



ISAAA

in

2021



**From** *Partnerships*  
**to** *Public Trust*



## Message from the Board Chair

This past year has been unusual for most of the world's population because of the COVID-19 pandemic and the many measures taken by governments to limit its spread. Many organizations have had to adjust their operational models and indeed even re-invent themselves to deal with the new circumstances. However, what has remained are the many existential issues affecting food production, the environment, and livelihoods. Problems like climate change, food insecurity, poverty, social inequity continued during the pandemic with some even increasing in urgency for solutions. This was the backdrop which ISAAA and its partners had to face. But ISAAA was able to soldier on and as the accomplishments in this report show, was still able to conduct programmes and activities for its beneficiaries.

The past year has continued the shift in momentum for biotechnology from the developed world to the developing world, further reinforcing the importance of biotechnology to smallholder farmers. While the more matured countries which have been planting biotech crops (such as the USA and Brazil) saw either marginal changes in planting the important commodity crops of corn and soybean, their production nevertheless assured the world that there was sufficient supply to meet the growing demands for animal feed. Africa expanded its portfolio of biotech crops and planting area, and elsewhere there was increase in the types of crops enhanced using the technology. It was also noteworthy that in 2021, the Philippines became the first country to approve Golden Rice for commercialization, and concurrently Bt eggplant for direct use as food, feed, and processing. This was a clear demonstration of science prevailing over unfounded hysteria.

The past year has also been a milestone year for ISAAA as its Board decided that after more than twenty-six years, the organization needed to adjust to the changed agriculture and food landscape, and reinvent itself. ISAAA will be expanding its scope beyond crops to the applications of biotechnology involving animals and microbes. With this, the hope is that new partnerships will be forged to work towards shared goals for the world. We hope that you can join us in our exciting new journey.

**Dr. Paul Teng**  
Chair, ISAAA Board of Trustees



### The BioTrust Consortium: Feeding the world with knowledge on sustainable biosciences



ISAAA, with a track record of almost three decades promoting knowledge transfer of agribiotechnology worldwide, is crafting a new identity. We feel a shift in strategy is timely as we move forward to embrace new technologies in biosciences that are intertwined and instrumental in delivering our goal of improving lives of people dependent on agriculture. New technologies are being developed at an ever-increasing pace with consumer understanding and regulatory policy trailing behind.

The changing landscape in agriculture demands us to look beyond crop technology. Social licensing is driving political will that affects research, development, and commercialization. Youth and women are increasingly playing a bigger role in feeding the world and in transforming agriculture into profitable and sustainable business. Modern agribiotechnology is now not just in the turf of big multinationals but with gene editing, smaller companies, start-ups, and public sector institutes are racing in to provide agricultural solutions that will benefit consumers. This is shifting the benefits of biotech crops from farmers to consumers.

To make our efforts inclusive to all stakeholders, ISAAA is transforming into a new identity - The

BioTrust Consortium. BioTrust Consortium will continue the legacy and impact created by ISAAA to ensure sustainable development in agriculture and food production. In line with both the current challenges and opportunities, BioTrust is expanding its scope beyond ISAAA's, to include all biosciences in sustainable food production. ISAAA has already started championing genome editing of crops and animals and has engaged audiences and partners around the globe. We are now excited to support knowledge transfer in soil microbes, industrial microbes in food production, precision fermentation, novel foods, enzymes, livestock, poultry, and aquaculture, and use of biomass among other potential tools in agriculture and food systems. We are also focusing on entrepreneurship among youth and women and start-ups to support inclusivity, what is needed most in the developing world.

We will do this by engaging the broader supply chain of agriculture that connects not only farmers and consumers, but also manufacturers, traders, scientists, and all other players in biosciences. Being a Consortium allows ISAAA to maintain the existing network of BICs and partner with other like-minded organizations and collaborate to champion common causes. Each partner would remain an independent

entity, while BioTrust serves as the leader and secretariat for the consortium. Project-based partnership could also be forged.

We stay steadfast to our core values of creating trust and transparency in food systems and technologies. It is my pleasure to invite others to join our cause to eliminate hunger and at the same time champion climate smart agriculture; support women and youth empowerment; and propel commercialization from public sector, start-ups, and SMEs.

At BioTrust Consortium, we envision a world where agricultural biosciences contribute every day to sustainability, societal well-being, and prosperity.

For more information on the consortium, send a message to [maha@bic.org.my](mailto:maha@bic.org.my).

**Dr. Mahaletchumy Arujanan**

Global Coordinator, ISAAA  
Executive Director, Malaysian Biotechnology Information Centre (MABIC)

# Milestones

Informed and empowered

**178k**  
followers  
on social media

**23k**  
subscribers  
received latest updates  
on crop biotech

**1.2k+**  
delegates  
participated in  
ABBC 2021  
Symposium

Launch and operationalization of  
**GM Crops  
E-Learning  
Platform**

**116**  
biotech players  
participated in virtual  
short course on  
agri-biotech

**85**  
partners  
in feeding the world  
with knowledge

**46.7k**  
monthly users  
of GM Approval Database  
and Resource Pages

Info campaign  
on Bt eggplant  
achieved  
**36.9**  
million reach

**350**  
stakeholders  
from **8** African  
countries

**Over  
80**  
hours  
of digital learning  
opportunities for key  
stakeholders

Public participation  
for the environmental  
approval of  
**GM cassava  
in Kenya  
&  
TELA maize  
in Nigeria**

reached through  
Science Dialogue  
Series

**83** media  
practitioners  
from **14** African  
countries

benefited from a media training  
course on health science  
communication

# Our Impact in Asia



We, at the ISAAA SEAsiaCenter, once again demonstrated our ability and effectiveness in the conduct of biotechnology information, education, and communication activities (IEC), had active collaboration on capacity building projects, as well as various knowledge sharing initiatives with like-minded organizations globally. Thus, in 2021, despite the continuing COVID-19 pandemic, global economic slow-down, and the omnipresent funding concerns, ISAAA SEAsiaCenter continued its mandate of feeding the world with knowledge on biotechnology.

ISAAA SEAsiaCenter conducted groundbreaking activities such as the virtual international workshops on building regulatory capacities for biotechnology (genetic engineering and genome editing) in accordance with Asia-Pacific Economic Cooperation, a training workshop to prepare for international biodiversity negotiations (pre-COPMOP), science communication and animal biotechnology regional workshops. A series of webinars have also placed ISAAA SEAsiaCenter in the fields of genome editing, gene drive, and science diplomacy. New resources were added to the ISAAA website catering to biotechnology information needs of various stakeholders. A strengthened social media campaign complemented all these IEC efforts geared towards the younger generations.

We gratefully acknowledge new partners and donors who made these initiatives possible and believing in ISAAA's credibility and capabilities. These knowledge sharing and capacity building initiatives will continue in 2022 with strengthened linkage and partnerships while we initiate new ones.

We invite new partners and donors in the newly launched BioTrust Consortium, where ISAAA SEAsiaCenter is one of the strong partners. We are confident that you will be encouraged to do so as you read and appreciate our efforts detailed in this Accomplishment Report.

## **Dr. Rhodora Romero-Aldemita**

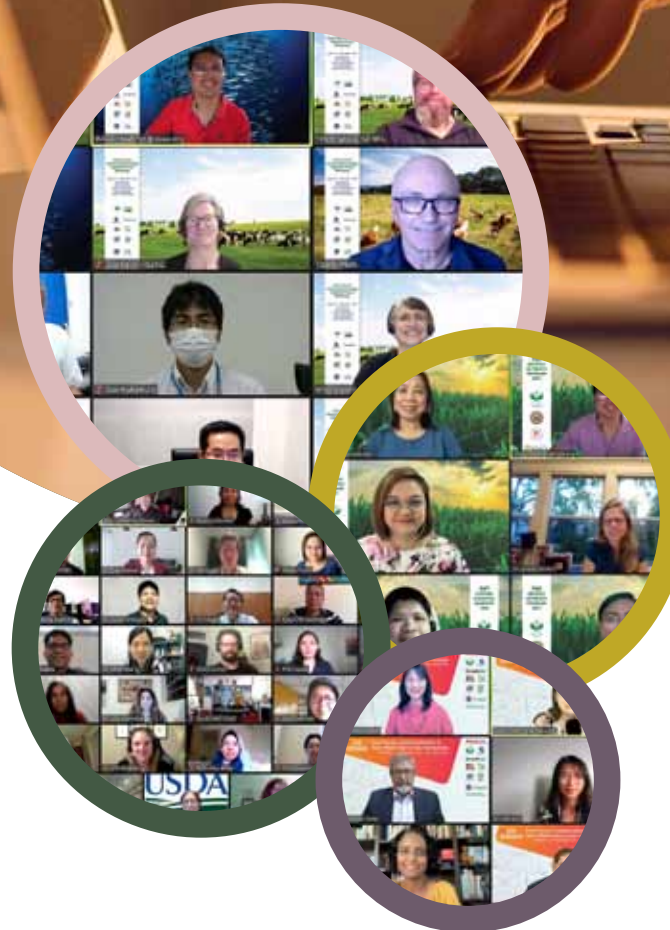
Executive Director, ISAAA SEAsiaCenter

Director, ISAAA Global Knowledge Center on Crop Biotechnology



## *Building Capacities* of 116 Biotech Players through Virtual Short Course

Since 2019, ISAAA SEAsiaCenter have enriched the capacities 116 biotech players on biotechnology, biosafety regulations, and communication. The 4th run of the Asian Short Course on Agribiotechnology, Biosafety Regulation, and Communication (ASCA) served as a platform for discussions about the entire value chain of living modified organisms (LMOs), as well as national and international legal instruments regarding LMOs. A total of 20 international experts shared their knowledge and experiences to the 48 participants from 9 countries. For the first time since its first run, ISAAA partnered with Murdoch University to include science diplomacy in the sessions. The session included the Biotech Game designed by Murdoch University to simulate negotiations on the regulation of gene-edited crops based on the Cartagena Protocol on Biosafety.



## *Over 80 Hours* of Digital Learning Opportunities

Digital learning environments are increasingly popular not just in higher education, but also in building capacities in biotechnology. In 2021, ISAAA has conducted over 80 hours of webinars and virtual training sessions on crop biotechnology, gene editing, gene drive, animal biotech, and science communication. These virtual sessions have equipped 35,282 individuals, mostly researchers, academics, and students. ISAAA webinars have received mostly positive feedback from the participants and several signified a change in their level of knowledge after attending the virtual events. ISAAA has made most of these learning opportunities available online through the ISAAA Webinars portal for individuals who wish to continue gaining knowledge on-demand.

## Variety of Multi-media Materials Reached 5,150 People

Together with international experts in the field of gene editing and the US Department of Agriculture, ISAAA published a primer on gene editing with a special focus on its impact on food security. Top experts on the most relevant topics were invited to write a chapter to ensure that each facet of the technology is accurately discussed in the right perspective. The publication was launched virtually in the Philippines in collaboration with the Biotechnology Coalition of the Philippines. The primer has reached 1,054 downloads in just two months after its publication. Aside from the primer, ISAAA also published Pocket Ks on Rust Resistant Wheat and TALENs, in partnership with The 2Blades Foundation.



## Info Campaign on Bt Eggplant Reached 36.9 Million

The ISAAA Global Knowledge Center on Crop Biotechnology was at the forefront of informing and engaging the public on Bt eggplant. A total of 19 information materials including of infographics, video, and blogs on Bt eggplant were released to present to the public the potential benefits of the biotech crop to farmers, the environment, and the society at large. The information campaign achieved 36.9 million reach according to Mention, a social media and web monitoring tool. Support groups and media practitioners who have engaged with the project were also mobilized for future collaborations. In July 2021, Bt eggplant was approved for direct use as food, feed, and processing in the Philippines.



## Latest Updates on Crop Biotech and Gene Editing for Over 23K Subscribers

ISAAA's weekly e-newsletter, Crop Biotech Update (CBU), has been one of the most long-standing news resource on the topic. With just 65 subscribers in 2000, CBU now provides news and research highlights on biosciences to over 23,000 subscribers worldwide. It also includes regular updates on new breeding innovations sourced from various research institutions and peer-reviewed journals. Along with the CBU, perspectives on science and technology were also published by ISAAA writers and other contributors through the Science Speaks blog with a monthly reach of 2,369.



## Informing and Empowering 178K Followers

ISAAA and its network of Biotechnology Information Centers harness the power of social media for knowledge sharing and empowering key players in biosciences. With social media campaigns on speaking for science, empowering women, “bagong talong” (the new eggplant), among others, the ISAAA network’s social media accounts have a collective reach of 178,893, which is 10% more than the previous year’s reach. The impact of biotech crop adoption, new breeding technologies, webinar announcements, and new biotech crop approvals were topics that catch the attention of many ISAAA followers.

## 46.7k Users Visit ISAAA GM Approval Database and Resource Pages Monthly

ISAAA presents an easy-to-use public database of biotech/GM crop approvals which has 56k pageviews every month. It features the biotech/GM crop events that have been approved for commercialization/ planting and importation (food and feed). Entries in the database represent the majority of the GM crop events approved worldwide, based on publicly available English (and translatable) decision documents of each approving country, Biosafety Clearing House of the Convention on Biological Diversity, and peer-reviewed scholarly articles.

Dedicated resource pages with curated content on genome editing, COVID-19 research, and Bt eggplant are also available for free in the ISAAA website to help visitors have easy access to the information that they need.



## 25 Partners in Feeding the World with Knowledge

ISAAA SEAsiaCenter has partnered with 25 like-minded organizations, research institutions, and private companies in 2021 with the common goal of enabling evidence-based discussions and knowledge sharing globally, especially to the developing nations. With the shared vision of empowered public and informed decision-making, ISAAA and its partners work together to bring the best publications, learning events, and campaigns that equip stakeholders with the must needed information and inspiration. In 2021, the US Department of Agriculture Foreign Agricultural Service Manila, 2Blades Foundation, EmergingAg, and Murdoch University joined ISAAA SEAsiaCenter in gaining ground towards a more informed and empowered public.

# Our Impact in Africa



Unprecedented success illuminated the story of agricultural biotechnology in Africa over the last one year. Africa made remarkable progress with the number of countries planting biotech crops more than doubling – from three in 2018 to seven in 2021. Four others continued to show promise through field trials focusing on crops and traits of high relevance to challenges facing the region. This significant advancement has positioned the continent for increased adoption. To accelerate progress towards this tipping point, the Africa Biennial Biosciences Communication (ABBC 2021) symposium facilitated a rich exchange of experiences from more than a decade of biosafety, biotech research, outreach, and advocacy.

The environmental release approval of two food crops – disease resistant cassava in Kenya and TELA maize in Nigeria – marked a milestone in Africa's agricultural biotech in 2021. ISAAA AfriCenter led the first-ever virtual public participation for an environmental release application of the disease resistant genetically modified cassava.

In our continued quest to serve information needs of various stakeholders, we developed several simplified knowledge products. We also stayed ahead of the misinformation curve by promptly highlighting Africa's early take-off in genome editing through a Brief that continues to capture lead projects in the region. The DrumBeat, our monthly e-newsletter, kept a pulse on Africa's progress in biosciences, and consistently updated close to 5,000 subscribers.

In our efforts to build public engagement capacity of those who shape society's opinion on agricultural innovations, we held five science communication training workshops targeting close to 150 participants, representing more than 20 countries covering Africa, south Asia and southeast Asia.

The Center continued to engage policy and decision makers towards aligning agricultural biotechnology with key government agendas. For continued and balanced reporting on agri-biotech issues, we continued to engage the media using various strategies including science cafes, study tours, and commissioning of biotech stories, while incentivizing accurate coverage through the OFAB Kenya media awards. Our efforts garnered over 50 million media impressions.

AfriCenter is now repositioning itself to meet new challenges in the biosciences landscape, aggravated by politicization of science and rising scepticism of emerging tools.

**Dr. Margaret Karembu, MBS**  
Director, ISAAA AfriCenter  
Chair, OFAB-Kenya



## Environmental Approval of GM Cassava and TELA Maize

ISAAA AfriCenter led the first-ever virtual public participation for environmental release applications in Africa. With this initiative, the continent recorded an unprecedented milestone in crop biotechnology following landmark approvals for environmental release of disease resistant GM cassava in Kenya and TELA maize in Nigeria. In June 2021, Kenya granted approval for environmental release of GM cassava resistant to brown streak disease paving way for conducting of national performance trials before the improved cassava is registered and delivered to farmers. In Nigeria, TELA Maize – a new maize variety genetically modified to tolerate moderate drought and resist the fall armyworm and stem borer – was approved in November 2021.



## 1.2k Delegates Participated in ABBC 2021 Symposium

AfriCenter held the fourth edition of the Africa Biennial Biosciences Communication (ABBC 2021) Symposium in a hybrid format with in-person attendance in six African countries (Ethiopia, Ghana, Kenya, Malawi, Nigeria, and Uganda) and virtual participation from the rest of the world. It was themed 'Accelerating Africa's Biotech Tipping Point: Taking Stock and Celebrating the Gains' to embody remarkable success in the development and adoption of biotech crops on the continent. This garnered key recommendations for enhancement of Africa's agri-biotech and biosafety development were captured in a communique to be presented to the African Union for action.

## 350 Stakeholders from 8 African Countries Reached through Science Dialogue Series

AfriCenter initiated the Africa Science Dialogue, an African-led science dialogue series that provides timely interventions in correcting any misinformation on non-communicable diseases and COVID-19 pandemic. The series, held under the auspices of the Africa Life Science Knowledge (ALSK) hub, brought together different experts to engage with the public on a regular basis with factual, evidence-based information on different media platforms.



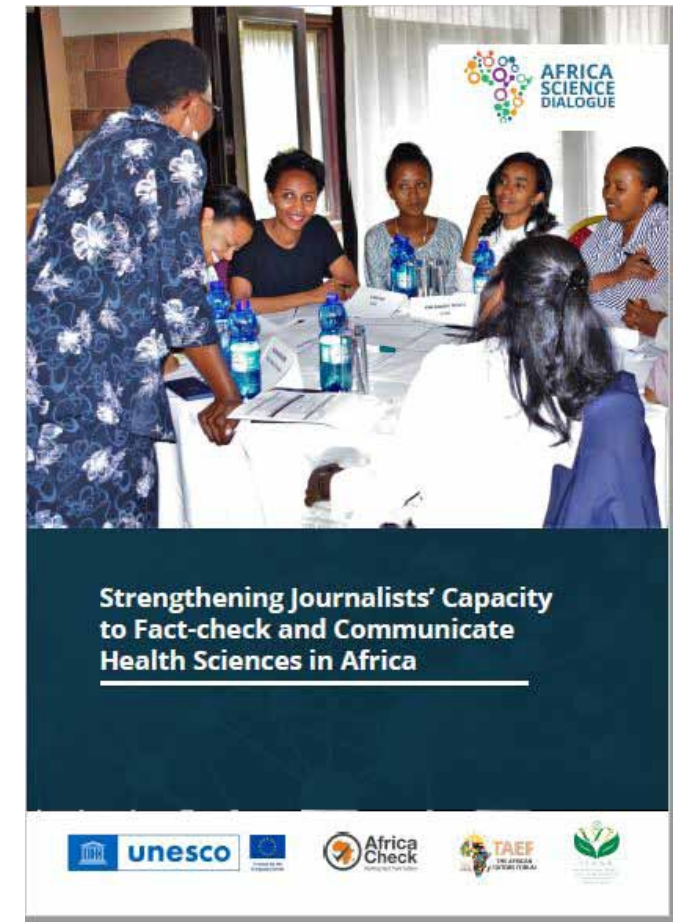
## Launch and Operationalization of GM Crops E-Learning Platform

In August 2021, AfriCenter launched a GM crops e-learning platform, a one-stop source of biotech crop information and an interactive platform that brings together all the stakeholders to enhance efficiency in information access about GM crops. The platform has two parts – a web-based portal that acts as a market place for biotech crop products and inputs and links all the players, and a mobile application compatibility feature. Twenty (20) Bt cotton farmer leaders in Kenya were trained and made champions of the GM crops e-learning platform.



## 83 Media Practitioners from 14 African Countries benefited from a Media Training Course on Health Science Communication

AfriCenter, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and partners organized a three-month training course for Africa media professionals to strengthen their capacity on fact-checking and communicating about health sciences. Eighty-three (83) journalists, communicators and bloggers from 14 African countries successfully completed the course. Journalists from Kenya, Uganda, Tanzania, Ethiopia, Zambia, Zimbabwe, Malawi, South Africa, Madagascar, Democratic Republic of Congo, Cameroon, Nigeria, Ghana and Senegal participated. The course, which focused on COVID-19 and non-communicable diseases (NCDs), took place virtually as a series of six interactive sessions. This initiative facilitated the establishment of a linkage between experts and journalists as some journalists have already started engaging experts on COVID-19, noncommunicable diseases, and nutrition.



*"What I liked most about this training was the topic on translating health science into simple language. For me, this was the most illuminating topic as I learned, comprehended, and understood the need for journalists to simplify their reporting for enhanced understanding and impact on the part of the audience. I am now equipped with a number of simplified terms to use in the context of COVID-19 reporting."*

Stephen Chinyama, journalist at Power FM in Zambia.



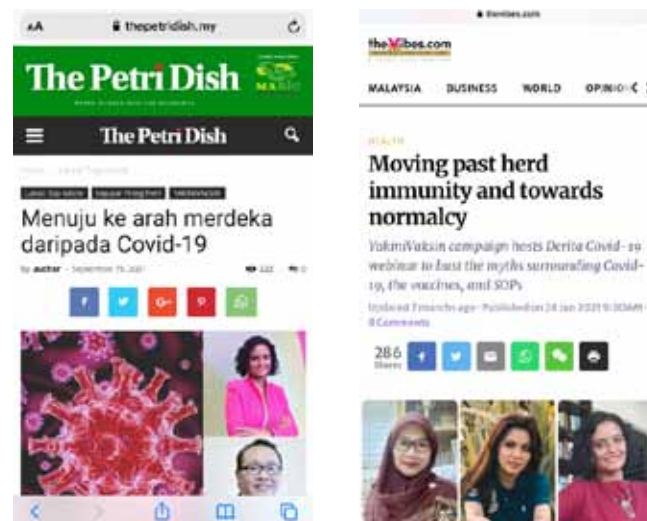
# Network of Biotechnology Information Centers

The ISAAA network of Biotechnology Information Centers serve as key sources of science-based information on biotechnology in the countries they represent. Each BIC support their respective national biotech agenda and reach out to various stakeholders through different communication channels.

## Malaysia

The pandemic was not all gloom for Malaysian Biotechnology Information Center (MABIC). It opened many doors for new collaboration as science communication gained greater demand and MABIC is one of the very few organizations in Malaysia that promotes public awareness on science. MABIC has both the tools and also the expertise to do this making it a sought after organization in their country.

**Vaccine awareness campaign.** Mass adult vaccination is very new to global population and it created a lot of resistance from the public at the onset of vaccine program. Duopharma, the largest Malaysian pharmaceutical company collaborated with MABIC to foster public awareness and acceptance of COVID-19 vaccines. This was done through webinars, social media campaigns, press releases, and media articles released in The Petri Dish and Science Media Centre.



**Visibility for start-ups during the pandemic.** The Malaysian Technology Development Corporation (MTDC) saw emerging tech companies that raised against the odds during the pandemic as role models for aspiring technopreneurs. MTDC collaborated with The Petri Dish and Science Media Centre to feature these companies through interviews, media articles, and social media posts.



**Esti.my – online science media for students/parents/teachers.** The Academy of Sciences of Malaysian (ASM) choose MABIC as their partner to revive Estidotmy, a print science magazine that was halted in 2011. Esti was transformed into an online media with MABIC as the implementor. MABIC was in charge of the website, collating contents and reviewing them with the help of Young Scientists Network.

**Selangor Biotech Action Plan.** MABIC was chosen to develop the SBAP with Universiti Putra Malaysia (UPM) as the lead consultant. Malaysian Bioeconomy Corporation was another consultant in this project. SBAP is a roadmap that will be implemented by the Selangor government to make the state a regional biotechnology hub. It took UPM, MABIC, and BioeconomyCorp more than 2 years to develop the action plan. It was launched by the Chief Minister in November 2021.



# Other Initiatives

**Peru**

**Uganda**

Utafiti Food Festival promoted research-derived foods through culinary tasting and entertainment attended by 250 individuals

**Kenya**

Over 1,200 delegates Africa Biennial Biosciences Communication (ABBC2021) Symposium

**South Africa**

**Egypt**

**Iran**

**Thailand**

Translation and distribution of Crop Biotech Update

**China**

Translation and distribution of Crop Biotech Update

**Korea**

**Vietnam**

Translation and distribution of Crop Biotech Update

**Pakistan**

Offered three online certificate courses together with partners to equip early career professionals

**Indonesia**

Translation and distribution of Crop Biotech Update

**Philippines**

Equipped 360 law practitioners about the progress, potential, and policies on genome edited-crops

**Malaysia**

Webinars and social media campaigns on COVID-19 vaccines reduced vaccine hesitancy and reached up to 11.1K

**Japan**

Over 1,000 subscribers receive translated CBU articles to increase knowledge and awareness on biotech which contributed to the commercialization of genome-edited tomato and fish in the country

# Feedback

## FROM PARTNERS

*Congratulations on the setting up of BioTrust Consortium. Thank you for continuing leadership in this area and the setting up of the consortium is very timely especially with the impact of climate change and COVID-19, we need to create partnerships and opportunities to showcase the benefits of plant science industry.*

*-Siang Hee Tan, Executive Director, CropLife Asia*

*The ISAAA GM Approval Database has served on multiple occasions as a very useful source of our research projects and communications activities.*

*-Sarah Evanega, Founder, Cornell Alliance for Science*

*ISAAA's annual global adoption report has broadened our research base direction, in particular to incorporate two new categories, and a review on an existing development program.*

*-Paul H. Stewart, Researcher, AgriVentis Technologies*

*ISAAA conducts webinars that one should never miss! They are well-organized and provide valuable discussions on current global issues of food scarcity and related concerns in agriculture. Highly appreciate all your effort towards diffusing knowledge and making us aware of the possibilities and advancements of biotechnology for plant breeding. A great encouragement for young undergraduates to work on and research on this criteria. Job well done!*

*-Shenaz Marina Amath, Student, Wayamba University of Sri Lanka*

*The Crop Biotech Update gives me information on the global happenings of the adoption rate and the latest scientific findings on GM crops. Hence, I get the drive and clue to research more into the available novel mechanisms for genetic improvement of crops for the benefit of the ever-growing global population.*

*-Abdul-Lateef Yakubu, Researcher, World Vegetable Center*



## The Way Forward

# Collective Empowerment for Public Trust

Extreme poverty in West Africa increased by 3% in 2020.

Displaced families in Nigeria are “knocking on the door of starvation.”

Forty two percent (42%) of the Philippine population are facing moderate to severe food insecurity.

Prior to the onset of the COVID-19 pandemic, the world is way beyond meeting the 17 Sustainable Development Goals (SDGs) set by the United Nations General Assembly. Now, the challenge has been enormously exaggerated.

These alarming news about poverty and food insecurity continue to prompt us that there is so much to be done. Together with the United Nations and several organizations all over the world striving to attain the SDGs, ISAAA pursues to make a valuable contribution.

As an organization, ISAAA has contributed to empowerment of communities by providing outstanding learning strategies and platforms. These learning efforts have helped individuals and communities to gain knowledge, improve their skills, gain flexibility to the current gaps and needs, and adapt to impending challenges. Learning has helped people grow. More importantly, with knowledge and reflection of others' experiences in adopting biotechnologies, learning brings people to a state of empowerment that enables them to move toward their goals.

ISAAA has been striving to work with intention – to contribute in the alleviation of poverty and malnutrition, and at the same time empower stakeholders to fully embody their roles. We listen to the needs of the public and provide them with the support that they need. We inform the farmers and consumers about the new breeding innovations and biotech crops that have been proven to be as safe as the conventional and have provided numerous benefits to growers particularly in the upliftment of their lives. We equip academics and researchers with the latest updates on biosciences to empower them to make next-level products that will be helpful to the farmers. Media practitioners gain easy access to science-based and simplified sources of information to enable them to provide science news to a wider public. We reach out to policymakers to assist them and make them part of the journey of innovations towards commercialization. Through the years, ISAAA has created a full circle of support for every stakeholder to help achieve an empowered society with trust on the right sources.

In the long run, these numerous efforts are bound to shape policies that will be helpful in our goals to achieve empowered communities with individuals that can make sound decisions involving biosciences. With informed trust, transformative change to attain the global goals of having a sustainable future for all is not too far to achieve.

Sources:  
United Nations. 2022. UN News. <https://news.un.org/en/tags/poverty>.  
FAO. 2021. The State of Food Security and Nutrition in the World 2021. <https://www.fao.org/3/cb4474en/online/cb4474en.html#>.



# Partners & Donors

2Blades Foundation  
African Agricultural Technology Foundation (AATF)  
African Biosafety Network of Expertise (ABNE)  
African Union NEPAD  
Alliance for Commodity Trade in Eastern and Southern Africa (ACTESA) of COMESA  
Alliance for Science - Cornell University  
Associate of Arab Universities  
Association of Agricultural Research Institutions in the Near East & North Africa  
Association of Biosafety for Australia & New Zealand  
African Union – Interafrican Bureau for Animal Resources (AU-IBAR)  
Australian Centre for International Agricultural Research (ACIAR)  
BASF Australia Ltd  
BASF Corporation  
Bayer – Crop Science  
Bill & Melinda Gates Foundation  
BioInnovate Africa Programme  
Biosafety South Africa  
Biosciences eastern and central Africa (BecA-ILRI Hub)  
Biotechnology Coalition of the Philippines  
Biotechnology Society of Nigeria (BSN)  
Biotechnology Society of Tanzania  
Corteva Agriscience  
CropLife Asia  
CropLife Philippines  
Department of Agriculture Biotechnology Program Office, Philippines  
Department of Agriculture, Bureau of Agricultural Research, Philippines  
Donald Danforth Plant Science Center  
Ethiopian Institute of Agricultural Research (EIAR)  
EmergingAg

Environmental Affairs Department, Malawi  
Environmental Institute for Agricultural Research - Burkina Faso (INERA)  
Federal Ministry of Science and Technology, Nigeria  
FuturaGene  
Gates Ag One  
Ghana CSIR-STEPRI  
Ghana National Biosafety Authority (NBA)  
Institute of Plant Breeding, University of the Philippines Los Banos  
International Livestock Research Institute (ILRI)  
J.R. Simplot Company  
Kenya Agricultural & Livestock Research Organisation (KALRO)  
Kenya National Academy of Sciences (KNAS)  
Kenya National Research Fund (NRF)  
Kenyatta University  
Maharashtra Hybrid Seeds Company Limited (Mahyco)  
Michigan State University (MSU)  
Ministry of Agriculture, Livestock and Fisheries, Kenya  
Ministry of Industry, Trade and Cooperatives, Kenya  
Ministry of Innovation and Technology, Ethiopia  
Murdoch University  
National Biosafety Authority, Kenya  
National Biosafety Authority, Zambia  
National Biosafety Committee (NBC), Sudan  
National Biosafety Management Agency, Nigeria  
National Biotechnology Authority, Zimbabwe  
National Biotechnology Development Agency, Nigeria (NABDA)  
National Commission for Science, Technology and Innovation (NACOSTI), Kenya  
National Committee on Biosafety of the Philippines (DOST NCBP)  
New Partnership for Africa's Development (NEPAD) Agency

Nigeria Agricultural Biotechnology Development Agency  
Outreach Network for Gene Drive Research  
Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD)  
Program for Biosafety Systems of International Food Policy Research Institute (IFPRI)  
Rautaki Solutions Pty Ltd  
Rwanda Environment Management Authority  
Science for Democracy  
SEAMEO Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)  
Society of Crop Agribusiness Advisors of Kenya (SOCAA)  
St. Louis Community Foundation  
Swaziland Cotton Board  
Swaziland Environment Authority  
Tanzania Commission for Science and Technology (COSTECH)  
The African Seed Trade Association  
The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)  
UNCST - Uganda  
UNESCO

United States Department of Agriculture  
United States Foreign Agricultural Services Manila  
University of Quilmes  
UPLB Foundation Inc.  
USAID  
United States Grains Council  
United States Soybean Export Council  
VIB-International Plant Biotechnology Outreach (IPBO)  
Wageningen University

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