

Article 15. Risk Assessment

1. Risk assessments undertaken pursuant to this Protocol shall be carried out in a scientifically sound manner, in accordance with **Annex III** and taking into account recognized risk assessment techniques. Such risk assessments shall be **based, at a minimum, on information provided in accordance with Article 8** and other available scientific evidence in order to **identify** and **evaluate** the **possible adverse effects of living modified organisms** on the **conservation and sustainable use of biological diversity**, taking also into account risks to human health.
2. The Party of import shall ensure that risk assessments are carried out for decisions taken under **Article 10**. It **may require the exporter to carry out the risk assessment**.
3. The cost of risk assessment shall be borne by the notifier if the Party of import so requires.

Article 16. Risk Management

1. The Parties shall, taking into account **Article 8 (g)** of the Convention, **establish** and **maintain** appropriate **mechanisms, measures** and **strategies to regulate, manage and control risks identified** in the risk assessment provisions of this Protocol associated with the **use, handling and transboundary movement** of living modified organisms.
2. Measures based on risk assessment shall be imposed to the extent necessary **to prevent adverse effects of the living modified organism on the conservation and sustainable use of biological diversity**, taking also into account risks to human health, within the territory of the Party of import.
3. Each Party shall take appropriate measures to prevent **unintentional transboundary movements** of living modified organisms, including such measures as requiring a risk assessment to be carried out **prior to the first release** of a living modified organism.

4. Without prejudice to paragraph 2 above, each Party shall endeavour to ensure that any living modified organism, whether imported or locally developed, has undergone an appropriate period of observation that is commensurate with its life-cycle or generation time before it is put to its intended use.

5. Parties shall cooperate with a view to:

(a) Identifying living modified organisms or specific traits of living modified organisms that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health; and

(b) Taking appropriate measures regarding the treatment of such living modified organisms or specific traits.

Article 22. Capacity-Building

1. The Parties shall cooperate in the development and/or strengthening of human resources and institutional capacities in biosafety, including biotechnology to the extent that it is required for biosafety, for the purpose of the effective implementation of this Protocol, in developing country Parties, in particular the least developed and small island developing States among them, and in Parties with economies in transition, including through existing global, regional, subregional and national institutions and organizations and, as appropriate, through facilitating private sector involvement.

2. For the purposes of implementing paragraph 1 above, in relation to cooperation, the needs of developing country Parties, in particular the least developed and small island developing States among them, for financial resources and access to and transfer of technology and know-how in accordance with the relevant provisions of the Convention, shall be taken fully into account for capacity-building in biosafety. Cooperation in capacity-building shall, subject to the different situation, capabilities and requirements of each Party, include scientific and technical training in the proper and safe management of biotechnology, and in the use of risk assessment and risk management for biosafety, and the enhancement of technological and institutional capacities in biosafety. The needs of Parties with economies in transition shall also be taken fully into account for such capacity-building in biosafety.

Annex III. Risk Assessment

Methodology

- The process of risk assessment may on the one hand give rise to a need for further information about specific subjects, which may be identified and requested during the assessment process, while on the other hand information on other subjects may not be relevant in some instances.
- To fulfil its objective, risk assessment entails, as appropriate, the following **steps**:
 - (a) An **identification of any novel genotypic and phenotypic characteristics** associated with the living modified organism that **may have adverse effects on biological diversity** in the likely **potential receiving environment**, taking also into account risks to human health;
 - (b) An **evaluation** of the likelihood of these adverse effects being realized, taking into account the **level and kind of exposure** of the likely potential receiving environment to the living modified organism;
 - (c) An **evaluation of the consequences** should these adverse effects be realized;

- (d) An **estimation of the overall risk** posed by the living modified organism based on the evaluation of the likelihood and consequences of the identified adverse effects being realized;
- (e) A **recommendation** as to **whether or not the risks are acceptable or manageable**, including, where necessary, identification of strategies to manage these risks; and
- (f) Where there is **uncertainty** regarding the level of risk, it may be addressed by requesting **further information on the specific issues** of concern or by implementing appropriate risk management strategies and/or **monitoring the living modified organism in the receiving environment**.

Points to consider

- Depending on the case, risk assessment takes into account the **relevant technical and scientific details** regarding the **characteristics of** the following subjects:

(a) **Recipient organism or parental organisms**. The biological characteristics of the recipient organism or parental organisms, including information on taxonomic status, common name, origin, centres of origin and centres of genetic diversity, if known, and a description of the habitat where the organisms may persist or proliferate;

(b) **Donor organism or organisms**. Taxonomic status and common name, source, and the relevant biological characteristics of the donor organisms;

- (c) Vector. Characteristics of the vector, including its identity, if any, and its source or origin, and its host range;
- (d) Insert or inserts and/or characteristics of modification. Genetic characteristics of the inserted nucleic acid and the function it specifies, and/or characteristics of the modification introduced;
- (e) Living modified organism. Identity of the living modified organism, and the differences between the biological characteristics of the living modified organism and those of the recipient organism or parental organisms;
- (f) Detection and identification of the living modified organism. Suggested detection and identification methods and their specificity, sensitivity and reliability;
- (g) Information relating to the intended use. Information relating to the intended use of the living modified organism, including new or changed use compared to the recipient organism or parental organisms; and
- (h) Receiving environment. Information on the location, geographical, climatic and ecological characteristics, including relevant information on biological diversity and centres of origin of the likely potential receiving environment.