

Target 17: Biotechnology

Elements that should be part of the target

- Precautionary Principle to address adverse impacts

Identify, prevent, and control biotechnology's actual and potential adverse impacts on biodiversity, applying the precautionary principle.

- Modern biotechnology and synthetic biology

Synthetic biology and other new genetic techniques fall within the scope of modern biotechnology. During the timeframe of the GBF, synthetic biology and other new genetic techniques will tend to be increasingly used; hence their risks should also be adequately addressed.

- Parts and products (from biotechnology)

The term Living Modified Organisms (LMOs) is now too limited in scope, and decisions under the CBD regarding biotechnology, such as synthetic biology, go beyond LMOs and also address the organisms, components and products of synthetic biology. This is important because the LMO itself is not the only point of impact; synthetic DNA/RNA, for example, can have direct and severe impacts on biodiversity conservation. Thus, the CBD should continue to discuss the "parts, organisms and products of synthetic biology" as a package term rather than just LMOs.

- Horizon scanning, monitoring and technology assessment

Horizon scanning, monitoring and technology assessment are relevant to modern biotechnology, including synthetic biology and other new genetic techniques, and would allow for the review of the rapid developments in the field and the anticipation, monitoring and assessment of their potential adverse effects with the application of the precautionary principle and the polluter pays principle.

- The need for regulation

Article 8(g) of the CBD obliges Parties to establish or maintain means to regulate the risks associated with living modified organisms (LMOs) resulting from biotechnology. The Cartagena Protocol on Biosafety is the legally-binding instrument that implements Article 8(g). Parties must take the necessary and appropriate legal, administrative and other measures to implement their commitments.

Article 14, Impact Assessment and minimising adverse impacts, is essential for the whole GBF, particularly target 17.

- Socio-economic considerations

Article 26 of the Cartagena Protocol establishes the right of Parties to take into account socio-economic considerations, especially about the value of biodiversity to indigenous peoples and local communities (IPLCs). The roots of this article are in the CBD's Article 8(j), which sets out obligations concerning the "knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles".

- Liability and redress

Article 14 of the CBD obliges Parties to examine the issue of liability and redress for damage to biodiversity.

- Free, prior and informed consent

The principle of free, prior and informed consent (FPIC) for IPLCs is established and implemented by the CBD and international human rights standards such as the UN Declaration on the Rights of Indigenous Peoples. It should be respected at all times, and the FPIC of all potentially affected IPLCs obtained. However, applications for the use of gene drive organisms must additionally be discussed and decided at a global level, as any potential release has global implications. Local communities must not be made responsible for evaluating and deciding about such a complex and novel technology.

- Best available science

This phrase underlines the need to apply both a high standard and a range of scientific disciplines to assess innovations in biotechnology, their impacts and implications. This includes accessing relevant and up-to-date knowledge, identifying knowledge gaps and uncertainties, and drawing on different knowledge systems. This phrasing is in line with the precautionary approach.

Elements that should NOT be part of the target

- Innovation principle

This term is applied to new technologies (synthetic biology, geoengineering) proposed to address problems arising from the economic model of endless growth instead of directly addressing the consequences of that model.

- Benefits of biotechnology

The use of the word benefits is manipulative, and experience to date with GM crops shows that the impacts on biodiversity and human health where they are grown are negative.

- Restriction of this target to Cartagena parties

The GBF should be applicable to all CBD parties.

- Sound Science

This phrase allows any sources presented as “scientific” to justify the use of new biotechnology and other innovations without ensuring the accuracy or relevance of said sources.

The phrase ‘sound science’ seeks to reassure without offering any justification for the science it claims to be ‘sound’. It also avoids any consideration of uncertainty or lack of knowledge, both central to the precautionary approach. It fails to challenge assumptions and tends to be overly narrow and limited in its approach.