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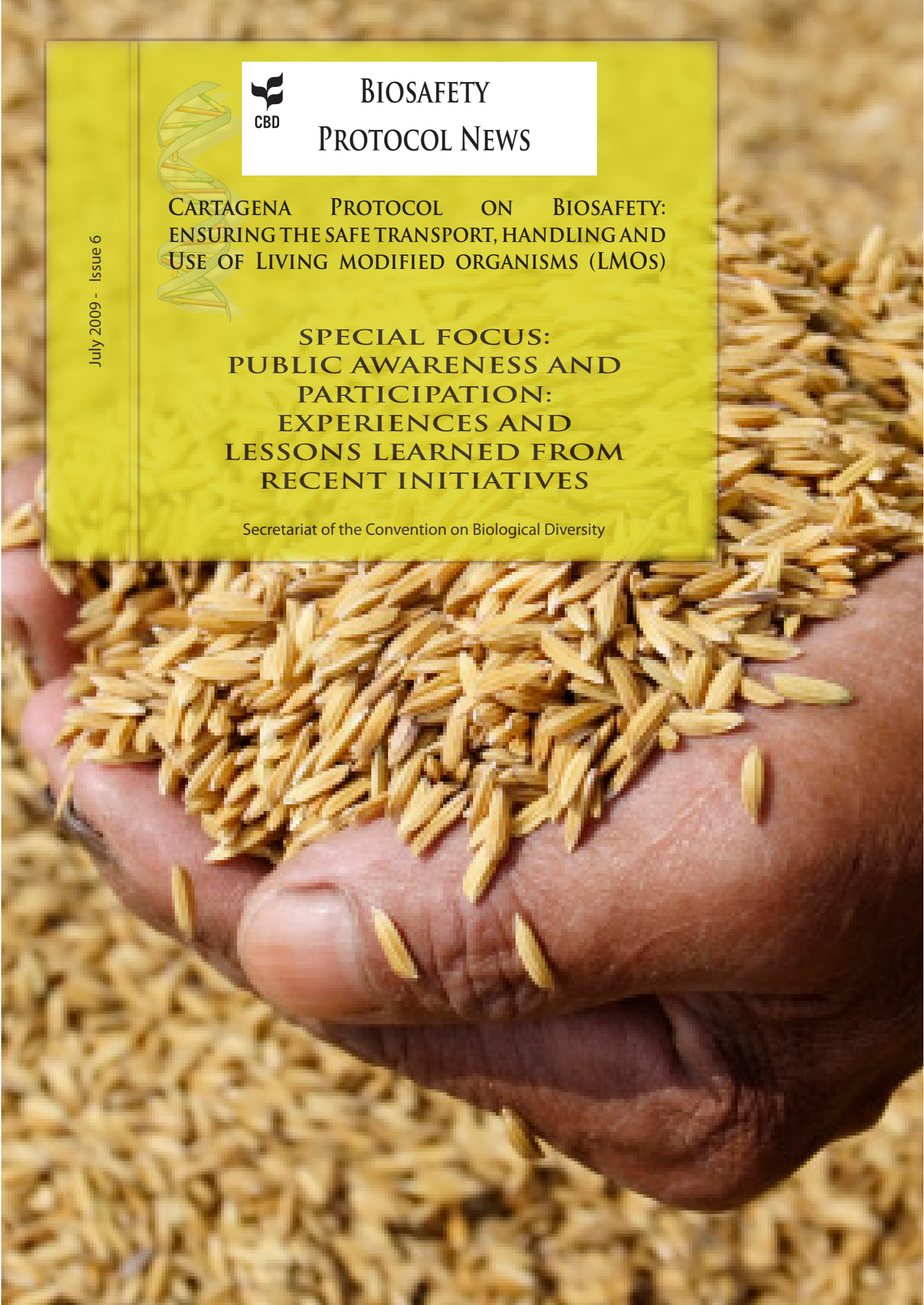


# BIOSAFETY PROTOCOL NEWS

**CARTAGENA PROTOCOL ON BIOSAFETY:  
ENSURING THE SAFE TRANSPORT, HANDLING AND  
USE OF LIVING MODIFIED ORGANISMS (LMOs)**

**SPECIAL FOCUS:  
PUBLIC AWARENESS AND  
PARTICIPATION:  
EXPERIENCES AND  
LESSONS LEARNED FROM  
RECENT INITIATIVES**

Secretariat of the Convention on Biological Diversity





# BIOSAFETY PROTOCOL NEWS

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# Introductory Message

by Dr. Ahmed Djoghlaif

Executive Secretary of the Convention on Biological Diversity

Dear Readers,

Welcome to the sixth issue of the *Biosafety Protocol News*. This issue of the newsletter highlights experiences and lessons learned from different initiatives in promoting public awareness, education and participation, including access to information, regarding living modified organisms (LMOs) as reflected in Article 23 of the Protocol. It is widely recognized that these are fundamental elements for the effective implementation of the Cartagena Protocol on Biosafety. It is essential that the public knows and understands the issues and processes related to LMOs and has access to relevant information to make informed choices and actions.

There are a number of ongoing awareness initiatives at the national, regional and global level. To date, more than 98 countries have already incorporated systems for public awareness and public participation into their draft national biosafety frameworks. However, challenges still remain. Most developing countries and countries with economies in transition lack the financial resources and technical capabilities to promote public awareness and education concerning LMOs. During the last meeting of the Parties of the Protocol, countries indicated that there is a need for a comprehensive programme of work to address the challenges. In this regard, contributors to this issue of the newsletter have shared good practices and recommended possible key points or elements that could be considered in the programme of work that is expected to be adopted at the next meeting of the Parties of the Protocol in 2010 in Nagoya, Japan.

Most contributors emphasized that cooperation in raising awareness through sharing information and engaging more stakeholders in decision-making regarding LMOs is a crucial element to ensuring biosafety. All the contributors highlighted that promoting access to information contributes to transparency and accountability among stakeholders.

The contributors identified a number of specific practical methods to effectively raise awareness and consult the public. Many of the methods used in implementing Article 23 of the Protocol were tailored to the needs of stakeholders and countries. In many cases, however, the most efficient communication channels included the Internet, publications, radio, television, newspapers as



Photo courtesy of Manson Liu, [www.flickr.com/mansonliu](http://www.flickr.com/mansonliu)

well as workshops and public hearings. In some cases, other methods also used to make information available and involve stakeholders included commissions on biosafety with representatives from different stakeholders, official bulletins, representatives informing people at a local level, education initiatives in schools and labelling of products. By using some of these methods, we can all learn and help continue to build capacity towards ensuring biosafety everywhere.

For the Protocol to contribute effectively to public awareness and participation, including access to information, people must take into consideration the successes and lessons learned of previous experiences in implementing Article 23. I would like to thank all the contributors who have shared their experiences and encourage Parties to the Protocol to have these experiences in mind when developing and implementing a programme of work in public awareness, education and participation.

# The Role of Civil Society in Promoting Public Participation in National Biosafety Processes: Experiences and Lessons Learned from Algeria



by Dr. Meriem Louanchi

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## I. INTRODUCTION

The entry into force of the Cartagena Protocol on Biosafety shows that Parties are mindful that living modified organisms (LMOs) are different from other organisms and varieties produced by traditional breeding techniques. The goal of the Protocol is to ensure that countries importing, exporting and using LMOs have the opportunity and capability to assess the potential risks to the environment and human health posed by the products of modern biotechnology. The Cartagena Protocol on Biosafety is a legal tool that allows its Parties to regulate the transboundary movements of LMOs. It does not prevent Parties from elaborating more protective national regulations consistent with the Protocol and the Party's other obligations under international law.

In regulating LMOs, many countries have developed national biosafety frameworks (NBFs) that include a regulatory system, an administrative system, a risk assessment system and mechanisms for public awareness, participation, consultation and access to information. Public participation is a process of encouraging all interested and affected groups and

individuals to contribute to solving social problems, setting priorities, defining strategies, increasing ownership and taking on responsibilities for action. Participation in an NBF aims to enable the public and interested stakeholders to be aware of and contribute to the research, development, implementation and monitoring of the policy framework.

A public debate must be encouraged to explore the coming issues and the actions that will need to be taken. In developing countries, the discussions need a clear objective and the questions have to be defined in terms of:

- The availability of introducing genetically modified organisms (GMOs) either for environmental release or for use as food;
- The economic interests of these introductions versus other solutions;
- Risk assessment and risk management, not only for the potential impacts on the environment and human health, but also for the economic effects and socio-cultural impacts;
- The development of scientific research based on the precautionary principle and on rigorous impact studies before commercialization.

## II. ASPECTS OF BIOSAFETY INVOLVING THE WIDER PUBLIC

First of all, public participation is carried out through the state institutions that are in charge of biosafety regulation in the country. Participation primarily takes place through the establishment of national committees that bring together policy makers, scientific experts, industry representatives and members of civil society such as non-governmental organizations (NGOs), associations and socio-professional organizations. These committees are set up to develop the NBF as well as implement the provisions of the Protocol through the integration of these provisions into national rules and regulations.

In developing countries, the problem lies in the low level of information and awareness. Scientists play a key role but do not have sufficient expertise to provide visionary advice. At the grassroots level, the most pressing question for farmers, peasants and fishers is not the protection of biodiversity but maintaining their own systems of development such as traditional agriculture and traditional fisheries, which feed thousands of families all around the world. These actors are generally the most concerned by biosafety and less informed about the potential harm that may be caused by products of modern biotechnology to the environment and health on the one hand and their own strategies of development on the other. At this level, civil society organizations such as NGOs and associations have a key role in informing and training these social groups.

The participation of civil society in the biosafety process is led by an NGO, L'Association de Réflexion, d'Echanges et d'Actions pour l'Environnement et le Développement Durable (AREA-ED)

### III. THE CASE OF ALGERIA

#### III.1. Current Situation

In Algeria, involvement in the biosafety process came with no understanding of many of the issues because first generation GMOs presented neither an opportunity nor an obligation for the country and, with no research or production of GMOs, there was a low level of expertise in science and regulation. However, initial preoccupations with biosafety appear to have given way to a lack of concern and a lack of control over the large quantity of imports of food and agricultural inputs. Furthermore, a third of the population lives in rural areas where there are fragile agrarian systems that are not adapted to intensive agriculture.

From a legal point of view, Algeria signed the Biosafety Protocol in May 2000 but only ratified the agreement in 2004. Some directions, based on the precautionary principle were given, though, and these led the Algerian government through the Ministry of Agriculture to impose a ban on the import, dissemination, marketing and utilization of GMOs in December 2000. The implementation of this law is difficult, however, since nothing has been set up to control imports. Algeria was also involved in the elaboration of the African Model Law on Safety in Biotechnology and the African Model Law on Rights of Local Communities, Farmers, Breeders and Access.

Moreover, Algeria is engaged in the project funded by the United Nations Environment Programme – Global Environment Facility (UNEP-GEF) on the development of an NBF. In that context, a National Coordination Committee has been set up and gathers institutions, scientific researchers, industry representatives and civil society organizations. Several workshops have been held and these have led to consultations and the elaboration and acceptance of the NBF in 2005.

#### III.2. Participation of Civil Society in Biosafety Issues

The participation of civil society in

the biosafety process is led by an NGO, *L'Association de Réflexion, d'Echanges et d'Actions pour l'Environnement et le Développement Durable (AREA-ED)*. It promotes a wide debate in civil society through information campaigns, exhibitions, brochures, educational tools for teachers and meetings with farmers and peasants in the context of a project funded by the German Agency for Technical Cooperation (GTZ) that aims at enabling civil society participation in the biosafety process. AREA-ED favours the participation of civil society by organizing workshops for awareness, training and dialogue on questions related to GMOs.

On the basis of five years of work, civil society in Algeria recalled the sovereignty of the State and its responsibility to implement precautionary policies for the preservation of national genetic patrimony and public health, and made propositions concerning two major issues: regulatory measures and public participation in the biosafety process.

#### 1. Biosafety regulatory frameworks

Civil society proposals for biosafety regulatory frameworks include:

- The establishment of a regulatory system of control of GMOs and protection of genetic resources based on the precautionary principle, socio-economic considerations and public participation;
- Strengthening the December 2000 moratorium on GMOs with efficient control measures prior to the establishment of a complete biosafety regulatory system that includes labeling, traceability, and liability, responsibility and reparation regulations;
- Setting up public participation mechanisms in the regulatory framework and identification of the concerned actors (e.g. farmers and consumers);
- Enacting specific laws to protect traditional varieties and farmers' rights.

#### 2. Public participation in the biosafety process

An online platform<sup>1</sup> for the network of Maghrebian civil society has been developed and works on several issues including:

- responsible research based on the precautionary principle, innovative research on modern biotechnology including biosafety and alternatives to agricultural biotechnology;
- a project to develop a training course for francophone countries;
- the conception of pedagogical tools in Arabic and French;
- the creation of a network of teachers and perspectives of the introduction of biosafety issues into pedagogical programs;
- a citizens' watch on biosafety and the protection of biological resources;
- regional networks for exchange of experiences (e.g. WESCANA (West/Central Asia and North Africa), francophone Africa and Mediterranean countries);
- public awareness including organizing public debates (e.g. at the National assembly, *Chambre nationale de l'agriculture*, farmer organizations).



Above Photo: Sunrise at Annaba, Algeria

#### 3. Conclusion

Algeria is inadequately prepared for the new issues regarding the introduction of GMOs, the elaboration of a regulatory system and the implementation of a biosafety framework. Scientific and legal expertise must be strengthened, first through training and secondly, through the development of biotechnology based on the precautionary principle and a general consideration of the effects and impacts that could occur. It is crucial to develop an efficient system of managing and monitoring GMOs from which the options for implementing the NBF will be derived. Therefore, public participation concerns all actors and has to take public awareness, training and information into account in order for consultation and participation to be effective.

<sup>1</sup> The website can be found at [www.biosecure.org](http://www.biosecure.org).

# Public Access to Information and Participation in Decision-making regarding LMOs: Experience and Lessons Learned from the European Union and Austria



Dr. Helmut Gaugitsch and Dr. Michael Eckerstorfer

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## Public Access to Information and Participation in the EU

The issue of public access to information and participation in decision-making regarding living modified organisms (LMOs) is an important component of national biosafety frameworks (NBFs). An open and transparent approach ensures that decisions regarding LMOs are based on scientifically sound risk assessments but should also take into account, as appropriate, opinions expressed by various stakeholders and the public. The European Union (EU) established and implemented a comprehensive biosafety framework in the early 1990s, including provisions for public access to information and participation. These provisions are compatible with the respective articles of the Cartagena Protocol on Biosafety.

Public access to information is regulated across the EU by the Environmental Information Directive, which implements the access to information pillar of the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters and thereby is also relevant for access to information regarding LMOs.<sup>1</sup> The specific legislation for deliberate release into the environment of LMOs (Directive 2001/18/EC) contains provisions on the consultation of and information to the public for notifications regarding the deliberate release of LMOs (Article 9) as well as for notifications for placing LMO products on the market (Article 24).

<sup>1</sup> The Aarhus Convention's website can be found at <http://www.unece.org/env/pp/>

member States of the EU are requested to consult the public on cases of deliberate releases of LMOs. For the placing on the market of LMOs, an EU-wide system for public access to information and participation is foreseen with a strong role for the European Commission (EC) and the European Food Safety Authority. Only certain types of information may be regarded as confidential according to Article 25 of the Directive, and this information can only be accessed by the notified Competent National Authority (CNA) representatives.

Regulation (EC) 1829/2003 on genetically modified food and feed and regulation (EC) 1830/2003 on traceability and labeling contain detailed provisions on the labeling and traceability of LMO products as a specific means of public information. LMO products must be labeled as "contains LMOs". The adventitious or unavoidable presence of LMOs in non-LMO products is tolerated up to a percentage of 0,9% LMO content. So far, only a few member States, such as Austria and Germany, have introduced standards for a voluntary labeling system for LMO-free products.

**A majority of Member States have put in place a timeframe of approximately 30 days for public comments and they use national and local newspapers, mailing lists, websites and registers as communication tools to provide access to applications. Comments are thereafter forwarded to the scientific advisory committees set up by a majority of Member States and these comments are discussed during public hearings**

## Experience with Implementation

In their recent reports on the implementation of Directive 2001/18/EC, the majority of member States in the EU were satisfied with the procedures for public participation. During the report period (2002-2005), eight member States received applications for placing on the market of GMOs, and thirteen member States received applications to conduct field trials for research and development (R&D) purposes. Most member States made use of their right to submit reasoned objections against the placing on the market of certain GMOs and a number of them (e.g. Austria, Hungary, Greece, France, Germany and Luxemburg) introduced national safeguard measures, mostly regarding cultivation of maize MON810.

A majority of member States have put in place a timeframe of approximately 30 days for public comments and they use national and local newspapers, mailing lists, websites and registers as communication tools to provide access to applications. Comments are thereafter forwarded to the scientific advisory committees set up by a majority of member States and these comments are discussed during public hearings. For most of the applications to date, only a few individual comments were received. However, for certain LMOs, detailed comments were prepared by non-governmental organizations and endorsed by a larger number of people.

In contrast, member States have expressed some criticisms regarding the mechanisms for public participation provided by the EU genetically modified food and feed regulation (Regulation (EC) 1829/2003). Comments from member States have suggested that the regulation provides only limited incentives for participation by member States and the general public. While approximately half of the member States regularly comment on most notifications, other member States seldom or never submit comments.

## Experience in Austria

In Austria, the Genetic Engineering/Biosafety Law has been complemented by secondary legislation (Ordinance on Public Hearings). This ordinance describes in more detail the administrative procedures that have to be considered in those cases where the law requires a mandatory public hearing. In cases of deliberate releases of LMOs for R&D as well as notifications for contained use of LMOs with greater safety requirements the public is informed of the notification by the CNA through national newspapers (National Gazette and two regional daily papers). For a period of three weeks, the public may access the notification and submit comments to the CNA. The CNA then invites those who have made comments to a public hearing where they can make oral interventions. So far, this has occurred twice, both times during the late 1990s, for two cases of deliberate release of LMO potatoes. A large number of people (around 400 and 200 persons respectively) attended the meetings, which lasted for a couple of hours. There was a mixed experience with this instrument depending on the various stakeholders and their expectations. Thus the Austrian example shows that valuable conclusions can be derived by a review of the first-time experiences with specific public-participation mechanisms.

## Suggestions for the Cartagena Protocol on Biosafety Programme of Work on Public Awareness, Education and Participation

A clear, focused and output-oriented programme of work to be adopted at COP-MOP-5 is crucial in order to make progress on the important issue of public awareness, participation and access to information under the Protocol. The careful, practical implementation of public participation procedures as outlined in the various NBFs is a key component in future work and is as important as the development of the NBFs. Using synergies with other international processes can often save time and resources. In this context, the already well-established collaboration between the Secretariat of the Convention on Biological Diversity and the Aarhus Convention Secretariat should continue or even be intensified. The first joint workshop of the two Secretariats (held 19-20 May 2008 in Cologne, Germany), should result in relevant and useful follow-up activities. Finally, a programme of work should identify good practice examples of public awareness, participation and access to information (such as electronic access to information, publication of information in newspapers and gazettes, public hearings, round table discussions, dialogues on risk assessment and management, stakeholder conferences and consensus conferences) and analyse the specific advantages and disadvantages of these methods and tools in order to provide Parties and other stakeholders with a valuable basis for deciding on their own approaches.



Above Photo: Flags of EU in Vienna

# Public Awareness, Education and Participation concerning the Safe Transfer, Handling and Use of LMOs: Experiences and lessons learned from Costa Rica



by Mr. Alejandro Hernández Soto

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## Introduction

Costa Rica is recognized as a megadiverse country and it is home to many wild species related to crop varieties. The protection of the environment and strict biosafety measures for the appropriate use of modern biotechnology are covered in Law 7664 (on phytosanitary protection) and Law 8537 (adopting the Cartagena Protocol on Biosafety.) A field trial in 1991 of 2kg of glyphosate resistant soybean seeds was Costa Rica's first experience in using regulated living modified organisms (LMOs). Today, the private sector and international universities use the Costa Rican regulatory system to multiply seeds and test materials within a strict and transparent framework that includes public participation.

## Good Practices and Lessons Learned

One of the national lessons learned is that implementing the Biosafety Protocol has been a critical tool in promoting the safe handling, transport and use of modern biotechnology while building trust among stakeholders. A strong national biosafety framework can create

cooperation and synergies among the multidisciplinary fields involved in biotechnology and its regulation. For this reason, risk assessment is an indispensable tool for achieving science-based decision-making. Social and economic issues should, however, also be considered in decision making.

Exchange of information has proven to be the simplest way to ensure transparency and accountability among stakeholders. The United Nations Environment Programme – Global Environment Facility (UNEP-GEF) project on capacity-building for the Biosafety Clearing-House (BCH) demonstrated that information exchange through the BCH and its national node in Costa Rica is a powerful tool in risk communication. The BCH is an accessible and up-to-date mechanism to share information and build a strong and respected regulatory system. In Costa Rica, important decisions regarding the use of modern biotechnology are also made public through local newspapers, the official newspaper *La Gaceta* and the BCH.

In addition, the national node of the BCH is very important for public access to biosafety information as average members of the public usually find the Central Portal of the BCH difficult to use without training. The national Biosafety Clearing-House of Costa Rica has been reinforced with statistics, national procedures, and links to international web pages with more information.

Likewise, capacity-building is an ongoing process; the more prepared the National Competent Authorities (NCAs) and organizations are, the better Costa Rica can respond. After having been regulating LMOs relating to agricultural products for over 15 years, Costa Rica is convinced that biosafety can only be realised through practical field experience. In the same spirit, NCAs have learnt that regulators need to make their decisions based on science while also taking into account feedbacks from a monitoring and control system.

Risk management and monitoring is an important issue in education regarding the safe use of modern biotechnology. In Costa Rica, any applicant using biotechnology is requested to have biosafety procedures in place as well as to inform and train personnel in the adequate handling and use of the technology, creating a culture of transparency and education. In addition, the user of the technology must have a blog, must be audited by the Ministry of Agriculture and must have external auditing.

In Costa Rica, important decisions regarding the use of modern biotechnology are also made public through local newspapers, the official newspaper *La Gaceta* and the BCH.



Internationally, Costa Rica has participated in numerous negotiations leading up to the country's signing and ratification of the Protocol in 2006, and it has established working contacts with a wide range of countries. The compromises and obligations agreed to in order to move forward with the Protocol allowed Costa Rica to understand the needs and priorities of other Parties to the Protocol. More recently, Costa Rica has participated in various meetings relating to biosafety (e.g. meetings of the International Plant Protection Convention, the Codex Alimentarius Commission, the Convention on Biological Diversity, and the Biosafety Protocol (including the BCH) and has used these opportunities to exchange ideas and strategies with countries in the region as well as other megadiverse countries. This experience provided national authorities with the expertise needed to develop a technical and administrative process for decision-making over the past few years.

Moreover, the Biosafety Commission in Costa Rica is composed of representatives from the Ministry of Environment, the Ministry of Technology, the Ministry of Agriculture, the National Seed Office, the National Academy of Science as well as from civil society. The integration of civil society was the result of repeated requests from non-governmental organizations. The addition of their positions and arguments has been an important contribution to the decision-making process.

### Challenges

Submitting information to the BCH was an important challenge for biosafety in Costa Rica, as the regulation outlines that part of the technical information is classified. Confidential business information is carefully handled by the Ministry of Agriculture. Information made public in newspapers and the BCH is submitted by the applicant in a separate document from the dossier.

Having a strong monitoring system that verifies whether biosafety procedures are being followed is important to ensure the safe use of modern biotechnology, but the Government

of Costa Rica is not able to afford such a system. In response, external auditing that complements the official monitoring has been developed, taking into account the experiences of Brazil and other countries.

From its experience in developing biosafety projects to be carried out by international cooperation agencies, Costa Rica has frequently faced the challenge of adapting its planning to the different formats required by different agencies. As a result, efforts in the initial stages of a project were not always very effective. Deeper involvement of the international agencies in the planning process or the sharing of guidelines on the criteria to be met prior to the completion of application forms could have easily solved this problem.

Greater efforts are needed to coordinate or standardize these procedures in order to improve expected outcomes from international agencies and countries alike. Both the agencies and countries should share their experiences in a coordinated effort to participate effectively in international efforts to build or increase countries' capacities in biosafety.

### Future Actions

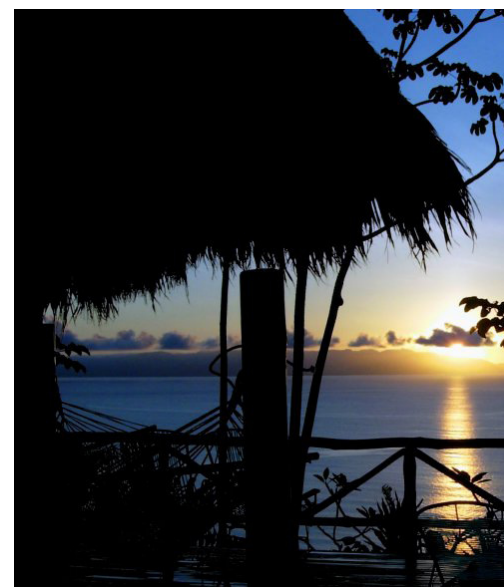
Public awareness is costly and the government of Costa Rica does not have enough funds to undertake public campaigns. However, over the last few years, multiple workshops on biosafety aimed at stakeholders, policy makers, the scientific community and civil society have been organized, broadening the information created as a result of UNEP-GEF projects.

Similarly, a multi-country project on "Communication and Public Awareness Capacity-Building for Compliance with the Cartagena Protocol on Biosafety" is being implemented in Costa Rica through the International Center for Tropical Agriculture – World Bank initiative in Colombia. The project is being carried out through the National Coordination of the University of Costa Rica with funds from the GEF.

The NCAs are convinced of the importance of public awareness and are looking for more proactive ways to integrate biosafety issues in formal education programmes in primary and secondary school. This is particularly important as education is the basis of Costa Rican society.

In summary, based on our humble experience, we believe there are three ways to the efficient increase of public awareness, education and participation as stated in decision BS-IV/17:

- 1) Involve civil society in the decision-making process;
- 2) Make biosafety decisions public through national web pages and official newspapers;
- 3) Undertake education initiatives at the primary, secondary and university levels. Informal education programmes such as through television, radio, and dissemination of documents are also a good practice when funds are available.



Above Photo: Dawn in the remote wilds of Costa Rica

Photo courtesy of Bryan Katz, www.flickr.com/photos/201239@N00/

# Public Awareness, Education and Participation concerning the Safe Transfer, Handling and Use of LMOs: Experience and Lessons Learned in the Czech Republic

by Dr. Milena Roudná



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The Czech Republic was among the first countries to ratify the Cartagena Protocol on Biosafety and therefore was also one of the first to take the necessary steps to implement the Protocol's provisions – including Article 23 on public awareness and participation – at the national level.

The Czech Republic's implementation of the Biosafety Protocol has been supported by a number of capacity-building projects of the United Nations Environment Programme – Global Environment Facility (UNEP-GEF): Development of the National Biosafety Framework (NBF) for the Czech Republic (2002-2004), the Implementation of the draft NBF for the Czech Republic (2006-2010), the Add-on Project – Building Capacity for Effective Participation in the Biosafety Clearing House (2006-2008), and a project related to access to genetic resources and benefit-sharing, Conservation and

sustainable use of biodiversity (2004-2006). The latter project was particularly helpful in raising public awareness.

The current capacity-building project, the Implementation of the draft NBF for the Czech Republic, aims to assist in the implementation of adopted biosafety measures, with the focus on five components of the NBF: biosafety policy; the regulatory regime; handling requests for permits; monitoring of environmental effects and enforcement; and public information, participation and awareness. The Ministry of Environment, the Ministry of Agriculture and the Ministry of Health are all involved in the regulation of genetically modified organisms (GMOs) so the National Coordinating Committee of the Project facilitates inter-sectoral cooperation, participation of responsible officials and experts, as well as coordination of actions.

The Ministry of the Environment is the Competent National Authority for handling the notifications and regulating the use of GMOs. The Ministry is also the national focal point for the Cartagena Protocol on Biosafety and European Regulation 1946/2003.<sup>1</sup> The Ministry's expert advisory body, the Czech Commission for the Use of Genetically Modified Organisms and Genetic Products, consists of scientists, representatives of administrative authorities and non-governmental organizations (NGOs). The Ministry of Environment also closely cooperates with the Ministry of Agriculture regarding agricultural risks, animal health, crops and feeds, and with the Ministry of Health as regards risks to human health. The Ministry of Agriculture is also the competent national authority on genetically modified food and feed, and is responsible for the rules of coexistence between GMOs and non-GMOs.

Over the years, the Czech Republic has adopted several laws regarding the right to access information related to GMOs. The first was Act 78/2004, on the Use of Genetically Modified Organisms and Genetic Products, which was later amended by Act 346/2005 and which is supported by two other general national acts – the Act on Free Access to Information (related to state administration) and the Act on the Right to Environmental Information.

<sup>1</sup> Regulation (EC) 1946/2003 addresses the transboundary movement of genetically modified organisms.

Based on Act 78/2004, the Ministry of the Environment makes information available to the public on its official board through the Internet and in the region where contained use or introduction into the environment of a GMO are expected.

Moreover, the Czech Republic is a Party to the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters – including its amendment on GMOs – which led to the amendment of the Czech Act 78/2004 enabling wider public participation in decision procedures.

Based on Act 78/2004, the Ministry of the Environment makes information available to the public on its official board through the Internet and in the region where contained use or introduction into the environment of a GMO are expected. Other information that is regularly updated and made available to the public includes a list of authorised users and issued approvals as well as relevant legislation. These are posted on the website of the Ministry of the Environment and the national BCH website.<sup>2</sup> Furthermore, the Ministry provides public access to the summaries of notifications for deliberate release of GMOs in accordance with the summary notification information format of EU Council Decision 2002/813/EC. Only very technical information, confidential information, annexes and personal data included in the dossier are not made public. The exact location of field trials is published as part of the notification and in the final authorisation decision. The maps of the sites of commercial cultivation of genetically modified crops are at the disposal of the Authorities, Regional Agricultural Agencies and to farmers in the register of agricultural land.<sup>3</sup>

As the main actor, the Ministry of the Environment also cooperates with the Ministry of Education. The Czech Republic has developed environmental education activities over the past several decades even before this term had gained wide currency. Currently, the State Programme on Environmental Education and Public Awareness (2000) represents the official document for environmental education. The Programme includes an Action Plan, which, since 2001, has been regularly updated for a 2-year

<sup>2</sup> The Ministry of Environment's website can be found at <http://www.mzp.cz> while the Czech node of the BCH is at <http://www.mzp.cz/biosafety>.

<sup>3</sup> The information related to agriculture is available on the website of the Ministry of Agriculture: <http://www.mze.cz>.

period. Nevertheless, biosafety aspects have so far not been sufficiently taken to consideration. One possibility would be for the national network of centres for environmental education to develop different activities at the local level, in cooperation with local authorities and stakeholders.

Within the UNEP-GEF project, the Czech Republic has developed various activities aimed at enhancing public education, access to information and public awareness on biosafety. These activities have been developed in cooperation with universities, civil society including the scientific and technical community, NGOs, schools, centres for environmental education, museums and Protected Landscape Areas



Above Photo: Masarykovo nadrazi-Prague

administrations. The main methods to implement Article 23 have been:

- Workshops for target audiences (e.g. authorities, regulators, teachers, the public) including regional workshops organized in cooperation with the Food and Agriculture Organization and UNEP,
- Conferences by the Academy of Sciences on topical issues,
- Dissemination of information through media (e.g. newspapers, magazines),
- Promotion of education on biosafety at schools (e.g. secondary schools and universities),
- Production and dissemination of information on biosafety through the Internet, posters, publications

and CD-ROMs for decision-makers, experts, schools and the general public;

- Public participation in one meeting per year of the Czech Commission for the Use of Genetically Modified Organisms and Genetic Products, offering the possibility to meet with representatives of responsible authorities and experts.

The following recommendations based on the experiences of the Czech Republic can contribute to the successful development of activities and best practices regarding public awareness, education and participation to implement Article 23:

- Official government support for public awareness and environmental education activities and their inclusion in national political and strategic documents and legislation.

- Cooperation and coordination of actions among responsible authorities and institutions, NGOs, civil society and the private sector (especially at the local level) – that could promote synergies and networks.

- Direct contact with schools and centres for teachers to enhance awareness and education among young people as a key target group in society.

- Production and dissemination of publications tailored to selected target audiences and developed in easy-to-understand language.

- Use of the Internet especially for rapid and efficient dissemination of information.

- Exchange of experiences at the regional and subregional level, including through meetings of coordinators of relevant activities, in order to enhance cooperation and initiatives.

- Cooperation with and drawing upon the experiences and materials of other institutions and organizations (including international organizations) that are responsible for public awareness and education.

# Public Awareness, Education and Participation concerning the Safe Transfer, Handling, and Use of LMOs: Experiences and Lessons Learned from the Republic of Korea



by Dr. Ho-min Jang

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## Introduction

In March 2001, the Korean government established "The Act on Transboundary Movements of Living Modified Organisms and other related matters" (the "LMO Act") in order to implement the Cartagena Protocol on Biosafety. The Biosafety Protocol contributes to ensuring the safe transfer, handling and use of living modified organisms (LMOs) that result from modern biotechnology and that may have adverse effects on biological diversity, taking also into account risks to human health. Korea became a Party to the Protocol in January 2008. The LMO Act consists of six chapters and 44 clauses as well as supplementary provisions that define the safe control of the research and development, production, import, export and distribution of LMOs.

Upon enacting the LMO Act, the Korean government endeavored to include a plan to effectively promote and facilitate public awareness, education and participation concerning the safe transfer, handling and use of LMOs, as stressed in Article 23 of the Protocol. The government also established the "Plan for Safety Management of LMOs" – a five year plan (2008-2012) to effectively manage the safe transfer, handling and use of LMOs which includes a strategy that encourages public awareness and participation. In other words, the government recognizes that it is very difficult to ensure biosafety without informing consumers or citizens and encouraging them to participate in decision-making regarding LMOs. The Korean government therefore undertakes various activities that promote related educational programs and guarantee public access to information.

## Mechanisms and Measures to Promote Public Awareness, Education and Participation

To ensure open public access to information, Clause 32 of the LMO Act establishes the Korean node of the Biosafety Clearing-House (KBCH) (under the responsibility of the Ministry of Knowledge Economy, which is the Competent National Authority) and gives it the mandate of disseminating information related to LMOs. Accordingly, in July 2002, immediately after the establishment of the LMO Act, the Ministry of Knowledge Economy tentatively installed the KBCH within the Korea Research Institute of Bioscience and Biotechnology, and provided the funds needed to collect, manage and distribute a range of information on LMOs from their research, development and production to their import, export and distribution. The KBCH began to officially operate upon enforcement of the LMO Act in January 2008.

Furthermore, Clause 33 of the LMO Act stipulates that the government shall financially support promotional efforts and educational programs conducted by related organizations and sectors towards national understanding of the safety of LMOs and to improve consumer awareness. Accordingly,

**KBCH's activities in public awareness, education and participation can generally be divided into two categories: online activities and offline activities. For its online activities, KBCH operates a website called the "Biosafety Portal" that offers diverse LMO-related information to the public.**

non-governmental organizations (NGOs) and special sectors related to LMOs are promoting various educational and promotional activities on LMOs and biosafety with the support of related ministries (e.g. the Ministry of Knowledge Economy; the Ministry for Food, Agriculture, Forestry, and Fisheries; the Ministry for Health, Welfare, and Family Affairs; the Ministry of Education and Science Technology; and the Ministry of Land, Transport and Maritime Affairs). The related ministries also perform their own activities in order to explain LMO-related laws and systems to all stakeholders and citizens.

As stipulated in Clause 31 of the LMO Act, the highest decision-making body responsible for the enforcement of the Protocol and the LMO Act is the Biosafety Committee. Headed by the Prime Minister and with ministers of related ministries as its members, the Biosafety Committee is assigned to review the establishment and enforcement of the "Plan for Safety Management of LMOs", issues on regulations and public announcements, and plans for preventing damage from LMOs. In order to better ensure public participation in the decision-making process, the Committee is encouraged to include representatives from various sectors and classes in the country as its members. As stipulated in Clause 13 of the LMO Act, information on LMOs shall be announced to the public and public opinions shall be collected before importing and/or producing LMOs. So the government is striving to guarantee public participation in the most important stage in order to ensure biosafety. Of course, confidential information stipulated in Article 21 of the Protocol and Clause 29 of the LMO Act shall not be made accessible to the public.

Finally, the Ministry of Food, Agriculture, Forestry, and Fisheries and the Korea Food and Drug Administration (which regularly handle issues relating to LMOs) are undertaking activities to promote public awareness and participation by managing additional departmental or affiliated websites that provide LMO-related information.

#### Korean node of the Biosafety Clearing-House (KBCH)

Based on Clause 32 of the LMO Act and Clause 30 of the Enforcement Ordinance of the Act, the KBCH is responsible for collecting, managing, promoting and expanding the exchange of LMO-related information both in Korea and abroad. In other words, in addition to working as an integrated mechanism to manage information regarding biosafety and as the Korean node of the BCH, KBCH also promotes public awareness and conducts educational activities.

KBCH's activities in public awareness, education and participation can generally be divided into two categories: online activities and offline activities. For its online activities, KBCH operates a website called the "Biosafety Portal" that offers diverse LMO-related information to the public. The portal makes available information from six related ministries and their affiliated organizations as well as information from Korean and international LMO-related websites, so as to promote public awareness. KBCH also runs an English language portal that introduces the Korean biosafety systems and LMO-related news in order for people from English-speaking countries to be able to easily access the information.

**Television and newspapers are the two most important mass media that raise consumer awareness on LMOs.**

KBCH is also engaged in a number of offline activities in the promotion of public awareness and education. First, it publishes and distributes the *Biosafety White Paper*, which collates Korean and foreign biosafety information and is published once a year. It also issues *Biosafety*, a journal published every three months that introduces up-to-date biosafety information. Secondly, KBCH publishes and distributes various types of promotional pamphlets and booklets. One is named *I Want to Know About GMOs*, an easy introduction that uses pictures and illustrations to explain how LMOs are created. The other is the *Kind LMO Man* – a comic book that explains LMOs and related laws and systems to younger readers. The *Kind LMO Man* cartoon character is widely used in the promotional activities of other related ministries. Thirdly, KBCH holds various promotional events such as seminars and panel discussions. Every year, KBCH invites local and international specialists to conduct lectures in biosafety. The seminar is now in its eighth session. Lastly, the "Biosafety Essay Competition" for middle and high school students was created and has attracted over 2,000 competitors every year.

KBCH strives to offer more objective and balanced information to the public by regularly monitoring mass media reports on LMOs. Besides its public awareness, education and participation activities, KBCH also conducts various studies to support Korea's biosafety policies. To this end, it also conducts surveys on the awareness of consumers, businesses and researchers on LMOs and analyses of major issues under the Protocol.

## Experience and Lessons Learned

The six LMO-related ministries, including the Ministry of Knowledge and Economy, held public hearings on “LMO-related laws and systems in Korea” in six major cities in October 2007 and have, from January 2008, endeavored to inform the public on the enforcement of the LMO Act and the Biosafety Protocol as well as raise public awareness and participation. Also, some representatives of LMO-related NGOs are members of the LMO risk assessment panel which is the key decision-making process for the domestic use of LMOs in Korea. The Korean government’s efforts to promote public participation regarding LMOs (which is not common in the implementation of other laws and systems) is considered good practice by NGOs and various citizens who are interested in issues relating to LMOs.

Television and newspapers are the two most important mass media that raise consumer awareness on LMOs. KBCH regularly monitors content on LMOs that appears in various mass media and responds as needed. KBCH is aware that the broadcasting of misinformation regarding LMOs has huge repercussions. For example, in January 2009, a popular TV information program aired a show, the “Truth about GMO Food: Tofu”. Aware that the show could lead to misunderstanding by the public, KBCH organized a more balanced and objective discussion through the Biosafety Portal discussion room. Many participants said that the discussion room helped them to form a more objective and balanced awareness on LMOs.

Based on the participants’ feedback, it is well known that interactive communication is more effective in raising public awareness than unilateral education and promotion. Accordingly, KBCH strives to make its journal become a more effective communication tool by including postcards that readers can detach, complete and submit to the KBCH for their complaints, queries and needs.

Finally, KBCH strives to share continuously with developing countries that need to build their capacity the Korean experiences and the lessons learned from the information management and public awareness programs implemented by KBCH since 2002. In February 2005, KBCH invited specialists from six countries – Myanmar, the Philippines, Thailand, Mongolia, Bhutan, and Indonesia – to a workshop on operating BCH capacity-building. Also, in July 2007, KBCH sent specialists to Pakistan to help the country establish its overall capacity-building activities in areas such as information management of LMOs, the establishment of related laws and systems, and risk assessment and management. In addition, in December 2008, KBCH joined with the United Nations Environment Programme to invite officials from 15 developing countries to a workshop on BCH capacity-building and information sharing from which the participants declared that the KBCH activities and performance could serve as a model for other countries’ national nodes of the BCH.

## General Recommendations

The most important consideration in developing programs to promote public awareness, education and participation concerning the safe transport, handling and use of LMOs is access to information. In this sense, a national node of the BCH works as an initial mechanism for public awareness-related activities regarding LMOs by collecting and managing accurate information in a country – information that becomes more important when it is reported to the Central Portal of the BCH and so is made public worldwide. However, if the role of each country’s national node of the BCH is simply to submit national information to the Central Portal of the BCH (which is the

case with most countries), promoting public awareness and participation would have to be conducted by yet another organization or department. To truly inform the public and encourage them to participate, a national node of the BCH needs to be utilized more efficiently by combining additional activities with the existing work of collecting and managing information. Furthermore, a national node of the BCH is in the right position to develop a public awareness promotion program that is suitable to a country’s unique political, social, economic, and cultural characteristics and background.



Above Photo: Seoraksan, Korea

In this context, work under the Protocol should concentrate on national nodes of the BCH that can improve public access to information and, through the available information, effectively contribute to various public awareness and participation activities. Parties should also consider recommending that government expand the scope of the tasks of each country’s national node of the BCH and, accordingly, provide the necessary support to achieve this objective. In this regard, KBCH, the Korean national node of the BCH, can be considered an exemplary model for not only collecting, managing, and offering information on LMOs but also promoting public awareness, education and participation that meets unique national circumstances.

# Promoting Public Participation and Access to Information with respect to GMOs: Experiences and Lessons Learned under the Aarhus Convention



by Ms. Fiona Marshall

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The United Nations Economic Commission for Europe's (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, commonly known as the Aarhus Convention, entered into force in October 2001. It has 42 Parties, consisting of 41 countries from the UNECE region<sup>1</sup> plus the European Community.

The public's rights to have access to information on genetically modified organisms (GMOs) and to participate in GMO decision-making are expressly set out in the Convention.<sup>2</sup> In particular, information on GMOs is included in the Convention's definition of "environmental information"<sup>3</sup> and each Party is required to apply, to the extent feasible and appropriate, the Convention's public participation requirements to decisions on whether to permit the deliberate release of

GMOs into the environment.<sup>4</sup>

At its second session (Almaty, Kazakhstan, 25-27 May 2005), the Meeting of the Parties to the Aarhus Convention adopted an amendment to the Convention, which once in force, will require each Party to provide for early and effective information and public participation prior to making decisions on the deliberate release of GMOs into the environment and the placing of GMOs onto the market.<sup>5</sup> The amendment includes an annex setting out specific modalities through which each Party shall provide for early and effective information and public participation. The amendment requires that the provisions made by Parties be complementary and mutually supportive to the provisions of their national biosafety framework, consistent with the objectives of the Cartagena Protocol on Biosafety.

The amendment will enter into force when ratified by three-fourths of the Parties to the Convention who were Parties at the time the amendment

was adopted. To date, twenty-two Parties have ratified the amendment. A further eight ratifications from countries that were Parties to the Convention when the amendment was adopted are required for the amendment to enter force. The Meeting of the Parties has encouraged Parties to apply the provisions of the amendment to the maximum extent possible pending its entry into force.

Prior to adopting the amendment, the Meeting of the Parties to the Aarhus Convention adopted Guidelines on Access to Information, Public Participation and Access to Justice with respect to Genetically Modified Organisms at its first session (Lucca, Italy, 21-23 October 2002). These Guidelines, known as the Lucca Guidelines after their place of adoption, give guidance on the practical application of the provisions of the Convention and the development of national legal frameworks relevant to GMOs.<sup>6</sup> They provide a non-legally binding and voluntary framework and are intended to be used as examples of good practices by both Parties to the Aarhus Convention as well as other States. They aim to stimulate open, transparent, efficient and accountable decision-making on activities with GMOs and to promote and facilitate public awareness, education and participation in such decision-making.

<sup>1</sup> The United Nations Economic Commission for Europe includes Europe and Central Asia as well as the United States and Canada.

<sup>2</sup> Article 4 and 5 of the Aarhus Convention on public's rights to have access to environmental information, including information about GMOs.

<sup>3</sup> Article 2, paragraph 3(a).

<sup>4</sup> Article 6, paragraph 11.

<sup>5</sup> The text of the amendment is available online at <http://unece.org/env/pp/gmoamend.htm>.

<sup>6</sup> The Lucca Guidelines are available online at <http://unece.org/env/pp/documents/gmoguidelinesenglish.pdf>.

**On a number of occasions, the Meeting of the Parties to the Aarhus Convention has recognised the value of collaboration with the Cartagena Protocol on Biosafety.**

In their national implementation reports prepared for each Meeting of the Parties, Parties are required to report on their implementation of the Convention, including with respect to GMOs. Examples of practices regarding access to information on GMOs identified in the national implementation reports prepared for the third session of the Meeting of the Parties in June 2008 include:

- Food products and raw materials of food products that contain GMOs or their components are required to be labelled as such.

- The Ministry of Environment, working with several other ministries, has set up a joint website to answer the most frequently asked questions about GMOs. Information is provided on relevant regulations and current or forthcoming experiments and commercialization.

- Announcements that the public may comment on new applications for trial releases or marketing of GMOs are published in national newspapers and on the environmental protection agency's website. The full application, with the exception of confidential information, is supplied on request.

- Information on the location of fields with genetically modified crops as well as control and analysis results are made public on the Internet.

- The environmental protection agency has set up a register of approvals for

trial releases and marketing of GMOs, which includes the name and address of the applicant, a description of the GMO, the objective and location of the release, a summary of the risk assessment, the Ministry of Environment's assessment of the case and the approval terms.

- Any persons likely to be affected by an uncontrolled or accidental release of GMOs are to be notified immediately and the public is to be provided with information on the accident and measures taken in response to the accident.

Examples of practices identified in the national implementation reports regarding public participation in GMO decision-making include:

- For each application for a field experiment, a public consultation procedure is initiated via the Internet and an information sheet is posted at the local mayor's office.

- Trial releases are announced in local newspapers.

- The national GMO advisory committee, which gives an opinion on all applications for the authorization of activities involving GMOs, includes two NGO representatives.

- The processing of applications to release GMOs always includes public consultation. The public consultation is to be held well before a decision is made, and carried out in a way that ensures that the general public, and particularly

interest groups who will be affected, are given access to relevant information and a real opportunity to make their opinions known.

- The government agency whose task is to ensure the safe use of GMOs and GMO-based products posts documents forming part of an application to import a GMO within 10 days of receipt and for a period of not less than 30 days in order to enable the public to submit comments.

- Any physical or legal person, institution, organization or association is entitled to submit comments on decisions regarding GMOs.

- Hearings in respect of proposed GMO decisions are notified in national newspapers and on the environmental protection agency's website.

- Comments received from the public on a proposed GMO decision are incorporated in a memo for the Minister, which forms the basis for the Minister's decision. The memo is subsequently made public on the environmental protection agency's website.

On a number of occasions, the Meeting of the Parties to the Aarhus Convention has recognised the value of collaboration with the Cartagena Protocol on Biosafety. In May 2008, Parties to the Aarhus Convention organised an international expert meeting on access to information, public participation and access to justice with respect to GMOs in Cologne, Germany. The meeting was held back-to-back with the fourth meeting of the Conference of the Parties serving as the meeting of the Parties to the Biosafety Protocol (COP-MOP 4) so as to facilitate the participation of experts taking part in the COP-MOP.

The aim of the expert meeting was to provide a forum in which interested governments (including

**Most of the information that is publicly available is published through the Internet, but in some countries only a small proportion of the population has access to the Internet or other electronic mass media.**



representatives of interested Parties to the Aarhus Convention or the Cartagena Protocol on Biosafety), intergovernmental organizations, non-governmental organisations, business and academia could meet to exchange information on good practices on access to information, public participation and access to justice with respect to GMOs. The meeting had a particular focus on identifying and addressing needs and challenges, particularly in countries in transition, especially those from Eastern Europe, Caucasus and Central Asia, and in developing countries. The texts of the Cartagena Protocol and the Aarhus Convention, including the amendment to the Convention and the Lucca Guidelines, were key background documents during the meeting. The report of the expert meeting contains summaries of the challenges and good practices identified at the meeting.<sup>7</sup>

Participants in the expert meeting noted a number of challenges regarding access to information on GMOs. These challenges included the fact that products containing GMOs are sometimes not clearly marked as such. Information on GMOs is often not easily understood by the public or is incomplete or inaccurate and summaries are not provided. Relevant information on GMOs may not be disclosed because it is wrongly classed as confidential. Most of the information that is publicly available is published through the Internet, but in some countries only a small proportion of the population has access to the Internet or other electronic mass media. Moreover, language barriers and illiteracy in some areas hamper access to information through newspapers and other public notices. There is a lack of facilities and trained personnel for detection of GMOs, monitoring and enforcement.

Challenges regarding public participation in GMO decision-making identified by participants at the expert

meeting include the fact that some countries do not have specific legislation regarding public participation in GMO decision-making. Some other countries have framework legislation in place but bylaws and regulations are needed to effectively implement the legislative requirements and mechanisms for public consultation are yet to be established. In some countries, both the public and political decision-makers are largely unaware of GMO issues – awareness-raising is therefore an essential precondition to effective

with respect to GMOs were needed.

In their evaluation of the meeting, participants expressed strong support for future cooperation between the Cartagena Protocol and the Aarhus Convention. Almost all participants indicated that there was a need for another expert meeting in the future, with the preferred format being a mixture of case studies and exercises, roundtable discussions and plenary presentations.



Above Photo: Djursland, north of Aarhus

public participation. In a number of countries, the public may only submit comments through the Internet but not everyone has access to the Internet. Often national biosafety committees lack any civil society representatives and their decision-making processes are not transparent. Determining how the public's comments should be taken into account can be difficult, for example how to be balanced and how to decide which views should be considered as representative. Participants at the expert meeting expressed the view that greater political will and additional financial resources for promoting access to information and public participation

In light of such feedback, the Aarhus Convention Secretariat is currently collaborating with the Secretariat of the Convention on Biological Diversity regarding the organization of another workshop, subject to the availability of funds, to be held back-to-back with COP-MOP 5 of the Cartagena Protocol in Nagoya, Japan in October 2010. The Aarhus Convention Secretariat looks forward to further fruitful collaboration with the Secretariat of the Convention on Biological Diversity in the future in particular with regards to work on the Cartagena Protocol on Biosafety.

<sup>7</sup> The report is available online at [http://unece.org/env/pp/gmo/ece\\_mp\\_pp\\_wg\\_1\\_2009\\_3\\_adv.pdf](http://unece.org/env/pp/gmo/ece_mp_pp_wg_1_2009_3_adv.pdf).

# Involving Rural Communities in Regulatory and Decision-making Processes regarding GMOs: Overview of the Outcomes of an FAO E-mail Conference on Public Participation



by Dr. John Ruane

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In recent years, policy makers have increasingly recognized the general importance of involving the public in decision-making on environmental issues as exemplified by Principle 10 of the Rio Declaration on Environment and Development, which was adopted by over 170 countries in 1992. Over the last decade, one issue that has been subject to major controversy is the use of genetic modification in food and agriculture. Several countries have therefore sought to actively involve the public in the decision-making processes regarding genetically modified organisms (GMOs). Indeed, Article 23 of the Cartagena Protocol on Biosafety obliges Parties to the Protocol to promote and facilitate public awareness, education and participation in relation to GMOs.

Given the interest in the subject, the Biotechnology Forum<sup>1</sup> of the Food and Agricultural Organization (FAO) hosted a moderated e-mail conference on "Public participation in decision-making regarding GMOs in developing countries: How to effectively involve rural people" in 2005. The focus was on rural people, as agricultural activities take place, by and large, in rural areas and production of GMOs therefore directly impacts people living in rural areas and their environment. In addition, people in rural areas often have more limited access to information than their counterparts in urban areas, so awareness about GMOs and involvement in decision-making regarding GMOs may differ considerably for rural and urban communities. Over 500 people subscribed to the four-week long conference in which 116 messages were posted from 70 people living in

<sup>1</sup> <http://www.fao.org/biotech/forum.asp>

35 different countries. Geographical representation was quite balanced, with about 20% of messages originating from each of Africa and Europe and 15% from each of Asia, Latin America and the Caribbean, North America and Oceania. Half of the messages were written by people in developing countries.

During the conference, there was broad agreement that citizens, including rural people, should be involved in decision-making regarding GMOs when it is likely to impact them, but opinions on the degree and nature of the suggested participation differed. It was proposed that participation of the rural people could usually be indirect, through representatives they had chosen. It was emphasized that effective participation depended on access to unbiased and comprehensive information on the nature of GMOs and the consequences of their release. This information would have to be adapted to the needs and capacities of the various groups of rural people and their representatives in order for it to be helpful. Once available, the information would have to be communicated effectively. Many participants complained that misinformation abounded (both for and against GMOs) and some were quite sceptical that a real public participation

The need to use local languages to communicate information effectively was stressed by many contributors and specific examples were given where a booklet on GMOs was translated into local languages in Senegal and where agricultural programmes were transmitted by radio in Fiji's three main languages.

exercise might take place on this issue and, if it did, that its outcomes would have any impact. It was suggested that the costs of involving rural populations in decision-making might be shared between the government and other relevant stakeholders. International agreements were regarded as being useful, but concern was expressed that commitments to these agreements might compromise the outcomes of an eventual national debate on GMOs.

One of the major topics of discussion in the conference was about the appropriate tools and processes to be used to enable the rural populations in developing countries to access information and how to involve them in the decision-making processes regarding GMOs. It was apparent from the debate that facilities differ enormously within and between countries. The vast majority of the rural poor in developing countries do not have access to Internet or many other modern information and communication technologies (ICTs) and illiteracy rates are often far higher in rural than urban areas and for women compared to men. Because of illiteracy, it was pointed out that many written means of communication, including newspapers and pamphlets, have reduced impact. Apart from the question of access, it was also noted that deprived rural communities have little time for the library, television, radio and printed media.

Although it was pointed out that a basic communication principle is that "there is no single best medium", many contributors thought that modern mass media, including television and radio, could nevertheless be used to great effect to communicate information to rural populations. Radio, in particular, was highlighted as important. For example, it was described as a particularly suitable medium for communicating with rural populations of the scattered islands of Fiji.

There was considerable support in the conference for communicating with rural populations through existing structures provided by government services. For example, it was proposed that the rural people in Malawi could be involved in decision-making regarding GMOs through the existing government extension structures, where government staff members are housed in the villages and are thus part of the rural communities.

A potential role for development communicators was also advocated. These communicators are people who could provide guidance on information that should be shared, including with whom, with what expected outcome in terms of behaviour, through what channels, and at what cost. In this context, the importance of knowing the stakeholders was underlined as they should not be grouped together into a faceless public.



Above Photo: Kimende, north of Nairobi

The need to use local languages to communicate information effectively was stressed by many contributors and specific examples were given where a booklet on GMOs was translated into local languages in Senegal and where agricultural programmes were transmitted by radio in Fiji's three main languages.

It was also highlighted that the preferred methods of communication will depend on the country and its culture. For example, it was pointed out that in the Caribbean, a range of factors, including race, class, gender, age and religion needed to be considered in communicating with rural communities. For example, rural men and youth may be contacted in rum shops, while women may be contacted in churches, clinics, schools and markets. In some countries, religious leaders could play useful roles in providing and communicating credible information to rural communities. Other means of communication, in harmony with local traditions, included staging plays and making use of farmers who would be good role models and could communicate biosafety messages to others.

Parties to the Cartagena Protocol on Biosafety as well as other stakeholders may wish to draw upon the information and experiences shared during the FAO

Biotechnology Forum e-mail conference on public participation as they develop their programme of work on public awareness, education and participation concerning the safe transfer, handling and use of living modified organisms.

More details on the conference, including its background and summary documents, are available at <http://www.fao.org/biotech/conf12.htm>.

# Public Participation in the Development of National Biosafety Frameworks - Findings of the Study by the Institute of Development Studies



by Dr. Dominic Glover and Dr. James Keeley

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During 2002 and 2003, researchers from the Institute of Development Studies (IDS) undertook a study on behalf of the British government and the United Nations Environment Programme–Global Environment Facility (UNEP–GEF).<sup>1</sup> The study examined the steps taken and mechanisms used by a selection of countries that were signatories to the Biosafety Protocol in their efforts to fulfil their obligations under Article 23 of that agreement.

Article 23 of the Protocol requires Parties: to promote and facilitate public awareness, education and participation concerning the safe transfer, handling and use of living modified organisms (LMOs); to provide public access to information on LMOs being imported;

and to consult the public in the decision-making process regarding LMOs. During the years, many countries have developed national biosafety frameworks from GEF-funded projects to assist them in implementing the provisions of the Protocol, including Article 23.

Sixteen countries were included in the study: Brazil, China, Denmark, Estonia, Ethiopia, India, Kenya, Malaysia, Mexico, Namibia, New Zealand, Norway, the United Kingdom, the United States and Zimbabwe. (The USA is not a signatory to the Cartagena Protocol but it was included in the study because of its status as a major player in the international negotiations on biosafety and the international trade in LMOs.)

The picture uncovered by the study in 2003 was not encouraging. A rich, expanding and well-documented body of experience existed on how to effectively promote citizen engagement and participation, even with complex and technical issues. However, very little of this prior knowledge was having an impact on the practice of biosafety governance.

It was not all bad news, though. The study found encouraging examples of various tools being applied in different countries, including some well thought-out and effective mechanisms for engaging the public regarding biosafety. For instance, a transparent, inclusive and broad-ranging public enquiry had been conducted in New Zealand; a series of participatory workshops, media events and training courses had taken place in Namibia; an internet-based consultative forum had been set up in Mexico; and innovative ‘citizens’ juries’ had been organised by NGOs in parts of Brazil and India.

Overall, however, the study found that one-off ‘consultation’ exercises were much more common than examples of genuinely inclusive deliberation and dialogue. The experiences in public participation regarding biosafety were

<sup>1</sup> Glover, D., Keeley, J., Newell, P. and McGee, R. (2003) Public Participation and the Cartagena Protocol on Biosafety: a review for UNEP-GEF and DFID. Geneva: UNEP-GEF. Available from <http://www.unep.org/biosafety/Documents/PublicParticipationIDS.pdf> (15 May 2009).

The study identified these tendencies as problems for the national and international governance of biosafety as experience shows that avoiding a discussion of citizens’ real concerns about LMOs is unlikely to result in an orderly biosafety regulatory framework.

disappointing, since the notion of 'consultation' implies a limited kind of engagement with the public. Three of the most pervasive findings from the study were:

1. A widespread tendency to identify only a restricted group of individuals or organisations as legitimate 'stakeholders'. Often, these were well-networked lobby groups, some of which had dubious claims to represent the interests of wider social groups.

2. An almost universal propensity to limit the topics on which members of the public would be invited to express their views. Typically, a range of supposedly technical issues were reserved for consideration by technical experts, as if there could only be one reasonable way to understand the diverse and complex implications of new technology.

3. In international capacity-building projects, a pervasive impulse – often dictated by resource constraints – to promote the adoption of uniform 'one-size-fits-all' regulatory frameworks that could not possibly mesh neatly with the diverse political, legal and institutional frameworks of all the countries involved.

The study identified these tendencies as problems for the national and international governance of biosafety as experience shows that avoiding a discussion of citizens' real concerns about LMOs is unlikely to result in an orderly biosafety regulatory framework. The study pointed out that public participation could occur not only in formal, top-down processes sanctioned by governments but in informal, bottom-up processes driven by citizens. Thus, although Article 23 of the Protocol defined public awareness, education and participation as government responsibilities, there would be much that campaigners, activists, consumers and concerned citizens could do to

make their voice heard on an issue that was clearly controversial.

Consequently, the study argued, the politics of biosafety and biotechnology were always likely to be unruly, perhaps especially so whenever citizens perceived that decision-making in this controversial area was being undertaken behind closed doors, or manipulated in the interests of powerful lobbies such as the biotechnology industry or foreign governments. Naturally, however, the scope for civil society groups and individual citizens to kick up a fuss about biosafety regulations was comparatively greater in some countries than others. For



Photo courtesy of Kiva Dang, www.flickr.com/arena\_provietnam/

instance, we documented cases where legal frameworks enabled citizens to challenge regulatory decisions in court, for instance in India and Brazil. In other countries, different strategies had to be used.

The Secretariat is currently preparing a draft for a new programme of work on public awareness, education and participation, as requested by the Parties to the Biosafety Protocol in a decision taken at the fourth meeting of the Conference of the Parties serving as the meeting of the Parties to the Protocol (COP-MOP 4) in Bonn, Germany in May 2008. What factors should be taken into account? Here are three good places to start:

- Recognize that the international instruments governing biosafety in food, agriculture and the trade in LMOs offer considerable scope for countries to develop regulatory and institutional frameworks that suit their own circumstances and priorities.

Countries should be encouraged to adapt communicative methods and participatory approaches to fit their own institutional, cultural, social and economic conditions.

- Be open-minded about the nature of 'expertise' and where it may be found. Undoubtedly, biosafety involves complex scientific and legal issues on which technical expertise will be required, but other kinds of specialised knowledge and experience will also be relevant. Both kinds of expertise may be found in various places – on farms as well as agricultural research stations, in consumers' organisations as well as scientific laboratories, in companies as well as regulatory agencies.

- Recognize that the politics of biotechnology are controversial. Trying to impose an artificial consensus is unlikely to make the controversy disappear. However, effective communication and public engagement can help decision-makers clarify competing interests and crystallise the opportunities, risks and trade-offs involved in any course of action.

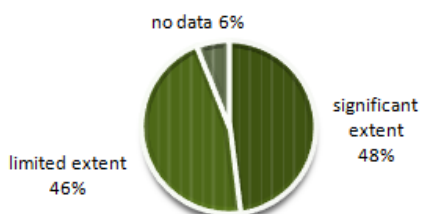
If the Parties can recognise these aspects of public awareness and participation then we will be closer to fulfilling the promise of Article 23 of the Biosafety Protocol.

## • Visual Data

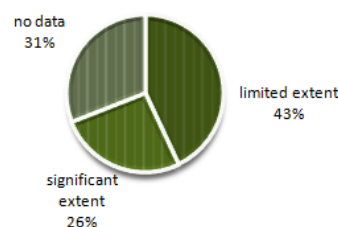
### Statistics and Comments

The information below is from the official document regarding public awareness and participation for COP-MOP 4. It is available at: [www.cbd.int/doc/meetings/bs/mop-04/official/mop-04-16-en.doc](http://www.cbd.int/doc/meetings/bs/mop-04/official/mop-04-16-en.doc). New statistics on national reports is available at: [www.cbd.int/biosafety/parties/reports.shtml?report=NR-CPB-01](http://www.cbd.int/biosafety/parties/reports.shtml?report=NR-CPB-01). New information from the capacity-building project database is available at: <http://bch.cbd.int/database/activities>

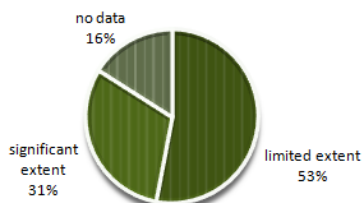
#### Promotion and Facilitation of Public Awareness, Education and Participation by Parties



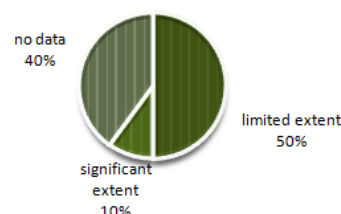
#### Developing Countries and Countries with Economies in Transition - Implementing Article 23, paragraph 1



#### Parties Cooperating with Other States and International Bodies to Implement Article 23, paragraph 1



#### Developing Countries and Countries with Economies in Transition - Cooperating to Implement Article 23, paragraph 1



Most common needs identified by Parties regarding public awareness and participation:



Biosafety awareness materials and equipment



Skills for public participation in decision-making and media engagement



Public access to the BCH

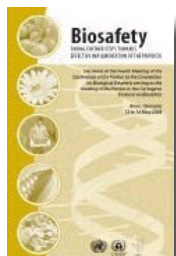


Risk communication skills and strategies

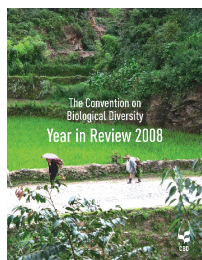


Timely public access to information on impending LMO import

## Useful Information from the SCBD



**MOP 4 Decisions Booklet**  
<http://www.cbd.int/information/library.shtml>



**Year in Review 2008**  
 Cartagena Protocol (page 58)  
[www.cbd.int/doc/reports/cbd-report-2008-en.pdf](http://www.cbd.int/doc/reports/cbd-report-2008-en.pdf)

### FUN FACTS AND FIGURES

- Some countries that celebrated the 5th Anniversary of the Entry Into Force of the Protocol on Biosafety were the Dominican Republic, Iran and the Czech Republic
- 2000 participants at COP-MOP 4
- 900 records in the Biosafety Information Resource
- 156 current Parties to the Protocol
- 60 roster of experts on biosafety registered in BCH
- 44 of National Focal Points are female
- 44 side events during COP-MOP 4
- 2010: Year when Japan is hosting COP-MOP 5 ("Yohkoso Nagoya e")
- 2010: International Year of Biological Diversity and the 2010 Target is to be reached (send in your planned event contribution to the SCBD)



News Headlines:

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Statements:

[www.cbd.int/information/statements.shtml](http://www.cbd.int/information/statements.shtml)

? Frequently Asked Questions:

[www.cbd.int/biosafety/faq/](http://www.cbd.int/biosafety/faq/)



Media and Outreach Page:

[www.cbd.int/biosafety/media.shtml](http://www.cbd.int/biosafety/media.shtml)

CONTRIBUTE TO IMPLEMENTING ARTICLE 23,  
 SEE WHAT IS NEEDED:

Outreach Strategy 2008-2012

[www.cbd.int/doc/external/mop-04/mop-04-inf-18-en.pdf](http://www.cbd.int/doc/external/mop-04/mop-04-inf-18-en.pdf)

Biosafety is a concern for all humanity. Every individual has a responsibility and a role to play in ensuring that LMOs do not adversely affect biodiversity and human health. Everyone should contribute to implementation of the Biosafety Protocol. Governments should put in place national frameworks to regulate the transfer, handling and use of living modified organisms (LMOs).

## Snapshots and Overview of Recent Biosafety Meetings

### Handling, Transport, Packaging and Identification of Living Modified Organisms – paragraph 3 of Article 18

The Secretariat organized an Online Forum on Standards for LMO Shipments (Article 18.3) that was held from 18 May to 5 June 2009. The objectives of the Online Forum were to: (i) identify the relevant standards with regard to handling, transport, packaging and identification of living modified organisms; (ii) identify where gaps exist; and (iii) suggest possible modalities to fill the gaps. To this end, participants discussed guiding questions that were organized into four themes. The Forum also consisted of an 'ask an expert' component whereby experts from different relevant international organizations were available online to answer questions from participants. The following organizations were represented by experts: the Codex Alimentarius Commission, the International Plant Protection Convention, the Organisation for Economic Co-operation and Development, the United Nations Economic Commission for Europe, the World Trade Organization, the World Customs Organization and the World Organisation for Animal Health. A total of 104 messages were posted and are archived in the Biosafety Clearing-House at: [http://bch.cbd.int/onlineconferences/forum\\_art18.shtml](http://bch.cbd.int/onlineconferences/forum_art18.shtml). The Secretariat will prepare a summary of the outcome of the Forum, reflecting the full range of views expressed, for the consideration of COP-MOP 5 in accordance with paragraph 4 of decision BS-IV/10.

### Risk Assessment and Risk Management

The first meeting of the Ad Hoc Technical Expert Group (AHTEG) on Risk Assessment and Risk Management under the Cartagena Protocol on Biosafety was held from 20 to 24 April 2009 in Montreal, Canada. In pursuance of the terms of reference as contained in the Annex to decision BS-IV/11, the Group discussed the development of guidance documents with the view to further support countries in conducting risk assessment of living modified organisms (LMOs) in the context of the Protocol. The participants produced a draft text for a roadmap on the steps in risk assessment and established four subworking groups to further undertake the development of the roadmap and guidance documents on specific aspects of risk assessment and risk management prior to the Group's second meeting, scheduled to be held in April 2010 in Ljubljana, Slovenia.



Above photo: Meeting of the AHTEG on Risk Assessment and Risk Management (Photo by Iman Keira)

The first series of Regional Real-time Online Conferences on Risk Assessment and Risk Management was held under the Open-Ended Online Expert Forum through the BCH. Four real-time Conference took place on 28 January (Europe), 3 February (Latin America), 10 February (Africa) and 17 February 2009 (Asia). A total of 49 national experts from 32 countries and 12 observers took part in the four real-time conferences and 910 interventions were posted. The substantive issues discussed were the following:

- Development of a "roadmap", such as a flowchart, on the necessary steps to conduct a risk assessment in accordance with Annex III to the Protocol;
- Development of further guidance material on specific aspects of risk assessment and risk management;
- Defining an action plan for the development of guidance materials on specific prioritized aspects as well as the "roadmap"

The outcome of the real-time conferences served as one of the inputs of the deliberations by the AHTEG on Risk Assessment and Risk Management, which took place in April 2009.

### Capacity-Building

The Secretariat organised an online conference on capacity-building for integration of biosafety into national development plans, strategies and programmes from 19 January to 6 February 2009. Participants shared experiences and lessons learned, reviewed the needs of countries, and explored ways of strengthening national capacities in this regard. A total of 23 messages were posted and are archived in the Biosafety Clearing-House at: [http://bch.cbd.int/onlineconferences/about\\_dev\\_cb.shtml](http://bch.cbd.int/onlineconferences/about_dev_cb.shtml). The outcomes of the conference provided in one of the background documents for the fifth coordination meeting.

The Secretariat also organised the fifth meeting for Governments and organizations implementing or funding biosafety capacity-building activities in collaboration with the Government of Costa Rica and the Inter-American Institute for Cooperation on Agriculture (IICA). The meeting was held in San José, Costa Rica, from 9 to 11 March 2009. The Governments of Germany and Norway and the African Union provided financial support for participants from developing countries and countries with economies in transition to participate in the meeting. A total of 47 participants from 22 governments and 15 organizations attended. The meeting adopted a set of action points to assist countries to build and/or strengthen their capacities in environmental risk assessment and post-release



monitoring of living modified organisms (LMOs) and in integration of biosafety into national development plans, such as the Poverty Reduction Strategy Papers (PRSPs) and national programmes for achieving the Millennium Development Goals. The meeting also approved two sets of guidelines, namely the "Interim Guiding Framework for Promoting Synergies and Complementarities Between Biosafety Capacity-Building Initiatives at the Country Level" and the "Draft Guidance on Promoting Regional and Subregional Initiatives and Approaches to Capacity-Building in Biosafety".

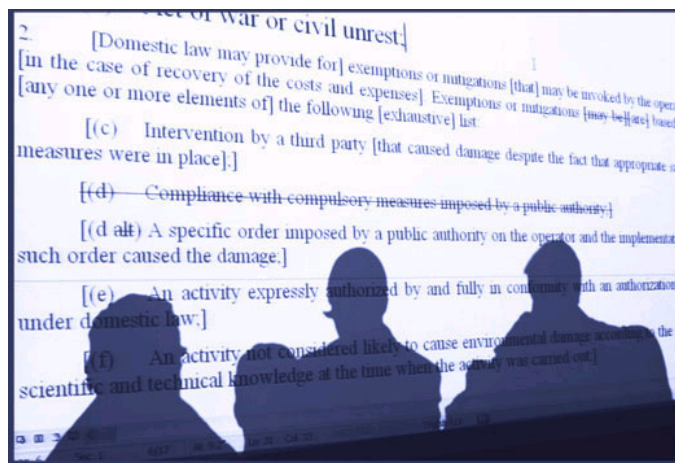


Above Photo: Fifth Coordination Meeting for Governments and Organizations Implementing or Funding Biosafety Capacity-building Activities (Photo from Erie Tamale)

The sixth meeting of the Liaison Group on Capacity-Building for Biosafety was held back-to-back with the fifth coordination meeting from 12 to 13 March 2009. It was attended by 22 participants from 14 governments and 8 organizations. The meeting recommended an initial draft of possible elements of the capacity-building component of the strategic plan for the Protocol and the new medium term programme of work for COP-MOP. The meeting also reviewed and adopted a revised capacity-building needs-assessment questionnaire and process, and also the web-based reporting format for activities contributing to the implementation of the capacity-building Action Plan.

### Liability and Redress

The first meeting of the Friends of the Co-Chairs on Liability and Redress was held from 23 to 27 February 2009 in Mexico City, Mexico. The meeting further negotiated international rules and procedures on liability and redress for damage resulting from transboundary movements of living modified organisms in the context of the Protocol, based on the proposed operational texts contained in the Annex to the decision BS-IV/12 of the fourth meeting of the Parties to the Protocol. The Group agreed to work towards a legally binding instrument in the form of a supplementary protocol with the understanding that the final decision in this regard would only be taken by the Conference of the Parties serving as the meeting of the Parties to the Protocol. It produced a draft text for a supplementary protocol on liability and redress to the Biosafety Protocol, which will serve as a basis for further negotiations. The second meeting of the Group is scheduled for early next year.



Above Photo: Delegates standing in front of a screen displaying draft operational text for the supplementary protocol on liability and redress during the First meeting of the Group of the Friends of the Co-Chairs Concerning Liability and Redress in the Context of the Cartagena Protocol on Biosafety. Photo courtesy of ENB/ISD.

### PAST EVENTS:

- Visit to Canadian Broadcasting Corporation-Radio Canada (CBC), 25 March, Montreal
- Presentation for the CISDL International Legal Symposium, 29 May, McGill University
- Presentation for the 2nd International Youth Symposium For Biodiversity, 6 July, Ottawa
- Input to the FAO Biotechnology Forum (16 e-conference, 8 June - 8 Jul, online)

### UPCOMING EVENTS:

- 14 - 18 September 2009  
Bamako, Mali  
Africa Regional Training of Trainers' Workshop on the Identification and Documentation of Living Modified Organisms (LMOs) under the Cartagena Protocol on Biosafety.
- 19 - 21 October 2009  
Montreal, Canada  
Fifth meeting of the Informal Advisory Committee on the Biosafety Clearing-House.
- 4 - 6 November 2009  
Montreal, Canada  
Sixth meeting of the Compliance Committee under the Cartagena Protocol on Biosafety.

2010

8 - 12 February 2010  
Kuala Lumpur, Malaysia

Second meeting of the Group of the Friends of the Co-Chairs on Liability and Redress in the context of the Cartagena Protocol on Biosafety.

