



SOUTH ASIA
BIOSAFETY PROGRAM

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SABP

The South Asia Biosafety Program (SABP) is an international developmental program initiated with support from the United States Agency for International Development (USAID). The program is implemented in India and Bangladesh and aims to work with national governmental agencies 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.

SABP is working with its in-country partners to:

- Identify and respond to technical training needs for food, feed and environmental safety assessment.
- Develop a sustainable network of trained, authoritative local experts to communicate both the benefits and the concerns associated with new agricultural biotechnologies to farmers and other stakeholder groups.
- Raise the profile of biotechnology and biosafety on the policy agenda within India and Bangladesh and address policy issues within the overall context of economic development, international trade, environmental safety and sustainability.

COMMENTS INVITED ON BIOTECHNOLOGY REGULATORY AUTHORITY OF INDIA (BRAI), BILL, 2013

The Biotechnology Regulatory Authority of India (BRAI), Bill, 2013 was introduced in Parliament on April 22, 2013. The Bill has been referred to the Parliamentary Standing Committee on Science and Technology, Environment and Forests.

The Standing Committee had invited views and suggestions from individuals and organizations interested in the Bill's subject matter for a period 30 days up to July 10, 2013. An advertised invitation was published in newspapers across the India on June 11, 2013.

The deadline for receipt of comments has been extended for 45 days and the deadline now is August 23, 2013.

Readers may like to respond to this important Bill and also share this information with other concerned stakeholders.

A copy of the advertisement follows on page 2.

REGULATORY STEPS FOR THE CONFINED FIELD TRIALS OF GENETICALLY ENGINEERED PLANTS IN BANGLADESH

Mohammed Solaiman Haider, Deputy Director, Department of Environment (DOE) and Member Secretary, National Committee on Biosafety (NCB), Email: haider.doe@gmail.com

Biotechnology refers to any technique that uses living organisms or substances from those organisms to make or modify a product, to improve plants or animals or to develop microorganisms for specific uses. The economic potential of biotechnology in agriculture, health, energy and the environment is well recognized. There are also fears that manipulated genes or products thereof, may pose potential hazards and also that certain transgenic organisms may be harmful or become harmful to economically important plants, animals or human beings. To address the issues of health and environmental safety concerning modern biotechnology, its product or its application and over and above all to discharge the obligations of the Convention of Biological Diversity and the Cartagena Protocol, there is an urgent need to follow biosafety guidelines to regulate laboratory research, field studies and the commercial release of genetically modified organisms (GMOs) their derivative products.

Bangladesh ratified the Convention on Biological Diversity (CBD) on March 20, 1994 in order to ensure the conservation and sustainable use of the country's rich biological diversity. Although Bangladesh is willing to benefit from the latest scientific revolution in modern biotechnology, the country is fully aware of the possible adverse impacts of GMOs on the environment, biodiversity and human health. Accordingly, Bangladesh ratified the Cartagena Protocol on Biosafety (CPB) on May 24, 2000. As a party to the Protocol, Bangladesh is required to implement the obligations of the Protocol in her domestic legal system. The Protocol requires the designation of national competent authority responsible for performing the administrative functions in implementing the Protocol. The Ministry of Environment and Forest (MoEF) serves as the Competent Authority and the National Focal Point to the Protocol.

Bangladesh developed biosafety guidelines in 1999, which were updated in 2006 in light of the ratification of the CPB. The guidelines require a mechanism to monitor, enforce and communicate with stakeholders and to promote and facilitate public awareness, education, and participation concerning the "safe transfer, handling, and use of GMOs in relation to the conservation and sustainable use of biological diversity and risks concerned with human health." Biosafety activities within the country generally and the regulations in particular are in place to ensure GMOs and their products are appropriately assessed and managed in a transparent and consistent way in order to contribute to the sustainable development and better use of modern biotechnology for the well being of Bangladesh's population.

Various committees have been formed to implement the biosafety regulations in Bangladesh in accordance with the biosafety guidelines. MoEF constituted the National Committee on Biosafety (NCB) headed by the respected Secretary of the ministry as the national competent author-

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COMMENTS INVITED ON (BRAI), BILL, 2013

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RAJYA SABHA SECRETARIAT



DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEE ON SCIENCE & TECHNOLOGY, ENVIRONMENT & FORESTS

EXTENSION OF TIME FOR SUBMISSION OF SUGGESTIONS/VIEWS ON "THE BIOTECHNOLOGY REGULATORY AUTHORITY OF INDIA BILL, 2013"

The Department-related Parliamentary Standing Committee on Science & Technology, Environment & Forests, which is presently considering "The Biotechnology Regulatory Authority of India Bill, 2013" as introduced and pending in Lok Sabha, has invited memoranda containing Views/Suggestions from individuals/ organisations interested in subject matter of the Bill, within 30 days w.e.f. 10th June, 2013 i.e. date of publication of advertisement inviting such memoranda from the Public. The last date of submission of memoranda as presently prescribed is, therefore, upto the 9th July, 2013.

2. The Committee has since received requests from a number of individuals/organisations seeking extension of the time for submission of the memoranda. It has accordingly, decided to extend the time of submission of memoranda containing views/suggestions on the aforesaid Bill by another 45 days w.e.f. 10th July, 2013.

3. Those desirous of submitting memoranda to the Committee, may send their written memoranda in English or Hindi to *Shri V.S.P. Singh, Joint Director, Rajya Sabha Secretariat, Room No. 142, First Floor, Parliament House Annexe, New Delhi-110001. (Tel. No. 011-23035411, Fax No. 011-23015585) Email: rsc-st@sansad.nic.in* within forty five days w.e.f. 10th July, 2013. Those who wish to appear before the committee for oral evidence besides submitting the Memoranda may indicate so. However, the Committee's decision in this regard shall be final. The Memoranda submitted to the Committee shall form part of the records of the Committee and shall be treated as confidential and would enjoy privileges of the Committee. The Committee will have full right on Memoranda so received. It may or may not use those Memoranda while preparing the report.

4. The Bill has been published in the Gazette of India Extraordinary Part II dated the 22nd April, 2013. Copies of the Bill can be had on written request to the abovementioned officer or can be downloaded from the official website of the Rajya Sabha (<http://rajyasabha.nic.in>) under the caption "bills with the Committees".

Website - <http://rajyasabha.nic.in>

E-mail: rsc-st@sansad.nic.in

davp 31202/11/0006/1314

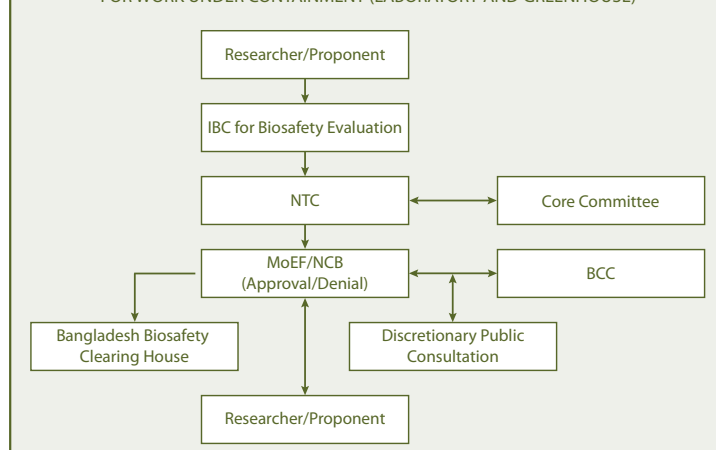
Bangladesh - continued from page 1

ity to manage all aspects of biosafety related to any use of GMOs. The biosafety core committee (BCC) headed by the Director General of the Department of Environment functions to assist the NCB in making decisions on any application.

Institutes conducting GMO research and development activities have constituted institutional biosafety committees (IBC) and designated a biological safety officer (BSO) to handle in-house biosafety issues. For confined field trials, the MoEF forms field-level biosafety committees (FBC) on a case-by-case basis. The biosafety guidelines detail the composition, functions and responsibilities of these committees.

A multiple window system to receive and dispose of notifications/applications of GMOs was established through Biosafety Rules 2012 is compatible with the present administrative decision making system of the Government of Bangladesh. Applicants should file applications with the required information set out in the Biosafety Guidelines of Bangladesh to the respective government ministries. The National Technical Committee (NTC) for the ministry may send it to the respective expert committee to review the merit of applications. Then, the GMO applications are channeled to the NCB with

PROCEDURE FOR EVALUATION OF APPLICATIONS FOR WORK UNDER CONTAINMENT (LABORATORY AND GREENHOUSE)



the endorsement of the NTC on Biotechnology constituted in relevant ministries like Ministry of Agriculture. Such technical committees may recommend applications for specific types of GMOs to the NCB for endorsement. The current technical committees include: National Technical Committee on Crop Biotechnology (NTCCB) for the Ministry of Agriculture, National Technical Committee on Medical Biotechnology (NTCMB) for the Ministry of Health and Family Planning, National Technical Committee on Fisheries and Livestock Biotechnology (NTCFLB) for the Ministry of Fisheries and Livestock.

The documentation requirements for an application vary depending on the type of activities: contained use, field test, import for direct use as food, feed or processing. The Biosafety Guidelines of Bangladesh are online at the Department of Environment website www.doe-bd.org.

WORKSHOP ON "TAKING FORWARD HERBICIDE TOLERANT GM CROPS: OPPORTUNITIES AND CHALLENGES" HELD IN NEW DELHI

Recognizing the need for newer weed management strategies and global rates of adoption of herbicide tolerant (HT) crops, the Indian Society of Weed Science (ISWS) in association with Biotech Consortium India Limited (BCIL), conducted a day-long workshop, *Taking Forward Herbicide Tolerant GM Crops: Opportunities and Challenges*, on May 2, 2013 at the NASC Complex, New Delhi. The workshop was attended by 60 participants including members of the ISWS, scientists from agricultural research institutions and state agricultural universities (SAUs), representatives from concerned government departments and industries. The workshop programme was composed of an opening session and two technical sessions followed by a panel discussion.

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In the opening session Dr. A.R. Sharma, Director, Directorate of Weed Science Research, Jabalpur spoke about current weed management practices and challenges faced by farmers. He indicated that around 36 per cent of the total annual crop loss is due to weeds alone which inflict an urgency of weed management to prevent the yield loss. He advised that the present weed control practices in India are characterized by intensive use of manual labour and animal power. Both of which are in short supply and are increasingly becoming uneconomical. Dr. Sharma suggested the need to develop herbicide tolerant crops in those areas where weed management is a major issue, like maize, cotton, wheat, rice, etc. He strongly opined that the introduction of HT crops will help to bring in a major revolution in weed management.

Dr. N.T. Yaduraju, President of ISWS reiterated that the introduction of HT GM crops is like a dream for weed scientists as well as to farmers in the improvement of agriculture in India. He further indicated that every technology has merits and demerits but it needs to be properly evaluated, rather than spreading misconceptions. He also indicated that it is a myth that weeds should not be controlled because they are used as vegetables or as fodder. He strongly suggested that such arguments have no scientific basis. He also spoke about the issue of super-weeds and indicated that in several crops there are no related weeds and therefore the question of gene flow does not arise at all. He mentioned that since the adoption of HT technology in 1996, there has been plenty of scientific literature available regarding the safety aspects of HT crops. He indicated that misleading reports that the use of HT crops may deprive the labourers of their livelihood are being circulated. However, in practice there has been a lot of diversification of labour, which has led to the non-availability of labour for weeding at critical stages of crop growth and high labour costs. He indicated that ISWS is committed to using scientific approaches and technological advances in the area of weed science for the benefit of India's farmers.

Dr. S.R. Rao, advisor to the Department of Biotechnology (DBT), indicated that while regulatory processes to evaluate the suitability of HT crops in India are under way, there should be parallel efforts conducted in a strategic manner by all stakeholders including weed scientists, academia, industry, etc., to address the concerns expressed about such crops.

In his opening address, Dr. S.K. Datta, Deputy Director General (Crop Science), Indian Council of Agricultural Research (ICAR) appreciated the timely initiative taken by the ISWS and BCIL in organizing the workshop. Echoing the views of the speakers, he agreed that weed management is a serious issue and must be prioritized. He energetically suggested that all technological options, including the use of HT crops, should be immediately implemented to enhance agricultural productivity in a sustainable manner. He also stressed that extensive communication efforts be made in order to put forward the facts about GM crops, in particular HT crops, and to address the misconceptions.

The first technical session, *HT Crops as a Part of Integrated Weed Management*, was chaired by Dr. P.K. Gupta, Emeritus Professor at Chaudhary Charan Singh University (Meerut) with presentations by Dr. C. Chinnusamy, a professor at Tamil Nadu Agricultural University, Dr. Samunder Singh, Secretary of the International Weed Science Society and Dr. R.K. Malik, former President of ISWS. The second technical session, *Safety Assessment of HT Crops and the Herbicides to be Used*, was chaired by Dr. Deepak Pental, Director of the Centre for Genetic Manipulation of Crop Plants (CGMCP), University of Delhi South Campus (UDSC) with presentations by Dr. K.V. Prabhu, head of the Genetics Division of the Indian Agricultural Research Institute (IARI) and Dr. Vibha Ahuja, General Manager of BCIL.

The following recommendations emerged from the workshop's deliberations and presentations:

1. The growing gap between labour demand and supply has impacted agricultural operations in general and weed management in particular. In view of the severe constraints being faced regarding the country's availability of labour for agricultural purposes, it was recommended that weed management requires harnessing the advances made in cutting edge disciplines such as farm mechanization and biotechnology with a minimal role by labour.
2. Cutting across all regions, it was emphatically pointed out that dependence on manual labour be lowered to reduce drudgery, particularly for women who are primarily the ones engaged in weeding operations. This will also allow women to use quality time on secondary agricultural operations leading to increased revenues.
3. Information documents including specific studies on the economic and environmental effects of HT crops may be compiled and circulated. If required, specific studies addressing the socio-economic benefits of HT crops may also be conducted and used to create awareness.
4. Misconceptions should be discouraged, for example, the use of weeds as fodder is a misplaced argument. By the time the weed is at a stage to be harvested for fodder, it would have already caused damage to the crop.
5. HT crops, which are under evaluation in fields, for example, corn and cotton, should be made available to farmers as soon as possible following approval by the regulatory agencies.
6. India should take advantage of available herbicide tolerant technologies from industry and adapt them to crops of interest such as wheat, rice and rapeseed mustard by following a sound public-private partnership model.
7. Discovery and development of new herbicide tolerant technologies should be promoted in public sectors led by ICAR.

(continued on page 4 - see Workshop)

South Asia Biosafety Conference

September 18 - 20, 2013 | New Delhi, India

<http://cera-gmc.org/index.php?action-news&id=238>

CALENDAR OF EVENTS

Event	Organized by	Date and Venue	Website
INDIA			
Global R&D Summit 2013 - <i>Destination India</i>	Federation of Indian Chamber of Commerce and Industry	July 25 - 26, 2013 New Delhi	www.ficcirndsummit.com
The 50 Pact - <i>Renewing Borlaug's Promise</i>	Indian Council of Agricultural Research (ICAR), Borlaug Institute for South Asia (BISA) and International Maize and Wheat Improvement Centre (CIMMYT)	August 16 - 17, 2013 New Delhi	http://www.cimmyt.org/en/cimmyt-events/the-50-pact-renewing-borlaug-s-promise
The Borlaug Global Rust Initiative (BGRI) 2013 Technical Workshop	Indian Council for Agricultural Research (ICAR) and the BGRI South Asia Center	August 19 - 22, 2013 New Delhi	http://www.globalrust.org/traction/permalink/newdelhi17
Interactive Session on Meeting the Challenge of Food Security with Biotechnology by Mark Lynas	Cornell University and Sathguru Management Consultants	August 19, 2013 New Delhi	
TERI-ITEC Courses 2013-14 - Course I - <i>Applications of Biotechnology and its Regulation</i>	The Energy and Resources Institute (TERI)	September 9 - 28, 2013 RETREAT, Gual Pahari, Gurgaon	http://www.teriin.org/index.php?option=com_events&task=details&sid=582
ICAR Sponsored Summer School on New Horizons in Biotic Stress Management in Rice under Changing Climate Scenario	Central Rice Research Institute	September 10 - 30, 2013 Cuttack	http://www.crrri.nic.in/Summer%20School%20Brochure_CRRRI%202013.pdf
Advanced Training Course on Climatic Change and Abiotic Stresses	Department of Crop Physiology N.D. University of Agriculture & Technology	September 12 - October 1, 2013	
South Asia Biosafety Conference	South Asia Biosafety Program (SABP), Biotech Consortium India Limited (BCIL) and Bangladesh Academy of Sciences	September 18-20, 2013 New Delhi	http://cera-gmc.org/index.php?action=news&id=238
Seed Industry Program: Traits – Market – Growth – Leadership	Cornell University and Sathguru Management Consultants	October 7-10, 2013 Hyderabad	http://www.sathguru.com/seeds/
International Conference on Biotechnology (IICB-2013)	University School of Biotechnology, Guru Gobind Singh Indraprastha University	October 22-25, 2013 New Delhi	
INTERNATIONAL			
Biosafety: An International Short Course in Environmental Aspects of Agricultural Biotechnology	Michigan State University College of Agriculture and Natural Resources in Collaboration with the Plant Breeding and Genetics Program	August 4 – 9, 2013 East Lansing, Michigan, USA	http://worldtap.msu.edu/short-courses/biosafety/
MU Biotechnology Regulation Immersion Course 2013 (MU-BRIC)	University of Missouri	August 12 - 23, 2013 Columbia	

Workshop - continued from page 3

8. Over-reliance on herbicides for weed control should be reduced by adopting an integrated weed management model.
9. HT crops should form part of a comprehensive integrated weed management strategy to be prescribed to the farmers and formulated by technology developers in association with concerned ICAR research institutions and state agricultural universities.
10. The safety of HT crops has been proven as evidenced by their global adoption rates. The concerns regarding pollen flow, biodiversity, etc., have been studied and addressed by regulatory agencies in several countries. Available scientific information should be used to analyze the impact of GM crops on the environment and on biodiversity instead of assuming hypothetical risks.

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