

Enhancing Gender in Science, Technology and Innovation (STI) for Sustainable Development in Africa

By Ayodotun Bobadoye, Southern Voices Network Scholar
September 2015

Africa lags behind other regions in Science, Technology, and Innovation (STI), which constrains the continent's development. The generally-low participation of African women in STI further compounds this issue. Continuous investment in science, technology, and innovation is the only way to bridge the gap between Africa and more developed countries. STI is a major driver of the modern economy, and without harnessing it, African countries will not be able to create wealth, peace, and sustainable development for their people.

The African Union (AU) recognizes the critical role of STI in Africa's development and has positioned STI as an integral part of its development strategy. The Science, Technology and Innovation Strategy for Africa 2024 (STISA-2024) was developed in 2014 with the goal to "accelerate the transition of Africa to a knowledge-led, innovation-based economy."¹ In order to achieve this mission, the implementation of STISA-2024 must address the issue of gender disparity. A 'business as usual' approach will no longer work—it is time for stakeholders to move forward and meet their commitments with action.

Policy Options and Recommendations

1. For African Leaders and Stakeholders

a. Implement STI policies and strategies at national, regional, and continental levels: There should be a renewed commitment by African governments to implement STI strategies and policies adopted at the continental (AU) and sub-regional levels. Specifically:

- i. African countries that lack or have inadequate STI policies should formulate and implement viable STI strategies and policies.
- ii. The African Union should develop an STI resource database to monitor and analyze STI policies and strategies and to identify best practices across member states. National ministries of science and technology in African countries should take the lead in STI policy assessment and evaluation in their countries. In addition, think-tanks should provide non-governmental evaluation and policy monitoring.

b. Increase and sustain STI funding: African governments should increase their investment in STI from the present average of 0.5% of GDP to at least 2%. Meeting commitments made under the Lagos Plan of Action, which binds governments to investing 1% of their GDP on research and development, is a good starting point.

The Southern Voices Network (SVN) is a continent-wide network of African policy and research organizations that works with the Africa Program to bring African analyses and perspectives to key issues in U.S.-Africa relations. Founded in 2011 with the support of the Carnegie Corporation of New York, the project provides avenues for African researchers to engage with, inform, and exchange perspectives with U.S. and international policymakers in order to develop the most appropriate, cohesive, and inclusive policy frameworks for the issues of peacebuilding and state-building in Africa.

This publication was made possible by a grant from the Carnegie Corporation of New York. The statements made and views expressed in this paper are solely the responsibility of the author and do not represent the views of the Wilson Center or the Carnegie Corporation of New York.

For more information please visit <https://www.wilsoncenter.org/article/the-southern-voices-network>

- c. Stimulate and encourage public collaboration with the private sector:** African governments should encourage partnerships with the private sector, including academic institutions and corporate bodies. This is pivotal to funding STI strategies and to stimulating the development of home-grown solutions to the challenges facing the continent.
- d. Maximize international partnerships:** International partnerships should be deepened, especially in terms of knowledge transfer and technology training. Additionally, flagship international projects that promote STI training and capacity building in Africa, such as the African Institute for Mathematical Science (AIMS), must be continued and expanded.
- e. Maximize African human capital:** Strategies should be developed to curb the brain drain and attract those in the diaspora to return or contribute to Africa. Accomplished African talent in the diaspora can be utilized through consultancy, mentorship, and training programs. African scientists abroad can be offered visiting positions in African universities, where they will be involved in training and inspiring the next generation of African scientists.
- f. Review education policies and structures to better address the continent's STI needs:** Education policies and curriculum at the primary, secondary, and university levels in African countries should be reviewed in order to develop stronger capacities in the fundamental disciplines of science, technology, and mathematics. This will strengthen the connection between African students and the growing global stock of STI knowledge, in addition to producing research programs and graduates that can effectively respond to Africa's development needs.
- g. Address the STI gender disparity:** Women currently account for slightly over 50% of the population of Africa yet they are not adequately represented in the STI field. For the continent to achieve sustainable development, it must address this gender disparity in STI. To this end, African countries must:
- i. Mainstream gender into STI policies and strategies at the national and regional level.
 - ii. Promote the access of girls and women to scientific education at all levels of the education system.
 - iii. Establish collaborative networks and mentorship programs for female scientists.
 - iv. Improve conditions for the recruitment, retention, and advancement of women in STI fields.
 - v. Launch national and regional campaigns to raise awareness about the contributions of women to STI in order to overcome existing gender stereotypes among scientists, policymakers, and society in general.

2. For the United States

United States policy towards Africa should seek to foster peace, security, and economic development and opportunity on the continent. STI is central to the achievement of these objectives, and is particularly

important in poverty reduction and the empowerment of women and youth. As such, the U.S. government should consider the following recommendations:

a. Develop more robust STI support for Africa: In order to support and sustain development in Africa, the United States should consider increasing funding and the expansion of existing STI initiatives such as the Global Development Lab, GIST initiatives, and Connect and Empower Africa.

b. Encourage increased investment and trade in Africa: The U.S. government should encourage private organizations in the United States to invest in African countries, especially in the areas of technology and innovation. The recently reauthorized African Growth and Opportunity Act (AGOA) and the Doing Business in Africa campaign should be given more publicity to encourage the private sectors in both the United States and Africa to take full advantage of the opportunities associated with both initiatives.

c. Develop and support initiatives that encourage the participation of African women in STI: The U.S. government should develop more initiatives that work to reduce the gender gap in STI fields in Africa. Furthermore, the Africa component of existing global programs which address this issue, such as TechWomen (a program of the U.S. Department of State), should be expanded and strengthened.

For a more in-depth analysis of maximizing STI for sustainable development in Africa, see the accompanying Africa Program Research Paper No. 7, by Ayodotun Bobadoye.

Ayodotun Bobadoye served as a Southern Voices Network Scholar at the Wilson Center from May-July 2015. He is a research officer at the African Technology Policy Study Network (ATPS) in Kenya, a member of the Southern Voices Network.

1 African Union Commission, "Science, Technology and Innovation Strategy for Africa 2024," Executive Summary, p. 11
<http://hrst.au.int/en/sites/default/files/STISA-Published%20Book.pdf>

The Africa Program

The Africa Program works to address the most critical issues facing Africa and U.S.-Africa relations, build mutually beneficial U.S.-Africa relations, and enhance understanding about Africa in the United States.

The Program achieves its mission through in-depth research and analyses, including our blog *Africa Up Close*, public discussion, working groups, and briefings that bring together policymakers, practitioners, and subject matter experts to analyze and offer practical options for tackling key challenges in Africa and in U.S.-Africa relations.

The Africa Program focuses on four core issues:






- i. Inclusive governance and leadership
- ii. Conflict prevention and peacebuilding
- iii. Trade, investment, and sustainable development
- iv. Africa's evolving role in the global arena

The Program maintains a cross-cutting focus on the roles of women, youth, and technology, which are critical to Africa's future: to supporting good governance, to securing peace, to mitigating poverty, and to assuring sustainable development.

SVN Policy Brief and Research Paper Series

For the full series of SVN Policy Briefs and research papers, please see our website at <https://www.wilsoncenter.org/article/the-southern-voices-network>

One Woodrow Wilson Plaza
1300 Pennsylvania Avenue, N.W.
Washington, DC 20004-3027

 www.wilsoncenter.org/africa
 africa@wilsoncenter.org
 facebook.com/africaprogram
 [@AfricaUpClose](https://twitter.com/AfricaUpClose)
 202.691.4118