



South Asia Biosafety Program

NEWSLETTER FOR PRIVATE CIRCULATION ONLY – NOT FOR SALE

First Prize at the 15th International Society for Biosafety Research Symposium Photo Competition

PAGE 2

15th International Society for Biosafety Research Symposium: An Experience in the World of Biosafety

PAGE 3

15th International Society for Biosafety Research Symposium: Students' Take

PAGE 4

Opportunity for Seeking Approval of the National Biodiversity Authority for Past Cases

PAGE 5

Save the Date: September 14-16, 2019
Dhaka, Bangladesh

7th Annual South Asia Biosafety Conference



Registration Information to Follow

First Prize at the 15th International Society for Biosafety Research Symposium Photo Competition

Arif Hossain, Farming Future Bangladesh



Photograph of Bangladeshi Bt brinjal farmer, Md. Khalilur Rahman, taken by Arif Hossain. This submission won the first prize at the 15th International Society for Biosafety Research Symposium Photo Competition.

Bangladeshi Bt brinjal farmer, Md. Khalilur Rahman (pictured), grabbed attention through photography at the recent 15th International Society for Biosafety Research (ISBR) Symposium Photo Competition. It was an honor to capture his emotion upon being recognized by the international judges.

The photograph above, taken by Arif Hossain, CEO & Executive Director, Farming Future Bangladesh, was awarded the first prize in the Photo Competition at the 15th ISBR Symposium. This recognition and elevated exposure will inspire scientists and farmers of Bangladesh and of the whole world to proudly spread the story and evidence of the success of Bt brinjal (eggplant).

This photo is an example of the successful application of modern agricultural biotechnology by a public sector research institute and

This photo is an example of the successful application of modern agricultural biotechnology by a public sector research institute.

evidence of access to innovation for resource poor farmers. Recently, Md. Khalilur Rahman reported that he achieved a six-fold increase in income by growing the pest resistant Bt brinjal. This information is also documented in the journal *PloS One*.

Bangladesh released four varieties of genetically modified Bt brinjal in 2013. According to the International Service for the Acquisition of Agri-biotech Applications, last year, more than 27000 farmers cultivated Bt brinjal.

We feed 160 million people with only 8 million hectares of arable land in Bangladesh. Modern agricultural innovations, including biotechnology, is helping to breed improved crops to feed the nation.



Arif Hossain (2019)

15th International Society for Biosafety Research Symposium: An Experience in the World of Biosafety

Muhammad Shahidul Haque, Bangladesh Agricultural University
 Aparna Islam, South Asia Biosafety Program



Participants from Bangladesh at the 15th International Society for Biosafety Research Symposium in Tarragona, Spain (April 1, 2019).

Attending the 15th International Society for Biosafety Research (ISBR) Symposium, held in Tarragona, Spain from April 1-4, 2019 was a great experience. Listening to the lectures by reputed researchers and regulators, both in plenary sessions and in parallel sessions, enlightened the audience, including us.

At the symposium, two topics in particular were highlighted. Firstly, attention was given to biosafety research communication and the sharing of assessment reports with consumers. This is important because the acceptance of biotech products depends on public perception of risk. Thus, effective communication of risk can lead to fair decisions by consumers. During the symposium, communication among regulators also came up strongly, as harmonization of biosafety regulation is needed to reap the benefits of biotech research and biosafety assessment. The concepts of Familiarity and History of Safe Use, commonly known as “Familiarity” and “HOSU,” were emphasized through presentations at the symposium.

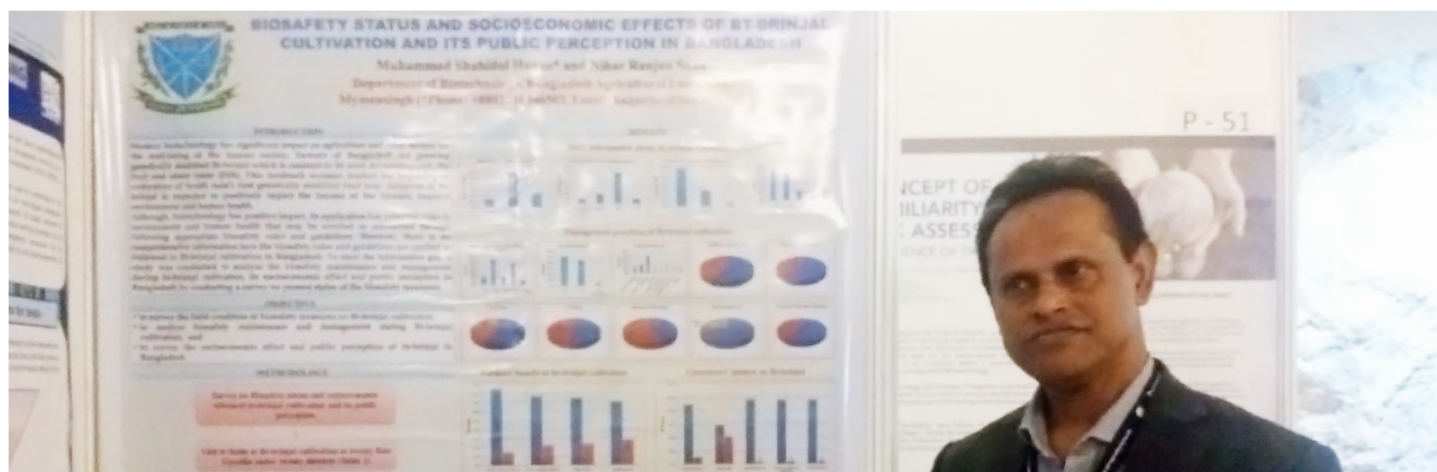
The second topic that was effectively captured was biosafety assessment and regulation of gene edited products. It was clear that different countries consider gene editing technology and gene edited products differently and have varied views on whether they would regulate them as genetically modified (GM) products or not. The regulators were strongly urged to consider the science of gene editing, which is simply a molecular breeding technique, before taking a regulatory decision on this issue.

During the symposium, communication among regulators also came up strongly, as harmonization of biosafety regulation is needed to reap the benefits of biotech research and biosafety assessment.

Throughout the symposium, challenges in the development and adoption of novel biotechnologies were discussed in terms of biosafety. New proteins and new organisms that are getting transformed also got considerable attention. The ethical considerations raised by synthetic gene drive research were also presented and discussed. In a nutshell, all aspects of research in biotechnology and biosafety were presented and discussed during the symposium.

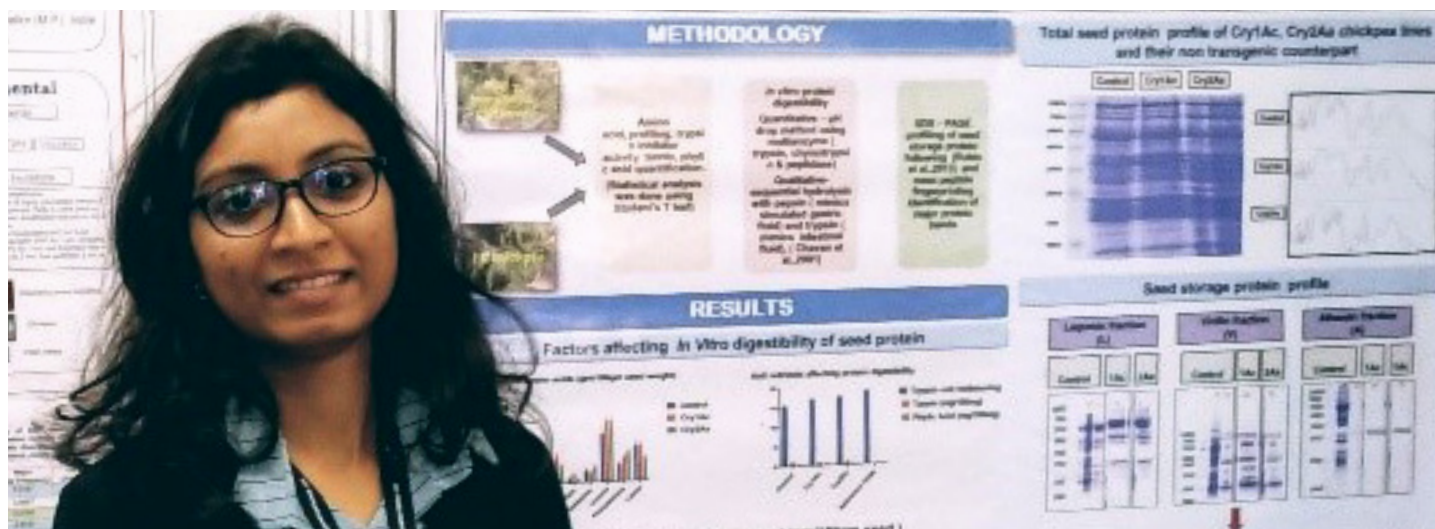
Finally, it was a great experience to see the success story of GM crops in Bangladesh presented in various forms at the symposium. The skype interview of a Bt-brinjal farmer (Mr. Milon Mia), sharing the biosafety status of Golden Rice (Dr. Partha S. Biswas, Bangladesh Rice Research Institute), regulatory aspects of Bangladesh and the way forward (Dr. Donald MacKenzie), poster presentation on the Biosafety Status and Socioeconomic Effects of Bt-brinjal Cultivation and Its Public Perception in Bangladesh (Prof. Muhammad Shahidul Haque, Bangladesh Agricultural University), and upholding farmers’ experience with GM eggplant cultivation through a photograph (Mr. Arif Hossain, Farming Future Bangladesh), etc., demonstrated Bangladesh’s leadership.

The three and half day long symposium demonstrated clearly that innovation, risk assessment, communication, and engagement of stakeholders can lead to cultural adaptation in the local setting and thus, can enable acceptance of biotech products.



Prof. Muhammad Shahidul Haque during the poster session at the 15th International Society for Biosafety Research Symposium in Tarragona, Spain (April 1, 2019).

15th International Society for Biosafety Research Symposium: Students' Take



Rubi Gupta during the Poster Session at the 15th International Society for Biosafety Research Symposium in Tarragona, Spain (April 1, 2019).

RUBI GUPTA, ASSAM AGRICULTURAL UNIVERSITY

As a researcher working on genetic engineering of crops and their biosafety assessment, it has been a highly rewarding experience for me to participate in the 15th International Society for Biosafety Research (ISBR) Symposium held at Tarragona Spain. The symposium was attended by regulatory experts, governmental and private sector representatives, and leading scientists contributing to agricultural biotechnology and ensuring biosafety for genetically modified organisms (GMOs). Unlike other symposia on science, this started with a plenary on science communication, understanding about science networking, and how the interactions should be conducted with lay people to make them understand the importance and need to accept GM crops. It was really wonderful to hear from scientists about the regulatory frameworks and policies related to GMOs, their stories, and the challenges they faced related to modern biotechnology products, which gave me insights into future regulatory challenges and biosafety assessments of GMOs. The opportunity to meet eminent scientists and listen to their experience and expertise in individual topics was very gratifying. This symposium proved to be a boon for me as I learnt and got information on advanced technologies

It was really wonderful to hear from scientists about the regulatory frameworks and policies related to GMOs, their stories, and the challenges they faced.

including gene editing, gene drives, etc., which was very new to me. The Pecha Kucha session and poster presentation was really exciting as I was able to present my work in front of these distinguished scientific minds, getting appreciation and suggestions on my research. I really enjoyed the four-day program, including all plenary sessions, workshops, and interactions with the scientists.

The ISBR Symposium is indeed a major platform for learning and knowledge sharing, bringing together leading biotechnologists and environmental safety specialists to discuss ideas about the most cutting-edge technologies and tools. I was informed about the event through the South Asia Biosafety Program newsletter and really benefitted from this incredible event. I am very grateful to ISBR and the Agricultural Biotechnology Stewardship Technical Committee (ABSTC) for awarding me the prestigious ABSTC student's scholarship to attend the symposium and for providing me such a great platform to present my work in front of eminent scientists of the world. I would also like to extend my heartfelt gratitude to my mentors, Dr B. K. Sarmah and Dr Sumita Achrajee, for their constant support and encouragement to pursue my research in this area.

Continued on page 5



Vinod Kumar Sahu and Rubi Gupta with other attendees at the 15th International Society for Biosafety Research Symposium.



Vinod Kumar Sahu during his presentation at the 15th International Society for Biosafety Research Symposium.

The 15th International Society for Biosafety Research Symposium (ISBR2019) was successfully organized on April 1-4, 2019 in Tarragona, Spain. It was a great experience attending the ISBR Symposium. This is my first international visit to a scientific symposium, where I met many distinguished international scientists. The conference was well-organized and vibrant, with the presence of prominent national and international scientists, agricultural experts, specialists in various disciplines, and biotechnologist practitioners from different applied science branches, NGOs, farmers, GMO-related technology developers, young research fellows, and students. ISBR2019 gave me an excellent opportunity to update my knowledge on the status of GMO research and biosafety. As we all know, the population of the world is increasing, as well as the need for good quality food. To mitigate this problem, one approach is to increase crop yield through genetic engineering and the use of molecular markers. Through this conference, I became familiar with many challenges related to developing and releasing genetically modified crops and other modern gene technologies. I enjoyed all the plenary session lectures because the selection of topics in each session was relevant, informative,

Through this conference, I became familiar with many challenges related to developing and releasing genetically modified crops and other modern gene technologies.

and enjoyable. I have also gathered knowledge on how to address the current challenges and the way to design and develop high yielding crop varieties. I attended all workshops, but two workshops in particular were very interesting for me: (I) Access to Crop Biotech Innovation, and (II) Biosafety of RNAi Application for Plant Protection. The most exciting part of this conference was the Pecha Kucha session, where each participant had only five slides and five minutes to present their work.

This session, along with the poster session, provided an opportunity for researchers to share their work, findings, challenges, and achievements with colleagues and other attendees. During the poster evaluation time, I was very excited for the poster presentation because I presented my research work for the first time at the international level. It's amazing and inspiring for me to receive the ABSTC Scholarship certificate during the dinner reception organized by the ISBR committee. I would like to thank the organizers and judges for giving me this opportunity. ISBR Symposium 2019 will always be considered as one of the most informative and effective experiences of my endeavors as a master's degree student.

ANNOUNCEMENT

Opportunity for Seeking Approval of the National Biodiversity Authority for Past Cases

The Biological Diversity Act, 2002 (hereinafter referred to as the "Act") came into force in 2003 to provide for conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge, and for matters connected therewith or incidental thereto. The Biological Diversity Rules, 2004 were introduced to facilitate implementation of the Act. One of the functions of the National Biodiversity Authority (NBA) under Section 18 (1), is to regulate activities referred to in Sections 3, 4, and 6 and by regulations issue guidelines for access to biological resources and for fair and equitable benefit sharing. Further, Section 18 (3) of the Act empowers the Authority to perform such other functions as may be necessary to carry out the provisions of the Act.

The Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India, took note of the fact that a large number of entities are not fully aware of the provisions of the Act but are desirous of complying with the same. By exercising powers under Section 48 of the Act, MoEFCC had issued Office Memorandum on September 10, 2018 directing the NBA to hear all such cases where prior approval of NBA was required but the person/entity has not obtained such approval (copy can be accessed at http://nbaindia.org/uploaded/pdf/OM_Sec48_NBA.pdf).

It was required that the NBA should hear such cases on the merits and take decision within a period of 100 days from the date of issuance of this Office Memorandum. The NBA can pass appropriate orders in furtherance of the powers available to it under Section 18 of the Act for facilitating and enhancing implementation of the act in the public interest toward meeting the objectives of the Act.

Recently, MoEFCC has issued an Office Memorandum dated March 18, 2019 further directing the NBA to accept and consider, within a period of another 60 days from the date of issuance of this Office Memorandum, all such cases where prior approval was required but not obtained, on the basis of merit ensuring that only those cases are granted approval, which would have otherwise been approved in the normal course, had the person/entity concerned applied in time for prior approval.

Researchers and other entities engaged in biotechnology activities involving use of biological resources can make use of this opportunity for streamlining the approval requirements from the NBA.

CALENDAR OF EVENTS

EVENT	ORGANIZED BY	DATE	WEBSITE
BANGLADESH			
4 th IPFS-ICBHA 2019-GNOBB Conference	Global Network of Bangladeshi Biotechnologists (GNOBB)	November 11-13, 2019 Dhaka	http://gnobb.org/conference/IPFS-ICBHA-2019
INDIA			
India EMBO Symposium: Sensing and Signalling in Plant Stress Response	National Institute of Plant Genome Research	April 15-17, 2019 New Delhi	http://meetings.embo.org/event/19-plant-stress-response
National Conference on Identification, Convergence, Implementation & Extension of Science-Tech-Research for a Sustainable Planet	NAMO Society, New Delhi and Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, U.P.	April 20-21, 2019 Meerut	http://www.svbpmeerut.ac.in/notice/ICIESSP-2019.pdf
International Conference on Pharmaceutical Sciences and Biotechnology (ICOPSB-2019)	International Conference on Pharmaceutical Sciences and Biotechnology	July 11-12, 2019 Goa	http://biopharmameeting.com/
International Conference on Plant Protection in Horticulture – Advances and Challenges	Association for Advancement of Pest Management in Horticultural Ecosystems; ICAR-Indian Institute of Horticultural Research, Bengaluru; National Institute of Plant Health Management, Hyderabad; Indian Council of Agricultural Research, New Delhi	July 24-27, 2019 Bengaluru	https://icar.org.in/sites/default/files/ICPPH%202019-Final%20circular.pdf
Seed World 2019	Indian Council of Food and Agriculture	September 4-7, 2019 Bengaluru	http://icfa.org.in/event.php
INTERNATIONAL			
6 th Plant Genomics and Gene Editing Congress	University of Nottingham and Crops for the Future	July 29-30, 2019 Kulala Lumpur, Malaysia	http://www.isaaa.org/kc/cropbiotechupdate/article/default.asp?ID=17364 and http://www.global-engage.com/event/plant-genomics-asia/#register



SOUTH ASIA
BIOSAFETY PROGRAM

The South Asia Biosafety Program (SABP) is an international developmental program implemented in India and Bangladesh with support from the United States Agency for International Development. SABP aims to work with national governmental agencies and other public sector partners to facilitate the implementation of transparent, efficient, and responsive regulatory frameworks for products of modern biotechnology that meet national goals as regards the safety of novel foods and feeds, and environmental protection.


CONTACT SABP
BANGLADESH

Dr. Aparna Islam
Country Manager
South Asia Biosafety Program
c/o CIMMYT
House-10/B, Road-53, Gulshan-2
Dhaka-1213, Bangladesh
Email: aparnaislam@southasiabiosafety.org

UNITED STATES

Ms. Layla Tarar
Communications Manager
ILSI Research Foundation
740 Fifteenth Street NW, Suite 600
Washington, D.C. 20005, USA
Email: ltarar@ilsirf.org
Twitter: @ILSIRF

INDIA

Dr. Vibha Ahuja
Chief General Manager
Biotech Consortium India Limited
Anuvrat Bhawan, 5th Floor
210, Deendayal Upadhyaya Marg
New Delhi 110 002, India
Email: vibhaahuja.bcil@nic.in

To receive an electronic copy of this newsletter, send your name, institutional information, and e-mail address to: vibhaahuja.bcil@nic.in