

South Asia Biosafety Program

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BANGLADESH

Second National Biosafety Clearing House (BCH) Workshop

Sium Ahmed, South Asia Biosafety Program



Guests and participants at the Inaugural Session of the Second National Biosafety Clearing House (BCH) Workshop (August 2, 2022).

The Department of Environment (DoE) under the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of the People's Republic of Bangladesh, with the support of the United Nations Environment Programme-Global Environment Facility (UNEP-GEF), organized the *Second National Biosafety Clearing House (BCH) Workshop* on August 2-4, 2022, at the auditorium of the DoE. This workshop was a continuation of the first workshop held on January 24-26, 2021. The objective of the workshop was to enhance the capacity of the national authorized users (NAUs) and relevant stakeholders from Bangladesh on BCH, an online platform for exchanging information on living modified organisms (LMOs) and a key tool for facilitating the implementation of the Cartagena Protocol on Biosafety (CPB). Around 25 participants, including those from NARS Institutions, DoE, and MoEFCC, along with academic and professional experts on biosafety, received hands-on training during the workshop. UNEP's appointed Regional Advisers, Mr. Ruel Maningas and Mr. Edmund Revilla, conducted the technical sessions.

The first day of the workshop began with the Inaugural Session, which was graced by Dr. Farhina Ahmed, respected Secretary of the MoEFCC, as the Chief Guest and Dr. Abdul Hamid, Director General of the DoE, who served as the Chair. The Inaugural Session started with a

welcome address by Mr. Mohammed Solaiman Haider, Director (Planning) of the DoE. Mr. Haider provided a short presentation on the BCH and the biosafety regulatory system of Bangladesh. In the remarks by the Special Guest, Mr. Sanjay Kumar Bhowmik, Additional Secretary, MoEFCC mentioned the CPB and how Bangladesh became a signatory to it. In her speech, the Chief Guest, Dr. Ahmed, talked about Bangladesh's plans to protect biodiversity and the steps that have been taken to deal with climate change. She suggested the use of global technologies while maintaining global standards and legislation. She voiced her expectation that Bangladeshi researchers will bring fruitful outcomes with increased technical capacity, with the help of an event like this one. While addressing participants as the Chair, Dr. Hamid discussed the activities of the DoE and praised the initiatives taken. The concluding remarks were delivered by Mr. Kazi Abu Taher, Additional Director General, DoE.

The technical session was conducted through the Virtual Learning Environment (VLE) that included a demonstration of the BCH central portal (<https://bch.cbd.int>), which has been updated recently with a more user-friendly interface. After an initial knowledge evaluation and expectation setting, participant and facilitator introductions were conducted. An overview of the BCH III project was presented by

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Mr. Revilla. The first day covered a short overview of the CPB, the supplementary protocol, and the BCH. Participants were also introduced to the interactive modules of the CPB and BCH. The first day ended with a demonstration of searching for information in the BCH. After that, the participants worked in groups.

The second day started with a presentation on submitting information to the BCH. During that session, the terms of reference/roles and responsibilities of the national focal point (NFP) and NAUs in submitting information to the BCH were discussed. After the demonstration, participants were involved in group work on how to submit different types of information to the BCH using the BCH training site. Another session covered the types of records, i.e., national and reference records, and the flow of information through the BCH. After the session, participants engaged in another group exercise,

The three-day-long workshop was interactive, participatory, and engaging. Participants were enthusiastically involved in the groupwork.

which illustrated the suggested framework and process flow for NFP and NAO interaction when submitting information to the BCH.

The third and final day of the workshop focused on training and management materials and tools available in the BCH and VLE. Participants submitted their findings on available resources and provided opinions on new courses, modules, or topics that may be helpful. The three-day-long workshop was interactive, participatory, and engaging. Participants were enthusiastically involved in the groupwork. Questions from the participants were answered promptly by the facilitators. The participants urged that they be given proper access as the NAO, so they can submit relevant information to the BCH and realize the complete benefits of this workshop. Mr. Haider assured the participants that this would be taken into consideration. The third workshop of this program has been set to take place at the end of this year.

INDIA International Webinar Series on Promotion of Tissue Culture Techniques in the Asia Pacific Region

Dr. Shiv Kant Shukla, Deputy General Manager, Biotech Consortium India Limited (BCIL)



Speakers at the Webinar Series on Promotion of Tissue Culture Techniques in the Asia Pacific Region.

A series of four international webinars was successfully organized by Biotech Consortium India Limited (BCIL), jointly with the Asia-Pacific Association of Agricultural Research Institutions (APAARI), on the theme “popularization of tissue culture raised certified quality plants for its widespread adoption among potential countries in Asia Pacific and Africa,” in the months of May-August, 2022.

Each webinar focused on specific plants, including banana, sugarcane, date palm, bamboo, and ornamental plants. The underlying objective was to discuss the significance of tissue culture in enhancing the quality and yield of various plants, thereby contributing to the economic upliftment of the farming community in the region. The webinars were chaired by respectable dignitaries from the Ministries of Agriculture, Horticulture, and Rural Development, Government of India. Speakers and panelists included esteemed experts from industry, academia, and leading research institutions in India and the Asia Pacific. The webinars were

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attended by stakeholders from industry, academia, students, and donor agencies from the Asia Pacific Region and Africa. Below is a brief overview of the topics and deliberations:

WEBINAR 1 - BANANA, ROOT, AND TUBER CROPS: SIGNIFICANCE, BEST QUALITY MANAGEMENT PRACTICES, AND WAY FORWARD

Tissue culture of banana, potato, and cassava are being done commercially in many countries. However, quality practices need to be adopted for the production of virus-free quality tissue culture plants of these species. The webinar was chaired by Dr. T. Mohapatra, Director General, ICAR and Vice-Chair, APAARI. Academic experts from India and Nigeria spoke about the journey of banana plant tissue culture from research to commercialization in their respective countries.

Leading industries from India, such as Rise 'n Shine, Pune and Merino Industries, Hapur, presented their success stories in the field of banana

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Banana plant tissue culture © Arteclip | Dreamstime.com.

tissue culture. A panel discussion with experts from Uganda, Taiwan, Bangladesh, and India focused on best practices and the way forward.

WEBINAR 2 - PERENNIAL FRUIT/CASH CROPS: SIGNIFICANCE, BEST PRACTICES, AND WAY FORWARD

Perennial fruit/cash crops, such as pomegranate, apple, and date palm, are very important due to their significant contribution to food security and income generation. The webinar was chaired by Dr. Prabhat Kumar, Horticulture Commissioner, Ministry of Agriculture, Government of India. Dr. S. K. Singh, Head-Division of Fruits & Horticultural Technology, ICAR-IARI, India gave a presentation on the journey from research to commercialization. Leading Industries from India and Iran presented their success stories in the field of tissue culture in apple and date palm.

WEBINAR 3 - TISSUE CULTURE OF TREE/WOODY PLANTS (BAMBOO & TEAK): SIGNIFICANCE, BEST PRACTICES, AND WAY FORWARD

Plant tissue culture of bamboo and teak is undertaken as cultivating these plants through seeds is difficult because of the hard tegument present on the seeds and irregular germination. Micropropagation provides the best alternative for propagation of bamboo and teak on a large scale. Mr. Charanjit Singh, Additional Secretary, Ministry of Rural Development, Government of India was the Chairperson of this

webinar. Industry experts from leading companies in India presented their success stories in the field of tissue culture in bamboo and teak.

WEBINAR 4 - TISSUE CULTURE OF ORNAMENTAL PLANTS: SIGNIFICANCE, BEST PRACTICES, AND WAY FORWARD

Ornamental plants are mostly produced using traditional seeding methods and conventional asexual reproduction, which has many disadvantages. Plant tissue culture technology can play a very important role in rapid propagation, selection, and breeding of new varieties, preservation and exchange of germplasm resources, etc. This webinar was chaired by Dr. Naveen Kumar Patle, Additional Commissioner (Horticulture), Ministry of Agriculture and Farmers Welfare, Government of India. The journey from research to commercialization in the Asia-Pacific and the Indian perspective was presented by Dr. Aswath C., Principal Scientist, ICAR-IIHR, India and Dr. Kanchit Thammasiri, Professor, Mahidol University, Thailand. Mr. Hon-yen Zhao, Director and President, Grand Biotechnology Company, Taiwan and Mr. Kishore Rajhans, Director, KF Bioplants Pvt. Ltd., India presented the success stories in ornamental plants from the industry in Taiwan and India.

The series was a great success, with active participation from all stakeholders, and was very well received by all. The webinar series generated great interest at a global level among all concerned and resulted in some very thoughtful deliberations with industry leaders and senior experts. It is expected that these knowledge sharing webinars will contribute to harnessing the potential of tissue culture technology in multiple crops.

INDIA

India's Participation at the Workshop on Policy Considerations for Gene Editing: The Asian and Australian Perspective, in Kuala Lumpur

Dr. Vibha Ahuja, Chief General Manager, Biotech Consortium India Limited

A workshop on *Policy Considerations for Gene Editing: The Asian and Australian Perspective* was held on August 23-25, 2022 at Sunway Clio Hotel, Petaling Jaya, Malaysia. The event was organized by ISAAA Inc., BioTrust Global, Malaysian Biotechnology Information Centre (MABIC), Murdoch University, and the National Seed Association Malaysia, with an objective to raise awareness among stakeholders and discuss science-based development of policy and regulatory frameworks for gene editing in Asian and Australasian countries. The workshop was attended by more than 60 experts from countries in Asia and Australia.

International experts presented about the science and status of gene editing research and regulations worldwide. Representatives from Asian and Australasian countries were invited to share their perspectives on the policies and regulations on gene editing in their respective countries. Presentations were made by experts from countries who have already notified their policies on gene editing and other countries who are yet in the process of development.

The author of this article, Dr. Vibha Ahuja from Biotech Consortium India Limited, spoke about "Current Developments in Gene Editing Policies in India." She highlighted the exemption of SDN-1 and SDN-2 categories of gene edited plants in India through an official notification and guidelines. Dr. Shivendra Bajaj, Executive Director, Federation of



Participants at the workshop on Policy Considerations for Gene Editing: The Asian and Australian Perspective (August 23, 2022).

Seed Industry of India (FSII) spoke on "Current Status of Gene Editing Research in India and Plans for Commercialization." He highlighted the developments in both the public and private sectors and the challenges with respect to intellectual property issues.

The workshop concluded with the facilitation of working groups that laid out the opportunities, challenges, stakeholder perspectives, and the way forward for policy consensus.

Learn More: www.isaaa.org/kc/cropbiotechupdate/article/default.asp?ID=19709

CALENDAR OF EVENTS

EVENT	ORGANIZED BY	DATE	WEBSITE
BANGLADESH			
Conference on Genome Editing in Plants: Harnessing the Benefits for Bangladesh	Bangladesh Academy of Sciences, South Asia Biosafety Program (SABP), Agriculture & Food Systems Institute (AFSI), and Biotech Consortium India Ltd. (BCIL)	October 18-19, 2022 Dhaka	http://foodsystems.org/sabp
INDIA			
National Symposium on Emerging Innovations in Plant Molecules for Achieving Food and Nutritional Security (EIPMAFNS-2022)	Department of Plant Molecular Biology and Biotechnology, ACHF, NAU and Division of Biochemistry, ICAR-IARI, in association with the Society for Plant Biochemistry and Biotechnology, IARI	September 22-23, 2022 Navsari (in-person and online)	https://nau.in/index
Cane-Fest 2022 (Southern Region)	ICAR-Sugarcane Breeding Institute	September 23-24, 2022 Coimbatore	https://sugarcane.icar.gov.in/index.php/en/
International Conference on Advances in Agricultural, Veterinary, and Allied Sciences for Improving Livelihood and Environmental Security	ICAR-Indian Grassland and Fodder Research Institute, ICAR-National Agricultural Higher Education Project, and National Agriculture Development Cooperative Limited	September 28-30, 2022 Srinagar (in-person and online)	https://www.nadcl.org/files/20220811205313496.pdf
Global Okra Round Table (GORT)	Foundation for Advanced Training in Plant Breeding (ATPBR)	October 10-12, 2022 New Delhi	https://www.atpbr.com/doc/okraconf/1st%20Circular%20Pdf.pdf
Training Programme on CRISPR-Based Plant Genome Editing: Tools and Techniques	Center for Advanced Agricultural Science and Technology (CAAST), ICAR-IARI and ICAR-National Institute for Plant Biotechnology	October 11-21, 2022 New Delhi	https://www.iari.res.in/
31 st National Conference on Innovative Resource Management Approaches for Coastal and Inland Ecosystems to Sustain Productivity and Climate Resilience	Soil Conservation Society of India (SCSI), Navsari Agricultural University and Gujarat State Chapter of SCSI	October 13-15, 2022 Navsari	https://nau.in/index
Indian Ecological Society International Conference 2022 (IESIC 2022)	Sher-e-Kashmir University of Agricultural Sciences & Technology	October 13-15, 2022 Jammu	http://www.skuast.org/ https://iesconf.in/
INTERNATIONAL			
8 th Plant Genomics and Gene Editing Congress: Asia	Global Engage Ltd.	October 12-13, 2022 Kuala Lumpur, Malaysia	https://www.global-engage.com/event/plant-genomics-asia/



SOUTH ASIA
BIOSAFETY PROGRAM

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The South Asia Biosafety Program (SABP) is an international development program implemented in India and Bangladesh with support from the United States Agency for International Development (USAID). 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.



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