

National Workshop on Risk Assessment and
Management of Genetically Modified Organisms
BIOTECHNOLOGY REGULATIONS SYNTHESIS: PUBLIC PARTICIPATION AND AWARENESS OF GM CROPS

Country	National Biotechnology Regulations/Policy	Focal Institutions/Group	Public Participation Endeavors	Public Awareness Endeavors
Bangladesh	Biosafety Guidelines – Biosafety Act under process of approval	<ul style="list-style-type: none"> ▪ National Agricultural Research system (NARS) ▪ National Institute of Biotechnology (NIB) ▪ Formulation of Biosafety Guideline ▪ National Committee on Biosafety of Bangladesh (NCBB) ▪ Institutional Biosafety Committee (IBC) ▪ Biological Safety Officers (BSO) 	<ul style="list-style-type: none"> ▪ Working arrangements with the government services, research institutions and universities, public health services in the evaluation, monitoring and review of work according to national policies and guidelines on biosafety. ▪ Hold public deliberations on proposed national policies, guidelines and other biosafety issues ▪ Hold discussions on the comparative ecological, economic and social impacts of alternative approaches to attain the purposes/objectives of the proposed genetic modification products and/or services. ▪ IBC hold discussions on the comparative ecological, economic and social impacts of alternative approaches to attain the purposes objectives of the proposed genetic engineering products or services. ▪ Seminar, Symposium 	<ul style="list-style-type: none"> ▪ Publish the results of internal deliberations and agency reviews of the Committee ▪ Public meeting

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China	<ul style="list-style-type: none"> ▪ Safety Administration Regulation in Genetic Engineering (1997) ▪ 2001- Issued Biosafety Regulations of Agricultural GMOs and Safety Managements of Agricultural GMOs ▪ 2002 <ul style="list-style-type: none"> - Implementation regulations on safety assessment of agricultural GMOs - Implementation regulations on safety of import of agricultural GMOs - Implementation regulations n labeling of agricultural GMOs 	<ul style="list-style-type: none"> ▪ National Biosafety committee (NBC) office for biosafety administration of agricultural GMOs (OBA) Institutional biosafety committee of agricultural GMOs ▪ National Biosafety outline of China (IBC) 	<ul style="list-style-type: none"> ▪ Public participation and professional cultivation are plentifully embodied in the law systems which will improve biosafety consciousness of the public, popularize the biosafety knowledge and enable the public to distinct biotechnology and natural biology productions reasonably ▪ Building national biosafety center of testing and verifying for agricultural GMOs 	<ul style="list-style-type: none"> ▪ Established the biosafety office of agricultural GMOs done great deal works in inspecting the progress and propagandizing biosafety knowledge. ▪ Labeling ▪ TV, especially CCTV-7 ▪ News paper ▪ Broad cast ▪ Books, journal ▪ Internet: www.agri.gov.cn ▪ Conferences ▪ seminar

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Indonesia	<ul style="list-style-type: none"> ▪ Biosafety Regulation in 1997 as decree No. 85 Kpts/hk 330/9/1997 ▪ 1999 a joint decree of four ministries, namely the Ministry of Agriculture, the Ministry of Health, the Ministry of Forestry and Estate, and the State Ministry of Food and Horticulture. ▪ General guidelines for GM products and three specific ones, respectively for GM products of plant, animal, and microbial origin. 	<ul style="list-style-type: none"> ▪ Ministry of Agriculture ▪ Committee for Biosafety ▪ National Agency for Drug and Food Control ▪ Indonesian Institute of Sciences ▪ Ministry of Environment ▪ Ministry of Research and Technology 	<ul style="list-style-type: none"> ▪ Annual meeting for people from various institutions and private company which are members of Indonesian Biotechnology association. ▪ In a clause of update decree, NGO participation on National Biosafety Committee 	<ul style="list-style-type: none"> ▪ Under Preparation National Biosafety Committee has to publish the results of its evaluation in public media ▪ Indonesian Biosafety Clearing House for browsing only ▪ http://www.bchindonesia.org ▪ National seminars on biosafety for GM products ▪ Exhibition for public especially for student ▪ Release of transgenic seed (round up ready & Bt) cotton, soybean, corn

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India	<ul style="list-style-type: none"> ▪ Rules for Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/ Genetically Engineered Organisms or Cells, 1989 framed under the EP Act, 1986. ▪ 1989 Rules Cover the Entire Spectrum of Activities Relating to Research, Development and Use of Genetically Modified Organisms (GMOs) and Their Products. 	<ul style="list-style-type: none"> ▪ Ministry of Environment and Forests - focal ▪ Review Committee on Genetic Manipulation (RCGM) under Dept. of Biotechnology ▪ Ministry of Agriculture ▪ Ministry of Health 	<ul style="list-style-type: none"> ▪ Introduction of public consultation mechanism ▪ Information sharing protocols and additional data capacity are needed to be enhanced to keep pace with the expected increase in trans-boundary movement of LMOs. 	<ul style="list-style-type: none"> ▪ Networking with various institutes and agencies. ▪ Development of databases. ▪ Web management for information dissemination to various stakeholders. ▪ Public awareness programs ▪ Establish biosafety database system and Biosafety Clearing House Mechanism for wider dissemination of information on biosafety. ▪ To share the experience of the industry and farmers with scientists, policy makers, state governments and NGOs.

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Malaysia	The Biosafety Bill: Drafted in 1997 (To be passed by Malaysian Parliament very soon)	<ul style="list-style-type: none"> ▪ Ministry of Science, Technology and Innovation ▪ National Biotechnology Directorate ▪ 7 BCCs: Biotechnology Cooperation Centres <ul style="list-style-type: none"> • Plant • Food • Animal • Molecular Biology • Medical • Environment/Industry • Biopharmacy ▪ Genetic Modification Advisory Council ▪ Department of Agriculture ▪ Department of Veterinary Science ▪ Institute of Medical Research 		<ul style="list-style-type: none"> ▪ BIOTEK Webpage/ internet ▪ BIOTEK Promotional Programmes ▪ The national news media ▪ Conferences/Public Seminars ▪ Brochures, Booklets (Multilingual) ▪ Communication Channels: Mass media

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Pakistan	<ul style="list-style-type: none"> ▪ No Coherent National Policy ▪ Biosafety laws – draft circulated <ul style="list-style-type: none"> - Three Tier System: Institutional Biosafety Committee; Ministerial Biosafety Committee; National Biosafety Committee 	<ul style="list-style-type: none"> ▪ 1998 Establishment of National Biosafety Expert Committee by MoEnv to prepare Biosafety Guidelines 	<ul style="list-style-type: none"> ▪ 1998-2000 Draft Biosafety Guidelines prepared by a Sub Committee of NBEC after consultation with all stakeholders ▪ January 2001: Final Consultation with all stakeholders and was recommended for adoption 	<ul style="list-style-type: none"> ▪ Press/Media (TV) ▪ TV – many private channels; many debates on biosafety ▪ Press-Science section-Pro and Against ▪ Seminars, workshop

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Philippines	<ul style="list-style-type: none"> ▪ Executive Order No. 430 - ▪ Constituting the National Committee on Biosafety of the Philippines (NCBP) and for Other Purposes ▪ DA-Administrative Order No. 8, S2002-Rules and Regulations for the Importation and Release into the Environment of Plants and Plant Products Derived from the Use of Modern Biotechnology 	<ul style="list-style-type: none"> ▪ National Committee on Biosafety Philippines ▪ Department of Agriculture-Bureau of Plant Industry 	<ul style="list-style-type: none"> ▪ Several rounds of consultation with both the private and public sector before the Executive and Administrative Orders were signed ▪ Institutional Biosafety Committee (IBC) hold discussions on the comparative ecological, economic and social impacts of alternative approaches to attain the purposes/objectives of the proposed genetic engineering products and/or services. 	<ul style="list-style-type: none"> ▪ Public Notification and Comment ▪ Public Hearing ▪ Public Consultation

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Sri-Lanka	<p>National Biosafety Committee is in function. This committee represents members from all the Departments responsible for G.M. activities such as imports of G.M. seeds & G.M. productions. This committee is in the process of formulation of biosafety Act & regulation to be presented for the parliament for approval. Also proposals have been made to include biosafety subject under an important ministry.</p>	<ul style="list-style-type: none"> ▪ Under ministry of environment a separate focal unit is established to address all G.M. issues ▪ All the major Department responsible for imports/exports have their own regulatory mechanisms to date depending on separate Acts and Regulations such as: <ul style="list-style-type: none"> - Plant Protection Act - Animal Protection Act - Food Act, etc. 	<p>Field days & field demonstrations are carried out to promote genetically modified crops on pest resistant and also for high yielding varieties.</p>	<p>Major Institutes have their own awareness programmes to keep public informed on the developments. Biosafety unit at the environment ministry is conducting awareness programmes to teachers of High School level, Advanced level students and private sector organizations.</p>

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Thailand	<ul style="list-style-type: none"> ▪ Issued national policy framework for biotechnology on 23 December 2003 draft policy on GMO is expected in the near future. ▪ No specific law on biosafety but use existing laws <ul style="list-style-type: none"> - Plant Quarantine Act B.E. 2507 (1964) amended B.E. 2542 (1999) - Plant Act B.E. 2518 (1975) amended B.E. 2535 (1992) - Plant Variety Protection Act B.E. 2542 (1999) ▪ Importation of transgenic soybean and maize grains (not seeds) that has performed risk assessment and regularly traded in the world market is allowed for importation for food and feed purposes. ▪ Importation GM plants for experimental purposes regulated by DOA under the supervision of the DOAs biosafety committee. ▪ Currently under revision: <ul style="list-style-type: none"> - Biosafety guidelines in genetic engineering and biotechnology for laboratory work (1992) - Biosafety guidelines in genetic engineering and biotechnology for field work and planned released (1992) ▪ Currently under revision: ▪ Guidelines in safety assessment of genetically modified foods (2001) ▪ Guidelines for field trials of transgenic plants (1994) 	<p>Ministry of Agriculture and Cooperatives (MOAC)</p> <p>National Biotechnology Committee</p>	<ul style="list-style-type: none"> ▪ Seminars, workshop 	<ul style="list-style-type: none"> ▪ Labeling: <ul style="list-style-type: none"> ▪ The Food and Drug Administration (FDA) enforced labeling with 5% threshold applied ▪ Transgenic soybean and maize ▪ Effective on May 2003 <ul style="list-style-type: none"> ○ Target Groups: <ul style="list-style-type: none"> ▪ Academic ▪ Children and university students ▪ Industry ▪ Mass media ▪ Farmers ▪ NGOs <ul style="list-style-type: none"> ○ Books: <ul style="list-style-type: none"> ▪ The Agricultural Development VS Biotechnology ▪ Direction of Thailand's Policy on GMOs ▪ Biotechnology for the public <ul style="list-style-type: none"> ○ Cartoons Series: <ul style="list-style-type: none"> ▪ General knowledge and biotechnology ▪ GM food and health ▪ GM crop and ecosystem ▪ Newsletters ▪ Biosafety guidelines (Thai, English) ▪ Foodsafety Assessment Guidelines (Thai) ▪ Cartagena Protocol on Biosafety (Thai, English) ▪ Internet ▪ General information ▪ Biosafety database ▪ Biosafety clearing house ▪ Biological weapon ▪ Education material ▪ Research paper ▪ GMOs EU market ▪ www.biosafety.biotec.or.th ▪ Education materials ▪ Interactive materials ▪ VDO's, TV program

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Vietnam	<ul style="list-style-type: none"> • Recognizes the need to have in place an appropriate safety regulation before large-scale field trials of GMOs are being conducted and released to the environment. • In a process of designing, developing safety regulations and has submitted to the government consideration for rectification according to Cartagena Protocol. • The biotechnology research activity in Vietnam are concentrated in several ministries and agency: <ul style="list-style-type: none"> - Ministry of agricultural and rural development (MARD) - National environment agency (NEA) under ministry of science and technology and environment (MOSTE) - University - Other sectors • However, many experts from biotechnology research Institute and governmental agencies are strongly contribute and involved drafting 	<ul style="list-style-type: none"> • Establishing Committees such as National/Institutional Bio-safety Committees, GM Advisory Committee, Review Committee, and GMO Approval Committee to enforce the Regulations after being approved • Within MARD biotechnology research is conducted by several national program in many research institutes including: <ul style="list-style-type: none"> - Agricultural Genetics Institute (AGI) - Coulong Delta Rice Research Institute (CLRRI) - Vietnam Agricultural Science Institute (VASI) - Food Crops Research Institute (FCRI) - National Center for Natural Science and Technology (NCST) - Institute of Biotechnology (IBI) 		<p>Coming Actions:</p> <ul style="list-style-type: none"> • Focus on Public Awareness of biosafety in general, typically on GMOs; • Biosafety network should be established; • Priority to national biotechnology programmes and agricultural biotechnology; • Capacity building: human, facilities. • International workshop • Media • Public workshop • Communication with newspaper • Education lecture • Internet