorption through time.

5.5.3 What are appropriate roles for the CTAs, Councils, MEL Consultant and IMT/funders in the design, management, and implementation of SGCI activities? What adjustments need to be made for future interventions?

The role of the CTAs appears as important in supporting the design and implementation of the initiative. The CTAs play a very important, but complex and challenging role. As NGOs, think tanks or networks they are also both recipients and actors of the initiative. The capacitybuilding activities are performed by the CTAs who have expertise in the thematic areas of intervention. Additionally, several support activities are provided for the overall implementation, namely, Monitoring, Evaluation and Learning (MEL), the political economy studies which are planned to be conducted for each beneficiary Council, as well as participation in events organized by programme partners, including GRC, AJ CORE and other donors. CTAs can also build their capacities through the initiative. CTAs appear as the ones who know best the strategic and technical aspects of their work packages. Monthly updates of CTAs with the IMT and the MEL consultant allow for information sharing and lessons from their experience working with Councils under SGCI are captured through exchanges with the IMT and with SGCs during MEL sessions at the regional meetings and Annual Forum, as well as in their technical reports to their funders (IDRC and NRF). Besides drawing on their reported performance indicators, there may be scope for more systematically bringing their knowledge and expertise into review of performance across the initiative.

The role of the Councils is of receiver and implementer: receiver of capacity building activities and knowledge products; and implementer as they shall absorb knowledge products and build their own capacities. It appears that some Councils are more of receiver than implementer and vice versa. These two roles are adequate, but Councils would gain to seek more of an implementer role. This implementer role could not only be sought in capacity building, networking and knowledge production activities, but in co-funding research calls and related activities. Co-funding allows an important degree of ownership, and commitment to achievements.

The role of the MEL Consultant is appropriate to capture the progress made at SGCI level. It also should be appropriate to capture progress made at Councils' level.

The role of the Initiative's management team (IMT) appears as adequate, i.e. primarily overseeing the design, programming and implementation of the initiative, including facilitating the exchange and organization of activities between the CTAs and the recipient Granting Councils. At the outset, it must be acknowledged that the SGCI is rather a complex initiative, in which the IMT acts as a bridge between the CTAs, SGCs, and various regional, continental and international organisations involved in STI policy and practice in the subcontinent.

<sup>&</sup>lt;sup>67</sup> From interviews with the SGCs

Management of the initiative is divided between the IMT members, with each being responsible for a set of projects involving the CTAs and-or the SGCs. The IMT is quite responsive and prone to actioning recommendations to improve the efficiency of the programme. There is scope, however, for reviewing how the IMT works to coordinate interaction of SGCI participants notably between and amongst the SGCs and the CTAs.

Funders are satisfied with IDRC and NRF taking a lead; they are not seeking more involvement in running the SGCI.

The involvement of NRF is recognized as important notably since NRF can work directly with governments while not all other funding partners can. Several funders are pointing to the opportunities that NRF would take a more prominent role in a future initiative.

# There is room for improvement in the roles assigned for the design, management and implementation of the initiative.

The differences between Councils make it difficult to find the right overall approach and implementation of the Initiative. Interviewees and evaluators recognize this. This is at the same time a challenge and an opportunity: some more advanced councils can offer peer support, which could be built into the SGCI programming. Thus, on the design and implementation of the initiative, one of the areas for improvement would be to increase the role of SGCs and of their new networks and lessen the role of CTAs and their degree of autonomy; as well as increasing IMT oversight over the nature and quality of the service provided to the SGCs.

On the follow-up of the implementation of the initiative, our investigations revealed that the main mechanism used by the IMT to monitor the progress of the programme and the results achieved by both the CTAs and the Councils are the technical reports required under each of their contracts which are usually accompanied by virtual bilateral discussions (particularly since COVID-19) in addition to monthly meetings with CTAs, and periodic group meetings, particularly during the annual forum and regional meetings. IDRC project officers have participated in many CTA and Council activities (such as CTA workshops and Councils' launch of research projects) sometimes in person (pre- and post-pandemic) and often virtually. There have also been occasional physical (pre-COVID) and virtual (during COVID) group meetings with Councils and CTAs to gather their views on current and proposed new programming under SGCI. But there is scope for the IMT to consider how to do this more systematically, to target these interactions for monitoring and problem-solving purposes, if possible in-person, and with smaller groups if not individual Councils, to gather their perceptions on the adequacy of the capacity-building activities given their expressed and actual needs.

On the MEL perspective, while the overarching framework of KPI is sound, there is no Councils framework which would allow the outputs and outcomes to be captured from a country perspective. Additionally:

- The CTAs spoken to are aware of the central MEL data collection form but have yet to fully engage with this. All CTAs gather their MEL data for use in their reporting to the funders.
- MEL current efforts are largely geared towards quantitative indicators on e.g., the number
  of participants at an event/workshop etc. Lessons learned are also discussed in their
  technical reports and at the regional and annual meetings, while CTAs work with the MEL
  consultant and the IMT to record stories of change. But again, this could be done more
  systematically, and more room could be made for discussing activities' implementation
  and problem-solving.

# 5.5.4 How can governance of the SGCI be strengthened (roles of the EC, Councils Committee, and Panel of Advisors)?

Regarding the overall governance of the initiative, the current governance of the initiative is appreciated by current funding partners and Councils, notably how the Executive committee functions. To note, the Councils Committee meets once a year to discuss particular aspects of SGCI but it could play a more active role, for example engaging more frequently with updates

and views on SGCI. On the number of Councils involved, SGCI was said to already have many members and an expansion of the number involved might not work very well and/or might not be very efficient and effective.

## 5.6 Key successes, challenges, and sustainability

### Figure 9 Key findings on sustainability

- A key success of the SGCI is certainly that it has contributed to a large extent in building capacities among participating Councils in their core mandate of funding research and concretely enabled some Councils to manage themselves research calls and joint research calls and form partnerships with other African councils.
- One important unintended outcome is that CTAs also have built their capacities and enhanced their role and visibility thanks to the SGCI. These CTAs were able to produce an impressive number of high-level papers (policy papers, policy briefs, scientific papers) and become much more visible in the national, regional, and continental research arenas.
- However, the overall take up of knowledge outputs and widespread capacity building of SGCs is challenging. One important constraint is the staffing level and adequacy, which hinder effective participation in the core SGCI activities, the ability to uptake knowledge outputs and take ownership of the transformational journey. Another constraint is the capacity building activities themselves, for which there is not yet a mechanism for quality control, and which are not always adapted to all SGCs' needs and own constraints.
- Pathways to impacts are long ones. While progress is seen, sustained effort is still needed, with varying degrees depending on which Council is concerned. English-speaking and more 'senior' Councils appear in a better position to benefit from the Initiative notably since technical assistance and support providers interact mainly in English.
- There are still efforts to be made at a strategic level, notably on raising governments' political awareness for funding research.

5.6.1 What are some of the key successes/ challenges of the Initiative and emerging lessons for consideration by the SGCI stakeholders (funders, IMT, and Councils)?

Donors recognize the global nature of challenges faced by African RDI systems and the importance of collaboration among them. Regional capacity building is viewed as the right path to respond to needs of the Councils and their governments.

SGCI has contributed to a large extent in building capacities among participating Councils in their core mandate of funding research and with respect to this component, **the key successes from the SGCs' perspective are undoubtedly the launching and management of research calls both independently and in cooperation with other Councils**. Being given a more central role in the management of the entire process of a call, without the involvement of an external expert was a great achievement for participating Councils. Another success story closely linked to the latter is **the opportunity for the implementation of collaborative calls and the development of strategic partnerships among Councils**. This network approach seems to be particularly effective in strengthening the abilities and capacities of Councils but there are inherent limits to it in the sense that if the more advanced Councils do not benefit from the peer exchange one way or another, there is a potential risk of dulling their enthusiasm to participate in the initiative.

Another point of attention that emerged throughout the discussions with the Councils, is the issue of staffing. In addition to having been identified among the prerequisites of the capacity of programme activities to be transformed into outputs and outcomes for the Councils, the

staffing of each Council appears as a determinant in the transformation of the SGCI as a longterm asset for the Councils and puts into perspective their ability to achieve the ultimate goal of the initiative. The question that arises is whether the limited relevant expertise and experience at the Council level is a result of the lack of opportunity to launch calls (due to funding limitations) and the absence of competency frameworks; or whether it is a symptom of a more serious condition, i.e., the deterioration of the quality of higher education in Africa, which is also the focus of many initiatives on the continent.

Either way, this question puts the sustainability of the SGCI's intervention into perspective because if the higher education system is not able to generate a critical mass of researchers of excellent quality, it would be difficult even for a Council with the right level of expertise, to generate good quality research results within its ecosystem. The SGCI and its partners could consider extending the intervention to the entire research system of the participating countries by including the higher education system. Funding partners commented on the need to take a more hard-nosed approach and devote energy to building particular aspects of excellence. This points to the importance of research funding directed to embedded centres of excellence/hubs and their agendas in the national context and that the agendas should be driven by country governments and national researchers themselves.

The influence of the inadequate numbers of experienced staff available to the Councils on the sustainability of the initiative is also apparent at several other levels:

- The development of strategic partnerships between Councils: staff constraints can limit the capacity of a Council to interact with its peers, but also with the private sector. To this end, it is also important for science-granting bodies to define their expectations for partnerships with the private sector in order to effectively guide their capacity-building efforts in this area
- The ability of a Council to take ownership of the programme and identify its support needs in relation to its own ambitions for growth; this self-assessment is essential

Regarding the latter, it was noted that beyond the control left to the CTAs in the programme implementation, the attitude of the Councils and their intrinsic motivation are also determinants of their ability to take advantage of the opportunities offered to them. Have the participating SGCs clarified their expectations of the programme and the results they wish to achieve within a defined timeframe? Do they have sufficiently motivated human resources to carry out this self-assessment activity and to determine the organization's short, medium and long-term vision?

The challenges are manifold. The lack of funding to finance research appears to be common to all the participating countries and hinders their ability to either recruit or keep experienced staff also to attract high-caliber researchers to investigate issues that are relevant to the development priorities of the country. The resources allocated under the research call projects are not very attractive for experienced researchers who compete internationally, but they have the merit to pave the way for national research funding. Moreover, some donors understand the 7 years of implementation of this initiative are insufficient for participating Councils to be able to compare to their European or American counterparts. In the same vein, there is little evidence on the ability of the Councils to manage international research funding.

Creating viable partnerships with the private sector seems pressing according to the Councils. However, there is no clear perception of how SGCs see themselves as an interlocutor of the private sector and what they expect from these partnerships. Admittedly, the Councils must put in place a mechanism to enhance and enable cooperation between the academia and the private sector, but should they be the signatories or beneficiaries of these partnerships? Is the ability to translate the needs of the private sector into research questions a competence/prerogative of the granting Council or rather of the research actors (laboratory, research centres, individual researchers and lecturers)?

An observation on the most successful Councils in this initiative in terms of results achieved and expected is that they are all English speaking. This is not surprising as technical assistance and

support providers interact mainly in English, but it is necessary to ensure an adequate level of participation of all entities (inclusion) by providing them with the material in an easily accessible format (simultaneous translation during workshops, availability of training materials in the different languages, etc.).

5.6.2 What are some of the unintended outcomes that the SGCI stakeholders (funders, IMT, and Councils) need to be aware of?

One of the interesting unintended outcomes is the built capacity of the CTAs. These were able to produce an impressive number of high-level papers (policy papers, policy briefs, scientific papers) and become much more visible in the national, regional and continental research arenas. This is a complementary contribution to building diverse, robust and sustainable STI ecosystems across Africa and to enhance the development and resolution of pressing challenges.

5.6.3 What are the potential opportunities to deepen and/or expand the work of the SGCI within the overall goal of strengthening of STI systems in sub-Saharan Africa?

Councils have benefited from all parts of the initiative and supported the development of capacity and knowledge across several areas related to research funding management and policy development. SGCI has been found to provide real support and help with improvement from SGCI-1 to SGCI-2 such as fund management. For instance, today, the funds for research are directly managed through Councils. In most cases, it has enabled Councils to better position themselves in their national research ecosystems, to have more influence and, above all, to facilitate the start of research on themes related to development priorities.

For some researchers, especially national ones, the SGCI has offered a unique opportunity to work on topics related to relevant national issues and has allowed them to expand their networks.

This reflects how beneficial this initiative is to the research system at the national and regional levels; It is, therefore, undeniable that this initiative should be extended to several countries in the Africa region, but the approach needs to be differentiated with respect to the level of maturity of the Councils and their own objectives and mandates. Where there are less mature Councils, it will be important to have a mechanism that would accelerate their path to impact.

The work of the SGCI could also be extended to a more strategic level, by raising political awareness so that this objective of strengthening research systems is also on the political agenda. This would amplify the impact of the actions undertaken by the Councils themselves.

One interviewee commented they see the SGCI as a good way to understand the challenges that Councils face, identify Councils that they might like to work on a bilateral level, and identify good mechanisms for such engagement. It was said that such knowledge was not previously held internally.

Cooperation between research organizations is hoped to create a more harmonious system of cooperation. South-South development was commented to be preferable to North-South.

# 6 Conclusions and recommendations

# 6.1 Conclusions

SGCI is an ambitious, complex and challenging initiative. It provides a unique response and much-needed support for the African Science Granting Council transformational journey towards playing their full role and fulfilling their potential in STI ecosystems on the continent. SGCI targets the whole spectrum of SGC capacity-strengthening needs.

The SGCI has made some well targeted and important contributions to the functioning and positioning of Councils in their ecosystems. The initiative has been in many aspects an 'eye-opener'. Some of the key successes are the launching and management of research calls, and collaborative calls. Although the quality of knowledge outputs varied, notably for the training materials, there are some excellent examples to disseminate more widely. With improved quality assurance systems, there is ample opportunity for increasing the production of outputs for wider use in the ecosystem.

The Councils are both recipients of, and actors within the initiative, with varying levels of ownership and engagement. Progress has been heterogeneous among Councils as all of them had different point of departure and progressing and evolving in very different contexts. Capacity building is appreciated but needs to be sustained. Quality issues with some training outputs remain something which needs to be resolved. Work on co-funding research is successful and also important for the Councils, particularly in relation to sustainability. Networking has been instrumental and successful (annual forums, etc..). Only a few Councils were able to secure money from their governments (particularly in the form of Covid-19 grants), but where this has happened it is important to showcase to other governments.

### On the effectiveness and impact of the SGCI

One of the most significant contributions was made in the area of research grant management systems and grant management overall. Councils are improving their existing systems, migrating to digital systems, and incrementally optimizing their management. As yet, staff have benefitted from training and have increased their skills and experience but the lack of KPIs related to the efficiency of grant management makes it difficult to grasp the full dimension of progress made by Councils under the first two thematic areas and the effectiveness of the intervention.

The SGCI has definitely contributed to positioning the participating Councils more visibly at the national and regional levels. The effect diminishes in relation to the global levels. Early signs of increased advocacy are evident but other concrete outcomes are yet to emerge. The results regarding the ability of the SGCs to influence government investments in the STI system remain mixed.

Engagement with the private sector is of key importance to the SGCs and an important reason for getting involved with the SGCI. There have been significant commitments across the SGCs to links with the private sector as a consequence of the initiative, and clear benefits are already emerging. Implementing funding calls is appreciated as an activity of the initiative, which has led to new collaborations and skills for collaborative research management.

Although SGCI has been linked to several initiatives and a firm foundation has been established, there is further work to be done in this respect. Moreover, new initiatives have emerged and are very relevant for SGCs in their objective to be strategic business partners and are highly appreciated.

Knowledge outputs from the SGCI are being actively used to institutionalize new practices within the Councils and to address some of the pressing needs and challenges. However, compared to the amount produced there is still only a fraction which are taken up and institutionalized.

The SGCI has limited ability to significantly change the critical mass of researchers. There is evidence of increasing the funding for research and researchers returning to research, but one of the framework conditions mentioned, regarding the lack of research capacity, remains an issue.

The subject of gender and inclusion overall is less well discussed and acted upon than other areas of activity for the SGCs. However, progress has been made within the SGCs with respect to gender sensitization and inclusion in STI. The mainstreaming of inclusivity within policies and practices is still nascent. This hampers the sustainability of SGCI's impact.

### On the appropriateness and effectiveness of implementation of the initiative

Capacity strengthening themes (the thematic areas) are aligned with the needs of the Councils and their governments, however, the resulting activities are less well tailored to the needs of the Councils and their governments.

SGCI was effective in contributing to the capacity strengthening of Councils. There are some flagship results in all strengthening themes, which are quite impressive, knowing the length of the pathway to change and the challenges faced by Councils. There are also limitations to upskilling and absorptive capacities (due to the current level of staffing with the SGCs) which would need to be addressed in the future.

While the implementation modality is complex and certainly has led to some inefficiencies, this appears inevitable, due to the large number of partners, contexts, agendas and challenges. However, the implementation modality through the CTAs does not always allow SGCs to provide feedback on trainings and technical support provided. SGCs could be more proactive so as to accelerate knowledge sharing and knowledge uptake.

### 6.2 Recommendations

Based on the conclusions drawn from the evaluation, the following recommendations are offered.

# R1. International partners should initiate a follow-up phase to the SGCI beyond 2025 (SGCI 3), to extend the funding available for African SGCs, so that Councils can continue their transformational journeys

Associated findings:

- SGCI has a unique position in the realm of ODA in STI. Its activities focus on two of the three pillars<sup>68</sup> identified for international STI collaborations for the SDGs, namely, strengthening national STI capacities and stimulating international STI flows to recipient countries, with the pre-eminence of the first pillar. Focusing its intervention on key actors of STI systems such as SGCs in numerous countries, may seem unpromising in view of some of the results of ODA projects on capacity building in STIs, nevertheless this seems to us adequate and rightly ambitious. The SGCI provides a much-needed forum where best practice and outcomes can be shared and acted upon
- The initiative provides also a unique platform for funding partners to contribute in a coordinated manner. Funding partners place much importance on funding projects that are supported by many/several funders and that are able to tackle the bigger issues.

<sup>&</sup>lt;sup>68</sup> United Nations Inter-Agency Task Team, S.T.A.I.F.S. and European Commission, J.R.C., Guidebook for the Preparation of Science, Technology and Innovation (STI) for SDGs Roadmaps, EUR 30606 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-30613-9, doi:10.2760/724479, JRC124108.

- The pathway to impacts is probably two decades-long. African countries are all at different stages in their pathways to full operational Granting Councils. Continuous efforts of SGCs to achieve their goals is much needed for impacts at national and continental levels. This takes adequate funding, technical assistance and networking during a prolonged period of time. The funding cycles of the SGCI -4 or 5 years - appear suboptimal for such a longterm impact looking initiative.
- The initiative has appropriately grasped the roles and tasks of scientific research granting Councils in their diversity and offers integrated support and a forum for capacity building and joint actions
- This integrated support allows both for completeness of pathways to transformational change, and that SGCs, in their diversity, always find adequate support wherever needed
- SGCI does not address the need to create and strengthen a critical mass of researchers in domains of excellence in countries. This is however necessary for coherence of SGCI interventions. But other initiatives are doing this (RUFORUM, DECARTAS, PASET).

Action points:

- A follow-up phase of the project should be designed and funded
- Resource mobilization should be strengthened
- Integrated activities should remain the modus operandi
- The 5 areas of support should remain
- Carefully assess if new countries should be invited to participate as the initiative is already quite complex. If deciding still to open up, countries already supported should focus on needs further away on the pathway and become peers to new countries entering the initiative
- Efforts should be made to negotiate with donors longer funding cycles such as at least 5years
- Efforts should be continuously made in complementarity with existing initiatives in Africa intervening on important aspects of strengthening STI ecosystems, notably these focusing on creating a critical mass of researchers in domains of excellence.

Implementation modalities:

- All funding partners could continue funding SGCI
- The Initiative Executive Committee could seek to maintain established partnerships and funding commitment from international donors and identify new ones. Evaluations conducted could be used as evidence-based pledges for the EC to recruit other funding partners and strengthen resource mobilization for this area of work.
- The Initiative Executive Committee could seek to link up the initiative with other programmes which work on complementary aspects to the STI ecosystem strengthening in Africa, notably these focusing on i) increasing RDI funding from national governments; ii) creating a critical mass of researchers in excellence domains
- The Initiative Executive Committee could begin work on committing funds for a new fiveyear period for SGCI beyond 2025 (2025-30)

# R2. Science Granting Councils should fully own and invest in their transformational journeys to ensure these are sustainable

Associated findings:

• Science Granting Councils have varying degrees of maturity and institutional configurations; their transformational journeys are unique to each of them

- The pace to results is dependent on both the ambitions of each Council itself and the quality of the capacity building it receives. The latter is more under the control of the initiative than the former
- Some SGCs have advanced quite well on their path to mastering their mandates, and these tend to already concentrate on further steps on their transformational journeys, such as raising funding from own governments and international funders; strengthening the STI policy cycle and giving direction to research undertaken; influencing the global discourses
- Some are less advanced and tend to rather concentrate on capacity building and implementation of granting systems, STI data and M&E systems

Action points:

- An updated vision of each Council's transformational journey should be developed, taking into account progress achieved and still to be made
- A virtuous circle should be progressively put in place, with Councils owning the initiative and supporting each other in their journeys

Implementation modalities:

- The SGCs could each produce a revised vision of their transformational journey based on self-assessment of their current needs, and pro-actively guide the definition of the SGCI 3 orientations and activities. This entails producing the so-called "theory of change (ToC)" adapted to their point of departure, context of intervention, STI ecosystems, national agendas for STI and Science Councils. These ToC could very well be for a 10-year period.
- The SGCs could further engage in partnerships among themselves and co-fund some of the SGC 3 activities
- The SGCs which have a proven functional science granting management system could act as peers to newer, less mature SGCs on the continent

# R3. The Initiative should, as much as possible, provide training tailored to the few key priorities of Councils and accelerate the uptake of associated knowledge outputs

Associated findings:

- Capacity strengthening activities and knowledge outputs were overall successful and appreciated by SGCs. However, they were not tailored to the absorption capacities of the SGCs, resulting in uneven outcomes.
- They are still much needed for the SGCs to move along the path of their transformation and fully embody their role in the STI ecosystems
- The engagement of the Councils has been uneven
- The funding levels are too thin to be spread on too many priorities.
- The training products have not gone through quality assessment by the IMT.
- Peer exchanges and field visits appear to have produced the best results.

Action points:

- Critical areas of excellence, and capacity strengthening priorities should be identified for each country
- Training modules and knowledge outputs should be proposed notably for new areas such as i) management and award of research grants and postgraduate scholarships; ii) supporting the development of STI infrastructure; iii) valorization of research ideas and results; iv) policy advice and advocacy for STI; v) setting the research agenda and priorities; vi) Management of scientific collaborations and agreements; vii) coordination of the national innovation system

• A definition of cohorts for capacity building and technical assistance should be developed for Councils to subscribe to

Implementation modalities:

- Each Council, while developing their own ToC, will showcase their commitment to the
  programme. They must produce their own development plan with key performance
  indicators linked to the strategic pillars of the initiative. This development plan and the
  related theory of change will serve as a baseline for monitoring the Council's progress
  during the programme implementation. Participating in the programme will also need to
  be evidenced by a commitment of the Council (e.g., performance contract)
- The Initiative Executive Committee could use the material provided by SGCs to revise the weight given to the key pillars of interest (influence of ecosystems, partnerships, knowledge, gender, etc.) and develop "quick win" strategies to engage SGCs on these pathways. This implies that there is a comprehensive ToC at the programme level, which clearly identifies and states the expected results of the intervention and objectively specifies the key performance indicators for the management board (CC, PoA, EC, IMT)
- Capacity building agents (i.e. Professional trainers and CTAs which are tasked to transfer the knowledge they produced) could define cohorts of SGCs for capacity building activities and technical assistance and rely on best practices of some SGCs. Capacity building agents could draw up an implementation plan which will be included in the Councils' annual work plan. In addition, Capacity building agents could communicate the calendar of activities to be carried out sufficiently in advance, which would give Councils time to better prepare their participation and select the most relevant staff to participate in the activities
- The IMT could review internally or with an external evaluator the KPI and the quality of what the Capacity building agents are producing against the performance contracts that would tie Councils to the Capacity building agents

# R4. Science Granting Councils should take a more proactive stance on gender and inclusivity in order to ensure further mainstreaming of these aspects in their work

Associated findings:

- Progress has been made within the SGCs with respect to gender sensitization and inclusion in STI
- However, the mainstreaming of inclusivity within policies and practices is still nascent. This
  hampers the sustainability of the progress to date

Action points:

Continue efforts on gender mainstreaming in policies and practices

Implementation modalities:

- Governments could enact STI policies with a gender and inclusion lens
- SGCs could continue with their efforts in promoting gender and inclusivity to their governments
- Apart from capacity strengthening (training for staff, inclusion of training in grants or examples of gender and inclusion expertise), CTAs could consider gender and inclusion in the following program cycle:
- Problem analysis (initiative and project/grant level) gender and inclusion are addressed within the problem analysis and evidence used to support the design of programmes and funding rounds
- Programme design Inclusion within grant applications and expected outcomes articulated in the ToC for example

- Operational budget or other resources are provided
- Implementation Gender and inclusion considered in beneficiary types and types of expected outcomes of grants (and require documentation for example).
- Policies and practices Gender and inclusion related policies are available and regularly reviewed
- Monitoring and evaluation Gender and inclusion are visible in monitoring and evaluation frameworks with associated indicators

# R5. The SGCI Monitoring, Evaluation and Learning framework should be developed at the level of each Council level in order to capture the progress each Council is making on their transformational pathway

Associated findings:

- An overarching ToC and KPIs are important
- The bottom-up approach in developing the nested and overarching ToC has proven to be the right one
- However, this ToC does not reflect enough the diversity in pathways of Science Granting Councils, and does not provide enough material for guiding and providing the most adequate support to Councils on own pathways

Action points:

 MEL should be personalized for each SGC along with an all-encompassing theory of change, to allow the specificities of the initiative to be highlighted, in particular the structural differences of the beneficiary countries, the level of involvement and participation in the activities, the differences in treatment and impact pathways

Implementation modalities:

- The IMT and MEL consultant could support SGCs in clarifying their transformation pathways and defining their "theory of change".
- The IMT and MEL consultant could support SGCs to set KPIs for better follow up on achievements on their own pathways
- The IMT and MEL consultant could use some of the KPI developed for the current EE



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