



UN BIODIVERSITY CONFERENCE

Investing in biodiversity for people and planet



COP 14 - CP/MOP9 - NP/MOP3
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Synthetic Biology

Synthetic biology is a rapidly developing and cross-cutting issue, with potential benefits and potential adverse effects vis-à-vis the three objectives of the Convention on Biological Diversity. Developments arising from research and development in the field of synthetic biology may pose challenges to the ability of some countries, especially developing countries, in particular those with limited experience or resources, to assess the full range of applications and their potential impacts.

Due to its cross-cutting nature, synthetic biology is being discussed under the Convention and the Cartagena Protocol on Biosafety. An international expert group on synthetic biology, that produced two important reports that provided the basis for current discussions under the Convention and the Protocol, indicated that living organisms developed through current and near future applications of synthetic biology are similar to living modified organisms (LMOs) as defined in the Cartagena Protocol on Biosafety. The group noted, however, that it is not clear at the current stage whether or not some organisms of synthetic biology, which are currently in the early stages of research and development, would fall under the Cartagena Protocol's definition of LMOs.





Synthetic Biology at the UN Biodiversity Conference¹

The UN Biodiversity Conference is expected to discuss the possibility of establishing a process and modalities for conducting a regular horizon scanning, monitoring and assessment of new developments in the field of synthetic biology, which could help the international community to be aware of what is coming and address the possible challenges in a timely manner, which will increase the possibilities to minimize any possible adverse effect on biodiversity.

The UN Biodiversity Conference will also deliberate on a possible call to Parties, other Governments and relevant organizations to continue to develop or implement, as appropriate, measures to prevent or minimize potential adverse effects arising from exposing the environment to organisms, components and products of synthetic biology in contained use, including measures for detection, identification and monitoring; as well as on the possibility to extend the work of the international expert group on synthetic biology to continue providing information that will feed the upcoming discussions.

For additional information, please contact:

David Ainsworth at +1 514 287 7025 or david.ainsworth@cbd.int

Johan Hedlund at +1 514 287 6670 or johan.hedlund@cbd.int

Important links

- CBD Technical Series No. 82: www.cbd.int/ts/cbd-ts-82-en.pdf
- Report of the Ad Hoc Technical Expert Group on Synthetic Biology (2015)
www.cbd.int/doc/meetings/synbio/synbioahteg-2015-01/official/synbioahteg-2015-01-03-en.pdf?download
- Report of the Ad Hoc Technical Expert Group on Synthetic Biology (2017)
www.cbd.int/doc/c/aa10/9160/6c3fcedf265dbee686715016/synbio-ahteg-2017-01-03-en.pdf?download
- Recommendation adopted by the Subsidiary Body On Scientific, Technical And Technological Advice:
www.cbd.int/doc/recommendations/sbstta-22/sbstta-22-rec-03-en.pdf

¹ Fourteenth meeting of the Conference of the Parties to the Convention on Biological Diversity; Ninth meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety; Third meeting of the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol on Access and Benefit-sharing; 17-29 November 2018

Secretariat of the Convention on Biological Diversity

413, Saint Jacques Street, suite 800
Montreal, Quebec, H2Y 1N9
Canada

Tel.: +1 514 288 2220
Fax: +1 514 288 6588
secretariat@cbd.int