



ISAAA
Philippines
in
2017
ACCOMPLISHMENT REPORT





The International Service for the Acquisition of Agri-biotech Applications (ISAAA) is a not-for-profit international organization that shares the benefits of crop biotechnology to various stakeholders, particularly resource-poor farmers in developing countries, through global sharing of knowledge and support to technology development. ISAAA's global knowledge sharing network and partnerships in the research and development continuum provide a powerful combination of science-based information and appropriate technology to those who need to make informed decisions about their acceptance and use. In addition, an array of support services

completes the holistic approach to agricultural development and ensures effective implementation and timely delivery of crop biotechnologies. These services include capacity building for policy makers and scientists; regulatory oversight on issues such as biosafety and food safety; impact assessment, and science communication.



2017: Year in review



The Joint Department Circular (JDC) titled Rules and Regulations for the Research and Development, Handling and Use, Transboundary Movement, Release into the Environment, and Management of Genetically-Modified Plant and Plant Products Derived from the Use of Modern Biotechnology was approved and signed by the secretaries of the Philippine government's Departments of Agriculture (DA), Science and Technology (DOST), Environment and Natural Resources (DENR), Health (DOH), and Interior and Local Government (DILG) on March 7, 2016. The JDC was drafted in response to the nullification of the DA Administrative Order No. 8 by the Supreme Court last December 8, 2015. It was the product of five multi-sectoral public consultations held by the National Committee on Biosafety of the Philippines (NCBP).

After the release of the JDC, ISAAA, together with its partners initiated public briefings to different key provinces and cities in the Philippines. The objective of the briefing was to inform the farmers, traders, consumer groups, students, extension workers, and other stakeholders about the changes in the regulations.

The stakeholders who attended the JDC briefings expressed their appreciation of the activities which equipped them not just with knowledge

about the regulations but also more appreciation of biotechnology. It is one of the most powerful strategies of ISAAA to continually engage the influential stakeholders and empower them to actively participate in the biotech dialogue.

ISAAA also continues to provide support to enable transfer of appropriate biotechnologies, particularly the fruit and shoot borer resistant eggplant known in the Philippines as Bt talong.

This report summarizes the accomplishments of ISAAA SEAsiaCenter and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture Biotechnology Information Center (SEARCA BIC) in 2017 focused on bringing the benefits of biotechnology to help uplift the lives of the Filipinos.



Message from the ISAAA SEAsiaCenter Director

Dr. Randy A. Hautea

Decades of biotech research and commercialization have clearly demonstrated the benefits and safe use of biotech crops. Internationally trusted organizations such as the World Health Organization, the Food and Agriculture Organization of the United Nations, The World Academy of Sciences, and over 200 scientific organizations, have declared a consensus about the safety of GM crops. However, the technology continues to face criticisms from skeptics and the misinformed public. ISAAA helps dispel fears and doubts about biotechnology by engaging various stakeholders and delivering information based on scientific facts.

Testament to biotechnology's potential and benefits, 18 million farmers all over the world planted 185.1 million hectares of biotech crops in 2016. This is the highest area of biotech crop adoption since its first year of commercialization in 1996 which was just 1.7 million hectares. Thus, there has been a ~110-fold increase over a period of 21 years, making biotech crops the fastest adopted crop technology in recent times.

Over 406,000 Filipino farmers are reaping the benefits of biotech crops in the Philippines. Being at the forefront of biotech research and commercialization in South East Asia, the Philippines ranks thirteenth in biotech crop commercialization for 2016 with 812,000 hectares of land planted with biotech maize.

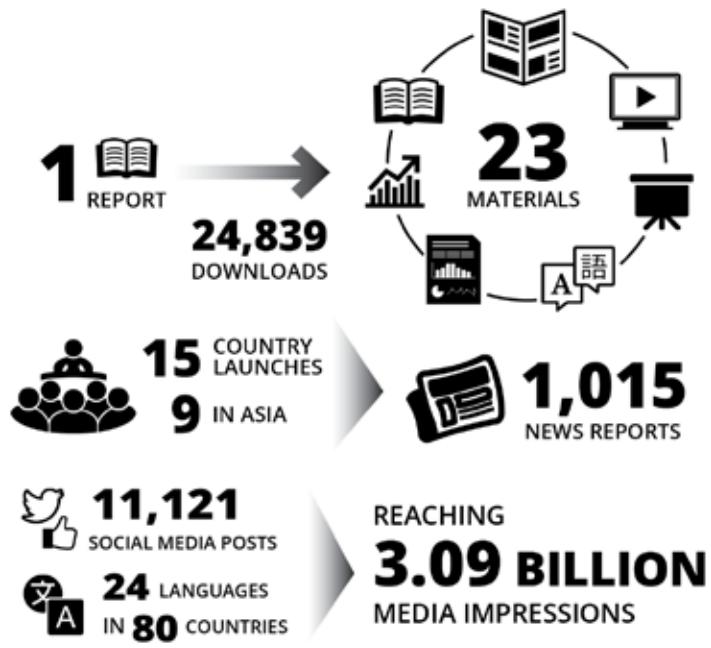
The *Crop Biotech Update*, which is the only weekly e-newsletter service that provides the latest agri-biotech news and research developments, reaches out to over 22,000 subscribers worldwide. ISAAA has also been more active in social media to engage more stakeholders, especially the younger generations, who will later make choices for the future of their own families, communities, and global society. New publications are continually developed presenting updates of the technology in various fields of application for various stakeholder audience. ISAAA has served as the top source

of information on biotechnology cited in major newspapers in the Philippines.

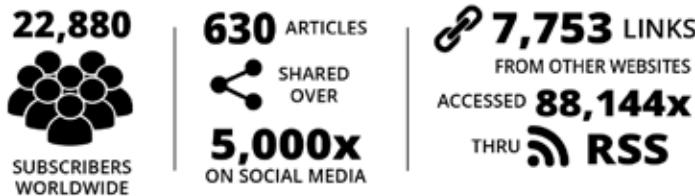
ISAAA fulfills its mission with the help of partners who share with us the unwavering conviction that responsible deployment of new technologies can help in the alleviation of poverty and malnutrition, especially in developing countries. The unmet needs and challenges for a more food secure world are far greater in developing countries and regions and they should have access to all available tools that can potentially help meet the needs.

ISAAA will continue working towards helping more families uplift their lives through the benefits of biotechnology. The biotech farmers in various countries, who commonly profess that growing biotech crops have helped them send their children to school, acquire a home for their families, and live a healthier life with less pesticides, will continue to be our inspiration to make our best efforts in knowledge sharing, engagement, and support to technology development. We are confident that the stories about the benefits of biotechnology will never stop to resonate within the Philippines and to other nations where such technologies are making a difference.

Milestones



CROP BIOTECH UPDATE



19 BICS & PARTNERS

WORKING TOGETHER TO INFORM THE PUBLIC ABOUT THE BENEFITS OF BIOTECHNOLOGY

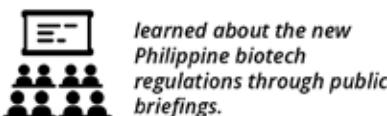


from 17 APEC economies participated in a high level policy dialogue on safe use of agri-biotech.



from 15 countries in Asia, Africa, and Europe discussed international regulations related to agri-biotech.

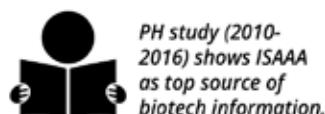
~800 KEY STAKEHOLDERS



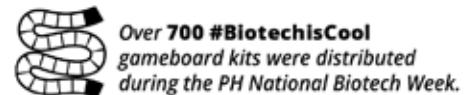
learned about the new Philippine biotech regulations through public briefings.

~100 AGRI INFORMATION OFFICERS

in the Philippines equipped with knowledge on social media storytelling.



PH study (2010-2016) shows ISAAA as top source of biotech information.



Over 700 #BiotechisCool gameboard kits were distributed during the PH National Biotech Week.

Experts from Bangladesh visited the Philippines to discuss Bt Brinjal/Eggplant adoption.



29 senior high school students and science teachers from the PH joined Agri-biotech Boot Camp.



~40 FILIPINO FARMER-LEADERS were trained about biotech and science communication



19 SCIENTISTS & SCIENCE COMMUNICATORS discussed biotech through the flagship radio station of the Philippine government.



#KnowTheSciencePH campaign was followed by over 1,000 users who regularly get facts and stories on biotech adoption

A black and white photograph of a man with short, dark hair, smiling broadly. He is wearing a long-sleeved, button-down shirt with a large-scale checkered pattern. He is holding a large, light-colored sack with both hands, and visible through the opening are several ears of corn and some dried gourds. The background is slightly blurred, showing what appears to be a rustic outdoor setting with wooden structures.

We feed the
world with
knowledge

Global Knowledge Center on Crop Biotechnology

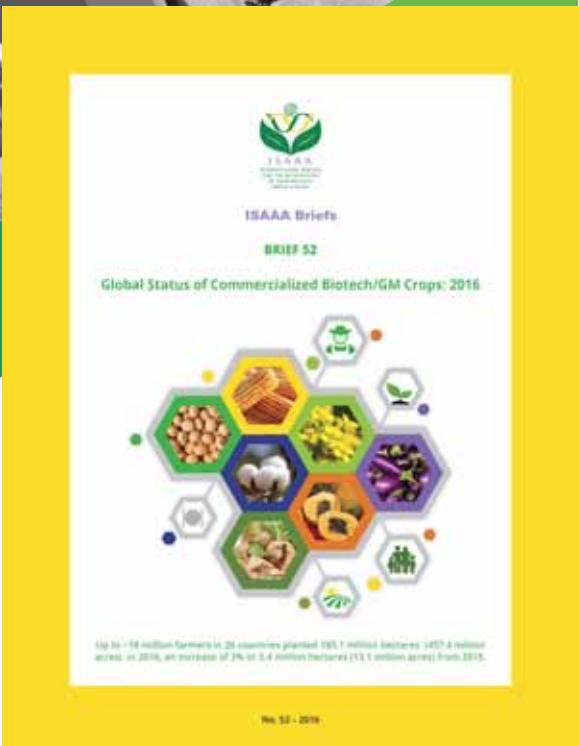
In 2000, senior policy makers from Southeast Asia, together with international experts, recognized the important role of science and technology in developing countries and recommended the formation of Global Knowledge Center on Crop Biotechnology (KC). With the help of Nobel Peace Laureate, Dr. Norman Borlaug, ISAAA received the seed money from the Philippine president to start the knowledge sharing initiatives. Seventeen years later, KC (based at ISAAA SEAsiaCenter) and its network of Biotechnology Information Centers (BICS) have remained to be at the forefront of biotech communication in the region, helping stakeholders from the developing world to make decisions based on science-based information.

SEAMEO Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) hosts the Philippine BIC. SEARCA BIC has been proactive in presenting highly accessible and science-based information on biotechnology to different stakeholders as it contributes to an enabling environment for agricultural

biotechnology in the region. It continues to remain at the forefront of promoting agri-biotechnology practices, particularly in the areas of science and educational communication, and capacity enhancement. It enables partnerships with various international and local institutions working together with common goal of facilitating the use of biotechnology to address the global challenges of food and energy security, environmental sustainability, and changing climate.



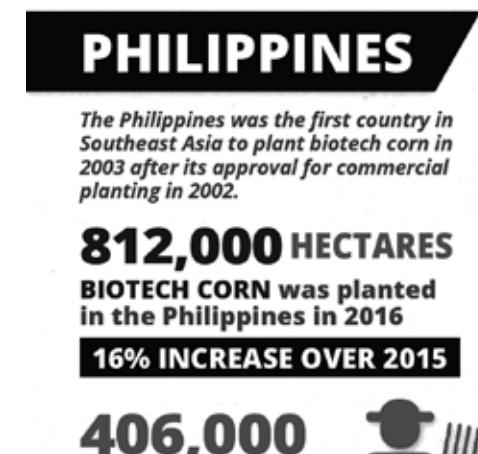
Global Status of Commercialized Biotech/GM Crops: 2016



ISAAA gathers and collates information on the annual adoption of biotech crops, and analyzes the current and future trends. The results are summarized in an annual brief, which is the most sought after source of latest data on global GM crop adoption since 1996, when the biotech crop commercialization started. In 2017, ISAAA released the full report titled *Global Status of Commercialized Biotech/GM Crops: 2016* (Brief 52) featuring the distribution of biotech crops by country, crop, and trait and the economic benefits accrued from adoption. Discussions of the trends in biotech crop approvals and regulations were also included in the report. The report was presented in Manila, Philippines to media practitioners, farmers, and government agency officers. ISAAA Board Chair Dr. Paul S. Teng presented the highlights of the report, including the global impact and prospects of biotech crops. Officer-in-Charge and Director of the Bureau of Plant Industry; and Director of the DA-Philippine Agriculture and Fisheries Biotechnology Program, Dr. Vivencio R. Mamaril, reported on the biosafety regulatory developments in the country, particularly the harmonization of

the Joint Department Circular. SEARCA Director Dr. Gil C. Saguiguit, Jr. expressed continued support to biotechnology promotion and advocacy through the BIC.

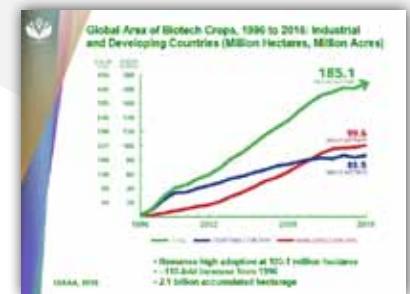
The report was launched in 8 other Asian countries and 6 African countries, and has reached over 3 billion media impressions.





Publications & Videos

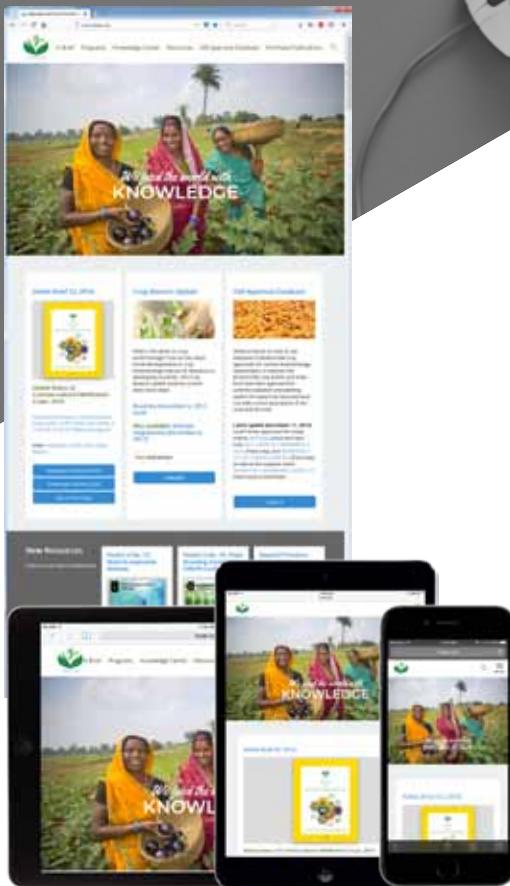
ISAAA Brief 52 was repackaged into different types of resources to highlight certain topics and capture the interests of various audiences.



Aside from the annual global adoption report and its derivatives, KC has also developed various publications which were distributed online and in print to developing countries to sustain interest on biotechnology. Some of the publications released in the previous years were also updated using recent reports on biotech adoption and benefits.



ISAAA Online



The ISAAA website (www.isaaa.org) serves as the portal to a plethora of information resources including publications, crop biotech and biofuels news, and GM crop approval updates. With its new design and better accessibility in smart phones, the website now captures a wider scope of audiences.

www.isaaa.org



*monthly average, January-December 2017

Crop Biotech Update

Since 2000, ISAAA's weekly e-newsletter Crop Biotech Update (CBU) delivers global news and research highlights on biotechnology which have implications for developing countries. It also comes with a biweekly Biofuels Supplement. Through the CBU, over 22,000 subscribers worldwide receive the latest news on agri-biotech. Aside from the mailing list, news from the CBU are distributed through other channels such as the ISAAA website, RSS feed, independent mailing lists of some BICs, Facebook, Twitter, Send to Friends tool, and links from other websites. To date, it is the only e-newsletter focused on reporting about crop biotechnology.

22,880



**SUBSCRIBERS
WORLDWIDE**

ISAAA WEBSITE

 **60,709**
pageviews/mo

**LINKS FROM
OTHER WEBSITES**

 **7,753**

**INDEPENDENT MAILING
LISTS OF BICs**

 **260,080**

 **SEND TO FRIENDS**
14,341/mo

CBU & BIOFUELS RSS

 **118,234/mo**

FACEBOOK SHARES

 **5,177**

GM Approval Database

<http://www.isaaa.org/gmapprovaldatabase/>



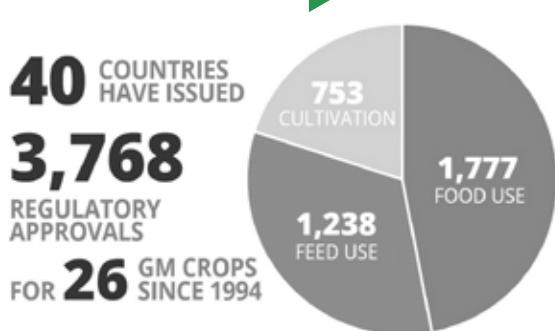
GM Approval Database remains on the top of Google search results on GM crop event approvals, indicating ease of access to the portal. It contains all the latest approval data including regulatory and biosafety documents released by adopting and importing countries. It also enables users to do advanced search by crop, commercial trait, developer, country, or type of approval. Thus, it is frequently used by researchers worldwide as a source of GM crop approval data.

authenticated by Facebook as an official page owned by the organization, which is indicated by a gray check badge. Verified Pages are also specially optimized by Facebook to appear higher in the search results than other pages. This makes ISAAA to be ahead of other pages that post fake news about biotechnology.

A large percentage (30%) of the growing Twitter followers of ISAAA belong to organizations and groups, such as universities, research institutions, seed/producers groups. This indicates that such groups follow ISAAA to get real time updates on crop biotechnology.

The Brief 52 social media campaign with official hashtags #GMProps2016 and #ISAAAReport2016 reached 91,898,150 media impressions.

Social Media



ISAAA blog (isaaablog.blogspot.com) relates recent events and stories on agri-biotech in a conversational and easy-to-understand approach. Topics posted include trending news on crop biotech in 2016, highlights of biotech crop adoption in 2016, Brief 52 launch events in Asian countries, and the results of a biotech communication research conducted in the Philippines.

The ISAAA.org on Facebook has been officially



Communication Research

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Seventeen Years of Media Reportage of Modern Biotechnology in the Philippines

Kristine Grace N. Tome^{1*}, Maricel J. Navarro¹, Sophia M. Mercado¹, and Maria Monina

1Crop Knowledge Center on Crop Biotechnology, International Service for the Acquisition of Agri-biotech Applications, 4030 Los Baños, Laguna, Philippines; *Southwest Asian Regional Center for Graduate Study and

Research in Agriculture - Biotechnology Information Center, Los Baños, Laguna, Philippines.

*Corresponding author: Tome@isaaa.org

A 17-year (2000-2016) study was conducted to understand the print media representation of modern biotechnology in the Philippines. The study was conducted by the Crop Knowledge Center on Crop Biotechnology, International Service for the Acquisition of Agri-biotech Applications (ISAAA), Los Baños, Laguna, Philippines. The results of the study were published in 2017 covering the development and commercialization of biotech crops and the recent happenings in the biotechnology area of the country such as the research and development activities, policies, and other issues. The study also analyzed the framing of the news. There was a change in the manner of news reporting about biotechnology. A total of 2,219 articles from four top Philippine newspapers (Manila Bulletin, Philippine Star, Philippine Daily Inquirer, and Business Mirror) covering a total of 17 years (2000-2016), were analyzed. The news reports were categorized into positive, negative, neutral, and mixed tones. The news reports were also categorized into metaphors used, neutral, or negative, news sources, message frames, and metaphors used. Results showed that there was a shift in the tone of the news reports from negative to positive. The majority of the articles in the four newspapers were local in focus, and appeared in a dedicated section of the newspaper. The number of articles framed towards social progress increased from 10% in 2000-2004, mostly published by Manila Bulletin, National government agencies, and NGOs, to 55% in 2010-2016, mostly published by Manila Bulletin, National government agencies, and NGOs. The top keywords used in the news reports were "biotech," "genetic modification," and "GM." In the first decade (2000-2009), the top keywords used were "biotech," "genetic modification," and "GM." In the last seven years (2010-2016), the top keywords used were "GM," "Golden Rice," and "Golden rice." The words "Frankenstein" and "poison" were used in the articles, but the decline in the use of fear-related metaphors was observed. The most common positive metaphors used were "hope," "new hope," "answer to farmers' dreams," and "light of hope." The number of articles framed towards social progress increased from 10% in 2000-2004, mostly published by Manila Bulletin, National government agencies, and NGOs, to 55% in 2010-2016, mostly published by Manila Bulletin, National government agencies, and NGOs, escalating a more positive discussion of biotechnology in the media. These results show a gradual shift in the tone of editorial perspectives in the Philippine newspapers towards modern biotechnology.

Keywords: biotechnology, media monitoring, print media news framing

INTRODUCTION

Biotechnology is a set of technologies that uses living organisms, usually microorganisms to produce desired products. It is used in agriculture, food processing, pharmaceuticals, plant breeding, tissue culture technology, plant biotechnology, and other applications such as genetic engineering, molecular breeding, marker-assisted selection, and gene editing.

Public acceptance and adoption by farmers of modern biotechnology can help address problem areas such as food security, poverty, and environmental degradation. In 1998, the global cotton-growing countries adopted GM cotton. This has since benefited from 3 major sources of potential for exp. crop: cotton, About

KGN Tome et al.

700,000 ha of biotech cotton in 2010, up from only 20,000 ha in 2003 when it was first adopted for commercial planting (James 2003 and James 2015).

While technology is one thing, equally important is the way it is communicated. The media plays a key role in creating an environment for discussion and debate on biotechnology, which can lead to better understanding and involvement. The media serve as an important reservoir of images, meanings, and definitions that different audiences depend on in interpreting media messages of new

From Fear to Facts
17 Years of Agri-biotech Reporting in the Philippines (2000-2016)



ISAAA and SEARCA BIC conducted a 17-year media study (2000-2016) to analyze the trends in Philippine print and online reporting on modern crop biotechnology. The study is part of the Know the Science project funded by the Philippine Department of Agriculture's Biotechnology Program Office (BPO). The result of the study was published in the April 2017 issue of Philippine Journal of Crop Science and presented in the 24th Scientific Conference of the Federation of Crop Science Societies of the Philippines (FCSSP).

The study, which reviewed 2,219 articles from top Philippine newspapers (Manila Bulletin, Philippine Star, Philippine Daily Inquirer, and Business Mirror), showed that over the past 17 years of reporting, the Philippine media exhibited a mature editorial stance on biotechnology, which happened gradually through the years. This is manifested by the decrease in the number of articles in negative tone; increase in the use of metaphors relating to potential/promise; decline in the use of biotech critics as sources of information; and increase in the number of articles framed towards social progress, highlighting the positive impact of crop biotechnology. For the past seven years (2010-2016), the top sources of information on biotechnology were Dr. Clive James (ISAAA Founder and Emeritus Chair) and ISAAA. It was

recommended that media practitioners and scientists must continue to collaborate to sustain the public interest on the technology.

ISAAA also presented the study through different publications such as booklets, infographics, and blogs to highlight the findings.

Top Sources of Biotech Information in PH newspapers (2010-2016)



Dr. Clive James

Founder and Emeritus Chair of ISAAA



ISAAA

Top keywords used in the articles

**GMOBt
biotech
genetic engineering
Golden Rice**

Capacity Building

Briefings on new PH biotech regulations



Cebu, PH



Davao, PH

Storytelling Agri-Innovations through Social Media



Cagayan de Oro, PH



Pampanga, PH

Aside from developing information resources, the KC has been actively involved in engaging the public and building capacities in biotechnology and science communication.

New biotech communication initiatives



Kuala Lumpur, MY

24th Scientific Conference of the Federation of Crop Science Societies of the Philippines



Iloilo City, PH



Davao, PH

We strengthen skills in the Philippines



ISAAA & SEARCA BIC supported projects on technology transfer, capacity building on biotech crops regulation, as well as public information and outreach.

Support to technology transfer

ISAAA continues to provide technical assistance for the commercialization of insect resistant Bt eggplant developed by researchers at the University of the Philippines Los Baños Institute of Plant Breeding. The developers are currently completing the regulatory dossier required by the Philippine government prior to approval of the crop for food, feed, processing, and cultivation. Additional research data were collected to complete the requirements for the regulatory dossier.

In preparation for the probable release of the Bt eggplant in the Philippines, ISAAA and partners conducted a public briefing to eggplant farmers and other stakeholders from Region IV to inform them about the technology and its potential benefits.

Key persons involved in the development and commercialization of Bt brinjal in Bangladesh visited the Philippines to share their learnings and experiences on research and development, regulations, and farmer adoption.

Some of these initiatives were funded by the Feed the Future Eggplant Improvement Project-Philippines.



Advancing biotech policy and regulations

ISAAA initiated and supported discussions on biotech policies, regulations, and development.

APEC High Level Policy Dialogue on Agricultural Biotechnology

Seventeen Asia-Pacific Economic Cooperation (APEC) economies represented by 92 officials attended the workshop to sustain an open exchange of information and ideas on approaches and policies and regulation for the safe utilization of agricultural biotechnology among economies. The workshop centered on the theme *Agricultural Biotechnology: Driving from 1G to 5G* was held in August 2017 in Can Tho, Vietnam. The discussion highlights include issues and concerns, regulation, information sharing, along with successes in the use and adoption of crop biotechnology. Biotech and regulation experts from various economies raised up the challenges on advancing innovation to commercialization stage, regulation cooperation, public-private partnerships, and international

engagement efforts on low-level presence of living modified organisms (LMOs).

The workshop was organized and supported by ISAAA, the United States Grain Council (USG), United States Department of Agriculture-Foreign Agricultural Service (USDA-FAS), the US-APEC Technical Assistance to Advance Regional Integration Activity (US-ATAARI), and CropLife. Vietnam's Ministry of Agriculture and Rural Development (MARD) served as the host institution.



Workshop on International Regulations Related to Agri-biotech

ISAAA, together with Monash University, Malaysian Biotechnology Information Centre (MABIC), Public Research and Regulation Initiative (PRRI), and Ministerial Standing Committee on Scientific and Technological Cooperation of the Organization of Islamic Cooperation (COMSTECH) organized a workshop discussing regulatory, scientific, and communication aspects of implementation of international agreements relevant to agri-biotechnology such as the Cartagena Protocol on Biosafety, Nagoya Protocol on Access and Benefit Sharing, and Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress. Some 36 scientists and science communicators from 15 countries in Asia, Africa, and Europe attended the workshop held at Monash University, Kuala Lumpur, Malaysia. Representatives from public and private sectors also participated in the discussions.

Prof. Piet van der Meer, a biologist and lawyer from Ghent University and Free University of Brussels, led the discussions on the international agreements, as well as key topics such as risk assessment, socio-economic considerations, and public awareness. Perspectives from the public and private sectors were delivered by Dr. Desiree Hautea, a University

of the Philippines Los Baños scientist, Dr. Felicity Keeper, Global Regulatory Manager at Bayer Australia and Dr. Lucia de Souza of PRRI. Dr. Mahaletchumy Arujanan, Executive Director of MABIC, discussed the considerations in facilitating public acceptance of biotechnology.



Joint Department Circular on Biotechnology Regulation in the Philippines

With the new regulations implemented in the Philippines, regional public briefings were organized by ISAAA, SEARCA BIC, and the Philippine Department of Agriculture. Around 800 key stakeholders attended the four regional briefings held in Cebu City, Davao City, Cagayan de Oro City and Pampanga. The participants, including members of the consumer groups, regulators, farmer-leaders, faculty and students, information officers, and staff and officials of the local government units, were given lectures on the different tools and applications of modern biotechnology, environmental and food safety issues, biotech crops commercially available in the country and elsewhere, and biotech crops being developed and in the pipeline. Representatives of the five government agencies (Agriculture, Science and Technology, Health, Environment and Natural Resources, and Interior and Local Government) involved in the development and implementation of the new regulatory system were also present during the briefings to address the concerns of the public.

Policy dialogues and related activities

ISAAA, in collaboration with the Philippine DA-Biotech Program Office (DA-BPO), provided travel support to DA staff attending high level policy symposium/dialogue organized by international organizations including the ASEAN Genetically Modified Food (GMF) Testing Network (Nay Pyi Taw, Myanmar) and APEC HLPDAB Meeting and other APEC ministerial meetings in Can Tho, Vietnam.

Together with DA-BPO, ISAAA also conducted activities for the creation and promotion of a legislative agenda

supporting agri-biotech development in the Philippines. A series of focused group discussions and consultations with key stakeholders and members of the legislature were executed.

Study Visit to Biotech Crop Fields

Under a collaborative project with DA-BPO, ISAAA organized a study visit to the Philippines for Bangladesh biosafety regulators, as requested by the Department of Environment – Implementation of the National Biosafety Framework (INBF) Project of Bangladesh. Five Bangladesh regulators attended a regulations briefing at the DA headquarters, introduction to the Bt eggplant project at UPLB-IPB, discussions with the Golden Rice researchers at the International Rice Research Institute, field visits to commercial Bt corn fields and eggplant farms in Tarlac and Pangasinan.



Special seminar on Safety, Regulations, and Agricultural Modernization

A seminar was co-organized by ISAAA, SEARCA BIC, and Program for Biosafety Systems (PBS) Philippines wherein PBS Senior Legal Consultant, Atty. Gregory Jaffe presented the major obstacles in getting biotech crops to farmers. The obstacles discussed were socio-economic considerations, multiple agency review, labeling, and legal court challenges. An example cited was the court case filed against Bt eggplant in the Philippines which is more of a procedural issue than a technical one. According to Atty. Jaffe, the key is transparent and predictable biosafety regulatory procedures that anticipate and address the said issues before a product is approved for release. The seminar was attended by students, researchers, and key scientists and experts from the University of the Philippines Los Baños scientific community.

JDC Roundtable Discussion with Department of Justice and DA Beat Reporters

ISAAA, SEARCA BIC, and the DA Biotech Program Office informed print, TV, and radio reporters covering court cases in the Philippines about the background and details of the Joint Department Circular (JDC) through a roundtable discussion.

Topics presented were the history of the National Biosafety Framework, the overview of the Bt eggplant court case which led to the JDC, and the JDC and Department of Agriculture-Bureau of Plant Industry (DA-BPI) processes for biosafety applications. Critical analysis and comparison of the DA Administrative Order (AO) No. 8 and the JDC were also discussed.

Capacity Building

Agri-biotech Boot Camp

Twenty-nine (29) senior high school students and their science teachers from Isabela, Laguna, Iloilo, Cebu, Davao, and Cagayan De Oro were enlightened on the issues and trends in agriculture and agri-biotech during the Agri-biotech Boot Camp for Senior High School Students at the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) Headquarters, Los Baños, Laguna, Philippines.

The activity was conducted to create awareness and build interest in agriculture and introduce traditional and modern biotech as a career among the students. The boot camp is a build-up activity for the 13th National Biotechnology Week celebrated on November 20-24, 2017 at Fisher Mall, Quezon City.

Aside from lectures, briefings and study visits to the biotech laboratories and facilities of the University of the Philippines Los Baños - Institute of Plant Breeding (UPLB-IPB) and UPLB-National Institute of Molecular Biology and Biotechnology (UPLB-BIOTECH), and the Rice World Museum of the International Rice Research Institute (IRRI) were also conducted. Interactive games related to biotech were facilitated by student organizations University of the Philippines League of Agricultural Biotechnology Students (UP LABS) and UP Genetic Researchers and Agricultural Innovators Society (UP GRAINS).

AgStorytelling in Social Media

ISAAA social media managers shared some techniques on how to promote agricultural innovations such as biotechnology to a wider reach through social media. Information officers from the DA regional offices attended the workshops held in Davao City, Cagayan de Oro City, and Pampanga and learned how to develop and execute a social media plan, create visually engaging and informative posts, and harness the power of storytelling in engaging the public.



Agri-biotech Capacity Building for ASFARNET-Philippines

Asian Farmers Regional Network (ASFARNET) Philippines, PhilRice, and DA-Biotech Program Office, in collaboration with ISAAA and SEARCA BIC, organized a trainers' training-workshop on agri-biotechnology. The products, science, safety, and potential benefits of biotechnology as well as strategies and skills for biotech communication were presented to farmer-leaders and members of ASFARNET from all over the country.

Tackled in the training were the development of Golden Rice in the Philippines, science communication, local government communication support strategies, and social media for biotech communication, among others. The group also visited the Philippine Carabao Center and the Department of Agriculture - Bureau of Fisheries and Aquatic Resources.



Public Information and Outreach



#KnowtheSciencePH Social Media Campaign

ISAAA and SEARCA BIC used the power of social media to educate the Filipinos about the science behind crop biotechnology through the #KnowTheScience campaign. It is part of the information, education, and communication (IEC) project with DA-Biotech Program. The campaign aims to educate the Filipino public about biotech crops and the technology by understanding the science behind them through major social media networks namely: Facebook, Twitter, YouTube, and Instagram. The campaign uses scientific and evidence-based leverage of biotech crops through studies published on its safety, and actual and potential benefits. It highlights the personal stories and experiences of people who adopt (farmers, consumers) or develop (scientists) biotech crops. Among the outputs of the campaign are infographics, biotech trivia, and biotech stories.

The number of social media users who liked Know The Science reached over 1,000 in December 2017. The pages

have been liked and followed by students, high school teachers, college instructors, researchers, scientists, bloggers, government organizations, and communication specialists.



National Biotechnology Week Exhibit

Over 700 gameboard kits of #BiotechisCool were distributed by ISAAA during the Philippine National Biotechnology Week. Copies of other ISAAA publications were also distributed to the attendees of the event.



Radyo Technolohiya

The biotech-on-air radio program *Radyo Teknolohiya* continues to reach the public through DZRB Radyo ng Bayan aired weekly in all provinces of the Philippines. The program covered various issues on biotech including research updates, science communication, the new national regulations, animal biotech, and agricultural modernization.

Bt Eggplant Roundtable Discussion

As part of ISAAA and SEARCA BIC's continuing effort to inform the public about biotech crops in the pipeline, a roundtable discussion on Bt eggplant was held for the members of the Vegetable Industry Council of Southern Mindanao (VicsMin), a non-profit organization that advocates policies beneficial to the vegetable industry in the region and has 40 active member institutions and 20 individual farmers.

Bt eggplant study leader Dr. Lourdes Taylo discussed the science, safety, and the potential actual benefits of modern biotechnology, particularly Bt eggplant. The group expressed its full support for the commercial planting of Bt eggplant in the country by signing a one-page manifesto of support. VicsMin also expressed support for all the public advocacy efforts that will be conducted for Bt eggplant. Other members also offered their land as possible sites of demonstration farms for Bt eggplant.

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- CropLife International
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- Program for Biosafety Systems of International Food Policy Research Institute (IFPRI)
- SEAMEO SEARCA, Philippines
- United States Department of Agriculture (USDA)
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For more information:

ISAAA AfriCenter
ILRI Campus
Old Naivasha Road, Uthiru
P.O.Box 70 – 00605
Nairobi, Kenya
Email: africenter@isaaa.org

ISAAA AmeriCenter
c/o IP CALs
B75 Mann Library
Cornell University, Ithaca
New York 14853, USA
Email: americenter@isaaa.org

ISAAA SEAsiaCenter
c/o IRRI, Los Baños
Laguna 4031
Philippines
Email: isaaa-seasia@isaaa.org

www.isaaa.org