



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 the local governments to facilitate implementation of transparent, efficient and responsive regulatory frameworks that ensure the safety of new foods and feeds, and protect the environment.

Over the next three years, SABP will work 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 address policy issues within the overall context of economic development, international trade, environmental safety and sustainability.

AGRICULTURAL BIOTECHNOLOGY AND THE MEDIA'S ROLE

Scientists working in the field of crop biotechnology, and writers or journalists who frequently contribute to top-tier media are regarded as key players in biotech communication. Both groups agree that media has an important part to play in raising public knowledge about the application and safety of agricultural biotechnology.

As many of the first-wave biotech products have become commodities in most of the world, some of the most promising applications face serious challenges from public opinion. Biotechnology has received far greater acceptance in medicine than it has in food and agriculture and the main reason for this is a lack of awareness by the public.

How do we make informed decisions about this powerful technology that will enable us to enjoy its benefits while at the same time avoiding or minimizing the environmental, health and socio-economic risks posed by its application? The pro-biotech side is optimistic that plant biotechnology has come to stay and will be a major technology of the future whose potential benefits include more nutritious, higher yielding, pest and disease resistant crops that are more environmentally sustainable. The anti campaigners believe such a technology may be toxic and allergenic to humans, will create super weeds and will cause the number of agrochemical sprays to increase extensively. In short, they believe that crop biotechnology is harmful to our health, environment and economics rather than being safe and beneficial.

It is usually at this point that most journalists and the public get confused and find it hard to balance the information coming from the two different schools of thought. Many of

the journalists in South East Asia have limited knowledge of, or education in, the life sciences, which gives them little capacity and skill to analyze the technical aspects of the technology presented by the pro- and anti-biotech sides of the debate. Moreover, the debate is largely influenced by social, ethical, religious, scientific, political, economic, legal and cultural dimensions making it even more complex for journalists and media in general to position themselves; therefore scientists and journalists often differ in their opinions about the quality of media coverage.

In Pakistan most of the public and consumers rely on newspapers, radio and television as their primary source of information, therefore, the media will play an important role in guiding public perception on crop biotechnology, which should be encouraged.

Firstly, communication strategies should be included in the education and training programs of scientists; scientists must learn how to explain scientific data in simple language for journalists and media to convey to the public.

Secondly, best journalistic practices, including the balanced presentation of facts, arguments, and interpretations, must be promoted.

Outreach initiatives must be taken by scientific organizations, like holding courses and workshops in biotechnology for journalists. These should be fostered and financially supported.

The public have the right to be informed and the responsibility to learn about biotechnology. The public and private sectors should jointly undertake efforts through exhibitions and publications to address public concerns on biosafety of biotech products and applications. People tend to pay attention to information coming from sources they trust like newspapers, farmers, scientists, teachers, and community leaders; therefore, the impartial and balanced role of the media and journalists is necessary for effective communication on biotechnology and biosafety issues.

In an effort to help address the situation, a workshop, "Biotech Communication: Potential Role of Journalists", organized by the International Service for the Acquisition of Agri-biotech Applications's (ISAAA) Bangladesh Biotechnology Information Center (BdBIC), was held at the Hotel La Vinci, Dhaka, Bangladesh, on September 30, 2005. A large number of local print and electronic media journalists participated. The theme of the conference was 'to engage media and specialty journalists to improve their skill on this scientific, ethical and social debate and provide them a forum where they can share information and concerns given more openly by different stakeholders regarding potential benefits and risks of agriculture biotechnology'. If the subsequent press coverage of the workshop is any indication then it was a good start at achieving this goal.

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CONSULTATION ON THE SAFETY ASSESSMENT OF GM FOODS

Dr. Vibha Ahuja, Deputy General Manager, Biotechnology Consortium India Ltd. and Dr. Geeta Jotwani, Senior Research Officer, Indian Council of Medical Research

A Consultation on the Safety Assessment of GM Foods was organized on September 28, 2005, at The Metropolitan Hotel Nikko, New Delhi by Indian Council of Medical Research (ICMR), AGBIOS and Biotech Consortium India Limited under the auspices of South Asia Biosafety Programme (SABP). The objective of the consultation was to prepare a consensus document outlining information and data requirements for assessing the safety of foods derived from genetically modified crops based on the *Codex Alimentarius Guideline for the Conduct of Food Safety Assessment of Foods Derived from Recombinant DNA Plants*.

The programme of the consultation included a brief introduction followed by discussions by the participants in four breakaway groups on specific sections of the Codex Guideline. These groups were:

- I. Molecular and Protein Characterization
- II. Potential Toxicity and Allergenicity Issues
- III. Nutrition Issues
- IV. Public Awareness

Participants in the breakaway groups were senior experts from government, research institutions, industry and NGOs. Each group had two rapporteurs (one each from ICMR and BCIL) and one resource person (international expert in the specific area). The group discussions were followed by presentations by each group and discussions.

Dr. Vasantha Muthuswamy, Sr. DDG, ICMR welcomed the participants and briefed them about the initiatives being taken by Ministry of Health and Family Welfare, Government of India and ICMR for developing the guidelines and policy framework for GM foods. She informed about the five committees set up by ICMR who have given the recom-

CALENDAR OF EVENTS (INDIA)		
Event	Date	Place
Theoretical and Practical Course: "Transgenic Crops: Production, Evaluation and Applications", ICGEB, New Delhi	November 7 to 18, 2005	New Delhi
Annual Conference of the Nutrition Society of India	November 18-19, 2005	Hyderabad
Workshop: "Protein Interaction Technologies in Biomedical Research", ICGEB, New Delhi	November 21-December 2, 2005	New Delhi

mendations for consideration of Central Committee of Food Standards. She indicated that the consensus document to be prepared by the experts based on the Codex Guideline would be extremely useful for ICMR in the above initiatives.

The consultation participants agreed that safety should be the primary concern in the regulation of GM foods and the Codex Guideline should form the basis of guidelines to be developed in India to address the science-based safety assessment of foods derived from GM crops. The additional points raised by them are broadly related to technical considerations on specific paragraphs from the Codex Guidelines, which may be required in the assessment process on a case-by-case basis, such as information about the history of exposure to novel proteins, sequences of flanking regions, phenotypic and agronomic data, compositional comparison with the conventional counterpart, assessment of GM food in the form available to the consumer, use of validated animal models for potential allergenicity, etc.

A separate set of considerations for addressing public awareness about the regulation and safety assessment of GM foods was also formulated. It was suggested that the legal system, particularly food laws, should be in place for legal protection and redress mechanisms. Research surveys should be initiated to understand the baseline information on public awareness followed by use of all information and communication channels and groups to create awareness about GM food safety.

INDIA AND NETHERLANDS TO COOPERATE IN BIOTECHNOLOGY

The Hindu - October 25, 2005

NEW DELHI -- India and the Netherlands today signed a memorandum of understanding for cooperation in biotechnology with an aim to find solutions to problems in agricultural and health areas.

The MoU was signed between Department of Biotechnology and Netherlands' Institutes of Higher Education.

Speaking on the occasion, Netherlands' Deputy Prime Minister and Minister of Economic Affairs Laurens Jan Brinkhorst, said specific areas for joint activities would be identified in the next three months.

Department of Biotechnology would contribute Rs seven crore while Institutes of Higher Education would contribute Rs 10 crores in the beginning, Science and Technology Minister Kapil Sibal, said.

See the full article at: http://agbios.com/sabp_main.php?action=ShowNewsItem&id=6959



Speakers at SABP/BARC regional Awareness Building workshop held October 2 and 3, 2005, in Bogra, Bangladesh, (from left) Dr. D.J. MacKenzie, Dr. M. Nurul Alam, Mr. Mirza Fakhrul Islam Alamgir, Mr. Md. Ibrahim Khalil.

CALENDAR OF EVENTS (BANGLADESH)

Event	Date	Place
International Botanical Conference	December 9-11, 2005	Botany Department, Dhaka University
Regional workshop on Awareness Building on the Recent Advances in Agricultural Biotechnology and Biosafety: To be organized by SABP.	January/February, 2006	Chittagong and Khulna

SABP AND BARC HOST REGIONAL WORKSHOP ON AWARENESS BUILDING

South Asia Biosafety Program (SABP), in collaboration with Bangladesh Agricultural Research Council (BARC), organized a regional workshop on "Awareness Building on the Recent Advancement of Agricultural Biotechnology and Biosafety", which was held on October 2 and 3, 2005, at the Rural Development Academy, Bogra. There were about 52 participants, a large number of whom were from the Department of Agricultural Extension, researchers and senior scientific officers from the National Agricultural Research Systems of Rajshahi region and representatives from the private sector and NGOs, including local academics.

The inaugural function of the workshop was chaired by Dr. M. Nurul Alam, Executive Chairman, Bangladesh Agricultural Research Council (BARC). The workshop was inaugurated by the honorary guest, Mr. Mirza Fakhru Islam Alamgir, State Minister for Agriculture for Bangladesh, with Mr. M. Ibrahim Khalil, Director General, Department of Agricultural Extension (DAE), attending as the special guest. Dr. D.J. MacKenzie, Executive Vice President, AGBIOS gave an outline of the workshop programs as well as SABP activities in Bangladesh while Dr. Md. Abdur Razzaque, Member Director (Crops), BARC gave the address of welcome.

In his speech, Mr. Fakhru Islam Alamgir stressed that within the next 20 years Bangladesh will have to produce almost double the amount of food to feed its ever-increasing population. He went on to say that, in this context, biotechnology may be one of the options to developing stress-tolerant and disease-resistant plant varieties suitable for cultivation in the saline and drought regions of the country. He also disclosed that the present government is very positive about promoting biotechnology and has already approved some GM crops for contained trial.

Mr. Ibrahim Khalil, DG, DAE, pointed out that the activity of his department starts when the scientists have finished their work in developing new plant varieties. He mentioned that his department will be happy to work with biotech crops once they have been approved by the proper authorities.

After the inaugural function there were several scientific sessions in which discussions were held on general issues related to biotechnology and biosafety with special emphasis on the Bangladesh situation and to introducing risk management methods for the conduct of confined field trials of genetically modified plants. Besides the scientific presentations, there were group discussions by the participants on field trials of biotech crops.

During the group exercise, participants were placed in the role of field trial inspectors and tasked with identifying key inspection parameters at different phases of field trial conduct with genetically modified crops, e.g. transport and planting, monitoring, harvest and post-harvest monitoring and storage. This exercise reinforced the practical aspects of conducting confined field trials and the critical control points

(Article continued on page 4. See photos on pages 2 and 4.)

BDBIC OF ISAAA HOLDS DISCUSSION MEETING WITH JOURNALISTS

The Bangladesh Biotechnology Information Centre (BdBIC) of the International Service for the Acquisition of Agri-biotech Applications (ISAAA) held a discussion meeting with journalists on October 25, 2005, at the National Press Club, Dhaka. The theme of the discussion was "Biotechnology & Biosafety Issues: Public Perception through Civil Society and Media Professionals". Prof. Ms Shahria Akhtar Hossain Bulu, Member of Parliament, was the chief guest.

The event was chaired and moderated by Mr. Mostafa Kamal Mojumder, Editor of The Daily New Nation. Papers were presented by Prof. Dr. Lutful Hassan and Prof. Dr. K.M. Nasiruddin. About 50 journalists from Bangla and English newspapers and television attended asking several questions about the presentation topics as well as interacting with the 12 university and research institute scientists who were present during the discussion meeting.

In her speech, Prof. Shahria Akhtar emphasized the need for biotechnological interventions in Bangladesh for food and nutritional security and to protect the environment by phyto-remediation and by using reduced amounts of pesticides which will eventually benefit farmers by lowering the cost of production. She opined that, to face the challenges of 21st century, we must adopt the innovation of modern biotech science and update our old-fashioned thinking. She also added that there is no harm in sharing and borrowing scientific knowledge and innovations with a hopeful statement that our generation will be able to apply the technology effectively if the capacity is built to facilitate the biotech research and development activities. Finally, she urged all stakeholders to create consensus towards the adoption of biotech crops and products.

Mr. Mostafa Kamal Mojumder thanked ISAAA for arranging a series of meetings with journalists. He mentioned that biotech in medicine is contributing a great deal without objection, even from the Europeans. Similarly, crop biotech will also get acceptance once the safety aspect is ensured in accordance with FAO Guidelines. He also advocated capacity building with a simultaneous crop approach. Mr. Reaz Ahmed, Chief Reporter for the Daily Star, said he appreciated ISAAA's approach to working closely with journalists, mentioning that the Monsanto-Grameen Bank approach would succeed, if they could approach all stakeholders including the media. The event got wide coverage on the National TV channel and in newspapers.

As an immediate outcome, the participating journalists and scientists agreed to form a forum named "Biotech Communicators" for communicating and interacting among biotech stakeholders for better understanding and fruitful harvest of biotechnology.

(Continued from page 3.)

for managing potential risks. The workshop created a lot of interest and enthusiasm among the participants who opined that there should be more such workshops in various regions of the country to inform groups concerned with agricultural developments in Bangladesh.



Group exercise at SABP/BARC regional Awareness Building workshop in Bogra, Bangladesh.

BANGLADESH NATIONAL BIOSAFETY FRAMEWORK PROJECT NEWS

The UNEP/GEF funded National Biosafety Framework (NBF) project is being executed by the Department of Environment (DoE) of Ministry of Environment and Forests, Govt. of the People's Republic of Bangladesh. Mr. Mahmood Hassan Khan, Deputy Director (Technical), DoE was appointed Project Director who took the initiative to appoint a National Project Coordinator (NPC) and other consultants to the project. Dr. Syed Hadiuzzaman, a Professor in the Department of Botany, University of Dhaka was appointed as NPC and took up the position in the first week of October, 2005. He was actively involved as the Convener of the Biosafety Guidelines preparation committee initially developed by the Ministry of Science & Technology. He also contributed his expertise during the revision of the Biosafety Guidelines by the Ministry of Environment and Forests.

US GRAINS COUNCIL BIOTECH CONFERENCE

On invitation from the U.S. Grains Council, Prof. Dr. M. Imdadul Hoque, SABP Country Coordinator for Bangladesh, attended a biotechnology conference held in Iowa and Nebraska, U.S.A., from October 10 to 14, 2005. The conference was attended by over 100 participants from the private, public and NGO sectors of 50 different countries of Asia, Africa, Europe and South America. Besides a number of scientific sessions there were extensive tours at various private grain-producing companies and public institutions, namely, Heartland Cooperative Grain Elevator, Gordon Wassenaar Farm, Pioneer Hi-Bred International, Iowa State University, Dahl's Food Mart and Greater Omaha Packing Facility (a meat packing industry).

The conference was formally opened October 11 with opening remarks by Ken McCauley, Vice President, National Corn Growers Association, and Vic Miller, Vice Chairman, U.S. Grains Council followed by a keynote presentation by Noble Laureate Dr. Norman E. Borlaug, Founder of the World Food Prize.

Professor Hoque presented a paper on the status of Biotechnology Research in Bangladesh at one of the scientific sessions. Other speakers included Prof. Diran Mikande, Director, AfricaBio, South Africa, Mr. Ken McCauley, Kansas Corn Growers Association, Mr. Vic Miller, Iowa Corn Promotion Board and Jimmy Wedel, Texas Corn Producers Association.

In the course of the many tours offered, the participants were able to interact with corn growers and visit their fields where they could readily see the difference between GM and non-GM fields. At the same time various sessions were given on, among other things, "Biosafety Regulations: What to Consider", "Public Sector Research: Perspective on Biotechnology" and a discussion meeting on "Regional Networking Opportunities" at which participants were divided into several groups according to the continents. Participants were very much in favour of regional networking, which they felt might speed up biotech activities in the region as well as globally. They formulated some recommendations for consideration.

Participants also visited a supermarket to see examples of the labelling system in food and feed, and a meat packing facility where they could see no noticeable difference between the meat produced from the cows fed with GM and non-GM feed (corn). They also had the opportunity to attend the World Food Prize award ceremony held at the Iowa State Capitol Building. This year's World Food Prize Laureate was Dr. M. Gupta of India. Many dignitaries, namely Dr. Borlaug, the Governor of the State of Iowa, the President of Iowa State University and some former World Food Prize Laureates were present during the award ceremony.

The conference concluded with closing remarks by Mr. Doug Boisen, Treasurer of the U.S. Grains Council, Don Hutchens, Executive Director, Nebraska Corn Board and Craig Floss, CEO, Iowa Corn Promotion Board, followed by a Benchmarking Exercise. At the end participants gave several suggestions the adoption of which may expedite GM crop research and development worldwide.

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