**CBD Online Forum on Synthetic Biology**

**Key references and definitions**

The online forum will focus on a set of 5 elements that were discussed and decided upon in December 2016 as the terms of reference for the expert group on synthetic biology. That text refers to several key terms and documents, so to provide context, below is a list of the definitions for those terms and a list of the documents referenced. (The text of the decision itself is included at the end of this document on page 3).

Please note that the definitions are those that were agreed by Parties (countries) to the CBD. These terms may be defined or used differently in other contexts, or you may have another understanding of their meaning, but for the purpose of the online forum, this is how they should be understood and used.

**Objectives of the Convention on Biological Diversity**: The Convention has three objectives:

* The conservation of biological diversity
* The sustainable use of its components
* The fair and equitable sharing of the benefits arising out of the utilization of genetic resources

All activities under the Convention (and its related protocols, Cartagena and Nagoya) should be within the framework of these objectives. Issues that are not relevant to these objectives should not be handled by the Convention. The three principles often serve as a 'test' when deciding whether a topic should be dealt with under the CBD or in another forum, for example WTO.

**Synthetic biology:** "Synthetic biology is a further development and new dimension of modern biotechnology that combines science, technology and engineering to facilitate and accelerate the understanding, design, redesign, manufacture and/or modification of genetic materials, living organisms and biological systems".

Arriving at a definition was a long and complicated process, and many countries were not in total agreement with the proposal and so restrained the use of the definition to the discussion within CBD, not to be used universally.

**Living Modified Organisms (LMOs)**: any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology

**Living organisms**: any biological entity capable of transferring or replicating genetic material, including sterile organisms, viruses and viroids

**Modern Biotechnology**: Modern biotechnology" means the application of:

a. In vitro nucleic acid techniques, including recombinant deoxyribonucleic acid (DNA) and direct injection of nucleic acid into cells or organelles, or

b. Fusion of cells beyond the taxonomic family, that overcome natural physiological reproductive or recombination barriers and that are not techniques used in traditional breeding and selection

**Socio-economic considerations**: Article 26 of the Cartagena Protocol on Biosafety establishes the right of Parties to take into account socio-economic considerations arising from the impact of living modified organisms on the conservation and sustainable use of biodiversity, especially with regard to the value of biodiversity to indigenous and local communities, in reaching a decision on whether to import these organisms.

**Paragraph 12 of** [**decision IX/29**](https://www.cbd.int/decision/cop/?id=11672) **on new and emerging issues**:

"12. Further decides that the following criteria should be used for identifying new and emerging issues related to the conservation and sustainable use of biodiversity:

(a)Relevance of the issue to the implementation of the objectives of the Convention and its existing programmes of work;

(b)New evidence of unexpected and significant impacts on biodiversity;

(c)Urgency of addressing the issue/imminence of the risk caused by the issue to the effective implementation of the Convention as well as the magnitude of actual and potential impact on biodiversity;

(d)Actual geographic coverage and potential spread, including rate of spread, of the identified issue relating to the conservation and sustainable use of biodiversity;

(e)Evidence of the absence or limited availability of tools to limit or mitigate the negative impacts of the identified issue on the conservation and sustainable use of biodiversity;

(f)Magnitude of actual and potential impact of the identified issue on human well-being;

(g)Magnitude of actual and potential impact of the identified issue on productive sectors and economic well-being as related to the conservation and sustainable use of biodiversity"

**Paragraph 2 of** [**decision XII/24**](https://www.cbd.int/decision/cop/default.shtml?id=13387) refers to the decision above IX/29 on emerging issues.

"Noting decision BS-VII/12 of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety, recommending a coordinated approach on the issue of synthetic biology, taking into account that the provisions of the Cartagena Protocol may also apply to living organisms resulting from synthetic biology,

1.Takes note of the conclusions of the Subsidiary Body on Scientific, Technical and Technological Advice at its eighteenth meeting, as contained in paragraph 1 of recommendation XVIII/7, recognizes that this issue is of relevance to the Convention and concludes that there is currently insufficient information available to finalize an analysis, using the criteria set out in paragraph 12 of decision IX/29, to decide whether or not this is a new and emerging issue related to conservation and sustainable use of biodiversity;

2.Awaits the completion of a robust analysis using the criteria set out in paragraph 12 of decision IX/29 "

**2016 - Decision XIII/17 - https://www.cbd.int/doc/c/9a5d/35f3/b57a2e851bdc7c26c6d0c07c/cop-13-dec-17-en.pdf**

**TERMS OF REFERENCE FOR THE AD HOC TECHNICAL EXPERT GROUP ON SYNTHETIC BIOLOGY**

Building on the previous work of the Online Forum and Ad Hoc Technical Expert Group, and drawing upon relevant information submitted by Parties, other Governments, relevant organizations and indigenous peoples and local communities through paragraph 10 above, as well as information made available through the online forum and by the Secretariat, the Ad Hoc Technical Expert Group on Synthetic Biology shall, in coordination with other bodies of the Convention and its Protocols:

(a) Review recent technological developments within the field of synthetic biology to assess if the developments could lead to impacts on biodiversity and the three objectives of the Convention, including unexpected and significant impacts;

(b) Identify any living organisms already developed or currently under research and development through techniques of synthetic biology which do not fall under the definition of living modified organisms under the Cartagena Protocol;

(c) Further analyse evidence of benefits and adverse effects of organisms, components and products of synthetic biology vis-à-vis the three objectives of the Convention, and gather information on risk management measures, safe use and best practices for safe handling of organisms, components and products of synthetic biology;

(d) In order to avoid or minimize any potential negative effects on the conservation and sustainable use of biodiversity, evaluate the availability of tools to detect and monitor the organisms, components and products of synthetic biology;

(e) Provide, for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting held prior to the fourteenth meeting of the Conference of the Parties, recommendations on the basis of its deliberations to facilitate future discussions and actions on synthetic biology under the Convention, as well as an analysis against the criteria set out in paragraph 12 of decision IX/29 to contribute to the completion of the assessment requested in paragraph 2 of decision XII/24 by the Subsidiary Body on Scientific, Technical and Technological Advice;