**Key Messages**

Synthetic biology is a rapidly evolving field which can have a great potential to produce important medicinal compounds or more efficient biofuel and chemicals among others and yet can also have negative implications for biodiversity and ecosystem conservation, society and culture, as well for biosecurity.

Recognizing that we are at the very beginning to understand the implications from synthetic biology, all parties to COP and other Governments, research institutions, corporates and industries should share information related to synthetic biology products, projects and research publicly and transparently.

**WWF welcomes** the work of the Online Forum and the Ad Hoc Technical Expert Group (AHTEG) on Synthetic Biology. Recognizing that there is a major knowledge gap in understanding positive and negative impacts of synthetic biology’s products and components on biodiversity including genes, species and ecosystems, WWF urges CBD Parties and other Governments to take a precautionary approach as adopted in CBD Decision XI/11 when addressing synthetic biology, taking into account the three objectives of the Convention.

**WWF recommends** to parties to COP the following:

 1. WWF recommends that the operational definition by AHTEG on synthetic biology is retained and that the brackets from Para c are removed. WWF recommends to retain Para c instead of Para c alt. WWF urges that indeed additional work is required, particularly on the inclusion and exclusion criteria and coordination with other international instruments also addressing synthetic biology is needed;

 2. WWF recommends retaining and not modifying Para d, treating living organisms developed through current applications of synthetic biology equally to living organisms as defined under the Cartagena Protocol, as it was concluded by AHTEG.

 3. Synthetic biology has the potential to change the view on what specifies genetic resources. Thus, WWF welcomes if parties clarify to what extent the use of digital sequence information on genetic resources relates to access and benefit-sharing.

**WWF welcomes the draft Suggested Recommendations as set out in** UNEP/CBD/COP/13/2 Item 17 **and calls on COP-13 to consider for inclusion the following proposed text changes in its final decisions.**

New text proposed by WWF is **in bold and underlined**. Text that WWF proposes to delete is ~~in strike through~~.

**Synthetic biology**

*The Conference of the Parties*

1. *Reaffirms* decision XII/24, in which it urged Parties and invited other Governments to take a precautionary approach, in accordance with decision XI/11, paragraph 4;
2. *Commends* the work of the Online Forum and the AHTEG on Synthetic Biology, and *welcomes* the conclusions and recommendations of the AHTEG as a basis for further discussion;

~~[~~(c) *Acknowledges* that the outcome of the deliberations of the AHTEG on Synthetic Biology on the operational definition is “synthetic biology is a further development and new dimension of modern biotechnology that combines science, technology and engineering to facilitate and accelerate the understanding, design, redesign, manufacture and/or modification of genetic materials, living organisms and biological systems”, and *notes* that additional work is required, in particular on the inclusion and exclusion criteria;~~]~~

~~[(c~~ *~~alt~~*~~)~~ *~~Deems it appropriate~~*~~, for the purpose of facilitating scientific and technical deliberations under the Convention and its Protocols, to use the operational definition as proposed by the AHTEG on Synthetic Biology that, “synthetic biology is a further development and new dimension of modern biotechnology that combines science, technology and engineering to facilitate and accelerate the understanding, design, redesign, manufacture and/or modification of genetic materials, living organisms and biological systems”;]~~

1. *Takes note* of the conclusion of the AHTEG on Synthetic Biology that living organisms developed through current applications of synthetic biology, or that are currently in the advanced stages of research and development, are similar to living modified organisms as defined in the Cartagena Protocol;[[1]](#footnote-1)
2. *Notes* that the general principles and methodologies for risk assessment under the Cartagena Protocol and existing biosafety frameworks provide a good basis for risk assessment regarding living organisms developed through current applications of synthetic biology, or that are currently in the advanced stages of research and development, but such methodologies may need to be updated and adapted for current and future developments and applications of synthetic biology;
3. *Also notes* that it is not clear, given the current stage of knowledge, whether or not some organisms of synthetic biology, which are currently in the early stages of research and development, would fall under the definition of living modified organisms under the Cartagena Protocol, and *further notes* that there are cases in which there may be no consensus on whether the result of a synthetic biology application is “living” or not;
4. *Invites* Parties, in accordance with their applicable domestic legislation or national circumstances, to take into account, as appropriate, socio-economic, cultural and ethical considerations when identifying the potential benefits and potential adverse effects of organisms, components and products resulting from synthetic biology techniques in the context of the three objectives of the Convention;
5. *Encourages* Parties and *invites* other Governments and relevant organizations, in the context of the three objectives of the Convention ~~[~~and taking into account, as appropriate, socio-economic, cultural and ethical considerations~~]~~:
6. To conduct research on the benefits and adverse effects of organisms, components and products of synthetic biology on biodiversity, with a view to filling knowledge gaps and identifying how those effects relate to the objectives of the Convention and its Protocols;
7. To promote and enable public and multi-stakeholder dialogues and awareness-raising activities on the potential benefits and potential adverse effects of organisms, components and products of synthetic biology on biodiversity, involving all relevant stakeholders and with the full and effective engagement of indigenous peoples and local communities;
8. To cooperate in the development of guidance and capacity-building activities with a view to assessing the potential benefits and potential adverse effects of organisms, components and products of synthetic biology and, if necessary, updating and adapting current methodologies for risk assessment of living modified organisms to organisms resulting from synthetic biology, as appropriate;
9. *Invites* Parties, other Governments, relevant organizations and indigenous peoples and local communities to submit to the Executive Secretary information and supporting documentation on:
10. Research, cooperation and activities noted in paragraph (h) above;
11. Evidence of benefits and adverse effects of synthetic biology vis-à-vis the three objectives of the Convention;
12. Experiences in conducting risk assessments of organisms, components and products of synthetic biology, including any challenges encountered, lessons learned and implications for risk assessment frameworks;
13. Examples of risk management and other measures that have been put in place to avoid or minimize the potential adverse effects of organisms, components and products of synthetic biology, including experiences of safe use and best practices for the safe handling of organisms developed through synthetic biology;
14. Regulations, policies and guidelines in place or under development which are directly relevant to synthetic biology;
15. *Decides* to extend the mandate of the current AHTEG on Synthetic Biology in accordance with the terms of reference attached hereto and also to contribute to the completion of the assessment as requested in paragraph 2 of decision XII/24;
16. *Also decides* to extend the open-ended online forum to support the work of the AHTEG on Synthetic Biology, and invites Parties, other Governments, indigenous peoples and local communities and relevant organizations to continue nominating experts to take part in the open-ended online forum;
17. *Requests* the Subsidiary Body on Scientific, Technical and Technological Advice to review the recommendations of the AHTEG on Synthetic Biology and make further recommendation to the Conference of the Parties including on the analysis using the criteria set out in paragraph 12 of decision IX/29;
18. *Requests*  the Executive Secretary, subject to the availability of resources:
19. Continue to facilitate moderated discussions under the open-ended online forum on synthetic biology through the Biosafety Clearing-House, and to continue to invite Parties, other Governments, indigenous peoples and local communities and relevant organizations to nominate experts to take part in the forum;
20. To make the information received through paragraph (i) above available online **and transparent;**
21. To compile and synthesize the results of the work referred to in the paragraphs above and make them available for further discussion through the online forum and the Ad Hoc Technical Expert Group;
22. To convene moderated online discussions under the open-ended online forum and, subject to the availability of funds, a face-to-face meeting of the AHTEG on Synthetic Biology with the terms of reference annexed to the present decision, and submit the report of the AHTEG to peer review by Parties for consideration by the Subsidiary Body on Scientific, Technical and Technological Advice at a meeting held prior to the fourteenth meeting of the Conference of the Parties;
23. To cooperate and establish synergies with other United Nations and international organizations whose mandates are relevant to synthetic biology;
24. To promote the full and effective engagement of indigenous peoples and local communities in future activities relating to synthetic biology under the Convention;
25. *Welcomes* the recommendation of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety, in its decision BS-VII/12, on a coordinated approach on the issue of synthetic biology, including its work on risk assessment and risk management ~~[~~as well as **social, economic** **and ethical** considerations, as appropriate~~]~~, and *invites* the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety to take into account in its future deliberations relevant information resulting from the processes under the Convention;
26. ~~[~~*Invites* the Conference of the Parties serving as the meeting of the Parties to the Nagoya Protocol to clarify, if and how, the use of digital sequence information on genetic resources relates to access and benefit‑sharing.~~]~~

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1. The term "early stages of research and development" was erroneously used in paragraphs 1(d) and (e) of SBSTTA recommendation XX/8, in replacement of the term "near future" used in the AHTEG report, to signify research and development that are approaching their intended objectives. In accordance with the discussions at SBSTTA-20 the term "advanced stages of research and development" was intended to be used and is inserted in this text as an editorial correction.    [↑](#footnote-ref-1)