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### EIGHTH COORDINATION MEETING FOR GOVERNMENTS AND ORGANIZATIONS IMPLEMENTING OR FUNDING BIOSAFETY CAPACITY-BUILDING ACTIVITIES

Prague, 12–14 March 2012

Item 4 of the provisional agenda \*

### **CAPACITY-BUILDING FOR DETECTION, PREVENTION AND CONTROL OF ILLEGAL TRANSBOUNDARY MOVEMENTS OF LIVING MODIFIED ORGANISMS**

#### **I. INTRODUCTION**

1. Article 25 of the Cartagena Protocol on Biosafety requires each Party to adopt appropriate domestic measures aimed at preventing and, if appropriate, penalizing transboundary movements of living modified organisms (LMOs) carried out in contravention of its domestic measures to implement the Protocol (illegal transboundary movements). It provides that in the case of an illegal transboundary movement, the affected Party may request the Party of origin to dispose, at its own expense, of the living modified organism in question by repatriation or destruction, as appropriate. Parties are also required to make available to the Biosafety Clearing-House (BCH) information concerning cases of illegal transboundary movements.

2. Currently, there is limited information concerning cases of illegal transboundary movements of LMOs reported to the BCH even though a number of Parties in their national reports on the implementation of the Protocol have stated their suspicion that such movements were taking place. This could be partly because many countries lack capacity to detect, document and report such illegal imports and releases. At their third meeting held in March 2006, the Parties agreed to include in the Updated Action Plan for Building Capacities for the Effective Implementation of the Protocol, (decision BS-III/3) “measures to address unintentional and/or illegal transboundary movements of living modified organisms” among the key elements requiring capacity-building support and action. Subsequently, at the seventh coordination meeting held in Chisinau, Republic of Moldova in April 2011, participants agreed to consider capacity-building requirements and strategies with respect to this issue at the present meeting and make recommendations for consideration by Parties.

3. This document has been prepared to facilitate discussions on this issue. Section II of the document reviews the current status and some examples of illegal transboundary movements of living modified organisms. Section III describes measures being undertaken taken by Parties to address illegal transboundary movements of living modified organisms. Section IV outlines the capacity-building needs

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as identified by Parties in their second national reports and possible strategies and measures that could be undertaken to develop national capacities for the detection, prevention and control of illegal transboundary movements of LMOs. The last section presents a brief conclusion and recommendations on need for the development of strategies and measures to enhance the capacities of Parties for prevention, detection and control of confirmed cases of illegal transboundary movements of LMOs.

## **II. CURRENT STATUS AND EXAMPLES OF ILLEGAL TRANSBOUNDARY MOVEMENTS OF LIVING MODIFIED ORGANISMS**

4. Since the adoption of the Protocol, only two cases of illegal transboundary movements of LMOs have been reported to the BCH, one by Japan and the other by New Zealand. In 2005, Japan reported having obtained the information that genetically engineered corn (Bt10), which was inadvertently cultivated, in a non-Party, was likely to have been exported to Japan ((BCH Record 11398). It stated that measures had been taken to prevent their distribution in Japan. In 2010, New Zealand reported illegal importation of LMO zebra fish (*Danio rerio*) for the pet trade.

5. In their second reports on the implementation of the Cartagena Protocol on Biosafety, 15 Parties out of the 143 that submitted their reports by 31 December 2011 (10% of the respondents) stated that they had received information concerning cases of illegal transboundary movements of an LMO to or from territories under their jurisdiction less than five times; two Parties (1%) stated that they had received such information 5 to 10 times and one Party (0.5%) stated that it had received such information more than ten times. A majority of Parties (124 Parties or 87%) stated that they have never received such information.

6. One Party from the Asia region reported that it had received information concerning the illegal import of three LMOs (killifish, zebra danios and corn) which happened because the importer had not recognized that they were genetically modified. Those LMOs were recalled and disposed of and the importers were required to take preventive steps. The same Party reported that it was investigating a possible illegal import of papaya and pharmaceuticals for human consumption. Another Party from Asia reported that it had received information alleging the illegal presence of LL601 in rice and of an unapproved event of corn (TC1507) but did not have a policy and guidelines in place at the time to confirm the allegation. A Party from the Group of Latin America and Caribbean Countries (GRULAC) also reported that it had recorded in the BCH the presence of LMOs in its country which had not been authorized by the national authorities. A Party from the Western European and Others Group (WEOG) reported that it investigated the importation of genetically modified (GM) zebra danios (*danio rerio*), an aquarium fish. Another Party from WEOG reported an incident that involved a release into the environment that was both unintended and illegal and another reported having received information on cases where GM fish not authorised for marketing or release in the EU had been imported. These cases have been dealt with in conformity with EU regulations.

7. While many Parties from Africa reported that there were no known illegal transboundary movements, a number of them suspected that illegal transboundary movements have occurred. A Party from GRULAC also reported a suspicion that LMOs were brought illegally into its territory without the knowledge of the relevant national authorities.

## **III. MEASURES BEING UNDERTAKEN BY PARTIES TO ADDRESS ILLEGAL TRANSBOUNDARY MOVEMENTS OF LIVING MODIFIED ORGANISMS**

8. In their second national reports on the implementation of the Cartagena Protocol on Biosafety, 86 of the 143 Parties that submitted reports by 31 December 2011 (61% of the respondents) indicated that they had adopted domestic measures aimed at preventing and/or penalizing transboundary movements of

LMOs carried out in contravention of their national regulatory frameworks for implementing the Protocol. Of these 52 Parties (37% of the respondents) indicated that they had established a strategy for detecting illegal transboundary movements of LMOs. Of the 119 Parties which stated that they had undertaken capacity-building activities in biosafety, 20 of them (17%) indicated that their activities covered the development and/or strengthening of human resources and institutional capacities to address unintentional and/or illegal transboundary movements of LMOs.

9. A number of countries provided brief descriptions of some of their domestic measures aimed at preventing and/or penalizing illegal transboundary movements of LMOs and their experiences in implementing Article 25. Several Parties, including the European Union (EU) and its member States, Bosnia and Herzegovina, Brazil, Cambodia, Cape Verde, Cuba, the Democratic People's Republic of Korea, Guatemala, India, Malaysia, Mali, Norway, Papua New Guinea, the Philippines, the Republic of Moldova, Rwanda, Samoa, the Solomon Islands, South Africa, Sri Lanka, Togo, Venezuela and Viet Nam, indicated that their national biosafety legislation or draft national biosafety frameworks included provisions specifically aimed at preventing and penalizing illegal transboundary movements of LMOs.

10. The EU legislation requires member States to enforce their obligations stipulated in the regulation and to lay down rules on penalties applicable to infringements of the provisions of the European regulations and the requirements of the domestic legislation, and to ensure that the applicable penalties are effective, proportionate and dissuasive. Specific requirements on EU member States to determine penalties applicable to breaches of European regulations can be found in: Article 33 of the Directive 2001/18/EC on the deliberate release into the environment of GMOs; Article 18 of Regulation (EC) No. 1946/2003 on transboundary movements of genetically modified organisms; and Article 45 of Regulation (EC) No. 1829/2003 on genetically modified food and feed. In Lithuania, the value of the penalty depends on the proportion and times of infringement. In Poland, the penal system currently being rebuilt is moving away from penalties that would involve prison sentences to fines and financial penalties.

11. The Brazilian Biosafety Law, Law 11,105/2005, provides penalties for illegal transboundary movements which are enforced by competent national authorities. Violators are subjected to penalties and administrative sanctions established in the Law.

12. In the Democratic People's Republic of Korea (DPRK), the Biosafety Committee and State Commission of Science and Technology have established procedures for preventing illegal imports and exports of LMOs and have taken measures to build their capacity in this regard. Temporary inspection procedures include: selection and checking of the samples, conducting identity test when LMOs are found and taking appropriate measures if they are not approved. Inspection and quarantine institutions in DPRK have taken administrative measures for inspection and identification in order to prevent illegal transboundary movement of LMOs.

13. In Norway, several provisions of the Gene Technology Act could be used to prevent and penalize transboundary movements of GMOs carried out in contravention of the Norwegian legal framework on GMOs. These include: section 17 on supervision, section 18 on right of inspection, section 20 on order to cease activity, section 21 on duty to prevent and limit damage, Section 24 on coercive fine and section 25 on penalties.

14. A number of other national biosafety laws include provisions stipulating penalties for unauthorized activities or infringements of the provisions, including illegal transboundary movements. Most of the penalties are in the form of fines and administrative sanctions, but laws of some countries, such as South Africa, also include penalties that would involve prison sentences. The Sri Lankan draft

Biosafety Act also provides for confiscation of LMOs or any product thereof imported in contravention to the Act and states that such shall be re-exported or destroyed at the expense of importer.

15. Some countries, such as Swaziland, emphasized the need to promote public awareness and strengthen enforcement measures, particularly among communities along the borders as some of the measures for preventing transboundary movements of LMOs. Such measures would involve development of manuals and guidelines to conduct intensive training for personnel at ports of entry. Zimbabwe also indicated that it is building the capacity of its officers at ports of entry to be able verify LMO import and export documents. It indicated that as part of the measures to prevent illegal transboundary movements of LMOs, consignments without the required documentation are held pending submission of import documents. Samples of consignments are collected and tested for the presence of LMOs. In the event of detection of LMOs, the consignments are either subjected to supervised milling or destroyed and the permit defaulters are penalized.

16. The EU reported that the European Commission (EC) adopted emergency measures to stop imports of GM maize (Bt10) in September 2007 and Liberty Link Rice 601 in September 2007, which had not been authorised for placement on the market in the EU at the time. Subsequently, on the basis of satisfactory information gathered, the emergency measures regarding Bt10 maize and LLRice601 rice were repealed on 7 March 2007 and 8 June 2010 respectively. The EU also adopted emergency measures regarding the non-authorized GMO, Bt63, in rice products imported in April 2008 and these are still in place. These are control measures which were intended to stop the import of food/feed products because they were illegal at the time, and not because of identification of adverse effects.

#### **IV. CAPACITY-BUILDING NEEDS AND STRATEGIES FOR THE DETECTION, PREVENTION, CONTROL AND REPORTING OF ILLEGAL TRANSBOUNDARY MOVEMENTS OF LIVING MODIFIED ORGANISMS**

17. In their second national reports on the implementation of the Protocol, 114 Parties reported that they still have capacity-building needs. Of these, 104 Parties (91%) indicated that they need capacity-building in measures to address unintentional and/or illegal transboundary movements of LMOs. Several Parties, including Djibouti, Dominica, Kiribati, Liberia, Myanmar, Sudan and Togo, specially stated that they lacked capacity to detect illegal transboundary movements of LMOs. Other specific capacity-building needs and challenges identified in this regard include: lack of information on specific LMOs, low levels of public awareness of LMOs, lack of or inadequate legal frameworks, poor coordination among relevant national authorities, and lack of human resource capacity and infrastructure for LMO surveillance. One Party noted that in the absence of capacity to detect LMOs, there is no information available to verify if such items have been imported or exported.

18. In the information submitted to the capacity-building needs and priorities database in the BCH, 17 countries<sup>1</sup> identified “unintentional or illegal transboundary movements” as one of the broad areas for which capacity-building is needed. The specific priority needs identified under this broad area include systems for detecting, tracking and dealing with unintentional or illegal transboundary movements of LMOs. In its second national report, Tanzania specifically recommended that the focus in this area should on putting in place national strategies for detecting illegal transboundary movement of LMOs.

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<sup>1</sup> Bolivia, Croatia, Fiji, Iran, Kiribati, Malaysia, Mexico, Niger, Nigeria, Niue, Papua New Guinea, Republic of Moldova, Saint Lucia, Togo, Tonga, Vanuatu and Venezuela.

19. There are a number of possible strategies and measures that could be undertaken to build national capacities for the detection, prevention and control of illegal transboundary movements of LMOs. For ease of discussion, these could be categorised into capacity-building measures for:

- (a) Prevention of illegal transboundary movements;
- (b) Detection of illegal transboundary movements; and
- (c) Controlling illegal transboundary movements once they have been confirmed, including reporting and response measures.

**A. *Building national capacities for the prevention of illegal transboundary movements of LMOs***

20. Prevention could encompass strategic and proactive measures such as raising the awareness of various stakeholders to foster behavioural change, putting in place effective regulatory and institutional frameworks to deter illegal actions, building the capacity of relevant actors, fostering coordination and cooperation among relevant stakeholders and ensuring regular exchange of information among competent authorities. Such measures could include:

(a) *Legal and administrative systems.* One of the possible strategies for preventing illegal transboundary movements of LMOs could be to include penalties or sanctions in national biosafety laws that could serve as strong deterrents. Parties may also need to put in place effective institutional frameworks for enforcement, including development of standard operating procedures. In addition, Parties may also take into account inter-linkages and opportunities for joint enforcement with other multilateral environmental agreements;

(b) *Education and information dissemination.* Awareness-raising and information dissemination play an important role in curtailing illegal transboundary movements of LMOs. Some illegal transboundary movements of LMOs may be occurring due to ignorance and lack of information on the part of the exporters and also some regulatory authorities. For example, the scientific nature of LMOs makes it much easier to deceive customs officers who may not be well informed. Thus Parties need to promote awareness of various stakeholders and the public, including through ensuring easy access to relevant information;

(c) *Training of staff of competent national authorities and relevant agencies.* Training of relevant personnel is central to fostering effective detection, prevention and control of illegal transboundary movements of LMOs. In this regard, it is important for competent national authorities to organize training activities for relevant regulatory and enforcement officials, such as inspectors and customs officers. A basic training manual or online training modules could also be developed and made available to Parties;

(d) *Inter-agency cooperation at the national level.* Cooperation among national regulatory authorities is crucial to the prevention of illegal transboundary movements of LMOs. In this regard, national environmental agencies need to work closely with relevant local and national authorities, local police, customs, transport companies, non-governmental organizations (NGOs) and industry;

(e) *Cooperation with civil society, interest groups and the public.* Parties may need to cooperate with non-governmental organizations, industry and other stakeholders to develop effective prevention strategies. Such cooperation could facilitate timely detection of illegal LMO shipments or

releases and effective handling of incidents of illegal transboundary movements of LMOs in accordance with the provisions of the Protocol and national biosafety laws;

(f) *Cooperation among competent national authorities.* Competent national authorities could be encouraged cooperate on sharing intelligence data on suspected illegal LMO shipments at subregional, regional or global levels so that the shipment can be intercepted and checked on its arrival at its destination. Parties to the Protocol may also wish to cooperate with other MEAs and international bodies such the World Customs Organization, United Nations Environment Programme and others to facilitate exchange of information on illegal transboundary movements of LMOs

***B. Building national capacities for the detection of illegal transboundary movements of LMOs***

21. Parties need to develop institutional and human resource capacity to detect illegal transboundary movements of LMOs. Illegal transboundary movements of LMOs could be detected through intelligence data gathering and analysis measures including: review of notification documents and other reports submitted to competent national authorities, examination and verification of shipment documentation by customs and border control officials, random sampling and testing of shipments for LMOs and through routine spot compliance checks or covert field inspections. In this regard, competent national authorities need to have the capacity to carry out the following tasks:

(a) *National inventories.* Information gathering and analysis is also a very important tool for detecting illegal transboundary movements of LMOs. Close monitoring of LMO import and export statistics, could help relevant authorities to form an overall picture and in turn help to detect illegal imports of LMOs. Competent national authorities could adopt a common approach for compiling data on the legal and illegal transboundary movements of LMOs into and outside their respective countries and maintain annual national inventories as a policy tool against illegal transboundary movements of LMOs;

(b) *Proactive systems for detection of illegal transboundary movements of LMOs.* Proactive measures may be essential in order to detect potential cases of illegal transboundary movement of LMOs. For example, they could: (i) undertake ad hoc inspections and compliance checks, targeting high-risk shipments and field situations for inspection; (ii) carry out random sampling and testing; (iii) monitor customs data and provide intelligence information to customs and other enforcement officers; and (iv) establish protocols for reviewing customs data on a regular basis and responding to data that needs further action. In this regard, customs, other border control agencies and competent authorities may need to work closely together;

(c) *Inspection and monitoring systems.* Combating illegal transboundary movements of LMOs may also require conducting overt and covert inspections and monitoring activities to know how and why breaches occur and to determine if there are patterns that may point to potential or further illegal activities. In this regard, Parties may need capacity to regularly gather, analyse and share data on a regular basis.

(d) *Traceability systems.* Traceability systems are an emerging risk management tool in the area of biosafety that could be used to detect and track illegal transboundary movements of LMOs. Parties that do not have them yet may need capacity-building support and advice to establish national traceability systems.

**C. *Building national capacities for controlling confirmed cases of illegal transboundary movements of LMOs***

22. Measures for controlling illegal transboundary movements of LMOs once they are confirmed to have occurred may encompass conducting further investigations to collect evidence about violations of the national laws; reporting of confirmed cases of illegal transboundary movements to the BCH; undertaking response measures including handling and repatriation or destruction of the illegal LMOs, for example:

(a) *Conducting investigations.* Once suspected illegal shipments are detected further investigations may need to be carried out to establish facts about the illegal shipment and to identify the persons responsible. In this regard, Parties may need capacity for collecting sound evidence should prosecution of cases of the illegal movements become necessary. This may also require cooperation between relevant national authorities – including the regulators, inspectors, customs, police, judiciary and others;

(b) *Disposal of illegal LMO shipments.* Paragraph 2 of Article 25 provides that in case of an illegal transboundary movement, the affected Party may request the Party of origin to dispose, at its own expense, of the living modified organism in question by repatriation or destruction, as appropriate. However, sometimes it may be difficult to determine the source of the illegal transboundary movement. In this regard, the Party of import would need to have the capacity to recover and dispose of the illegal LMOs. The Parties may also need to have the capacity to store the intercepted LMOs in an environmentally safe manner prior to their repatriation or destruction;

(c) *Communication of information to the BCH.* The Protocol requires Parties to make available through the Biosafety Clearing-House information concerning illegal transboundary movements of LMOs pertaining to them. Making this information available allows all countries to be aware of the existing cases of illegal shipments, to determine if those cases could potentially affect them as well, and to facilitate cooperation among Parties to combat illegal transboundary movements and to take appropriate collaborative response measures, if necessary. Therefore Parties need to have the capacity to access and use the BCH to make available such information in a timely manner.

**V. CONCLUSION AND RECOMMENDATIONS**

23. Measures for the detection, prevention and control of illegal transboundary movements of LMOs are critical for achieving the objective of the Cartagena Protocol on Biosafety. Illegal transboundary movements of LMOs, if not addressed, could potentially undermine global efforts to protect biodiversity from potential adverse effects of LMOs. While very few cases of illegal transboundary movements of LMOs have been reported to BCH to date, a number of Parties stated in their second national reports that they suspect such movements were taking place. Others attributed this low level of reporting to lack of capacity to detect and document illegal shipments.

24. According to the information provided in the second national reports, especially the responses to the questions on capacity-building needs and the specific areas of need, 104 Parties (91% of the respondents) stated that they need capacity-building in measures to address unintentional and/or illegal transboundary movements of LMOs. This indicates that there is a need to develop guidance to assist Parties in developing their capacity to detect, prevent and control cases of illegal transboundary movements of LMOs in an effective and timely manner. The present document has outlined a number of specific areas in which Parties could be supported to develop such capacity.

25. In this regard, participants at the eighth coordination meeting may wish to consider the information provided in the document and propose specific measures for enhancing the capacities of Parties for the detection, prevention and control of illegal transboundary movements of LMOs. As a number of Parties remarked in their national reports, it is impossible to detect and prevent illegal transboundary movements if there is no technical capacity at the national level.

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