

Synthesis – National Training Workshops “Capacity Building in Biosafety of GM Crops”

Country	Date/ # of participants	Title/Topics discussed	Objective(s)	Output	Recommendations/ Remarks
Bangladesh	11-15 07/04 (51)	<p><u>National Training Workshop on Biosafety</u></p> <ul style="list-style-type: none"> -Biotechnology and its relation to biosafety -Biosafety measures at laboratory, greenhouse and field levels -Potential risks assessment of GMos at laboratory, greenhouse and at field levels -Facilities and capacity needs in handling of GMOs in implementing biosafety requirement -Step by step procedures for evaluation of GMOs as biotechnological products/commodities -Biotechnology, intellectual property rights/requirements of TRIPS, breeders’ rights, etc. -National needs and international obligation related to biosafety, CBD, CPB, TRIPS, etc. -Exercises on different issues of biotechnology/biosafety -Public awareness on GMOs 	To create awareness among the different stakeholders especially regulatory authorities regarding science-based risk assessment and risk management measures of GMOs.	<ol style="list-style-type: none"> 1. Enabled the participants to have a clear understanding of the necessity of biosafety in handling, transporting, packaging, and identifying GMOs or LMOs including LMO-FFPs. 2. The participants having clear understanding of the procedure of risk assessment, risk management and the procedure of releasing GMOs into the environment. 3. Give the participants the capability of designing legal frameworks in the development of national biosafety framework (NBF) and acquire capacities in implementing biosafety guidelines, laws and related international obligations such as CPB. 	<ul style="list-style-type: none"> - An urgent need of closer collaboration among government agencies serving as CBD national Focal Point and the competent national authorities responsible and dealing with implementation of the CBD and CPB - the country needs further adequate and long-term assistance in infrastructure and technological development in order for it to cope with the rapid development in the field of biotechnology including biosafety of GM crops and other GM related issues.
China	19-24 07/04 (67)	<p><u>GMO Management: Assessment and the</u></p>	- To improve the expertise and public perception in	The workshop was able to attain all the objectives it set.	The presentations and group discussions led the participants

		<p><u>Management of Environmental Risks</u></p> <ul style="list-style-type: none"> -Overview of the status of genetically modified crops in China -Current status of capacity building in risk assessment and management of agricultural GMOs -Results of the environmental risks of major transgenic crops in China (canola, cotton, maize, soybean) -Strategies to reduce ecological risks of agricultural GMO -Monitoring and detection of agricultural GMOs -Database building relating to GMO biosafety in China -Public participation and awareness 	<p>RA/RM</p> <ul style="list-style-type: none"> - To provide a platform for experts and officers to exchange their ideas on the assessment and management of environmental risks posed by transgenic crops and shares the results of their research and work experiences on the subject - To enable news media people to participate in order to enhance public awareness on issues concerning environmental safety of GMOs 		<p>to come up with the following recommendations/follow up activities:</p> <ul style="list-style-type: none"> -Policy and regulations on GMOs should be strengthened -Awareness and public perception of GMOs should be improved -Labeling of GMO products should be enforced (this is with a consideration of small companies) -Local officials should be given more proper training in GMO management -Random testing for the presence of GMO should be done in provinces other than the capital -Risk communication and public information campaign should be strengthened -Communication between government officials and researchers/scientists should be improved -Formulate a biosafety assessment system that will work out for the whole of China -Establishment of A GMO Detection Institution, Food safety Detection Laboratory/Institute -Harmonization among different laws and regulations such as seed law, animal health law, adoption law and pesticides law
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Indonesia	8-9 08/04 (60)	<u>National Workshop on Food Safety of GM Crops</u> <ul style="list-style-type: none"> -Detection of GMO in food -Principles of food safety assessment of GM foods -Allergenicity assessment on food derived from GM crops -Nutritional and food safety assessment of GM foods Status of GM food approval in SE-Asia/Asia/World -Consumer attitudes toward agricultural biotechnology 	<p><i>General:</i> -To familiarize the concerned stakeholders on the principles and procedures of food safety assessment and labeling</p> <p><i>Specific:</i></p> <ul style="list-style-type: none"> -To review scientific risk assessment -To introduce the technology on GMO detection to some stakeholders -To socialize the labeling procedure of Gm food 	<p>The workshop was able to come up with the following findings:</p> <ul style="list-style-type: none"> - The key component of biosafety is risk assessment and management - Well trained and knowledgeable people are essential -Government and industry communications on food biotechnology must be consistent in order to earn consumer confidence -It is important to stress that food biotechnology also provides important benefits addressing hunger and food security throughout the world -Realization that GM foods have now reached our doors and table , with or without our approval -Mandatory labeling of food should applied based on threshold level (max of 5% for GM food) as set up by the government -The types of GMO assays that can be utilized are immunoassay, conventional PCR and Real-Time PCR -Allergens are proteins but not all proteins are allergens -Allergenic reaction depend on the individual 	<ul style="list-style-type: none"> - Food safety assessment and regulations on Food derived from GM crops need to be established in Indonesia -National capacities in Indonesia for the development of human resources, research and technology. Legislation, regulations., policies and programmes for food safety need to be strengthened
Malaysia	28-30/09/04 (45)	<u>National Workshop on GMO Awareness and Risk</u>	<p><i>General:</i> To provide the participants with a basic</p>	<p>The workshop was able to achieve all the objectives it set to.</p>	

		<p><u>Communication</u></p> <ul style="list-style-type: none"> -Safety of GM crops from the Industry point of view -Safety of GM crops from the consumers point of view -Approaches for communicating GMO concerns -Strategic Design, message development, appropriate tools for risk communication -Action for public awareness and risk communication on GMO in Malaysia 	<p>understanding of the concepts, principles and processes of effective risk communication</p> <p><i>Specific:</i></p> <ul style="list-style-type: none"> -To provide participants with an understanding of the concepts, principles, and process of effective risk communication -To provide key communication skills for building, maintaining, and repairing strategic stakeholder relationships -To provide hands-on practice in strategic risk communication planning, including identification of appropriate tools for effective communication with stakeholders 		
Pakistan	14-17/06/04 (34)	<p><u>GMO Detection: Capacity Building on Biosafety of GM Crops</u></p> <ul style="list-style-type: none"> -Introduction to polymerase chain reaction -issues on biosafety guidelines in Pakistan -Advancement in Biotechnology -Capacity building in biosafety of GM crops Plant breeder rights and its implication on seed industry -Methods on GMO detection -DNA technology and GM crops -WTO and its implication in 	<p><i>General:</i> To provide all stakeholders an appropriate platform to address the issues concerning GM crops in a more focused manner</p> <p><i>Specific:</i></p> <ul style="list-style-type: none"> -Determine and discuss advances in biotechnology and genetic engineering -Determine and discuss biosafety issues concerning GMOs such as risk assessment, risk management. GMO detection, IPR, international initiatives and public awareness and participation 	<ul style="list-style-type: none"> -Various stakeholders in the workshop have more or less gained clearer understanding of the principles of biosafety and the usefulness of GMO detection in risk assessment. -Helps facilitate the issuance of legislation with regards to biosafety measures 	

		<p>agriculture</p> <ul style="list-style-type: none"> -Real time PCR for GMO detection Issues and facts regarding GMO labeling -Biosafety in GMO production -Practical DNA extraction for GMO detection (CTAB) method -Practical continuation of DNA extraction -Sampling techniques for GMO detection -Practical GMO detection methodologies 			
Philippines	25-28/05/04 (25)	<p><u>National Workshop on Risk Assessment and Management of Genetically Modified Crops</u></p> <ul style="list-style-type: none"> -Development in modern biotechnology: past and future -BPI's role in the Philippine biosafety regulations -The Philippine experience in the approval of corn Mon 810 transformation event -Principles of risk assessment for contained and field use -Workshop on case studies: The corn Mon 810 laboratory and greenhouse proposals and the corn Mon 810 application for propagation -Parallel workshop on food, 	<p><i>General:</i> To enhance the present capacities of scientists, field men, technology developers, users and regulators in the domain of risk assessment and management of GM crops</p> <p><i>Specific:</i></p> <ul style="list-style-type: none"> - To enable the participants to understand the principles of risk assessment of Gm crops -To enable the participants to undertake a scientific and technical risk assessment of Gm crops -To enable the participants to identify risks and design mitigating safety measures for GM crops 	<ul style="list-style-type: none"> -The participants were able to discuss freely the various aspects involved in the scientific assessment of risk posed by GM crops or any transformed event before it is approved for release into the environment. - The workshop enabled the various regulatory and monitoring agencies to harmonize processes and procedures in risk assessment and management as prescribed in CPB 	

		<p>feed and environmental risk assessment</p> <ul style="list-style-type: none"> -Discussion on molecular properties –transformation system, inserted DNA, genetic stability and expresses materials -Food, feed and environment safety -Principles of monitoring genetically modified crops -IRM of Bt corn 			
Sri Lanka	31/05-1/06/04 (44)	<p><u>Capacity Building in Biosafety of GM Crops-Awareness Campaign</u></p> <ul style="list-style-type: none"> -Biotechnology and biosafety policies in Sri Lanka -Legal issues related to GM crops and their safety measures -Intellectual property rights -Laboratory safety guidelines for biotechnology 	To create awareness among various stakeholders on the state of biotechnology in Sri Lanka and to determine capacity building needs with respect to the biosafety of GM crops	<p>-The workshop was able to generate information needed for the finalization of the national Biosafety Framework</p> <p>- The capacity building needs of the country was identified. There were eight major areas:</p> <ul style="list-style-type: none"> * human resources and training * institutional capacity for R and D resources and training *institutional capacity for biosafety assessments *technology development *information management * regulatory mechanisms * policy development through institutional support *ethics, IPR and PBR 	The priorities recommended for human resources development are: training of research, technical and extension staff on testing of GMOs and GMFs, training of personnel in risk assessment studies, and training personnel for creating awareness on GMOs. For technology development, the priorities are: GMO and GMF testing, waste disposal management so as to minimize the effect of the release of GM products to the environment
Thailand	7-10/09/04 (70)	<p><u>GM Crops Assessment Related to Biosafety Issues: the Practical Guidelines</u></p> <ul style="list-style-type: none"> - Status of GMO in Thailand vis a vis In other countries -The Cartagena Protocol on Biosafety -Regulations and law to 	The main purpose of the workshop was to build capacity of the authorities, policy makers and researchers on how to assess GM crops related to biosafety issues and to educate the public on how GM crops are handled	<p>-The workshop was able to provide the participants with relevant information on the status of GMOs in Thailand and other countries</p> <p>-The participants also learned about CPB, regulations and laws related to biosafety and IPR</p> <p>-The participants were given the principles of risk communication and</p>	

		<p>biosafety as well as IPR</p> <ul style="list-style-type: none"> -Principles of risk communication -Strategies for risk communication -Panel discussion on future of GM crops and related biosafety issues as well as IPR issues regarding GM products 		<p>were taught of strategies for risk communication</p> <ul style="list-style-type: none"> - The training on risk communication helped the participants to know how to effectively utilize the media in communicating potential risks of Gm crops. 	
Vietnam	4-7/10/04 (35)	<p><u>National Workshop on Risk Assessment of GM Crops</u></p> <ul style="list-style-type: none"> -Global Status of transgenic crops and identified risks -Advances in genetic engineering of nutrient-dense rice -Current status of Gm crops in Vietnam -Decree on Biosafety Regulations for GMOs and their products Introduction to Bt maize Mon 810 	<p><i>General:</i> To enhance the knowledge and skills of scientists, field men and technology users in the field of risk assessment, risk management and risk monitoring of GM crops</p> <p><i>Specific:</i></p> <ul style="list-style-type: none"> - To build up the capacity of the participants in understanding the principles of risk assessment of genetically modified crops -To build up the capacity of the participants in undertaking a scientific and technical risk assessment of genetically modified crops -To build up the capacity of the participants in identifying risks and designing appropriate mitigating measures of genetically modified crops 	<ul style="list-style-type: none"> -The workshop successfully made the participants understand the safety issues about GM crops and how these issues are addressed. -The participants also gained knowledge on how to conduct risk assessment -The workshop enabled the participants to have a hands-on experience on how to conduct a safety risk assessment audit 	