geobon.org biodiscovery.earth

News Release
EMBARGO: Wednesday, 19 January, 2022
00h:01 US EDT / 05h:01 GMT / 06h:01 CEST

Media contacts:
Paul Leadley: paul.leadley@universite-paris-saclay.fr
GEO BON: Andrew Gonzalez, andrew.gonzalez@mcgill.ca
BioDiscovery: Cornelia Krug, +41 78 695 40 31, cornelia.krug@uzh.ch
Terry Collins, +1-416-878-8712 (m), tc@tca.tc

An executive summary of the report ***"Expert Input to the Post-2020 Global Biodiversity Framework - Transformative actions on all drivers of biodiversity loss are urgently required to achieve the global goals by 2050,"*** *is available for media preview at https://bit.ly/3qnQFFu. The full report is available at https://bit.ly/3zWuE3N Authors are available for advance interviews.*

Scientists Urge Quick, Deep, Sweeping Changes to Halt and Reverse Dangerous Biodiversity Loss

Proposed target of protecting 30% of land and seas by 2030 is important but will leave humankind far short of its ultimate goals for nature; Meeting each Global Biodiversity Framework target will be critical

Halting, then reversing the dangerous, ongoing loss of Earth's plant and animal diversity requires far more than an expanded global system of protected areas of land and seas, scientists warned today.

Needed is successful, coordinated action across a diverse, interconnected set of "transformative" changes, including massive reductions in harmful agricultural and fishing subsidies, deep reductions in overconsumption, and holding climate change to 1.5°C.

More than 50 scientists from 23 countries today delivered to governments a synthesis of the science informing and underpinning 21 targets proposed in the draft 'post-2020 Global Biodiversity Framework' being negotiated under the UN Convention on Biological Diversity (CBD) and scheduled for adoption later this year at a world biodiversity summit in China.

The analysis was coordinated by two renowned international science bodies: bioDISCOVERY, a program of the Future Earth organization, and the Group on Earth Observations Biodiversity Observation Network (GEO BON).

Says Paul Leadley, an assessment leader, past chair of bioDISCOVERY, and Professor at Paris-Saclay University, France: "The target of protecting 30% of all land and seas is important and attracting a lot of attention. And expanding protected areas is a good start if done well, but far short of what's needed to halt and reverse biodiversity loss — called 'bending the curve' for biodiversity'. There's very good evidence that we will fail again to meet ambitious international biodiversity objectives if there's too much focus on protected areas at the expense of other urgent actions addressing the threats to biodiversity."

"Governments are clearly struggling with the breadth and depth of the 'transformative changes' needed to bend the curve for biodiversity, and sometimes seem unwilling to face up to it. But deep changes are necessary and will greatly benefit people in the long run."

The essential point, says bioDISCOVERY co-Chair Lynne Shannon, a Professor at the University of Cape Town, South Africa, is that "there is no one-to-one linkage from any action target to a specific milestone or goal; instead, 'many-to-many' relationships exist among them. We need to recognize, therefore, the complex relationships among targets, milestones and goals and undertake our planning and actions in an integrated manner."

Among the group's key conclusions and recommendations:

- *Success requires transformative change.* Past experience in slowing and reversing biodiversity loss as well as scenarios of future biodiversity change show that only a comprehensive portfolio of interrelated actions will significantly reduce direct threats to biodiversity from land and sea use change, direct exploitation of organisms, climate change, pollution, and invasive alien species. None of the GBF targets that address these direct threats to biodiversity will alone contribute more than 15%[1] of what's needed to reach the world's ultimate goals for ecosystems, species and genetic diversity.

[1] *Derived from the 2019 IPBES Global Assessment's estimates of various direct threats' contributions to declines in components of biodiversity. See Fig. 1.2, Appendix 1.1 of the main report at https://bit.ly/3zWuE3N.*

- *Action must be coordinated at every scale, with progress assessed frequently.* The degree of biodiversity change, and the relative importance of drivers, vary greatly across scales and from place to place, and drivers in one place can affect biodiversity in other places far away ("telecoupling," e.g. through global trade, climate change, etc). Success will require action coordinated across local, national and international levels, in natural and managed ecosystems, and across intact and 'working' lands and seas. Success will also require upgrading monitoring capability and regular assessment of progress to make sure actions are delivering the intended outcomes at all levels.

- *Substantial investment in better monitoring is needed to guide effective action*. There are massive gaps in biodiversity monitoring. Most of the nearly 1 billion existing non-marine biodiversity-related records were collected in developed countries and within 2.5 km of roads, and less than 7% of the globe is sampled. Two key improvements needed: a) a global monitoring system for biodiversity with the ability to attribute biodiversity change to specific drivers, and to integrate data from relevant threat sectors (e.g. agriculture, trade, climate); and b) a predictive capacity to anticipate future trends, to inform decision-making.

- *Act now, and sustain it to ensure recovery.* Given that the time lags between action and outcomes are often measured in decades, especially in such areas as restoration of forests, coral reefs and fisheries, it's imperative to act now to avoid irreversible loss and put biodiversity on a pathway to recovery by mid-century.

Says co-author Maria Cecilia Londoño Murcia of the Humboldt Institute, Colombia: "The sooner we act the better. Time lags between action and positive outcomes for biodiversity can take decades so we must act immediately and sustain our efforts if we are to reach the global goals by 2050. The time needed for safeguarding and restoring ecosystem structure, function and resilience is particularly critical for people and communities whose livelihoods and well-being directly depend on these systems and the benefits they provide."

Adds co-author David Obura, a distinguished scientist at the Coastal Oceans Research and Development (CORDIO), Kenya: "High levels of ambition for halting and reversing biodiversity loss will be critical. We underline, however, that this cannot be achieved just by conventional conservation actions".

"We show that the 21 Targets of the Global Biodiversity Framework essentially cover this broad gamut of indirect and direct drivers, but that no one Target can be implemented as a priority over the others to achieve success (other than providing the financial and other means necessary to implement all targets)."

* * * * *

Expert Input to the Post-2020 Global Biodiversity Framework

Transformative actions on all drivers of biodiversity loss are urgently required to achieve the global goals by 2050

Key Messages

A group of fifty international experts was convened by the bioDISCOVERY program of Future Earth and the secretariat of the Group on Earth Observations Biodiversity Observation Network (GEO BON) to provide an updated synthesis and assessment of how actions in the twenty-one targets of the draft post-2020 Global Biodiversity Framework (GBF) and a comprehensive monitoring framework could contribute to achieving the biodiversity milestones and goals of the GBF. The key findings are highlighted in eight short key messages below, which are expanded upon in an Executive Summary and accompanied by detailed analyses and a glossary of terms in an extended Technical Synthesis.

Success requires transformative change

Key Message 1: High levels of ambition for halting and reversing biodiversity loss (Goal A) cannot be met without transformative change which is a "fundamental, system-wide reorganization across technological, economic and social factors, including paradigms, goals and values, needed for the conservation and sustainable use of biodiversity, long-term human wellbeing and sustainable development".

A portfolio of actions is needed to address interacting drivers

Key Message 2: Achieving ambitious objectives for ecosystems, species and genetic diversity (Goal A) depends on a comprehensive portfolio of actions to reduce all of the direct drivers of biodiversity loss from land and sea use change, direct exploitation of organisms, climate change, pollution, invasive alien species, and their interactions .

Action must be coordinated and progress assessed frequently

Key Message 3: Global targets of the GBF provide an important template for action, but it is how these targets are implemented and how actions are coordinated across local, national and international levels that will determine success in achieving objectives for biodiversity. Regular assessments of the implementation of targets and their contributions to progress towards clearly defined goals and milestones for biodiversity are therefore vital elements of the GBF.

Addressing threats in both natural and managed ecosystems is essential

Key Message 4: Reversing biodiversity loss will require addressing threats to biodiversity in *both* natural and managed ecosystems, as well as the interconnections between them. "Natural" and "managed" ecosystems differ in their species and genetic composition, ecosystem functions and supply of benefits to people, hence the targets for action, reference states, monitoring requirements, and relevant indicators differ between them.

All dimensions of biodiversity are interconnected and this should guide action
Key Message 5: All dimensions of biodiversity — genetic, population, species, community and ecosystem — show interlinked responses to human drivers. Efforts to mitigate the effects on drivers on one dimension (e.g population abundances) will depend on action on other dimensions (e.g. genetic diversity). Knowledge of the interlinked relationships between dimensions can be used to guide prioritization for conservation.

Act now, and sustain it to ensure recovery
Key Message 6: Ambitious action is needed as soon as possible and must be sustained over time if we are to put biodiversity on a trend to recovery by mid-century. There is good evidence that while some dimensions of biodiversity recover rapidly following conservation action, many show long-lasting, or time-delayed, changes in response to actions to mitigate the effects of drivers.

Coordinate actions across locations
Key Message 7: The degree of biodiversity change, and relative importance of drivers, vary greatly across scales and from place to place, and drivers in one place can affect biodiversity far away in other places.

Invest in monitoring to guide effective action
Key Message 8: Successful implementation of the GBF requires substantial investment in monitoring capacity to detect change and attribute drivers. Ensure the supply of, and access to, data that underpin the effective use of indicators to track progress and guide action needed to implement the GBF at local, national and international levels. The set of indicators for monitoring progress to Goal A of the GBF should be expanded to comprehensively cover outcomes, drivers, and actions and the interdependencies between them.

*** * * * ***

About

bioDISCOVERY

bioDISCOVERY mobilises the scientific community to advance research on monitoring, observation and modelling of biodiversity and ecosystems in order to improve our understanding of how biodiversity and ecosystems respond to environmental change, and to overcome the barriers that impede the use of observations and modelling in management and decision-making.

Group on Earth Observations Biodiversity Observation Network (GEO BON)
The mission of the GEO BON is to improve the acquisition, coordination and delivery of biodiversity observations and related services to users including decision makers and the scientific community. It's vision is a global biodiversity observation network that contributes to effective management policies for the world's biodiversity and ecosystem services.

The post-2020 Global Biodiversity Framework
Click here