

BIO SAFETY



A Quarterly
Newsletter

Newsletter

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From the Desk of Editor



The progress under the ongoing phase II capacity building project on biosafety was reviewed recently by the National Steering Committee. Regarding the project outcomes, I am pleased to inform that series of documents on biology of various plants are under final stages of preparation. Seven ICAR research institutions are actively engaged in preparation of the documents which are also been reviewed by experts from state agriculture universities (SAUs) and other research institutions. These documents would be extremely useful for biosafety assessment of new crops/traits under development. Activities in other thrust areas i.e. Socio economic considerations and Enhancing public awareness are also underway. Detection and identification of living modified organisms (LMOs) is another area wherein the stock taking exercise of existing facilities has been completed. Selected facilities will now be strengthened both in terms of infrastructure and manpower training. We have also nominated Indian experts for participation in the forthcoming workshop on the similar topic by the CBD Secretariat under its network of detection laboratories.

We will keep you updated about more exciting development as we go along.

Hem Pande
Additional Secretary
Ministry of Environment, Forests
and Climate Change

Dates and Venue of COP-13 to Convention on Biological Diversity, COP-MOP 8 to Cartagena Protocol on Biosafety and COP-MOP 2 to Nagoya Protocol on Access and Benefit Sharing

The Conference of the Parties is the governing body of the Convention, and advances implementation of the Convention through the decisions it takes at its periodic meetings. To date the Conference of the Parties has held 12 ordinary meetings, and one extraordinary meeting (the latter, to adopt the Biosafety Protocol, was held in two parts). The Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety currently meets every two years in conjunction with the regular meetings of the Conference of the Parties to the Convention on Biological Diversity.

At its twelfth meeting, the COP decided to hold its future ordinary meetings within a two-week period that also includes the meetings of the

Conference of the Parties serving as the meeting of the Parties (COPMOP) to the Cartagena Protocol on Biosafety, as well as the meetings of the Parties to the Nagoya Protocol on Access and Benefit sharing.

The CBD Secretariat has recently notified that the thirteen meeting of conference of Parties to the Convention on Biological Diversity (COP13), eighth meeting of the conference of Parties serving as meeting of Parties to the Cartagena Protocol on Biosafety (COP-MOP8) and the second meeting of the conference of Parties serving as meeting of Parties to the Nagoya Protocol on Access and Benefit sharing (COP-MOP2) will be held in the period from 4 - 17 December 2016, in Los Cabos, Mexico.

Joint Meeting of National Steering Committee & Project Management and Monitoring Committee of Phase-II Capacity Building Project on Biosafety

The third meeting of the National Steering Committee (NSC) and sixth meeting of the Project Management and Monitoring Committee (PMMC) of the ongoing UNEP/GEF supported phase II capacity building project on biosafety was held jointly on March 16, 2015 at Ministry of Environment, Forest and Climate Change (MoEF & CC) with an objective to review the progress of the project, identify actionable points for finalizing the outputs from the various thrust areas and review the budget and work plan for 2015. The meeting was chaired by Shri Hem Pande, National Project Director and Additional Secretary, MoEF&CC.



The meeting started with brief introduction on the status of the project by Dr. Ranjini Warriar, Director, MoEF & CC and National Project Coordinator (NPC). Members appreciated that the activities are underway in all four thrust areas i.e. Risk Assessment and Risk Management (RARM); Handling, Transport, Packaging and Identification of LMOs (HTPI); Socio Economic Considerations and Public Awareness. Presentations were made by the project partners on the key outcomes achieved under each activity assigned to them. Dr. Morven Mclean, Executive Director ILSI Research Foundation briefed the members about activities being undertaken/ facilitated by them under the component on risk assessment and risk management (RARM). She spoke about the outcome of a survey on "Genetically engineered plants in the product development pipeline in India". She also informed that a Training manual titled "Monitoring Confined Field Trials of Regulated GE plants", along with the accompanying quiz questions has been already submitted along with course curriculum and group exercises for organizing two training workshops for strengthening capacity of those associated with monitoring of confined field trials. Dr. Sachin Chatuvedi, Director General, Research and Information System for Developing Countries (RIS) informed that the initial guidance document capturing existing studies on socio economic assessment of certain crops based on extensive literature review and analysis from ex-ante and ex-post studies has been prepared. He informed that RIS is working through a network approach in close association with the six partner institutes viz., Institute for Social and Economic Change (ISEC), Gujarat Institute of Development Research (GIDR), National Academy of Agricultural Research Management (NAARM), Indian Agricultural Research Institute (IARI), Tamil Nadu Agricultural University (TNAU) and University of Agricultural Sciences (UAS), Raichur. Dr. Rajendran Sundaresan, Executive Director, All

India Rice Exporters Association (AIREA), briefed the members about the structured survey of farmers from 400 villages in Haryana, Punjab, Western Uttar Pradesh and Delhi completed by them as part of study on identity preservation of Basmati rice. Dr. Gita Bamezai, Head, Department of Communication Research, Indian Institute of Mass Communication (IIMC), informed about a series of media workshops proposed to be organized by them for media students, journalists and Indian information services officers. She informed that they will be producing and broadcasting programmes and quiz shows on biosafety for community radio stations in selected regions. The other project partners viz., CABI and Biotech Consortium India Limited (BCIL) also briefed the committee about their activities. Dr. Murali Krishna from Project Coordination Unit (PCU) gave a presentation on overall project progress with focus on project components where concerned representatives could not participate. The committee also approved the budget and the work plan for 2015.



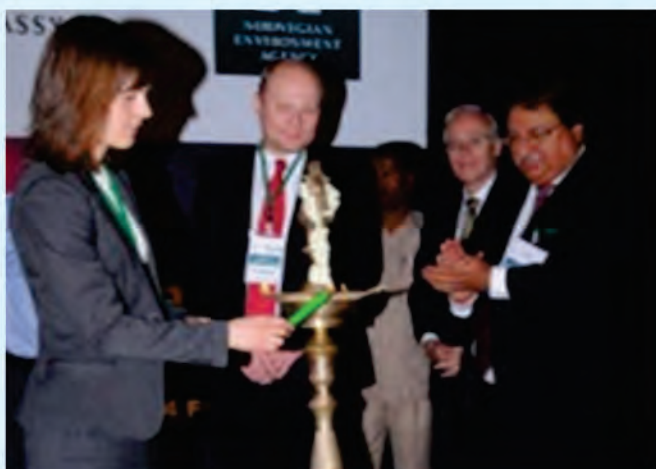
Translation of The Text of Cartagena Protocol on Biosafety and Nagoya Kuala Lumpur Supplementary Protocol in Hindi

Recognizing that use of local languages is extremely important in India for information dissemination and outreach, there is a provision for translating various documents in different languages under the Phase II Capacity Building Project on Biosafety. To start with the text of the Cartagena Protocol on Biosafety and Nagoya Kuala Lumpur Supplementary Protocol on Liability and Redress has been published in Hindi.



Workshop On

“Consolidating CEBPOL – Sharing of Experiences on Access and Benefit Sharing (ABS)”



The Centre for Biodiversity Policy and Law (CEBPOL) is the outcome of a joint institutional and technical assistance programme in the biodiversity sector between the Ministry of Environment, Forest and Climate Change (MoEF&CC) and Norwegian Environment Agency (NEA). CEBPOL is housed at the National Biodiversity Authority (NBA) in Chennai and was officially launched on 24th April 2013 with an objective to establish a center of excellence within the NBA specializing on biodiversity law and policy.

As part of this joint collaboration, a two-day workshop on "Consolidating CEBPOL-Sharing of Experience on Access and Benefit Sharing" was organized on February 3-4, 2015 in Chennai. The workshop was attended by Mr. Lars Andreas Lunde, Deputy Minister, Ministry of Climate and Environment, Norway. Mr. Eivind Homme, Ambassador, Royal Norwegian Embassy, New Delhi and Shri Hem Pande, IAS, Additional Secretary, MoEF&CC and Chairman, NBA.

The deliberations spread over the two days included presentations by subject experts and thematic discussions related to aspects such as legislative framework for access and benefit sharing in India and Norway, implementation of the Nagoya Protocol with a special focus on user country measures in the two countries, and sharing of experiences from both countries vis-a-vis implementation of the Convention for Biological Diversity, country-specific National Biodiversity Strategies and Action Plans, and the cross-cutting theme of capacity building. Representatives from the Fridtjof Nansen Institute, a Norwegian partner in the CEBPOL collaboration, made presentations related to their work undertaken in this connection and facilitated interactive sessions. The workshop deliberations are expected to contribute to the work plan of CEBPOL. Works on Invasive Alien Species, the Nature Index, Biosafety and the Implementation Process for Access and Benefit Sharing, in particular, are expected to receive a fillip.



Capacity Building Activities on Sampling, Detection & Identification of LMOs

The sampling, detection and identification of living modified organisms (LMOs) is a cross-cutting and broad reaching activity, whose successful implementation can facilitate the application of several articles of the Cartagena Protocol on Biosafety. The Online Network of Laboratories for the Detection and Identification of LMOs continues to work on relevant issues inline with various COP decisions and the operational objectives of the Strategic Plan relevant to the implementation of Article 17. These include

- 1 Easy to use and reliable technical tools for the detection of unauthorized LMOs are developed and made available
- 2 Guidance developed to assist Parties to detect and take measures to respond to unintentional releases of living modified organisms and
- 3 Personnel are trained and equipped for sampling, detection and identification of LMOs

The successful implementation of these operational objectives can have a direct impact on the application of several articles of the Cartagena Protocol on Biosafety, as represented below.



Accordingly a framework and action plan aimed at advancing the implementation of the capacity building components for achieving the above is in place and the Secretariat continues to take various initiatives.

In this context, a series of online discussions for sampling, detection and identification of LMOs have been held in the recent past on the following topics

- 1 Drafting an outline for capacity building workshops on sampling, detection and identification of LMOs

- 2 Drafting working definitions for unintentional transboundary movement and illegal transboundary movement of LMOs for consideration of the compliance committee and an analysis of the implications on detection and identification of LMOs
- 3 Compilation of didactic material for capacity building on sampling, detection and identification of LMOs.

As a follow up to these online discussions an "International workshop of the network of laboratories for detection and identification of LMOs" is scheduled for June 9 -11, 2015 in Ispra, Italy. The Parties, other governments and relevant organizations have been requested to nominate experts from their national LMO detection laboratories for participation in the above mentioned workshop.

Technical Tools and Guidance for the Detection and Identification of LMOs

A living compilation of resources on the following topics is available in the Technical Tools and Guidance for the Detection and Identification of LMOs. The resources are based on the outcomes of a workshop held in 2013 with the aim to provide Parties with a set of tools and technical guidelines to facilitate the implementation of their obligations vis-a-vis the Protocol and their national regulatory requirements regarding the detection and identification of LMOs.



- 1 Introduction to the Technical Tools and Guidance for the Detection and Identification of LMOs
- 2 Overview of available detection methods, including validated methods;
- 3 Overview of available databases for methods and sequence information, and available screening matrices;
- 4 Minimum performance criteria for sample handling, extraction, detection and identification methodology;
- 5 Experience and case studies on detection and identification with the view to assist Parties that are currently building their capacities in this area.

Opportunities for Participation in The Online Discussion Groups on Socio Economic Considerations

The Ad Hoc Technical Expert Group (AHTEG) on socio economic considerations is working in a stepwise manner to implement a series of activities before the eighth meeting of the conference of Parties serving as meeting of Parties (COP-MOP7 8), to develop conceptual clarity for taking in account socio economic considerations in decision making on import of living modified organisms (LMOs). These include compiling and consideration of information gathered through online discussion groups, international obligations having relevance to socio economic considerations and the value of biological diversity to indigenous and local communities, environmental related aspects of socio economic

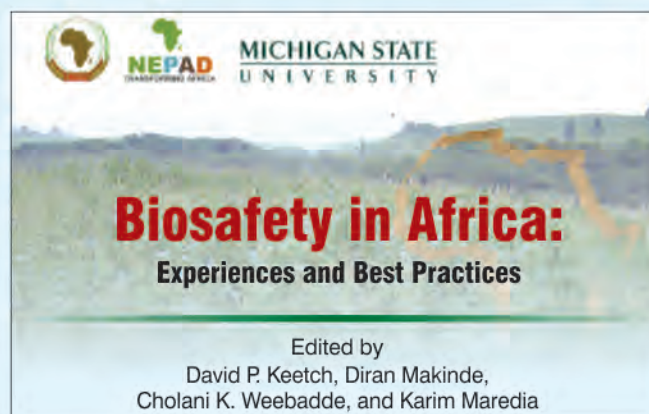
considerations as well as relationship, if any, with risk assessment and human health related issues. The online discussion groups on socio economic considerations are open over a period of four weeks from March 30 to May 7, 2015 on different issues. The online discussions are expected to facilitate exchange of views, information and experiences among Parties.

The online discussion groups are publicly accessible through the BCH, but posting is restricted to registered participants. The online discussion group portal may be accessed at https://bch.cbd.int/onlineconferences/portal_art26/discussion_groups/

Biosafety in Africa: Experiences & Best Practices

Recognizing that the challenge in accessing new science and technology in Africa is often not so much the capacity to utilize the technology, but the lack of capacity to regulate the technology, the New Partnership for Africa's development (NEPAD) in partnership with Michigan State University (MSU) established the African Biosafety Network of Expertise (ABNE) to support African countries in building functional biosafety system that will ensure the safe development and deployment of improved biotech products.

The book "Biosafety in Africa: Experiences and Best practices" is an outcome of lessons learnt by ABNE through on the ground engagement with number of African countries with varying levels of capacity in biosafety policies and practices. This book has been prepared to highlight progress made, challenges faced and lessons learnt on issues of biosafety regulation and capacity building towards establishing a functional biosafety system in Africa with an objective to present biosafety regulators and other interested stakeholders with a rationale account of the experiences and



best practices of selected African countries that have already adopted the cultivation of genetically engineered (GE) crops or are in the process of adopting them, for the biosafety regulators and other interested stakeholders. The experiences of major GE producing countries in Asia such as India and the Philippines are also included for additional information. The publication can be accessed at:

<file:///C:/Users/admin/Downloads/Biosafety%20in%20Africa-%20Experiences%20and%20best%20practices.pdf>

Global Status of Commercialized Biotech/GM Crops ISAAA Brief 49-2014



An update on "Global Status of Commercialized Biotech/GM Crops: 2014" was recently released by International Service for the Acquisition of Agri-Biotech Applications (ISAAA). This brief is annually released by ISAAA and provides comprehensive information on status of cultivation of GM crops globally. It has been reported that the global hectare age of biotech crops in 2014 was 181.5 million hectares showing an increase of 6 million hectares from the previous year. It is for the third consecutive year that the developing countries from Latin America, Asia and Africa grew more biotech crops with an increase from 47% in 2012 to 53 % in 2014 in comparison to the developed/ industrial countries. It has been indicated that more than 10 food and fiber crops are approved for commercial planting, ranging from maize, soybean and cotton to fruits and vegetables such as papaya, eggplant and squash. The newly approved food crops include Innate Potato in United States of America, Bt Brinjal/ eggplant in Bangladesh and Bt Sugarcane in Indonesia. The publication can be accessed at <http://www.isaaa.org/resources/publications/briefs/49/>

Discussion Paper on Synthetic Biology in India: Issues in Risk, Power and Governance

The use of synthetic biology has been receiving attention at different levels globally over the past few years. It has been proposed to develop procedures/systems to address the impacts of synthetic biology on biodiversity and genetic resources in conjunction with existing international agreements like Trade Related Intellectual Property Rights Agreement (TRIPS) and Convention on Biological Diversity (CBD). Though there have been significant advances in the area of synthetic biology globally, it is still in nascent stages in India. As part of their discussion paper series, Research and Information System (RIS) for developing countries has published a paper on "Synthetic biology in India: Issues in Risk, Power and Governance", in December 2014.

This paper is an outcome of research study conducted by RIS on implications of nanotechnology, synthetic biology and food technology as part of the global ethics in science and technology project (2011-2014) with support from European Commission's Seventh framework program. It presents latest



trends and issues of synthetic biology, applications in the field of environment, agriculture, nanotechnology, medicine etc., status in India and regulatory issues. The publication can be accessed at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2546699

Upcoming Events

Title	Organized/hosted by	Date & Venue	Website
National Events			
Media Workshops on "Communicating Science & Biosafety"	Indian Institute of Mass Communication (IIMC) under the UNEP/GEF supported Phase II Capacity Building Project on Biosafety	April 21-22, 2015, Mumbai April 29-30, 2015, Kolkata May 15-16, 2015, Bangalore May 22-23, 2015, Bhopal June 2-3, 2015, New Delhi July 22-23, 2015, Ahmedabad July 28-29, 2015, Chandigarh	-
International Conference on "Low Temperature Science and Biotechnological Advances"	ICAR- National Bureau of Plant Genetic Resources, Indian Council of Agricultural Research, National Academy of Agricultural Sciences, India, and Royal Botanic Gardens, Society for Low Temperature Biology, UK	April 27-30, 2015, New Delhi, India	www.cryobiotechasia2015.in/
2nd World Congress on Biotechnology	Bright International Conferences & Events Organization (Bright ICE)	June 29-30, 2015, Hyderabad, India	http://www.rsc.org/events/detail/17047/2nd-world-congress-on-biotechnology-2015
6th World Congress on Biotechnology	OMICS Group Conferences	October 5-7, 2015, New Delhi, India	www.biotechnologycongress.com/india/index.php
International			
International Conference on Biotechnology, Nanotechnology and Environmental Engineering (ICBNE'15)	International Academy of Arts, Science & Technology	April 22-23, 2015, Bangkok, Thailand	http://iaast.org/2015/04/23/44
IOSBC/WPRS Group "GMOs in Integrated Plant Production"	Agroscope	June 1-3, 2015, Sofia, Bulgaria	Contact: michael.meissle@agroscope.admin.ch
7th Asia Pacific Biotech Congress	Omics International	July 13-15, 2015, Beijing China	http://www.biotechnologycongress.com/asia-pacific/
3rd Annual South Asia Biosafety Conference	South Asia Biosafety Programme (SABP)	September 19-20, 2015, Dhaka, Bangladesh	http://www.cera-gmc.org/Upcoming_Meetings_&_Events
Trieste Biosafety Workshop 2015 on "Scientific and Technical Approaches in GMO Decision-making"	ICGEB Biosafety Unit, Trieste, Italy	October 19-23, 2015, Trieste, Italy	www.icgeb.org/trieste-biosafety-workshop-2015.html

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