**NON-paper**

SYNTHETIC BIOLOGY

1. The Subsidiary Body on Scientific, Technical and Technological Advice may wish to recommend that the Conference of the Parties at its fifteenth meeting adopt a decision along the following lines:

*The Conference of the Parties,*

*Recalling* decision [14/19](https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-19-en.pdf), in which it agreed that broad and regular horizon scanning, monitoring and assessing of the most recent technological developments is needed for reviewing new information regarding the potential positive and potential negative impacts of synthetic biology vis-à-vis the three objectives of the Convention and those of the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access and Benefit-sharing;

***Also recalling* paragraph 7 of decision 14/19, emphasizing the need for a coordinated, complementary and non-duplicative approach on issues related to synthetic biology under the Convention and its Protocols, as well as among other conventions and relevant organizations and initiatives;**

***Noting* the relevance of DSI for synthetic biology, and recalling decision 14/20 on digital sequence information and ongoing discussions;**

***Further recalling* paragraphs 9 to 11 of decision 14/19, and *calling* upon Parties and other Governments, taking into account the current uncertainties regarding engineered gene drives, to apply a precautionary approach, in accordance with the objectives of the Convention;**

***Recognising* the importance of capacity building, knowledge sharing, technology transfer and financial resources for addressing issues related to synthetic biology;**

*Welcoming* the outcomes of the meeting of the Ad Hoc Technical Expert Group on Synthetic Biology held in Montreal, Canada, from 4 to 7 June 2019;[[1]](#footnote-1)

1. *Establishes* a process for broad and regular horizon scanning, monitoring and assessment of the most recent technological developments in synthetic biology as set out in section A of the annex; **and for an initial period of two cycles during two consecutive intersessional periods;**
2. *Establishes* a multidisciplinary **Ad Hoc** Technical Expert Group on Synthetic Biology to support the process for broad and regular horizon scanning, monitoring and assessment in accordance with the terms of reference contained in section B of the annex;
3. *Decides* that the trends in new technological developments in synthetic biology identified by the Ad Hoc Technical Expert Group on Synthetic Biology[[2]](#footnote-2) will inform the horizon scanning, monitoring and assessment for the next **intersessional period preceding the sixteen meeting of the Conference of the Parties; and also *decides* that trends identified by the multidisciplinary Ad Hoc Technical Expert Group, will inform the horizon scanning, monitoring and assessment for the intersessional period preceding the seventeen meeting of the Conference of the Parties;**
4. *Invites* Parties, other Governments, indigenous peoples and local communities, and relevant organizations to submit to the Executive Secretary information relevant to the trends **referred to in para 3** to inform the horizon scanning, monitoring and assessment;

**(4 bis) *Call*s upon Parties and other stakeholders to facilitate broad international cooperation, technology transfer, knowledge sharing, especially through the Biosafety Clearing-House, and capacity-building on synthetic biology taking into account the needs of Parties and of indigenous peoples and local communities;**

1. *Requests* the Executive Secretary, subject to the availability of resources:
   1. To convene online discussions **of the Open-ended Online Forum on Synthetic** **Biology** to support the work of the **m**ultidisciplinary **Ad Hoc** Technical Expert Group **as well as the overall process outlined in paragraph 1 above;**

(b) To synthesize the information submitted in response to paragraph 4 above as well as the information provided through the online discussions **of the Open-ended Online Forum on Synthetic Biology;**

(c) To convene at least one meeting of the multidisciplinary **Ad Hoc** Technical Expert Group **to work according to the annex, section B;**

**(d) To prepare a report on the operations of the horizon scanning process referred in paragraph 1 above, to support interim and final reviews of the effectiveness of the process by the Subsidiary Body on Scientific, Technical and Technological Advice at its meetings prior to COP-16 and COP 17 respectively;**

**(e) To facilitate, promote and support capacity-building, technology transfer and knowledge-sharing, regarding synthetic biology, taking into account the needs of Parties and of indigenous peoples and local communities;**

**(f) To continue to ensure the full an effective participation of indigenous peoples and local communities in the discussions and in the work on synthetic biology under the Convention, in accordance with decision X/40;**

1. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider the outcomes of the **horizon scanning process contained in the report of the multidisciplinary Ad Hoc Technical Expert Group,** and make recommendations for the consideration of the Conference of the Parties at its sixteenth **and** **seventeenth** meeting**s** and, as appropriate, the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol at its eleventh **and** **twelfth** meeting**s** and the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol at its **fifth and** **sixth** meeting**s**;

**(6 bis) *Also Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to consider the interim and final reports on effectiveness of the horizon scanning process established in paragraph 1 above, at its meetings prior to COP 16 and-17 respectively, and to make a recommendation on the need to extend that process.**

1. *Also requests* the Executive Secretary to continue pursuing cooperation with other **regional and international** organizations, conventions and initiatives, including academic and research institutions, on issues related to synthetic biology.
2. The Subsidiary Body on Scientific, Technical and Technological Advice may also wish to recommend that the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol and the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol each take note of the decision of the Conference of the Parties on this matter.

*Annex*

**Broad and regular horizon scanning, monitoring and assessment** **of the most recent technological developments in synthetic biology**

1. **Process for the horizon scanning, monitoring and assessment**
2. The process for broad and regular horizon scanning, monitoring and assessment **(hereinafter “the process”)** consists of the following steps:
3. Information gathering;
4. Compilation, organization and synthesis of information;
5. Assessment;
6. Reporting on outcomes.
7. For each step, the coordinating actors, other actors and main considerations for the process are as set out in table 1.
8. The Subsidiary Body on Scientific, Technical and Technological Advice shall review the outcomes of the process and prepare conclusions and recommendations on technological developments in synthetic biology and their potential positive and negative impacts for the objectives of the Convention.
9. The effectiveness of the process shall be **regularly** reviewed **every** four years following its adoption, **with an interim review after the first two years.**
10. **Terms of reference for the multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology to support the process for broad and regular horizon scanning, monitoring and assessment**
11. The multidisciplinary Ad Hoc Technical Expert Group, **building on the previous relevant work under the Convention and its Protocols including the work of the previous ATHEGs on Synthetic Biology,** shall:
12. **Make use of** tools and approaches to enable a participatory assessment process **to** review and assess the information gathered through the process for broad and regular horizon scanning, monitoring and assessment and, on this basis, consider technological developments in synthetic biology and their implications for the objectives of the Convention;
13. Identify **trends and** issues that may need to continue to be considered in subsequent cycles, as well as additional issues that may be **regarded as** priorities for the next intersessional period;

**(b bis) Identify capacity building needs on issues related to synthetic biology and in light of the outcomes of the horizon scanning process;**

**(b ter) Evaluate the availability of tools to detect, identify and monitor the organisms, components and products of synthetic biology;**

1. Prepare a report on the outcomes of its assessment to be presented to the Subsidiary Body on Scientific, Technical and Technological Advice;
2. Make recommendations to the Subsidiary Body on Scientific, Technical and Technological Advice on specific issues that may require further consideration by the Conference of the Parties and/or the Parties to the Cartagena Protocol and the Parties to the Nagoya Protocol.
3. The multidisciplinary **Ad Hoc** Technical Expert Group on Synthetic Biology will be constituted **for an initial duration of two intersessional periods and** according to section H of the consolidated modus operandi of Subsidiary Body on Scientific, Technical and Technological Advice, including whenever possible, expertise from a broad range of disciplines, as well as interdisciplinary and intercultural expertise**, indigenous peoples and local communities**. **The continuing need for the Group will be assessed in light of the overall assessment of the effectiveness of the horizon scanning process;**
4. The procedure for avoiding or managing conflicts of interest in expert groups set out in the annex to decision 14/33 shall apply to the Multidisciplinary Technical Expert Group.
5. The multidisciplinary **Ad Hoc** Technical Expert Group on Synthetic Biology will work through a combination of face to face meetings, held physically and/or online, supported, as needed by online discussions.

**Table 1. Process for broad and regular horizon scanning, monitoring and assessment of the most recent technological developments in synthetic biology**

| **Process and steps** | | **Coordinating actors** | **Other actors and considerations** |
| --- | --- | --- | --- |
| **Horizon scanning, monitoring and assessment process** | **(a) Information gathering** | * Secretariat, with the support of consultants as necessary | * Possible mechanisms include submissions of information through notifications; outreach to relevant institutions and intergovernmental organizations; online forums; collaborative activities with regional and national assessment platforms; and other existing tools, such as national reports, and the clearing-house mechanism. * Seek inputs from a diverse range of actors, **including other organisations working on synthetic biology,** facilitate engagement of indigenous peoples and local communities, among others, and build on the work done by other relevant horizon scanning or technology assessment processes. * Some issues identified during one cycle may need to continue to be considered in subsequent cycles, with consistency in the way the process is carried out with a view to obtaining results that could be comparable over time. |
| **(b) Compilation, organization and synthesis of information** | * Secretariat, with the support of consultants as necessary | * **Use digital tools for dissemination of information and feedback *inter alia* by webinars, directed to Parties, and other stakeholders.** * The information compiled and synthesized will be made available, including through the clearing-house mechanism. |
| **(c) Assessment** | * **multidisciplinary** Ad Hoc Technical Expert Group on Synthetic Biology * Subsidiary Body on Scientific, Technical and Technological Advice (approval of the main conclusions of the process) | * Expertise from a broad range of disciplines, as well as interdisciplinary and intercultural expertise necessary. * Face-to-face meetings with support of online mechanisms. * Make use of tools and approaches to enable a participatory assessment process. * Selection of experts for the **m**ultidisciplinary **Ad hoc** Technical Expert Group will be undertaken in accordance with the consolidated modus operandi of the Subsidiary Body on Scientific, Technical and Technological Advice**.** * Key actors in the horizon scanning, monitoring and assessment process, including consultants and members of the **m**ultidisciplinary **Ad hoc** Technical Expert Group, will be subject to the procedure for avoiding or managing conflicts of interest set out in decision 14/33. * **Assessment step may be supported by, among other things, commissioning technology assessment studies** |
| **(d) Reporting on outcomes** | * Multidisciplinary **Ad Hoc** Technical Expert Group reports to Subsidiary Body on Scientific, Technical and Technological Advice * Subsidiary Body on Scientific, Technical and Technological Advice reports to Conference of the Parties (and/or the meeting of the Parties to the Cartagena Protocol, the meeting of the Parties to the Nagoya Protocol) **on the outcome of step (a), (b) and (c)** | * External review of the draft outcomes. * Communicate the outputs effectively to a broad range of potential users, in a culturally appropriate format and languages. |
| **Use of outcomes in support of decision-making** | | * Subsidiary Body on Scientific, Technical and Technological Advice (review of outcomes, preparation of conclusions and recommendations) * Conference of the Parties and/or the meeting of the Parties to the Cartagena Protocol, the meeting of the Parties to the Nagoya Protocol (decision-making) * Parties and others, including other United Nations bodies |  |
| **Review of process and its effectiveness** | | * Conference of the Parties on basis of periodic review by Subsidiary Body on Scientific, Technical and Technological Advice |  |

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1. See annex I. [↑](#footnote-ref-1)
2. See annex I. [↑](#footnote-ref-2)