

BIO SAFETY



A Quarterly
Newsletter

Newsletter

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From the Desk of Editor



I am pleased to inform you that several workshops have been organized as part of the phase –II capacity building project initiated by the MoEF&CC for various stakeholders. As part of the Public awareness initiative the Indian Institute of Mass Communication (IIMC) has organized 5 training workshops on "Communicating Science and Biosafety" across the country in association with various universities. The workshops provided an opportunity for media personnel and students to interact with experts in the field of biotechnology and biosafety thereby enabling them to understand their perceptions on LMOs and widen their skills in Risk communication.

The Training workshops on Monitoring of Confined Field Trials of Regulated GE Plants was organized by the MoEF&CC and consisted of presentations and group exercises given by faculty from Centre for Environmental Risk Assessment, ILSI Research Foundation (CERA-ILSI), Washington and National Experts. I am happy to note that more than 80 participants from Regulatory Committees, ICAR Research Institutions, State Agricultural Universities, State Agriculture Departments have been benefited from these workshops. A set of two documents viz. Manual for trainers and tools for trainers have been developed by MoEF&CC to ensure that such training workshops can be organized in the near future.

Hem Pande

Additional Secretary

Ministry of Environment, Forest and Climate Change

THIRD NATIONAL REPORT ON THE IMPLEMENTATION OF THE CARTAGENA PROTOCOL ON BIOSAFETY: PROCESS INITIATED

Article 33 of the Cartagena Protocol on Biosafety (CPB) places two obligations on Parties. The first one requires Parties to monitor the implementation of their obligations and the second to report to COP-MOP. As per decision BS-I/9 to COP-MOP, an interim report (2005) was submitted two years after the Protocol entered into force. Subsequently, the first National Report (2007) and second National Reports (2011) was submitted by Parties at an interval of four year period. These submissions may be viewed at http://bch.cbd.int/protocol/cpb_natreports.shtml

In order to bring uniformity in the information submitted and improvement in the reporting format, a revised format for

submission of the third national report was adopted by COP-MOP in its seventh meeting at Nagoya. The format has been made available through the Biosafety Clearing House (BCH) and comprises of a series of questions specific to implementation of each Article of CPB. This will help in assisting the COP-MOP in its assessment of the overall status of implementation of CPB, including measuring the progress in implementation during its midterm evaluation of the Strategic Plan of the Protocol (2011-2020).

All Parties are required to submit their reports by October 31, 2015.

TRAINING WORKSHOPS ON MONITORING OF CONFINED FIELD TRIALS OF REGULATED GE PLANTS AT NEW DELHI AND HYDERABAD

Training Workshops on Monitoring of Confined Field Trials (CFTs) of Regulated GE Plants were organized at New Delhi and Hyderabad in May-June 2015 to strengthen monitoring of the CFTs.

The objective of these training workshops were to create a pool of trained resource persons, specifically for monitoring of CFTs of regulated GE plants and for inclusion in monitoring teams appointed by regulatory agencies. Accordingly, the participants included the existing/proposed members of monitoring teams constituted at various stages by Ministry of Environment, Forest and

Climate Change (MoEF&CC), Department of Biotechnology (DBT) and state governments. The workshops were organized on May 25-26, 2015 at National Agricultural Science Centre (NASC) Complex, New Delhi and on June 3-4, 2015 at National Academy of Agriculture Research Management (NAARM), Hyderabad. The workshops brought together a total of 80 scientists from research institutions of Indian Council of Agricultural Research (ICAR), state agriculture departments, state agricultural universities (SAUs) and members of the Review Committee on Genetic Manipulation (RCGM).



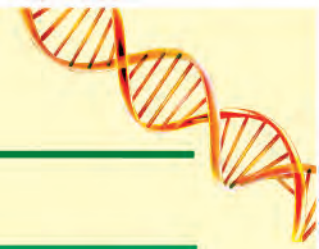
Group photograph at New Delhi



Group photograph at Hyderabad



Group exercises being conducted by faculty



Dr. Ranjini Warriar, National Project Coordinator, Phase II Capacity Building Project on Biosafety and Director, MoEF&CC addressed the participants in the opening session and indicated that these training workshops have been modelled using "Train the Trainer's" approach. Other senior officer's i.e., Dr. S. R. Rao, Advisor, DBT and Dr. D. Rama Rao, Director, NAARM also addressed the participants at the workshop in New Delhi and Hyderabad respectively.

The faculty of the workshops included Dr Ranjini Warriar, Dr. Michael Wach, Senior Scientific Program Manager, CERA-ILSI Research Foundation, Dr O. P. Govila, Member GEAC and Former Professor of Genetics, IARI and Dr. Vibha Ahuja, Chief General Manager, BCIL. The following are the topics of presentations given by the speakers followed by group exercises conducted in break out groups after each presentation to enable in-depth understanding of concepts to participants:

Post workshop the participants were surveyed to evaluate the impact and also to assess the

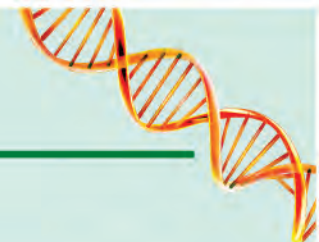
Topics of Presentation

- Regulation of CFTs of GE crops under Rules, 1989
- Assessment and Management of risks posed by CFTs
- Risk management methods for CFTs
- Transportation and storage of regulated GE plant material
- Planting and maintaining the CFT
- Reproductive isolation methods
- Harvest and disposition of regulated GE plant material
- Monitoring Process
- Completing the monitoring report
- Non-compliance and corrective action

knowledge gained through a quiz consisting of 61 questions by CERA-ILSI. The post workshop feedback received from the participants is as below:

EXCERPTS FROM FEEDBACK OF PARTICIPANTS

- The practical exercises done after each session during the workshop were useful as they primarily focused on case studies rather than imparting theoretical knowledge
- All the aspects of the workshop were valuable as they imparted knowledge and understanding for conducting and monitoring of a CFT.
- Some of the group exercises helped in free and frank discussions with fellow trainees and aided in better understanding of a CFT.
- The workshop was extremely valuable in teaching specific aspects related to risk management methods of CFT including storage and transportation of regulated GM material and also emphasized on the importance of management of spillage which may occur during transportation.
- The workshop provided an opportunity to understand the different methods of confinement and the precautions to be taken during conduct and monitoring of CFT.
- Total workshop was very use full. As a regulatory and monitoring personal from the state department, one needs to have basic idea of how the total system works and various things a monitoring personals should consider including the reporting requirements while inspecting the CFT's
- This workshop has provided an important platform for better understanding about GM crops. The present workshop benefitted Scientists as it explained the various methods of isolation such as reproductive isolation, special isolation etc which contains the pollen dispersal within the trial site.
- The exercises helped in discussing different mitigation measures to be taken during spillage of GM material and the precautionary measures in labelling and storage of GM material in order to distinguish them from non GM material.
- Knowledge gained in the workshop will help me in assisting RCGM/GEAC in effective and efficient monitoring of CFTs. It will also help in planning some aspects of transgenic breeding.



ONLINE DISCUSSION ON BIOSAFETY BY CBD, FAO AND OECD

Online discussions on sharing experiences, good practices and challenges for establishing effective national communication and coordination mechanism for biosafety related issues was held from April 27 to May 10, 2015. It was jointly organized by three agencies viz., Food and Agriculture Organization of the United States (FAO), Convention on Biological Diversity (CBD) and Organization for Economic Cooperation and Development (OECD) for their respective member countries.

The online discussion was hosted by CBD and total of 327 participants from 33 countries had registered for participation. The online discussion was held through use of the following five guiding questions:

1. Does your country have a mechanism in place for facilitating inter agency communication on biosafety related issues
2. Have you experienced any challenges in establishing or maintain inter agency communication on biosafety related issues
3. What challenges have you faced meeting or streamlining national obligations and/or contributions (data uploads) to the database
4. What role could the international organizations have in assisting national communication process
5. What do you think would be the key factor for facilitating inter agency communication on biosafety at the national level

As one of the outcomes of the online discussion, a webinar on "International Biosafety Databases" was held on May 27, 2015 to facilitate an inter-sectoral forum for continuous communication. The webinar specifically focused on:

- Sharing key information on activities of FAO GM foods platform, Biosafety Clearing House, and OECD Bio Track Product databases maintained by FAO, UNEP-CBD and OECD respectively
- Linking the participants from different sectors (agriculture, food, health, environment, trade, commerce, and others) to facilitate effective communication
- Provide a forum for members/parties to discuss possible ways to maximize collaboration and achieve synergies at the national and international levels



The copies of the presentations and outcomes of the online discussions can be accessed at:
<http://www.fao.org/food/food-safety-quality/a-z-index/biotechnology/biosafety-events/en/>



Biotech Cotton in India, 2002 to 2014- Adoption Impact, Progress & Future

The International Service for the Acquisition of Agri-Biotech Applications (ISAAA), released the report titled "Biotech Cotton in India, 2002 to 2014 - Adoption, Impact, Progress and Future" outlining thirteen years of adoption and commercial release of Bt Cotton in India. It reports a significant increase of cotton area from 7.7 to 12.25 million hectares and cotton production from 13.6 to 30 million bales over the past thirteen years. It also mentions that India has doubled its market share of global cotton production from 12% to 25 % in 2014, making it the top producer, followed by China and USA.

The production of cotton oil has increased three fold from 0.46 million tons in 2002 to 1.5 million tons in 2014-15. The cotton oil is blended along with the edible oils to boost the supply of edible oil in the country as India is a major importer of edible oil.

The publication is available in English and Hindi and can be accessed at http://www.isaaa.org/resources/publications/biotech_crop_profiles/default.asp



GM Crops: Global Socio-economic and Environmental Impacts 1996-2013

The report on "GM Crops: Global Socio-economic and Environmental Impacts 1996-2013" released in May 2015 was based on compilation of information from peer reviewed literatures representing the findings of research on the global socio-economic and environmental impacts of GM crops by PE Economic Ltd.

The publication can be accessed at:

www.pgeconomics.co.uk/pdf/2015globalimpactstudyfinalMay2015.pdf



Food Biotechnology: Get the Facts - A Video by IFIC

The International Food Information Council Foundation (IFIC), has produced a new video on "Food Biotechnology: Get the Facts". The video showcases that the genetically engineered foods are held to same rigorous safety standards as all other foods and the foods by regulatory agencies so produced are widely consumed worldwide.

It provides science based information along with excerpts from interviews with expert physicians and survey findings. The video highlights that 69% of consumers in America are willing to accept foods produced through biotechnology on being made aware about the benefits. The video can be accessed at: <http://www.foodinsight.org/food-biotechnology-video-and-nonbrowning-apples>



Upcoming Events

Title	Organized/hosted by	Date & Venue	Website
National Events			
Media Workshops on "Communicating Science & Biosafety"	Indian Institute of Mass Communication (IIMC)	July 22 -23, 2015, Ahmedabad July 28 -29, 2015, Chandigarh	-
2nd International Conference and Exhibition on Biotechnology - 2015	Bright International Conferences & Events Organization	August 3-4, 2015, Hyderabad	http://www.brightice.org/iotechnology2015/
National Symposium on Germplasm to Genes: Harnessing Biotechnology for Food Security and Health	Society for Plant Biochemistry and Biotechnology, National Research Centre on Plant Biotechnology, and Indian Agricultural Research Institute Pusa Campus, New Delhi	August 9-11, 2015 New Delhi, India	http://www.nrcpb.org/
Summer Course on Novel Genomic Tools and Modern Breeding Approaches for Enhancing Productivity and Nutritional Quality of Pulse Crops	Indian Institute of Pulses Research, Indian Council of Agricultural Research	September 5 - 25, 2015, Kanpur	http://www.iipr.res.in/pdf/school_200515.pdf
ICAR - Winter School on Advances in Improvement of Vegetable Crops using Biotechnological approaches	Indian Agricultural Research Institute	September 18- October 8, 2015, New Delhi	http://www.iari.res.in/files/Latest-News/Winter_School_Color_VegSci-23052015.pdf
6th World Congress on Biotechnology	OMICS Group Conferences	October 5-7, 2015, New Delhi, India	www.biotechnologycongress.com/india/index.php
International Events			
BIO International Convention 7th Asia Pacific Biotech Congress	Biotechnology Industry Organization Omics International	June 15-18, 2015, Philadelphia, PA July 13-15, 2015,	http://convention.bio.org/Beijing_Chinahttp://www.biotechnologycongress.com/asia-pacific/
2015 International Symposium and Annual Meeting of the KSABC	Korean Society for Applied Biological Chemistry (KSABC), National Center for GM Crops (NCGC), Korea Biotechnology Information Center (KBIC), and Bioconverted Medical Herb Materials Bank	August 17-19, 2015, Pyeongchang Campus, Seoul National University, South Korea	http://www.ksabc.or.kr/english/symposium/symposium_2015.htm
3rd Annual South Asia Biosafety Conference	South Asia Biosafety Program	September 19-20, 2015, Dhaka, Bangladesh	http://sabc.biotech.co.in
Trieste Biosafety Workshop 2015 on "Scientific and Technical Approaches in GMO Decision-making"	ICGEB Biosafety Unit, Trieste, Italy	October 19th - 23rd, 2015, Trieste, Italy	www.icgeb.org/trieste-biosafety-workshop-2015.html

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Disclaimer : The information in this newsletter has been compiled from various sources and does not necessarily depict views of the Ministry of Environment, Forest and Climate Change, Government of India.