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To: Mr David Cooper,  
Acting Executive Secretary,  
Secretariat of the Convention on Biological Diversity  
413 St. Jacques Street West, Suite 800, Montreal, Quebec  
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**Re: Submission of information on synthetic biology from ETC Group**

24 November, 2023

We thank you for the invitation to submit information on synthetic biology ( Ref.: SCBD/CPU/DC/WM/MW/91338).

ETC Group is pleased to submit additional information relevant to trends and issues in Synthetic Biology. We hope that the issues highlighted in this submission will be useful for the discussions at the multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology, and contribute to the process for broad and regular horizon scanning, monitoring and assessment of technological developments in synthetic biology.

Kind regards,

Silvia Ribeiro

ETC group Latin America Director

**Action Group on Erosion, Technology and Concentration**

ETC Group monitors the impact of emerging technologies and corporate concentration on human rights, agri-food systems, and the web of life

[www.etcgroup.org](http://www.etcgroup.org)

Charity # 13324 7676 RR0001

This contribution is complementary and should be seen as additional to ETC groups' previous submissions to CBD on Synthetic Biology in 2023 (<https://bch.cbd.int/en/database/SUB/BCH-SUB-SCBD-263793-1>) and to the inputs submitted by ETC Group to the Synthetic Biology Online Forum in March 2023. It refers to the 17 technologies and trends under discussion at the multidisciplinary Ad Hoc Technical Expert Group on Synthetic Biology (mAHTEG), with special emphasis on the questions asked in notification 2023-11, point 4

*4. Additional relevant considerations (e.g., socioeconomic, ethical, cultural, human health, intellectual property, liability and redress, IPLCs, public engagement, among others)*

All of the synthetic biology applications under discussion at mAHTEG entail a large range of uncertainties and potential risks. Many have the ability to spread into the environment, either intentionally or unintentionally, with potential serious impacts. Several of them are specifically intended to do so. The consequences and potential impacts could be spread over large areas and into unknown fields, and may trigger cascade effects and unpredictable eco-systemic interactions, as pointed out in the 2023 submissions on this matter done by [Third World Network](#), [Testbiotech](#), and the [Federation of German Scientists](#).

The social, economic, cultural, ethical, political and human health impacts could also be unpredictable, difficult to assess or poorly estimated. Therefore, the assessment of these technologies -must recognize these inherent limitations and therefore adhere to a strict implementation of the precautionary principle, which includes not endorsing the development and release of these technologies into the environment, or into a context where the release could accidentally happen.

Because of the broad and complex possible impacts, the assessment of these technologies cannot be limited to just technical assessments and biosafety risk assessments, nor should it only involve scientists and technical experts. It should furthermore observe a clear principle requiring that participants are free from conflicts of interest, to ensure that those with vested interests and commercial investments in a technology are not the ones shaping the assessment of a technology.

The recognition of other knowledge systems and ways of understanding the environment and biodiversity must be fully integrated into the assessment as well as the right to the Free Prior and Informed Consent of Indigenous Peoples (FPIC) and of local communities, rural communities and other rural populations. It is also important for technology assessments to recognize how a technology and its applications can affect women and youth in particular.

Because of the presence of novel characters in synthetic biology organisms and the fact that in many cases, it is impossible to limit the technology to a specific area or to only one use/application, gene drives and other synthetic biology technologies under consideration of the mAHTEG, pose new challenges for a meaningful consultation process and for the realization of the right to FPIC.

If these challenges are not met and resolved, assessments may contribute to understanding certain technical aspects but they can not be considered as complete and therefore should not be used as reference to endorse the development or deployment of a technology.

In this context, ETC group has been working with Indigenous and peasant communities in Mexico and Chile, in the framework of the project “Intercultural Assessment of Synthetic Biology Applications”

commissioned by the German Federal Agency for Nature Conservation. The project aims to offer draft guidelines for the participatory and intercultural assessment of new biotechnologies. It is based on the exchange of knowledge and evaluation across cultures, with participatory technology evaluation approaches, in order to promote transparency and legitimacy with regard to the way the issues are framed, the choice of topics, as well as procedures of organization, facilitation and communication of the assessment process.

Two 3-day forums and workshops with grassroots Indigenous and peasant communities and organizations were conducted in 2022 and 2023, to discuss how participatory assessment could and should be conducted, using the example of the applications of gene drives and genome editing technologies. Among other conclusions that will be presented in a coming report, one clear demand from communities was the need to allocate proper and culturally adequate time for the assessment, with prior information and sufficient context (e.g. background, interactions and potential indirect and medium/long term impacts of the technologies, not just technical information).

Participants in both forums, coming from several countries and communities in Latin America, reached consensus that much more information about the potential effects of gene editing technologies in general and gene drive organisms in particular is required, as well as more time for communities to discuss them, if there was to be an effective process of intercultural assessment and genuine and meaningful FPIC.

Based on their life experiences, participants in the workshops and forums were also highly aware of the dangers in allowing technologies to be dumped on their communities by those who do not have to live with the potentially adverse consequences, and therefore the need to be especially thorough in the evaluation.

Other conclusions included the need to have clear and solid information independent of the promoters of a particular technology, to have adequate prior information and discussions in Indigenous and local languages, to not only use technical and written language, but also other means of communication, such as graphics and pictures. They also pointed out that a consultation with one or a few communities or some organizations, often mediated by paid projects to the participants, can not be seen as representative of all the potentially affected communities and peoples.

As it is too simplistic to think of a single technology solving complex social, health or environmental problems, processes of assessment have to address the complexity that underpins communities, ecosystems and issues of justice and cultural diversity.

The work of this mAHTEG is to be multidisciplinary and to integrate the discussion of these complexities. Complexities that are a reflection of the intrinsic relationship between biological and cultural diversity, and therefore at the heart and aims of the CBD.