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## FACT SHEET

### Convention on Biological Diversity and the Cartagena Protocol on Biosafety

#### 1. Definition of biological diversity

1.1 Biological diversity is the term given to the variety of life on earth and the natural patterns they form. It also refers to genetic differences within each species as well as the variety of terrestrial, marine and aquatic ecosystems. In essence, biological diversity provides goods and services<sup>1</sup> for the sustainability of human lives. As such, the loss of biological diversity threatens food supplies, sources of materials and energy, and opportunities for recreation and tourism. It also interferes with essential ecological functions.

#### 2. Background and objective of the Convention on Biological Diversity

2.1 The relationship between economic development and environmental degradation was first discussed at the United Nations (UN) Conference on the Human Environment in 1972, leading to the establishment of the United Nations Environment Programme (UNEP) for the promotion of sustainable development of the environment. However, little had been done in the succeeding years to integrate environmental concerns into national economic policies by governments. As a result, the UN established the World Commission on Environment and Development (the Commission) in 1983 to look into the issue. The Commission published a report, recommending "*a new era of environmentally sound economic development*"<sup>2</sup> in 1987. The UN General Assembly then called for the organization of the United Nations Conference on Environment and Development (UNCED) in 1992. One of the key agreements adopted at UNCED was the Convention on Biological Diversity (the Convention), the first global agreement on the conservation and sustainable use of biological diversity.

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<sup>1</sup> Goods and services provided by ecosystems include: (a) provision of food, fuel and fibre; (b) provision of shelter and building materials; (c) purification of air and water; (d) detoxification and decomposition of wastes; (e) stabilization and moderation of climate; (f) moderation of floods, droughts, temperature and forces of wind; (g) generation and renewal of soil fertility; (h) pollination of plants; (i) control of pests and diseases; (j) maintenance of genetic resources as key inputs to crop varieties and livestock breeds; (k) medicines; (l) cultural and aesthetic benefits; and (m) ability to adapt to change.

<sup>2</sup> *Convention on Biological Diversity*. (2003) [Internet] Available from: <http://www.biodiv.org/doc/publications/guide.asp> [Accessed 8 December 2003].

2.2 The Convention sets out commitments for the development of national and international measures to preserve the ecosystems and biological resources. Three main goals were established, namely:

- (a) the conservation of biological diversity;
- (b) the sustainable use of its components; and
- (c) the fair and equitable sharing of the benefits from the use of genetic resources.

### **3. Role of governments under the Convention**

3.1 Under the Convention, governments undertake to conserve and sustainably use biological diversity. They are required to develop national biological diversity strategies and action plans, and to integrate them into broader national plans for environment and development. Guidelines should be developed for the use of natural resources. Actions needed to be taken by governments include:

- (a) identifying and monitoring components of biological diversity which need to be conserved and used sustainably;
- (b) establishing protected areas to conserve biological diversity while promoting environmentally sound development around those areas;
- (c) rehabilitating and restoring degraded ecosystems and promoting the recovery of threatened species in collaboration with local residents;
- (d) respecting, preserving and maintaining traditional knowledge of the sustainable use of biological diversity with the involvement of indigenous peoples and local communities;
- (e) preventing the introduction of, controlling, and eradicating alien species that could threaten ecosystems, habitats or species;
- (f) controlling the risks posed by organisms modified by biotechnology<sup>3</sup>;
- (g) promoting public participation, particularly when it comes to assessing the environmental impacts of development projects that threaten biological diversity;
- (h) educating people and raising awareness about the importance of biological diversity and the need to conserve it; and
- (i) reporting on the effectiveness of meeting the biodiversity goals.

3.2 Since the Convention recognizes national sovereignty over all genetic resources, access to valuable biological resources should be carried out on mutually agreed terms and subject to the prior informed consent of the country of origin. If a micro-organism, plant, or animal is used for a commercial application, the country of origin has the right to benefit from its use. Such benefits include cash, samples of the collection, the participation or training of national researchers, the transfer of biotechnology equipment and know-how, and shares of profits from the use of the resources.

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<sup>3</sup> Biotechnology refers to any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for a specific use.

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3.3 The governing body of the Convention is the Conference of the Parties (COP), which consists of all governments and regional economic integration organizations who have ratified the agreement. COP reviews progress under the Convention, identifies new priorities, and sets work plans for member nations. It also makes amendments to the Convention, creates expert advisory bodies, reviews progress reports by member nations, and collaborates with other international organizations and agreements.

#### **4. Background and objective of the Cartagena Protocol on Biosafety**

4.1 In recent years, advances in biotechnology techniques have broken the species barrier by transferring genes from one species to another, resulting in greater agricultural productivity and improved human nutrition. However, concerns have been raised about potential side effects on human health and the environment, including risks to biological diversity. In response to these concerns, governments negotiated in 2000 a subsidiary agreement to the Convention, the Cartagena Protocol on Biosafety (the Protocol), to address the potential risks posed by cross-border trade and accidental releases of Living Modified Organisms (LMOs)<sup>4</sup>.

4.2 The Protocol provides an international regulatory framework to reconcile the respective needs of trade and environmental protection with respect to the biotechnology industry. It creates an enabling environment for the application of biotechnology, making it possible to derive maximum benefit from the potential that biotechnology has to offer, while minimizing the possible risks to the environment and to human health.

4.3 The objective of the Protocol is ensuring an adequate level of protection be given to the safe transfer, handling and use of LMOs which may have adverse effects on the conservation and sustainable use of biological diversity, taking into account risks to human health, with specific focus on transboundary movements.

#### **5. Features of the Protocol**

5.1 The Protocol stipulates procedures for both LMOs intended to be introduced into the environment and LMOs used directly as food or feed or for processing (LMOs-FFP). An Advance Informed Agreement (AIA) procedure<sup>5</sup> has been established for the former LMOs under the Protocol. AIA requires an exporting party to notify an importing party such that the importing party can have sufficient information to assess risks involved before permitting the import.

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<sup>4</sup> Living Modified Organisms (LMOs) are living organisms that possess a novel combination of genetic materials obtained through the use of biotechnology. Common LMOs include crops that have been genetically modified for greater productivity or for resistance to pests or diseases. Examples of modified crops include tomatoes, cassava, corn, cotton and soybeans.

<sup>5</sup> The Advance Informed Agreement procedure consists of four components: (a) notification by the exporting country or the exporter; (b) acknowledgement of receipt of notification by the importing country; (c) decision procedure; and (d) review of decisions.

5.2 As regards LMOs-FFP, the Protocol requires an exporting party to inform an importing party through the Biosafety Clearing-House<sup>6</sup>. Basically, acceptance of the import depends on the domestic regulatory framework of the importing party. In the absence of a domestic regulatory framework, the importing party should declare through the Biosafety Clearing-House that its decisions on the first import is taken in accordance with both the risk assessment as set out in the Protocol and the timeframe for decision-making. Commodities which contain LMOs should be labelled as such when being exported.

5.3 The Protocol also contains provisions for capacity-building<sup>7</sup>, financial mechanism, compliance procedures, and public awareness of and participation in sustaining biological diversity.

## 6. Settlement of Disputes

6.1 Since the Convention is legally binding, countries joining it are obliged to implement its provisions. In the event that there is a dispute between countries concerning the interpretation or application of the Convention, the countries concerned should seek solution by negotiation or mediation. If this approach fails, arbitration or submission of the dispute to the International Court of Justice should be undertaken. In the event that the countries concerned do not accept the same procedure, the dispute should be submitted to conciliation. A conciliation commission, composing of five members, two appointed by each country concerned and a president chosen jointly by the appointed members, should be created. The conciliation commission should make a decision by a majority vote of its members.

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<sup>6</sup> Functions of the Biosafety Clearing-House include: (a) facilitating the exchange of scientific, technical, environmental and legal information on, and experience with, living modified organisms; and (b) assisting countries in the implementation of the Protocol.

<sup>7</sup> To help developing countries and countries with economies in transition to build human resources and institutional capacity in biosafety, advanced countries are encouraged to assist with scientific and technical training and to promote the transfer of technology, know-how, and financial resources. Countries are also expected to facilitate private sector involvement in capacity building.

## References

### Web sites

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### Publications

1. Secretariat of the Convention on Biological Diversity. *Cartagena Protocol on Biosafety*, 2000.
2. Secretariat of the Convention on Biological Diversity. *Convention on Biological Diversity*, June 1992.
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