



Convention on Biological Diversity

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**Conference of the Parties to the
Convention on Biological Diversity**
Sixteenth meeting
Cali, Colombia, 21 October–1 November 2024
Agenda item 24
Synthetic biology

Decision adopted by the Conference of the Parties to the Convention on Biological Diversity on 1 November 2024

16/21. Synthetic biology

The Conference of the Parties,

Recalling its decisions [14/19](#) of 29 November 2018 and [15/4](#), [15/8](#) and [15/31](#) of 19 December 2022 and decision [BS-VII/12](#) of 3 October 2014 of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety,¹

Re-emphasizing the application of a precautionary approach, in accordance with the objectives of the Convention on Biological Diversity,² for the environmental release of the applications of synthetic biology,

Recognizing the inequity in the participation of developing countries in research and development and in assessment in the field of synthetic biology, and the importance of addressing impacts,

Noting the work of the multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology to Support the Process for Broad and Regular Horizon Scanning, Monitoring and Assessment and the outcomes of the broad and regular horizon scanning, monitoring and assessment of the most recent technological developments in synthetic biology,³

1. *Emphasizes* the urgent need for capacity-building and development, access to and transfer of technology and knowledge-sharing for synthetic biology, in particular for developing country Parties, to achieve the goals and targets of the Kunming-Montreal Global Biodiversity Framework;⁴

2. *Urges* Parties, and invites other Governments and relevant organizations, to provide financial and technical support for capacity-building and development and for technology transfer initiatives in developing country Parties, in particular the least developed countries and small island

¹ United Nations, *Treaty Series*, vol. 2226, No. 30619.

² *Ibid.*, vol. 1760, No. 30619.

³ CBD/SBSTTA/26/4, annexes I, II, III and V.

⁴ Decision [15/4](#), annex.

developing States, and Parties with economies in transition, including for research and development and for assessment in the field of synthetic biology;

3. *Calls upon* Parties and other stakeholders to facilitate broad international cooperation, technology transfer, knowledge-sharing and capacity-building and development related to synthetic biology, taking the needs of Parties, indigenous peoples and local communities, women and youth into account;

4. *Encourages* Parties to share their needs and priorities with regard to synthetic biology in the context of the Framework, including through the regional and subregional support centres of the technical and scientific cooperation mechanism;

5. *Decides* to develop a thematic action plan to support capacity-building and development, access to and transfer of technology and knowledge-sharing in the context of synthetic biology, building on the needs and priorities of Parties, especially for developing country Parties, in particular the least developed countries and small island developing States, and Parties with economies in transition, for the implementation of the three objectives of the Convention on Biological Diversity and the Framework, in line with the long-term strategic framework for capacity-building and development,⁵ while avoiding duplication with existing plans and strategies under the Convention and its Protocols,⁶ taking into account:

(a) The specific needs of Parties and indigenous peoples and local communities that are complementary to the capacity-building action plan for the Cartagena Protocol, as identified in their submissions of information made further to the request in paragraph 7;

(b) The identification of areas where capacity-building and development, access to and transfer of technology and knowledge-sharing are needed for research and development and for assessment in the field of synthetic biology;

(c) Strategies to facilitate the equitable participation of developing country Parties, indigenous peoples and local communities, women, youth, academia, the business sector and relevant institutions in research and development in the field of synthetic biology;

(d) Strategies to promote the fair and equitable sharing of benefits arising from synthetic biology, in line with Articles [16](#) and [19](#) of the Convention and with the Framework;

(e) Mechanisms for technology transfer, knowledge-sharing and international technical and scientific cooperation to foster innovation, in line with Articles [16](#) and [18](#) of the Convention and with the Framework;

6. *Establishes* a new ad hoc technical expert group on synthetic biology, in accordance with the terms of reference contained in the annex to the present decision;

7. *Invites* Parties, other Governments, indigenous peoples and local communities, women, youth, academia, research institutions, the business sector and relevant organizations to submit information on their experiences, needs and priorities with regard to: (a) synthetic biology, to support the preparation of the thematic action plan referred to in paragraph 5; and (b) other relevant processes and initiatives on capacity-building and development, access to and transfer of technology and knowledge-sharing related to synthetic biology;

8. *Also invites* Parties, other Governments, indigenous peoples and local communities, women, youth, academia, research institutions, the business sector and relevant organizations to submit information on their priority areas in relation to synthetic biology, including the most recent technological developments, relevant to the three objectives of the Convention and the Framework, with a view to informing the work of the Ad Hoc Technical Expert Group on Synthetic Biology outlined in paragraph 3 of the annex to the present decision;

⁵ Decision [15/8](#), annex I.

⁶ In particular the capacity-building action plan for the Cartagena Protocol on Biosafety (decision [CP-10/4](#), annex).

9. *Requests* the Executive Secretary, subject to the availability of resources:
 - (a) To prepare a draft thematic action plan to support capacity-building and development, access to and transfer of technology and knowledge-sharing in the context of synthetic biology, as referred to in paragraph 5;
 - (b) To commission an independent scientific study compiling and summarizing existing scientific studies, public research and development funding needs and priorities, as well as research road maps on synthetic biology applications that are relevant to achieving the Framework, in particular its Targets 4, 6, 7, 8, 10, 13 and 17;
 - (c) To synthesize the information shared pursuant to paragraphs 7, 8 and 9 (f);
 - (d) To submit the draft thematic action plan for a peer review before the twenty-eighth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice;
 - (e) To create a dedicated section in the clearing-house mechanism to promote the thematic action plan and the outcomes of the Ad Hoc Technical Expert Group on Synthetic Biology and to facilitate knowledge-sharing in the context of synthetic biology;
 - (f) To convene online discussions of the Open-ended Online Forum on Synthetic Biology in order to support the work of the Ad Hoc Technical Expert Group on Synthetic Biology;
 - (g) To convene meetings of the Ad Hoc Technical Expert Group on Synthetic Biology, one of which is to be held in person;
 - (h) To support the full and effective participation of indigenous peoples and local communities in the work related to synthetic biology undertaken under the Convention, in accordance with decision [X/40](#) of 29 October 2010;
 - (i) To support further the participation of women, youth, academia and research institutions in the work related to synthetic biology undertaken under the Convention;
 - (j) To facilitate capacity-building activities on synthetic biology;
10. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider at its twenty-eighth meeting the draft thematic action plan and the outcomes of the work of the Ad Hoc Technical Expert Group on Synthetic Biology, and requests the Subsidiary Body on Implementation to review at one of its meeting the implementation aspects of the thematic action plan, with a view to submitting a draft decision for consideration by the Conference of the Parties at its seventeenth meeting.

Annex

Terms of reference for the Ad Hoc Technical Expert Group on Synthetic Biology

1. The Ad Hoc Technical Expert Group on Synthetic Biology will be convened in compliance with section H of the consolidated modus operandi of the Subsidiary Body on Scientific, Technical and Technological Advice.⁷
2. The procedure for avoiding or managing conflicts of interest in expert groups set out in the annex to decision [14/33](#) of 29 November 2018 shall apply to the Ad Hoc Technical Expert Group on Synthetic Biology.
3. The Ad Hoc Technical Expert Group on Synthetic Biology is to:
 - (a) Review and synthesize the compilations referred to in subparagraph 9 (c) of the present decision and the scientific study referred to in subparagraph 9 (b), taking into account the draft thematic action plan and other existing relevant technical information;

⁷ Decision [VIII/10](#), annex III.

- (b) Build on previous relevant work undertaken under the Convention on Biological Diversity⁸ and its Protocols;
 - (c) Identify the current and potential benefits of synthetic biology in relation to the three objectives of the Convention and the implementation of the Kunming-Montreal Global Biodiversity Framework;⁹
 - (d) Identify the potential positive impacts of the most recent technological developments in synthetic biology in relation to the three objectives of the Convention and the implementation of the Framework;
 - (e) Identify the potential negative impacts of the most recent technological developments in synthetic biology in relation to the three objectives of the Convention and the implementation of the Framework;
 - (f) Provide advice on how capacity-building and development, access to and transfer of technology and knowledge-sharing in synthetic biology can be taken into account with respect to the draft thematic action plan, in the light of future developments of synthetic biology and the implementation of the objectives of the Conventions and the Framework;
 - (g) Prepare a report of its work for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at its twenty-eighth meeting.
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⁸ United Nations, *Treaty Series*, vol. 1760, No. 30619.

⁹ Decision [15/4](#), annex.