

Urgent need for an integrated policy framework for biodiversity loss and climate change

To the Editor — The international community is failing to fulfil multiple policies that aim to mitigate the impacts of climate change and biodiversity loss¹. For instance, the biodiversity targets set out by the Convention on Biological Diversity (CBD) for 2020, will not be fully met¹. Current national policies informing on carbon dioxide emissions have the world on track for 2.3–4.1 °C by 2100 (<https://climateactiontracker.org>). The current trajectory may soon require considerably deeper cuts if we are to avoid catastrophic climate impacts that demand renovation of a changing world^{2,3}. Discussions amongst politicians, policy makers and scientists have largely focused their efforts on dealing with these as separate issues. However, there is increasing recognition that these are fundamentally connected and that a more integrated global approach is essential if we are to resolve the apparent impasse. As a consequence of the COVID-19 pandemic, the announced one-year delay in the 2020 meetings of the Conference of the Parties (COP) for the United Nations Framework Convention on Climate Change (UNFCCC COP26) and the CBD COP15 provides a unique opportunity to create coherent policy frameworks across the nexus of biodiversity, health, food, water and climate change and align both biodiversity and climate targets. Whilst the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC) are currently preparing a report that cuts across this traditional divide, we urge that the two COP meetings be combined, to move beyond aspirations to concrete policies designed to meet international commitments and build on the lessons being learnt today. The COVID-19 pandemic has

demonstrated how the global community can come together to solve an international emergency. The world's population has seen a (largely) global and rapid adoption of principles and practices that have limited the contagion, with economic stimuli to support the transition through the pandemic, and a reduction in carbon emissions⁴. The same approach in principle can be undertaken to set out a timetable of actions that will allow the world to meet the UN Sustainable Development Goals and the 2016 Paris Climate Agreement.

To directly address the interdependent factors that are driving these major global challenges, Nature-based solutions (NbS) need to play a central role^{5,6}. These cannot be solely a top-down approach. To support local communities, a 'Just Transition' will be essential as the world moves towards a low-carbon economy. A 'One Health' approach to decision making is needed to recognize the complex connections between human health and biodiversity at global to local levels⁷. Alongside these efforts, a research priority should be investigation into the effectiveness of NbS with changing climate and the range of synergistic solutions, to reduce the trade-offs between stakeholder groups⁸. But given the rapidly deteriorating state of the world's environment, more aggressive measures are urgently required for which radical solutions may be necessary. The daring proposal to set aside half of the planet for wildlife conservation in perpetuity needs to be seriously considered⁹ in conjunction with other solution packages¹⁰ to sustain well-being for future generations.

The recent COVID-19 pandemic further underlines the intrinsic connections humans have with global ecosystems. The artificial division of initiatives tackling

climate change and biodiversity loss must end if we are to establish a sustainable relationship with the natural world and secure a long-term environmental and economic recovery. □

Chris Turney ¹✉, Anne-Gaelle Ausseil ²✉ and Linda Broadhurst ³✉

¹Changing Earth Research Centre and Chronos 14Carbon-Cycle Facility, ARC Centre for Australian Biodiversity and Heritage, School of Biological, Earth and Environmental Sciences, University of New South Wales, Sydney, New South Wales, Australia.

²Land Use Ecosystems, Manaaki Whenua Landcare Research, Wellington, New Zealand. ³Centre for Australian National Biodiversity Research, CSIRO National Research Collections Australia, Canberra, Australian Capital Territory, Australia.

✉e-mail: c.turney@unsw.edu.au; Ausseila@landcareresearch.co.nz; Linda.Broadhurst@csiro.au

Published online: 17 June 2020
<https://doi.org/10.1038/s41559-020-1242-2>

References

- Diaz, S. et al. *Science* **366**, eaax3100 (2019).
- IPCC *Special Report on Global Warming of 1.5 °C* (eds Masson-Delmotte, V. et al.) (WMO, 2018)
- Prober, S. M., Doerr, V. A. J., Broadhurst, L. M., Williams, K. J. & Dickson, F. *Ecol. Monogr.* **89**, e01333 (2019).
- Le Quéré, C. et al. *Nat. Clim. Change* <https://doi.org/10.1038/s41558-020-0797-x> (2020).
- Cohen-Shacham, E. et al. *Environ. Sci. Policy* **98**, 20–29 (2019).
- Seddon, N. et al. *Philos. Trans. R. Soc. B* **375**, 20190120 (2020).
- Settele, J., Diaz, S., Brondizio, E. & Daszak, P. Covid-19 stimulus measures must save lives, protect livelihoods, and safeguard Nature to reduce the risk of future pandemics. *Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (27 April 2020); <https://ipbes.net/covid19stimulus>
- Colloff, M. J., Wise, R. M., Palomo, I., Lavorel, S. & Pascual, U. *Ecosyst. People* **16**, 137–150 (2020).
- Wilson, E. O. *Half-Earth: Our Planet's Fight for Life* (Liveright Publishing, 2016).
- Hawken, P. *Drawdown: The Most Comprehensive Plan Ever Proposed to Roll Back Global Warming* (Penguin Books, 2017).

Competing interests

The authors declare no competing interests.