



POSITION STATEMENT ON SYNTHETIC BIOLOGY

Synthetic biology is a promising and fast-growing scientific discipline. Although much of the research in this field is still at an early stage, there are already a number of tangible positive applications emerging from uses of synthetic biology techniques – from novel materials for reducing pollution to breakthrough treatments to fight deadly diseases. Gene drive technologies are one of the possible uses of synthetic biology approaches being explored to contribute to addressing specific conservation and public health challenges that current methods are not able to solve.

The Convention on Biological Diversity should leverage its position to provide its Parties with a factual and balanced outlook of the range of innovations they could leverage to support their national biodiversity strategies. To support this effort, the next steps under the agenda item on synthetic biology should focus on horizon scanning as trial approach, without prejudging its outcome or the need for further assessments.

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A horizon scanning mechanism for synthetic biology should be timebound and focused on developments not yet discussed by the AHTEG and CBD.

- The CBD has been considering the issue of synthetic biology for many years. Over this time frame, the AHTEG discussed new developments in synthetic biology and reported these to SBSTTA several times.
- Taking this into account, to ensure the process of horizon scanning is useful and avoids duplication, it should focus on novel developments that have not yet been examined or discussed by the previous AHTEGs and SBSTTAs.
- Horizon scanning should be done over a two-year period and renewed at a later date, if Parties feel the need to repeat the exercise. Permanent horizon scanning may not yield sufficient novel findings to justify an open-ended mandate. Instead, increased cooperation and information sharing with the many other organisations and bodies conducting work on synthetic biology could help ensure Parties have access to relevant information.

To ensure the horizon scanning exercise is conducted in a timely and expert manner, Parties should consider commissioning an expert report from a consultant, to be reviewed by SBSTTA.

- Effective and evidence-based horizon scanning requires a level of time and expertise not available through the mechanism of the AHTEG.
- The preliminary horizon scanning could be efficiently carried out by commissioning a consultant to produce a report, for consideration by Parties at the next SBSTTA, as suggested in Annex B 1 Alt of [CBD/SBSTTA/24/CRP.8](#).
- A peer-review period or call for comments prior to SBSTTA could offer a mechanism to gather further inputs from all stakeholders, for Parties to consider alongside the report.
- This approach would ensure an evidence-based and expert report is available to all Parties in time for SBSTTA 25, and can then inform further discussion on horizon scanning and, if relevant, technology assessment

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The horizon scanning report should inform any further considerations of technology assessments, which should be discussed on a case-by-case basis once the report is considered by SBSTTA and COP.

- Before committing to carrying out technology assessments for synthetic biology products, Parties should first consider the outcomes of the horizon scanning. These outcomes can inform discussion regarding which, if any, emerging synthetic biology technologies would justify the investment of a technology assessment
- Technology assessments should be discussed on a case-by-case basis. Such assessments should be for technologies that are in the scope of CBD and sufficiently advanced in their development to be realistically assessed for possible positive and negative impacts
- Before committing to technology assessment, Parties should clarify the definition and methodology that such assessments would undertake, including how inputs from various stakeholders may be gathered. As there is no internationally agreed definition or methodology for this, ensuring all Parties have a common understanding prior to starting such assessments would ensure an efficient process and a legitimate outcome.

Regarding gene drive research and synthetic biology, the consensus agreed at COP14 remains valid and relevant.

- Consensus was reached at COP 14 on important language regarding gene drive research. Decision [CBD/COP/DEC/14/19](#) offers a cautious but supportive approach to the development of gene drive technologies.

- The COP 14 outcome incorporates the existing principles and best practices of responsible research already adhered to by scientists worldwide. It reaffirms the important principle of case-by-case risk assessment, stakeholder engagement and, in accordance with national circumstances and legislation, the applicability of processes for consultation and participation of potentially affected indigenous peoples and local communities.
- The priority should now be to develop a clear and focused path forward on synthetic biology, with a decision at COP 15 focused on the horizon scanning mechanism.
- This mechanism should be balanced, to highlight both positive and negative possible impacts of synthetic biology technologies and recognise that innovation and technological developments in this field can support the achievement of the objectives of the Convention and the ambitious plan for Post-2020 Global Biodiversity Framework.



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