

**NOTIFICATION**  
**Submission of information on synthetic biology**

Dear Sir or Madam,

In decision [15/31](#), the Conference of the Parties to the Convention on Biological Diversity established a process for broad and regular horizon scanning, monitoring and assessment of the most recent technological developments in synthetic biology, and agreed to start its work. In addition, the Conference of the Parties decided to establish a multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology (multidisciplinary AHTEG) to support the process for broad and regular horizon scanning, and requested the Executive Secretary to convene online discussions of the Open-ended Online Forum on Synthetic Biology to support the work of the multidisciplinary AHTEG.

At its first meeting in July 2023, the multidisciplinary AHTEG agreed on a process of horizon scanning, monitoring and assessment of the most recent technological developments in synthetic biology for the 2023-2024 intersessional period<sup>1</sup>. The process consists of multidisciplinary expert-driven submissions and a literature review, followed by the assessment and reporting steps, which will occur at the next meeting of the multidisciplinary AHTEG. Following the submissions process, the multidisciplinary AHTEG identified a prioritized list of seventeen (17) trends and issues in synthetic biology, twelve (12) of which were suggested for additional information gathering and further consideration at the next meeting.

Accordingly, to enable an efficacious and non-duplicative process with the Open-ended Online Forum on Synthetic Biology, I am pleased to invite Parties, other Governments, indigenous peoples and local communities, and relevant organizations to submit information on these trends and issues in synthetic biology found in Annex I using the template found in Annex II. Submissions from Parties should be made through the national focal points of the Convention on Biological Diversity. In the case of organizations, information should be submitted through the Heads of organizations.

Submissions should be sent by e-mail to [secretariat@cbd.int](mailto:secretariat@cbd.int) no later than 24 November 2023.

Please accept, Sir, Madam, the assurances of my highest consideration.

*(Signed)* David Cooper  
Acting Executive Secretary

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<sup>1</sup> As found in the report of the meeting: <https://www.cbd.int/meetings/SYNBIO-AHTEG-2023-01>

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To: CBD national focal points, relevant organizations, and indigenous peoples and local communities  
cc: SBSTTA national focal points, Cartagena Protocol national focal points, ABS Protocol focal points

## **Annex I**

### **Additional trends and issues that were identified and prioritized by the multidisciplinary AHTEG for information gathering**

1. Engineered bacteria for nitrogen-fixation and fertilizers
2. Transient modification of agricultural plants, pests and pathogens using RNAi or nanomaterials
3. Genome-edited plants
4. Microbiome engineering for non-medical purposes
5. Use of synthetic biology in wild organisms in the context of resilience in threatened species
6. Synthetic biology applications for bioremediation, biodegradation or biomining
7. Technical refinement of novel delivery systems and chemistries to modify organisms in the field or in nature
8. Ability to re-create viruses by chemical DNA synthesis
9. Interaction of synthetic biology organisms in the environment and potential for cumulative effects
10. Dual-use nature and biosecurity implications of synthetic biology.
11. Transboundary movements and relation to detection and identification of synthetic biology organisms, parts and products
12. Increased field testing of synthetic biology applications, including in areas outside the national jurisdiction of the developer or funder

**Annex II**  
**Template for submitting information on additional trends and issues that were identified and prioritized by the multidisciplinary AHTEG for information gathering**

***Part I. Endorsement of submission***

Name of Country/Organization:

Name of CBD National Focal point/Head of Organization endorsing:

Signature of the CBD National Focal Point/ Head of Organization:

Date:

***Part II. Submission of information***

In submitting information, kindly provide the following information on one or more of the 12 trends and issues in synthetic biology as follows:

1. Trend and issue in synthetic biology chosen
2. Potential positive and potential negative impacts on the three objectives of the Convention
  - a. Conservation of biological diversity
  - b. Sustainable use of its components
  - c. Fair and equitable sharing of the benefits arising out of the utilization of genetic resources
3. Potential gaps or challenges for risk assessment, risk management and regulation, including availability of tools for detection, identification and monitoring
4. Additional relevant considerations (e.g., socioeconomic, ethical, cultural, human health, intellectual property, liability and redress, IPLCs, public engagement, among others)
5. Timeframe to commercialization or release into the environment
6. Potential linkages to the Kunming-Montreal Global Biodiversity Framework and potential contribution to other internationally relevant goals and targets

***Submission of supporting documentation:***

For any publication that you may want to share as part of your submission, kindly include:

1. Name of publication(s), author, date and DOI or URL link.
2. Attach in pdf format any publication you have listed above.