

OUTREACH NETWORK FOR GENE DRIVE RESEARCH

Submission of views on possible targets, indicators and baselines for the Post-2020 Global Biodiversity Framework February 2020

The [Outreach Network for Gene Drive Research](#) is pleased to have the opportunity to contribute to views on possible targets, indicators and baselines for the Post-2020 Global Biodiversity Framework.

The Network's purpose is to raise awareness of the value of the gene drive research for the public good and the need for continuous efforts in its advancement. The Network's members are researchers and organizations working on gene drive research for the public interest, organizations involved in outreach, stakeholder engagement and other relevant fields, as well as funders of supporters of these activities. All members commit to the Network's statement of [mission and principles](#), which includes the commitments to the intrinsic value of research, support of responsible research towards the public interest and engage in a transparent and evidence-based dialogue with stakeholders.

Over the past two decades, the number of endangered species and the rate of ecosystem degradation have increased dramatically across all regions. The [Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services \(IPBES\)](#) noted that approximately 1 million plants and animal species are now at risk of extinction. Climate change is adding to and worsening the impact of biodiversity losses. Together climate change and biodiversity losses threaten the viability of crucial ecosystems in many regions of the world. The Post-2020 Global Biodiversity Framework must acknowledge the urgency to stop and reverse these biodiversity losses.

While there have been many successful initiatives, issues of cost, replicability, and scalability have limited the capacity of current methods to address environmental degradation alone. The Post-2020 Global Biodiversity Framework must include a focus on research and development of novel and complementary tools for transformative change to enable success in restoring and protecting ecosystems. Without sustained support for research and innovation, enabled through high-level policy frameworks, the international community will not be able to deliver the speed, scale and affordability needed to meet conservation challenges.

Science is key to success

Science and research are the cornerstone to evidence-based decision making. They will underpin the ability to measure progress on the next biodiversity goals and support decision-making and prioritisation. But science and research need to be recognised not only for providing information, but also for delivering solutions. **The Post-2020 Global Biodiversity Framework must explicitly recognise the role that science and research plays in the development of novel tools and approaches as essential to achieving the post-2020 objectives.**

The Zero Draft recognises the generation and sharing of scientific knowledge, capacity-building initiatives and technical cooperation as critical mechanisms for the implementation of the new Framework. The Network welcomes the inclusion of these elements, as well as further commitments to research new solutions for biodiversity challenges, among targets and indicators. This is important because:

- Recognizing that science is not only a tool of observation to enhance our understanding of ecosystems or biodiversity - as stated in Aichi Target 19 (knowledge, the science base and technologies related to biodiversity); but also a solution to global challenges; as it has done so many times before - from controlling diseases to improving energy efficiency.
- Recognizing the importance of innovative and complementary solutions in the new Biodiversity Framework is a crucial opportunity to reaffirm the need to build a supportive environment to research, development and, ultimately, change.
- Including research and investment on novel tools and approaches explicitly in the Framework will help ensure financial, human and other resources are directed towards these activities in the future and that researchers are adequately supported.
- Emphasizing the need for innovative and complementary solutions is consistent with the emphasis on research in Sustainable Development Goal 9 (Industry, Innovation and Infrastructure) and with the recommendation from the last IPBES report.

The Cartagena Protocol is essential to enable research and knowledge transfer

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New technologies, such as those derived from synthetic biology and gene drive approaches, have the potential to contribute to addressing global conservation and health problems. However, research on synthetic biology and genetic technologies must be done responsibly and safely and biosafety is an essential aspect of the proper conduct of research on living modified organisms (LMOs).

Effective implementation of the Cartagena Protocol in signatory countries should be a priority for the Post-2020 Biodiversity Framework. Effective biosafety frameworks are important not only to enable countries to control the movement of living modified organisms (LMOs) but also to provide the predictability and clarity needed to encourage research and knowledge transfer.

The Cartagena Protocol is the foremost international framework for managing LMOs. Parties to the Protocol now are over 170, a clear sign of its importance and relevance. Yet, implementation of the Protocol is uneven across Parties, undermining trust in its processes and its ability to ensure smooth and robust international management of LMOs. Partial or inadequate implementation also create uncertainty for researchers and limit the ability of researchers to benefit from international collaborations through knowledge and technology transfer.

Specific actions could help support the implementation of the Protocol, and should be included in its Implementation Plan:

- Evaluate the need for, and provide training on, the development and implementation of legal, administrative and other measures to implement the Protocol.
- Improve knowledge and access to detection, identification and monitoring methods.
- Increase and more share information timely on the Biosafety Clearing House.
- Facilitate access to adequate technical infrastructure and training for biosafety experts.
- Ensure that Parties have the necessary capability to take into consideration socio-economic aspects when making decisions on LMOs.

The implementation of the Cartagena Protocol should not be an end in itself. As knowledge and science advance, the Protocol should be revised to incorporate lessons learned and best practices and evolve to include wider and more ambitious coordination initiatives over time.

Urgency and commitment to change must guide the negotiations on the Post-2020 Global Biodiversity Framework. The increasing number of endangered species and the accelerating rate of ecosystem degradation require complementary new approaches and transformative tools to halt current trends. Parties must work to guarantee that the new Framework puts in place the necessary conditions to encourage responsible research, support evidence-based decision-making and development of new and complementary tools to conserve biodiversity, including LMOs.