**template for Peer Review comments**

**Technical series on synthetic biology**

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| **Comments on the Technical Series on Synthetic Biology** |
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| 0 | 0 | 1. The current document is critically flawed as it includes a wide array of technologies, applications and products that are NOT synthetic biology. Therefore, although the technical content related to these individual topics may be acceptable in isolation, their discussion in this context is inaccurate, confusing, and counterproductive in attaining the goals of the CBD.

Auxiliary notes 1: 1. The practice of and the term “synthetic biology”, including its intended meaning, scope and distinction evolved from the availability of relevant technologies, the aims and the multidisciplinary tactics of its practitioners and it therefore has an established, distinct bio-technical basis, meaning and scope. Any attempt to arbitrary redefine it based on non-technical considerations, that may include regulatory scope or political compromise, will therefore inevitably be met with consistent, principled disapproval. Meaning that such an approach is highly unlikely to ever lead to an acceptable compromise, as is evident from the inability of these discussions to develop an acceptable definition for the topic under discussion. Any discussions on HOW something should be managed is secondary and subject to WHAT is being managed. In addition, “synthetic biology” is a hazard (potential source of the risk) in this context. Using it as a broad composite term erodes its usefulness in terms of establishing sensible risk categories and implementing an effective risk analysis framework.
2. These protracted discussions on “synthetic biology” w/o clearly defining synthetic biology and the excessive focus on process, has caused much uncertainty and confusion, particularly amongst those with limited experience in LMO governance. Including - (i) the creation of artificial and unnecessary complications and duplications in terms of the scope and mandates of the CBD & CPB, (ii) the logical categorisation of relevant biohazards, (iii) the principles and broad applicability of established risk analysis frameworks, etc.
3. Established CBD & CPB frameworks can be used more effectively to accommodate synthetic biology and the other technologies and applications discussed in the current document, while ensuring a science-based approach, the coherent implementation of risk analysis, administrative and, good governance principles, and most importantly, the best possible chance to establish appropriate governance systems under the CBD.

Auxiliary notes 2: 1. The CPB was established to safeguard the environment against the use of LMOs resulting from modern biotechnology. Given this broad definition, any living organisms resulting from the application of synthetic biology (given a clear bio-technical definition), are highly likely to be LMOs and therefore already subject to the CPB. To be clear, the potential products of synthetic biology should be considered a subset of LMOs and not vice versa. With such an approach the only outstanding issues would be - (i) in terms of scope, the identification of possible non-LMO products that may need to be addressed further and (ii) in terms of established risk analysis frameworks, the evaluation of organisms and systems for which no close comparators exist.
2. Products of other techniques, e.g. some classes of genome editing, and divergent application, e.g. gene drives, with distinct risk profiles should then be defined on an individual basis to ensure governance requirements are concomitant to the potential risk comparative to more conventional induced genetic variation technologies, including selective breeding.
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Please submit your comments to secretariat@cbd.int.