



ISAAA AFRICENTER ANNUAL REPORT 2023

*Navigating the Tides
of Change*





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Introduction

At ISAAA AfriCenter, we recognize that sustainable and equitable food and feed systems have the potential to achieve critical progress on SDGs and Agenda 2063. However, we remain alive to the fragilities of these systems, which are worsened by several exogenous factors such as climate change, increased pest and disease pressure, and limited access to modern agricultural technologies. In this regard, we believe that our work would be incomplete without delivering the benefits of modern tools to farmers who form the cornerstone of Africa's food and feed systems.

At AfriCenter, our initiatives are steered by three core principles: to disseminate knowledge, to ignite inspiration, and to facilitate transformative change. Just like navigating the tides of change, the Center adeptly adjusts its course, embraces shifts, and occasionally pauses for renewal and fine-tuning.

The 2023 annual report highlights the accomplishments achieved under our three strategic pillars of inspire, inform, and transform. Together, these three ensure progression: information leads to inspiration, and inspiration catalyzes transformation.

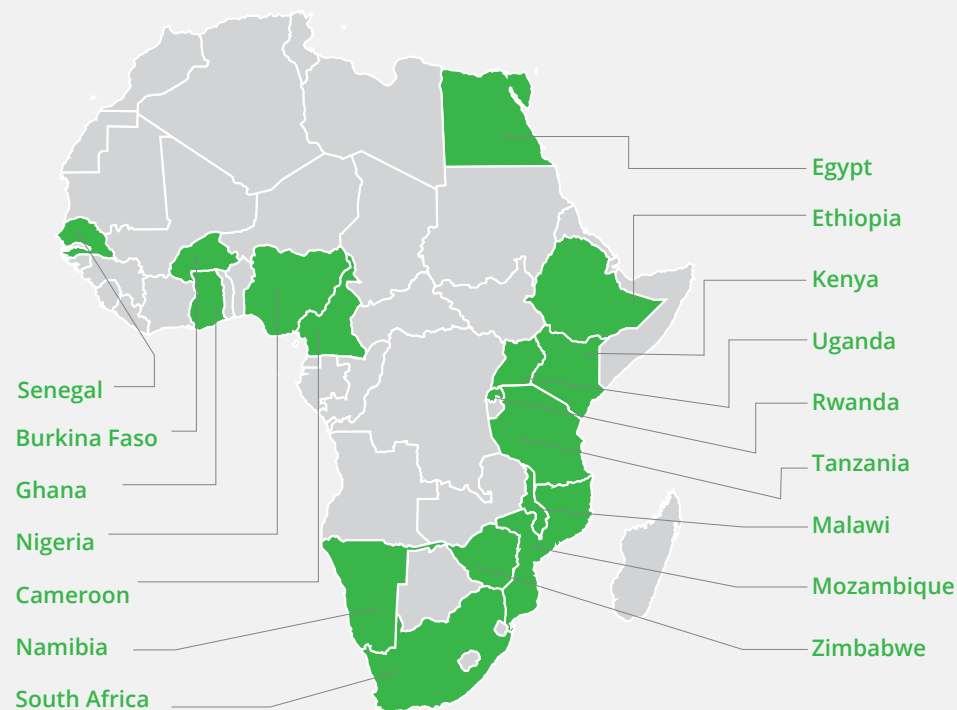
2023 Continental Reach at a Glance

In 2023, AfriCenter remained dedicated to excellence, ensuring the widespread benefits of modern technology reached stakeholders across Africa. By actively promoting knowledge sharing, capacity building, policy engagement, and media involvement, AfriCenter played a crucial role in expanding coverage and communication regarding biotechnology, biosafety and One Health (OH). This effort facilitated evidence-based decision-making and advocated for the One Health approach.

This commitment was evident in our approach throughout the activities of 2023, encompassing:

- 1. Communication and Knowledge Sharing:** Enhancing awareness and understanding of crop biotechnology.
- 2. Capacity Building:** Strengthening capabilities for effective science communication.
- 3. Policy Engagement:** Fostering a supportive environment for the development of crop biotechnology.
- 4. Media Engagement:** Improving the balance and accuracy of reporting on agri-biotechnology, biosafety, and One Health.
- 5. Strategic Partnerships:** Establishing synergies to maximize impact and optimize resources.
- 6. Youth Engagement:** Enhancing the capacity of early-career professionals in biosciences to effectively engage in international multilateral discussions.

Figure 1 illustrates countries where our efforts in biosafety and One Health initiatives were actively carried out.



Message from the Board Chair

**Dr. Robert Karanja,
Chairperson of the
Board**



As we reflect on the accomplishments of the past fiscal year and set our sights on the opportunities ahead, it gives me great pleasure to present to you AfriCenter's 2023 Annual Report.

Throughout the year, our unwavering commitment to empowering smallholder farmers and harnessing New Breeding Technologies (NBTs) has remained at the forefront of our mission. We understand the critical role that agriculture, technology, and innovation play in ensuring resilience and improving food security and livelihoods across the African continent. In this regard, our efforts have been dedicated to addressing these challenges head-on, with an unwavering determination to make a meaningful difference.

One of the hallmarks of our achievements in 2023 was the expansion of our scope beyond crop biotechnology and into areas such as livestock, environment, and One Health. Through strategic partnerships and collaborative efforts with a diverse range of stakeholders, including governments, academia, and communities, AfriCenter has played a pivotal role in enhancing communication and advocacy around biosafety and One Health issues. By promoting knowledge sharing, capacity building, policy engagement, and media outreach, we have facilitated evidence-based decision-making and fostered a deeper understanding of the interconnectedness between human, animal, and environmental health.

None of this would have been possible without the dedication and hard work of our exceptional staff. Their tireless efforts and unwavering commitment have been instrumental in driving our mission forward and achieving significant outcomes in the communities we serve. I extend my deepest gratitude to each and every member of the AfriCenter team for their continued passion and dedication.

I would also like to express our sincere appreciation to our partners, including funders and governments, who have shared in our vision and supported our endeavors. Your collaboration and support have been invaluable in advancing our mission and making a tangible difference in the lives of smallholder farmers and communities across the continent.

As we look to the future, I am filled with optimism and confidence in our ability to build upon the successes of the past year and continue making a positive impact. Together, with your ongoing support and commitment, I have no doubt that we will achieve even greater heights in the years to come.

Message from the Director

Margaret Karembu,
PhD, MBS | Director,
ISAAA AfriCenter



We at ISAAA AfriCenter continue to make a significant contribution in transforming Africa's agriculture, building sustainable food and feed systems and improving livelihoods in line with aspirations of Sustainable Development Goals and Africa Union Agenda 2063.

We continue to deliver the benefits of modern tools to farmers who form the cornerstone of Africa's food and feed systems. Our efforts over the years have contributed towards increased adoption of genetically modified crops in Africa, and to date, countries planting such crops have more than doubled, from three in 2013, to eight in 2023. In Kenya, our contribution facilitated progress towards planting of GM cassava National Performance Trials.

In our quest to ensure the region benefits from emerging tools in agriculture, AfriCenter and her partners under the Striga Smart Sorghum for Africa (SSSfA) project are setting the pace towards developing a self-reliant model for commercialization of demand-driven sorghum varieties resistant to Striga, using genome editing.

One of AfriCenter's strategic focus is fostering favorable policy for modern biotechnology Africa's agriculture. Our continuous engagement with policy makers, contributed to passage of the biosafety law in Rwanda; dismissal of a court case challenging importation of GM crops in Kenya; multi-sectoral efforts towards development of One Health governance structures across 11 African countries; as well as development of a draft National Research and Development Policy in Kenya.

AfriCenter's unmatched potential in convening stakeholders from Africa and beyond was instrumental as we hosted our signature Symposium, the Africa Biennial Bioscience Communication (ABBC2023) which yielded best-bet communication practices on communicating new breeding technologies on the continent.

A rising tide of misinformation and disinformation is threatening the global order, and has in fact been classified the biggest global risk. In contributing to efforts to address this menace, ISAAA AfriCenter launched the Africa Science Dialogue, an inclusive and interactive platform that provides factual and verifiable information on technologies in agriculture, health, and the environment. We call on all like-minded partners to join hands in fighting disinformation by [signing up to the Africa Science Dialogue community](#).

Cognizant of the ever-changing agricultural landscape in Africa and the continent's dynamic needs and challenges, ISAAA AfriCenter seeks to expand its scope and diversify its activities as outlined in our new Strategic Plan (2024 – 2030) that will be launched soon. We look forward to your continued support and collaboration as we revamp our efforts to making Africa a more thriving continent.



INFORM:

Providing timely, relevant and factual information on biosciences

AfriCenter strives to increase knowledge and awareness on agricultural biotechnology and One Health in Africa. The Center's goal is to share credible information to diverse audiences to facilitate informed policy and choice. This information is shared in a structured and systematic way that cultivates public trust. We strive for a debate that is informed by credible scientific information and evidence. Ultimately, we aim to create a reliable knowledgebase to champion evidence-based decisions.

- Development of Knowledge Products
- Sensitization of stakeholders
- Capacity Building for Effective Science Communication
- Media Engagement

Development of Knowledge Products

AfriCenter continued to develop simplified information, education and communication (IEC) materials that address information needs of different stakeholders.



The following products were produced in 2023



1. Information, Education and Communication (IEC) Materials

Top 10 Facts about the Feed the Future Striga Smart Project for Africa

The Africa Biosciences Hub (AfriBIOHub) brochure

Genome Editing in Africa's Agriculture 2023 An Early Take-Off

Kenya Top Ten Facts about Agri-Biotech & Biosafety



2. Short Impact Videos (<https://www.youtube.com/@AfriCenter>)

In 2023, more than 20 short videos on advances in the bioscience landscape were developed and disseminated through social media as well as screened in various stakeholder workshops, reaching over 100,000 viewers.



3. The DrumBeat e-Newsletter ([The Drumbeat | ISAAA - AFRICENTER](https://www.isaaa.org/africenter))

The DrumBeat is a monthly e-newsletter that tells the African bioscience story. The publication amplifies bioscience development on the continent and nurtures a favorable policy environment. In 2022, AfriCenter published and shared 12 publications of the DrumBeat. The publication has over 5,000 subscribers comprising policy makers, media, development partners, scientists, and academia.

Sensitization of Stakeholders

Public and stakeholder sensitization through forums and tours have increased knowledge and appreciation of agricultural biotechnology in Africa. These outreach activities have instilled confidence and facilitated adoption of biotech crops.



Biotech Cassava Sensitization Meeting for Presidential Communication Service (PCS), Kenya



Central Kenya Agricultural Innovations Stakeholders' Meeting



Biotech Stakeholders Forums on Outcomes of the Court Petitions' Processes, Kenya



National Farmers' Forum on Agri-biotech and Agri-innovations, Kenya

- 120 farmers-22 counties



One Health Stakeholders Meeting to Strategize on Governance Issues in Harare, Zimbabwe

Close to

400
stakeholders

comprising of policy and decision makers, journalists, faith-based groups, extension workers, farmers and regulators took part in the sensitization meetings

Capacity Building for Effective Science Communication

ISAAA AfriCenter has a leading mandate in strengthening capacities for African researchers, early career professionals, grassroots communities and media practitioners to effectively communicate emerging bioinnovations as key drivers to socio-economic development.

Science Communication training

Effective communication about biotechnology is essential for ensuring that the public is informed about the technology and that trust, and confidence is built in the regulatory processes governing these technologies.

AfriCenter has remained alive to the need of well-trained and informed partners. The center has therefore invested heavily in capacity building programs for experts who play a role in educating non-technical audiences on bio-innovations and One Health related issues.



One Health regional workshop in Pretoria, South Africa on Science communication, Pitching, leadership, and policy engagement

- Participants from 16 countries



Science Communication Training for Kenya National Academy of Sciences (KNAS) management to expose KNAS top leadership to science communication critical skills.

Media Engagement

The media shapes public opinion in the way it selects, packages and presents information to its audiences. Therefore, having a group of journalists and editors with factual knowledge on agricultural biotechnology is an important asset. In that respect, AfriCenter invests heavily in engaging members of the fourth estate in order to improve accurate reporting on agri-biotech, biosafety and One Health.



Science-media cafes

- 20 media events in Ethiopia, Kenya, Rwanda, Namibia and Zimbabwe
- Topics Covered included: Agri-innovations and Resilient Farming Systems, Lessons and Reflections from Open Forum on Agricultural Biotechnology (OFAB) Kenya Media Awards and One Health



Annual OFAB media awards

The winning journalists represented Kenya in the OFAB-Africa media awards and scooped runners up position in the Television and Print category

300+

journalists
engaged and
sensitized on
science reporting

INSPIRE:

Building confidence for informed decision making

AfriCenter recognizes the pivotal role that policy makers play in accelerating research, development, and commercialization of biotech crops and the adoption of a One Health approach. Their facilitation of enabling policies is instrumental in driving progress. To achieve this, AfriCenter is dedicated to empowering policy and decision makers with credible, factual information on agri-biotech, biosafety and One Health. This proactive engagement forms a strong foundation for creating a sustainably favorable policy environment for agri-biotech and One Health, both locally and globally.

- Seeing-is-believing study tours and sensitization
- Net-mapping: Mapping out key actors
- Peer learning: Experience sharing





Seeing-is-believing study tours and sensitization

Outreach to Parliamentary Committees Concerning Experiences in Commercialization of Bt Cotton and the Potential Benefits of other Biotech Crops- Embu, Kenya

- Four committees of parliament including: Agriculture and Livestock; Trade, Industry and Cooperatives; Health; and Delegated Legislation.
- Initiate dialogue with the Members of Parliament on the contributions of agricultural innovations in enhancing our food and feed systems by strengthening linkages among key agricultural stakeholders.



Net-mapping: Mapping out key actors

Net mapping and validation of net mapping reports

- Uganda, Rwanda, Namibia, Tanzania, Malawi
- Identify influential stakeholders and chart a pathway for establishing national One Health platforms and a One Health Governance structure



Peer learning: Experience sharing

African Biosafety Regulators' breakfast meeting under the framework of the African Coalition for Communicating about Genome Editing

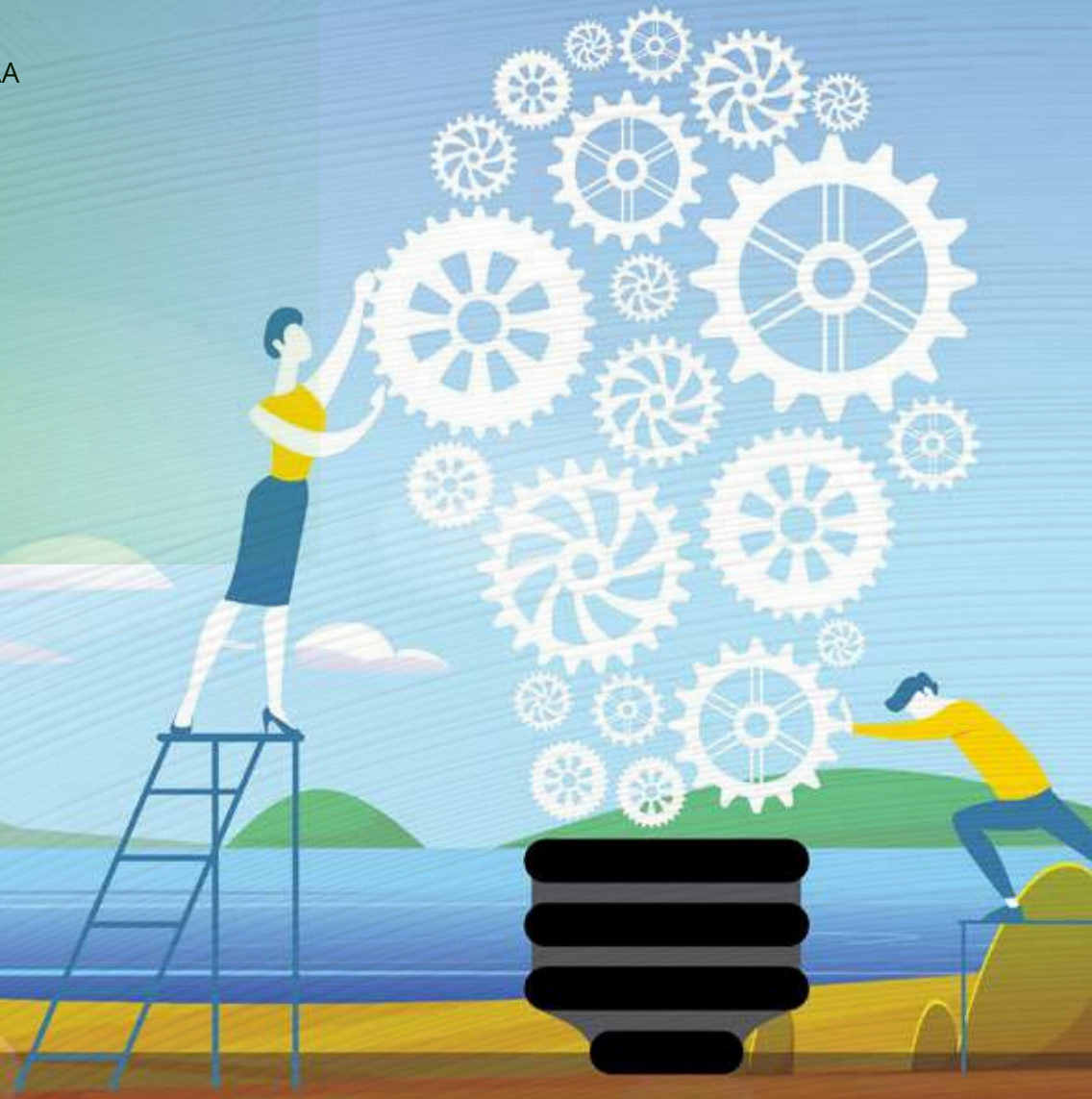
- Nigeria, Kenya, Malawi, Ethiopia, Uganda, Ghana, Tanzania, Zambia, and Mozambique, alongside counterparts from Latin American
- Enhanced networking among African biosafety regulators for experience sharing in biosafety communications on genome editing.

TRANSFORM:

Accelerating uptake of bio-innovations for a food secure and healthier Africa

In pursuit of a more sustainable and healthier future for Africa, ISAAA AfriCenter has made significant strides in accelerating the adoption of bio-innovations. Through strategic efforts and collaborative endeavors, we have achieved remarkable milestones.

- Biotech and Biosafety Milestones
 - Planting of the First Cassava National Performance Trials
 - Biosafety Law Passed in Rwanda
- Development of a National Research and Development Policy in Kenya
- Establishing Africa Biosciences Hubs (AfriBIOHubs)



Biotech and Biosafety Milestones



Planting of the First Cassava Open Field Trials

ISAAA AfriCenter has been committed to ensuring that farmers are able to benefit from Biotechnology. Through continuous engagement, awareness creation and advocacy, field trials of GM cassava were approved in 2023. A license for biotech cassava to proceed to the national performance trials was issued by Kenya's National Environment Management Authority (NEMA). This marks a step closer to bringing GM cassava to farmers in Kenya.



ISAAA AfriCenter conducting a net-mapping workshop with Rwanda agri-biotech stakeholders comprising government technocrats, biosafety regulators, private sector players and researchers

Rwanda passing the Biosafety Law

ISAAA AfriCenter's continuous engagement with policy makers contributed to passage of the biosafety law in Rwanda. This moved Rwanda a step closer towards harnessing the benefits of modern biotechnology.

The draft law provides a framework for ensuring safe and sustainable use of genetically modified organisms (GMO). The law establishes a National Biosafety Committee whose mandate is to review GMO applications and advise Rwanda Environment Management Authority. Institutional Biosafety Committees will regulate contained use and confined field trials of GMO activities.

Currently Rwanda is conducting confined field trials for a GMO cassava, which is resistant to cassava brown streak virus disease (CBSD), which can cause up to 100% yield loss.



Development of a National Research and Development Policy in Kenya.

ISAAA AfriCenter through the support of the Research and Innovation Systems for Africa (RISA) Fund led the development of the National Research Policy. The implementing partners included: National Commission for Science, Technology and Innovation (NACOSTI), National Research Fund (NRF) and State Department for Higher Education and Research.

The process involved a thorough desk review, intense countrywide stakeholder consultations to identify priority research areas for the realization of Vision 2030, and the Africa Union Agenda 2063, which is the strategic framework for Africa's socio-economic transformation over the next 50 years.

AfriBIOHubs

ISAAA AfriCenter and partners under the Striga Smart Sorghum for Africa (SSSfA) project are setting the pace towards developing a self-reliant model for commercialization of demand-driven sorghum varieties resistant to Striga, using genome editing. Building on lessons from over two decades of championing for modern biotechnology in Africa, the SSSfA project team has established a robust agri-innovation technology platform through Africa Biosciences Hubs (AfriBIOHubs). The Hubs will empower Africa's rich pool of early career scientists and bio-innovators with requisite skills to realize the socio-economic and commercial potential of their innovations.

In 2023, ISAAA AfriCenter through AfriBIOHubs conducted an Enzyme Manufacturing Masterclass (EMM2023) at Kenyatta University. Three of the beneficiaries of the masterclass participated in a 3-month virtual bio-entrepreneurship training and mentorship program under the Iowa State University's Startup Factory. The trio projected African scientists' desire for homegrown solutions through passionate pitches.





FORGING STRATEGIC PARTNERSHIPS FOR A BETTER AFRICA

AfriCenter partners with like-minded credible institutions. These partnerships seek to ensure a coordinated approach to optimize resources and synergize expertise. Owing to AfriCenter's policy engagement and communications track record, partners frequently contract the Center to undertake communication and policy engagement activities in support of their projects.

- Africa Biennial Biosciences Communication (ABBC2023) 2023
- Africa Science Dialogue

Africa Biennial Biosciences Communication (ABBC2023)

AfriCenter is alive to the fact that regulations and communication efforts have not kept pace with the rapid advancements in genome editing. We believe in the need to educate the public for informed policy and choice, and walk together with key stakeholders along the product development lifecycle.

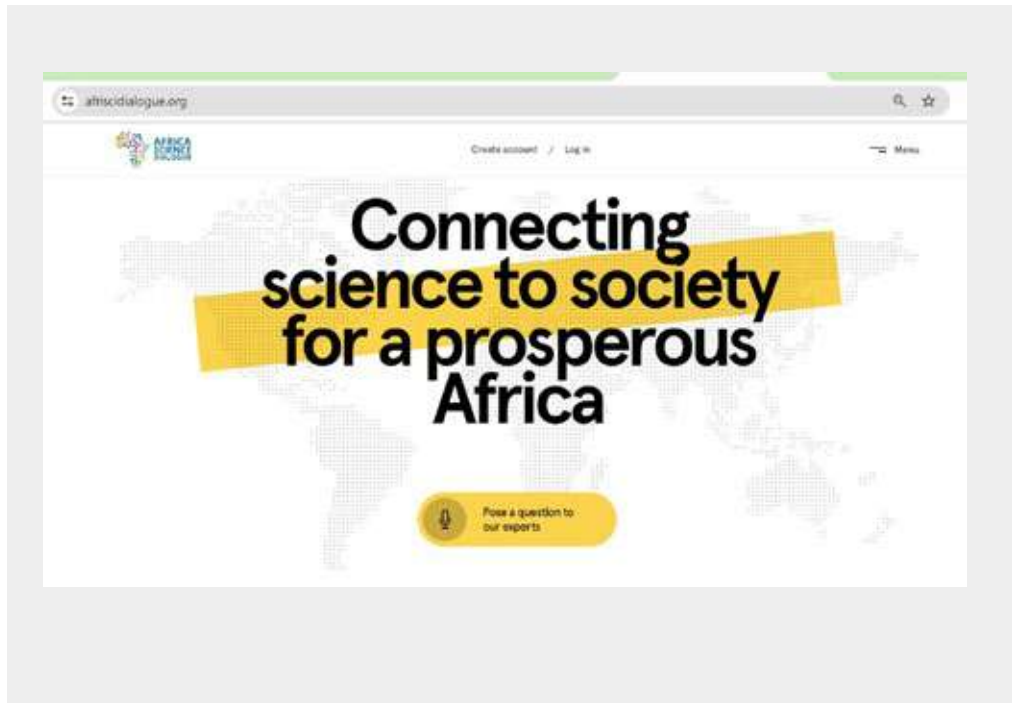
In light of this, Africenter's signature Symposium, the [Africa Biennial Biosciences Communication \(ABBC2023\)](#) provided a platform for over 180 delegates from 23 countries to deliberate on whether communication is matching up with the evolution of genetic improvement tools in agriculture.

Some best-bet communication practices were proposed, and African states and development partners urged to put more investment in science communication. Highlights from this successful event can be found in our [report](#).

ABBC2025 is set to be hosted in West Africa, and we call on all like-minded partners to [register interest](#) towards elevating the Symposium's impact as we continue fostering a community dedicated to championing for bio-innovations in Africa.

180
delegates
from
23
countries





Africa Science Dialogue

ISAAA AfriCenter remains conscious of the evolving bioscience landscape. Politicization of science, increased skepticism on emerging tools in agriculture, and a rise in disinformation and misinformation has led to fear among stakeholders about agricultural technologies.

ISAAA AfriCenter launched the [Africa Science Dialogue](#), an inclusive and interactive platform that provides factual and verifiable information on technologies in agriculture, health, and the environment. This African-led platform is expected to nurture Africa's Bioeconomy for growth and prosperity.

The portal brings fresh impetus in the fight against misinformation on agricultural bio-innovations in Africa. Through fact-checking mechanisms, the hub will eradicate the dangers of misinformation which include delayed decision making, as well as fears and mistrusts, from use of scary images, about biotechnologies.



A lie can travel half around the world while the truth is putting on its shoes.

Mark Twain

Our Partners



LOOKING AHEAD



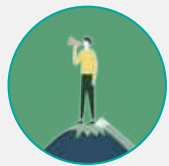
In the pursuit of addressing pressing challenges in agriculture and advancing the One Health approach, robust support for bio-innovations emerges as a pivotal catalyst. ISAAA AfriCenter conducted an intensive environment scanning, reviewed the lessons learnt over the last 30 years of operations in Africa and sought feedback from our clientele and developed a strategic plan aimed at addressing the gaps and needs identified.



Knowledge Management and Artificial Intelligence



Enhancing Bio-Innovations Ecosystem



Science Communication and Diplomacy



Convening Multi-Stakeholder Platforms



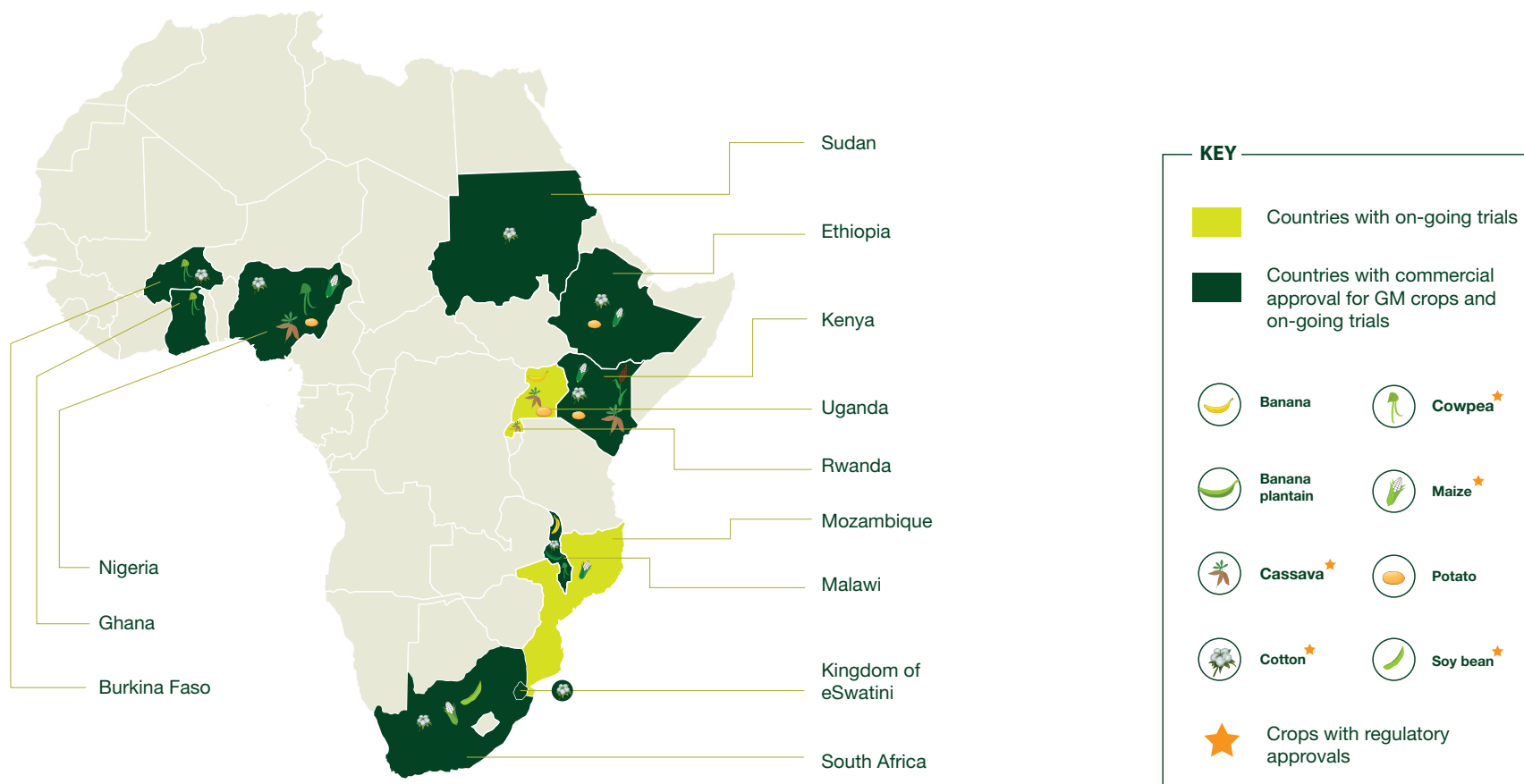
Policy and Regulatory Clarity

The plan's goals and objectives are rooted in a deep understanding of the organization's capabilities, the needs of our stakeholders, and the external environment.

We invite new partnerships as we strive to integrate efforts and make Africa healthy, food secure and resilient to the dynamic climate for our future, coming generations, and the planet.

Biotech/GM Crops Status by 2023

5 crops with regulatory approval in 9 countries





Knowledge is like a baobab tree, no one individual's arms can reach around it.

African Proverb

ISAAA AfriCenter

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