Spurring Innovation and Science Policy in Africa

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The Science for Africa (SFA) Foundation is a pan-African, non-profit, public, charitable organization dedicated to supporting, strengthening, and promoting science and innovation in Africa. With a footprint in over 40 countries, including 34 in Africa, the Foundation's strategy aligns with the African Union (AU) Agenda 2063 and the United Nations (UN) Sustainable Development Goals (SDGs) 3 and 13, to build resilient, knowledge-based economies driven by African science.

In addition to supporting quality science outputs, SFA Foundation programs are structured around embedding science, technology, and innovation (STI) into policymaking, advancing research infrastructure, championing equity in science, and strengthening institutions capable of delivering long-term impact. SFA Foundation hosts a variety of program models each with unique funding mechanisms for supporting research and innovation in Africa, including the hub and spoke model, population cohorts model, cohort management model, and Grand Challenges model. This feature provides an overview of how the SFA Foundation supports emerging innovations, such as artificial intelligence (AI), through the Grand Challenges (GC) Africa funding model, as well as avenues for research outputs to impact policymaking through the Science Prioritization and Policy Engagement (SPEAR) program. Finally, this feature will preview various programs in development, which will expand into the interdisciplinary-agriculture nexus focused on Climate, Health, Agriculture, and Biodiversity (C-HAB).

A Model for Africa-led Innovation

The Foundation's operational model blends research prioritization, program design, fund mobilization, grant-making, and program oversight, with strategic partnerships to enhance best practices in science and innovation, cutting-edge research, globally competitive research leadership, and the development of Africa's research ecosystems. The SFA Foundation recognizes the power of collective efforts and is intentional in the development, maintenance, and growth of equitable strategic partnerships and networks. The Foundation brings together governments, academia, funders, multilateral agencies, and the private sector to co-create solutions rooted in evidence and tailored to African priorities. Through its convening power, the Foundation enables the fostering of dialogue, mobilization of resources, and the alignment of diverse stakeholders towards shared scientific and development goals. The SFA Foundation focuses on three key interrelated priority areas for science: health, agriculture, and climate and environment.

Investments in Innovation

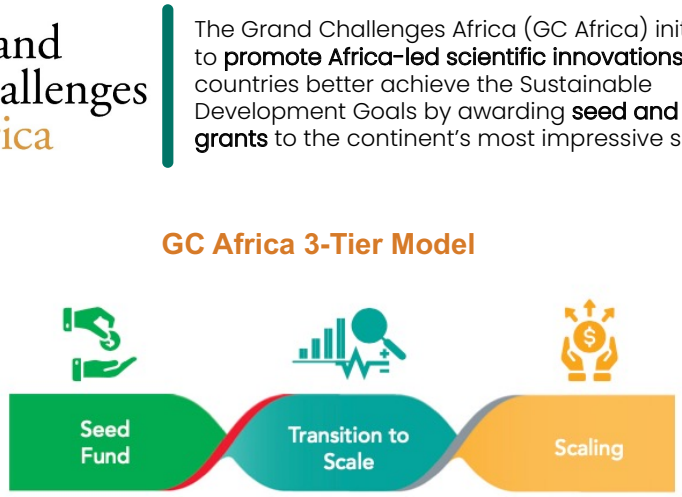
SFA Foundation hosts over 10 programs, encompassing more than 23 initiatives. These include the Science Innovation, Translation, and Entrepreneurship (SITE) program, which targets leveraging the entire research and development ecosystem by supporting innovators with grants, mentorship, and other resources. The program also fosters a culture of innovation and entrepreneurship in Africa by collaborating with governments, universities, for-profit institutions, and other key stakeholders. The program's focus on local ownership, ethical considerations, and sustainable impact positions it as a model of innovation for development in Africa.

One flagship initiative under SITE is Grand Challenges Africa (GC Africa), launched in 2015. The GC Africa initiative has issued over 15 calls across various fields, including emerging technologies, public health, women's health innovations, and climate change and adaptation. The initiative has supported more than 150 African innovators based in African institutions, with nearly US$13 million disbursed over the past three years — including US$1.7 million for the inaugural AI for Global Health grant.

Innovation Screening and Champion Identification — Grand Challenges Africa Model

The initiative operates through a pipeline (outlined below) and primarily supports projects with seed funding to advance the most impressive solutions for bespoke transitions to scale.

FIGURE FI.1—GRAND CHALLENGES AFRICA FUNDING MODEL



Source: Science for Africa Foundation (2021).

The success of GC Africa lies in its combination of local leadership, competitive funding, and global partnerships. It presents a scalable model for inclusive innovation, involving various partners, including global health funders, the African Union Development Agency-New Partnership for Africa's Development (AUDA-NEPAD), the Pasteur Network, and various Grand Challenges partners, such as Grand Challenges Canada.

Case Study: AI for Global Health

A recent call on AI for Global Health demonstrates the initiative's effectiveness in building AI and data science capacity while supporting context-specific innovations. The joint request for proposals with multiple Grand Challenges partners focused on local AI solutions and attracted over 160 applications. Of these, 17 finalists were selected across five key areas:

- Clinical decision support tools
- Population health and policymaking
- Frontline health worker support
- Health communications and patient journey improvements
- Health systems strengthening

The solutions developed were deliberately tailored to African realities. For example, in Rwanda, Dr. David Kamugundu's team at eFiche integrated an AI-powered clinical decision-support system with the national Health Information Exchange, enabling seamless data exchange. The team trained over 200 healthcare providers, deployed the model for live testing, and improved medication inventory management. This locally developed solution demonstrates how mentorship, training, and funding can translate into real-world impact.

Building AI Governance and Data Science Capacity

The AI for Global Health initiative also uncovered critical challenges in data governance as well as the ethical implementation and use of AI across various projects. For example, Dr. Francis Kombe of EthiXpert South Africa integrated AI into the RHInnO Ethics platform, transforming how research ethics committees (RECs) review protocols. The pilot demonstrated improved efficiency, reducing turnaround times for reviews and enhancing consistency as the AI tool successfully flagged data discrepancies. In addition, the platform included strong stakeholder engagement, with nearly universal participation from REC members and administrators. Crucially, the project confirmed its technical feasibility within the RHInnO framework while also advancing capacity building by equipping participants with hands-on skills in AI and digital literacy.

Collaboration and capacity building to develop the field in Africa were central themes that emerged across the cohort of finalists selected for the AI for Global Health call. For example, startups partnered with universities to ensure technical robustness and practical integration, thereby laying the groundwork for blended finance models that combine public investment with private capital for sustainable innovation hubs. Capacity-building across projects supported their sustainability by equipping African researchers and practitioners with AI and data science expertise. Engaging the health ministries and regulators in various African countries, as well as continental bodies such as the Africa CDC, would help secure adoption pathways.

Bridging Research and Policy through the SPEAR Program

The field of AI in Africa is vibrant and dynamic, evident in the cases presented here. Through its Science Prioritization and Policy Engagement (SPEAR) program, the SFA Foundation is uniquely placed to work within the science-policy space by translating research advancements to influence decision-making. For research and development (R&D) to deliver maximum impact and change lives across Africa, scientific findings should be translated into recommendations for policy and practice. However, to date, several factors have limited the science-policy nexus, including the significant gap that separates technical experts generating scientific evidence from decision-makers. Across Africa, the gap in science-policy engagement is further widened by limited representation in critical policy dialogues on emerging technologies, such as AI.

Case study: AI for Global Health in Africa – Report

To ensure that research influences policy and addresses the disconnect between technical experts and decision-makers in emerging fields, such as AI, the SPEAR program led an expansive landscape analysis involving more than 300 stakeholders across 43 countries. The analysis included literature reviews, surveys, regional convenings, stakeholder interviews, and policy analysis. The resulting report, "Opportunities and Gaps in the Governance of Artificial Intelligence for Global Health in Africa" (SFA Foundation 2025), offers a comprehensive review of AI governance across the continent.

Unlike other reports, this analysis by SPEAR is deeply rooted in African realities. It provides several actionable policy recommendations, including:

- Development of adaptive regulations tailored to Africa's health needs
- Leveraging frameworks like the AU Digital Transformation Strategy for Africa (AUC 2020)
- Emphasizing capacity-building and trust
- Promotion of science diplomacy and international collaboration
- Ensuring African representation in global AI forums

Charting Africa's Innovation Future: From Local Priorities to Climate-Health Frontiers

Through initiatives such as GC Africa and the SPEAR platform, the SFA Foundation actively engages funders, researchers, policymakers, and communities to co-create solutions that address urgent African priorities.

Looking ahead, the Foundation is launching the C-HAB program in response to the climate risks and extreme weather patterns that are reshaping health systems, agricultural productivity, and ecosystems across Africa. The C-HAB program is an ambitious effort that catalyzes multi-sectoral solutions at the intersection of these three domains. The program responds to this complexity by supporting transdisciplinary science, policy innovations, and implementation research to confront these challenges head-on.

Based on a deeply consultative process, the C-HAB strategy reflects insights from across the continent. The initiative will embrace competitive calls to identify the most promising and scalable ideas, prioritizing innovations that not only deliver technical breakthroughs but also influence evidence-based policymaking for expanded regional impacts. Through this next phase of work, SFA Foundation is calling on governments, funders, researchers, and innovators to partner in building the science and policy architecture that Africa needs, i.e., one that is resilient, inclusive, and responsive to the realities of a warming world. The journey from science to impact has never been more urgent — or more promising.