The South Asia Biosafety Program (SABP) is very pleased to welcome Dr. Aparna Islam as the new Country Manager for SABP Bangladesh. Dr. Islam joins us from BRAC University, where she held the position of Professor in the Biotechnology Program. Since joining BRAC as an Assistant Professor in 2007, she has been active as a teacher, mentor, and researcher. This includes serving as a supervisor for 25 students receiving their B.Sc./M.S. degrees and the Coordinator for the M.S. Biotechnology Program.

Dr. Islam’s research interests include plant biotechnology and biosafety, and she served as the Principal Investigator on an agricultural research project supported by the Bangladesh Academies of Science-U.S. Department of Agriculture Endowment Fund, which was involved in the establishment of the Plant Biotechnology Laboratory and Molecular Biology Laboratory at BRAC University. Over the last two years, she has been involved in work related to assessing the perception of GM food in Bangladesh among young people. Dr. Islam completed her M.Sc. in Botany from Dhaka University and her Ph.D. from Jawaharlal Nehru University, with research conducted at the International Center for Genetic Engineering and Biotechnology in New Delhi.

Dr. Islam officially joined SABP on November 15, 2018 and has taken over responsibility for the new SABP office in Dhaka.
Exploring the Potential of Halophytic Wild Rice, Uri Dhan: Seminar at Dhaka University

Dr. Zeba I. Seraj, Dhaka University

The Bangladesh Government has established a Climate Change Trust (BCCT) that works under the Ministry of Environment, Forests, and Climate Change. Operating under the BCCT, a national climate fund (BCCT Fund - BCCTF) enables projects involving research and other activities that help in mitigating the effects of climate change.

Financed by the BCCTF, collaborative research was carried out by Dhaka University (DU) and the Bangladesh Rice Research Institute (BRRI) to investigate the potential of Uri dhan or *Porteresia coarctata* (Pc) to help in the production of salt tolerant commercial rice. After the successful completion of the project, a seminar was held at Nawab Ali Chowdhury Senate Bhaban, University of Dhaka. The seminar was graced by special guests: Mr. Dipak Kanti Paul, Managing Director (Additional Secretary), BCCT and Dr. Md. Shahjahan Kabir, Director General, BRRI. The seminar was inaugurated by Dr. M. Akhteruzzaman, Vice-Chancellor, University of Dhaka. Dr. Zeba I. Seraj, the project’s Principal Investigator delivered the presentation: “The Different Ways Uri dhan (*Porteresia coarctata*) Can Be Used for Developing Highly Salt Tolerant Rice Varieties.”

*Pc* or *Porteresia coarctata* is a rice-like halophyte, locally known as Dhanighash (the grass with rice-like grains) or Uri dhan (the rice was originally discovered at a depositional landform off the coast on Noakhali called Uri). It is endemic to the complete coastal area of Bangladesh, from Cox’s Bazaar in the west to Khulna in the east. The halophyte can complete its lifecycle in seawater (400mM salt), profitably flowers from October to November, but propagates through rhizomes as the grains dry out quickly and thus fail to germinate. Keeping this in mind, the project was carried out with three objectives. Part of the project involved forced hybridization between *Oryza sativa* and Pc, while the third part involved identification of genes related with stress and transport in Pc and transformed into rice.

Dr. Sultanul Aziz, a famous Botanist-cum-Microbiologist, explained the interesting physiology of Pc after the Keynote. Dr. Kabir and Mr. Paul talked at length about urgent and extensive research work needed to tackle climate change and how the project had many take-home messages for more research to be undertaken. A lively discussion followed the talk, where invited scientists from BRRI, DU, and others took part under the facilitation of Dr. M. Sayedul Islam of the Department of Biochemistry and Molecular Biology, DU. The seminar was attended by several delegates from the Ministry of Agriculture and Ministry of Environment, Forests, and Climate Change.

Lecture on Gene Editing at University of Delhi, South Campus

Dr. Vibha Ahuja, Biotech Consortium India Limited

The University of Delhi, South Campus invited Dr. Andrew F. Roberts, Deputy Executive Director, ILSI Research Foundation to deliver a lecture on Biosafety Risk Assessment and Regulation of Gene Edited Plants on December 11, 2018. Dr. Roberts oversees programs addressing environmental risk assessment and food safety assessment for agriculture biotechnology and was warmly welcomed by Dr. Deepak Pental, Professor of Genetics and the former Vice Chancellor at the University of Delhi.

Dr. Roberts introduced the topic of gene editing and talked about its application to plants. He informed the audience of the lack of a globally accepted definition of gene editing. In general, gene editing refers to the application of various techniques, viz. Zn Finger nucleases, TALENS, CRISPR-Cas, etc., to make targeted changes to DNA sequences at a known location. Dr. Roberts indicated that gene editing tools allow the generation of desired traits more efficiently than conventional breeding. He spoke about the potential of gene editing in plant improvement and indicated that the techniques are likely to be of much significance to plant varieties having a limited market lifespan, e.g., fruits and vegetables, species with genomes that make breeding difficult such as wheat, and clonally or vegetatively propagated crops such as potato. Further, he deliberated on using existing risk/safety assessment frameworks to evaluate the products of gene editing. He also gave an

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INDIA

7th Training Workshop for Institutional Biosafety Officers on Confined Field Trials of Genetically Engineered Plants

Dr. Vibha Ahuja, Biotech Consortium India Limited

The ICAR Programme on Biosafety Compliance and Readiness sponsored by the Indian Council of Agricultural Research (ICAR), Biotech Consortium India Limited (BCIL), and ILSI Research Foundation under the aegis of the South Asia Biosafety Program (SABP) organizes training workshops for Institutional Biosafety Officers (IBOs) of ten participating institutes. The 7th Training Workshop for Institutional Biosafety Officers on Confined Field Trials (CFTs) of Genetically Engineered (GE) Plants was organized at the National Research Center of Plant Biotechnology (NRCPB) on December 10-11, 2018.

The workshop program included an opening session and three technical sessions on key aspects related to the conduct of CFTs as per stipulated guidelines by regulatory authorities in India. A total of 20 participants attended the workshop.

Dr. Vibha Ahuja, Chief General Manager, Biotech Consortium India Limited welcomed the participants and informed them that the program was structured based on requests from IBOs and scientists working in the NPTC project who are taking their research products from laboratory to field per the Indian biosafety regulatory framework. In his opening remarks, Dr. N. K. Singh, Director, NRCPB and Coordinator, NPTC indicated that there are several products in the advanced stage in ICAR institutions that need to be subjected to event selection trials or Biosafety Research Level I trials. He thanked the ILSI Research Foundation and BCIL for this timely initiative. He also asked all scientists to clarify their doubts, if any, and work towards submitting applications for CFTs to regulatory agencies at the earliest.

Dr. Andrew Roberts, Deputy Executive Director, ILSI Research Foundation provided an overview of the program. The program was designed with presentations followed by exercises that were prepared for an in-depth understanding of the CFT process. He informed the participants that interactive walkthroughs for the application for CFTs and recording formats were included to ensure threadbare discussions. Highly informative presentations were delivered by Dr. Vibha Ahuja and Dr. Andrew Roberts on regulatory process for CFTs, applicable guidelines and SOPs, component of application forms and handling material, maintaining isolation, and harvest/terminal and post-harvest procedures. Requirements for demonstrating compliance and also examples of non-compliance were explained so as to ensure that the conduct of CFTs by ICAR scientists is in line with regulatory requirements.

The workshop was well received, and participants were actively engaged in all exercises and discussions.

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## EVENT OF CALENDAR

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<td><strong>INDIA</strong></td>
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<td>First Vegetable Science Congress on Emerging Challenges in Vegetable Research and Education (VEGCON-2019)</td>
<td>Indian Society of Vegetable Science, Agriculture University, Jodhpur, Indian Institute of Vegetable Research, Varanasi, and Indian Council of Agricultural Research</td>
<td>February 1 - 3, 2019, Jodhpur</td>
<td><a href="http://aujodhpur.ac.in/">http://aujodhpur.ac.in/</a></td>
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<td>13th International Conference on Dryland Development: Converting Dryland Areas from Grey into Green</td>
<td>International Dryland Development Commission, Arid Zone Research Association of India, and Central Arid Zone Research Institute</td>
<td>February 11 - 14, 2019, Jodhpur</td>
<td><a href="http://www.13icdd.com/">http://www.13icdd.com/</a></td>
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<td>International Conference on Trends in Plant Sciences and Agrobiotechnology 2019</td>
<td>Department of Biosciences and Bioengineering and Center for Rural Technology, IIT Guwahati and Plant Tissue Culture Association - India</td>
<td>February 14 - 16, 2019, Guwahati</td>
<td><a href="https://ictpa2019.in/">https://ictpa2019.in/</a></td>
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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.

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