

Aligning disaster risk reduction and climate change adaptation in the post-COP26 era



The latest report of the Intergovernmental Panel on Climate Change (IPCC) shows that human activity contributes unequivocally to global warming and climate change.¹ Climate change, in turn, drives the current increase in weather extremes and climate-related disasters.² Moreover, human-induced processes, such as unplanned urbanisation, further magnify disaster risk,³ putting an increasingly large portion of the global population in danger in the years to come.

Disasters induced by climate change not only affect human lives, goods, and infrastructures, but also affect countries' development outcomes and slow down the achievement of the Sustainable Development Goals (SDGs).⁴ For example, climate change-induced disasters, such as floods and droughts, contribute to degradation of ecosystems and affect agricultural, pastoral, and fishery activities, which undermines food security and assets, hampering the achievement of SDG 2 (zero hunger).⁵

Climate change adaptation, which is the adjustment to current or expected changes in climate patterns and weather extremes,⁶ is essential to preserve global health and has prominently emerged as a priority for action during COP26. Disaster risk reduction—namely, actions and plans targeting the prevention of new, and the reduction of existing, disaster risk⁶—greatly intersects with climate change adaptation. The integration of climate change adaptation principles, formally delineated in the Paris Agreement,⁷ and those outlined by the Sendai Framework for Disaster Risk Reduction (SFDRR),⁸ has recently been promoted by the UN Office for Disaster Risk Reduction (UNDRR)⁵ and the Organisation for Economic Co-operation and Development.⁹ The UNDRR Integrating Disaster Risk Reduction and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework recognises the relevance of pooling efforts to achieve the SDGs, and recommends strategies that can be followed to increase global policy coherence.⁵

Acknowledging commonalities and shared objectives of current international frameworks is pioneering and key to protecting global health from disasters, as well as to counteract fragmentation of global efforts, resources,

and investments. Nevertheless, proposing new integrated frameworks cannot be the final solution to what is the most pressing issue of our time. Indeed, there is also a need for enforcement mechanisms, clear guidance on monitoring and evaluation, and dedicated governance structures. Furthermore, the general precepts currently outlined in international policy documents must be translated to a pragmatic road map for action, with clear indication on how to transform general principles into operational actions.

For this reason, it is important that scholars, policy makers, UN bodies, governmental and non-governmental organisations, and donors involved in climate change adaptation and disaster risk reduction consider the following recommendations to move meaningful research and action forward after COP26.

Our first recommendation is to consider the integration of climate change adaptation and disaster risk reduction principles and objectives when protecting global health from disasters: for example, align targets and goals outlined in the Paris Agreement, SFDRR, and the 2030 Agenda for Sustainable Development. To achieve this, spaces should be created where leaders, scholars, and policy makers can plan a shared road map that combines updated nationally determined contributions, climate change adaptation plans, and disaster risk reduction strategies.

Second, capacities for integrated action should be leveraged across climate-related, disaster-related, and health-related sectors; facilitation of knowledge co-creation and enhancement of interdisciplinary collaboration should be promoted. This can be done by creating interdisciplinary, cross-country educational curricula that stimulate the development of a diversified set of competencies serving future global health leaders in protecting society from disasters.

Third, we recommend the inclusion of health aspects within disaster and climate change research and action towards the achievement of the SDGs. A suggestion is to take the WHO Health Emergency and Disaster Risk Management framework¹⁰ into account for intersectoral health operations during disasters. Within this frame, it can be relevant to strengthen the resilience of health

systems in view of local disaster risk and by taking country-specific climate change adaptation blueprints into account.

Fourth, risk-informed investments should be prioritised and intersectoral funding schemes that capture the complexity of global health challenges should be improved. This is particularly relevant at the moment, as a lot of funding from governments and donors is allocated to Building Back Better from the COVID-19 pandemic.

Last, strategies aimed at translating international frameworks and legal instruments into operational guidance for practice should be defined; delineation of evidence-based pragmatic action points that can support countries' decision makers to engage in climate change adaptation and disaster risk reduction activities is recommended. International frameworks can be translated, among other things, into assessment tools, action-oriented road maps, operational recommendations, and sets of competencies targeting specific stakeholders.

Climate change and the resulting disasters drastically affect global health and hamper sustainable development. Complex problems cannot be tackled by actors working in silos and instead require a pragmatic, intersectoral approach. Current attempts to Build Back Better from the COVID-19 pandemic are a clear opportunity to calibrate future research and action towards ensuring sustainable and equitable planetary health.

We declare no competing interests.

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- 1 Intergovernmental Panel on Climate Change. Summary for policymakers. Climate change 2021: the physical science basis. 2021. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf (accessed Dec 5, 2021).
- 2 UN University (UNU-EHS). Interconnected disaster risks. 2020–21. http://collections.unu.edu/eserv/UNU:8288/UNU_Interconnected_Disaster_Risks_Report_210908_META.pdf (accessed Dec 5, 2021).
- 3 Intergovernmental Panel on Climate Change. Managing the risks of extreme events and disasters to advance climate change adaptation. 2012. https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_Full_Report-1.pdf (accessed Dec 5, 2021).
- 4 UN. Transforming our world: the 2030 Agenda for Sustainable Development. 2015. <https://sdgs.un.org/sites/default/files/publications/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf> (accessed Dec 5, 2021).
- 5 UN Office for Disaster Risk Reduction. Integrating Disaster Risk Reduction and Climate Change Adaptation in the UN Sustainable Development Cooperation Framework. 2020. <https://www.undrr.org/publication/integrating-disaster-risk-reduction-and-climate-change-adaptation-un-sustainable> (accessed Dec 5, 2021).
- 6 International Strategy for Disaster Reduction. 2009 UNISDR terminology on disaster risk reduction. 2009. https://www.preventionweb.net/files/7817_UNISDRTerminologyEnglish.pdf (accessed Dec 5, 2021).
- 7 UN. Adoption of the Paris Agreement. Dec 12, 2015. https://unfccc.int/sites/default/files/english_paris_agreement.pdf (accessed Dec 5, 2021).
- 8 UN Office for Disaster Risk Reduction. Sendai Framework for Disaster Risk Reduction 2015–2030. 2015. https://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf (accessed Dec 5, 2021).
- 9 Organisation for Economic Co-operation and Development. Common ground between the Paris Agreement and the Sendai Framework. 2020. <https://www.oecd.org/env/climate-change-adaptation-and-disaster-risk-reduction-3edc8d09-en.htm> (accessed Dec 5, 2021).
- 10 WHO. Health emergency and disaster risk management framework. 2019. <https://apps.who.int/iris/bitstream/handle/10665/326106/9789241516181-eng.pdf?sequence=1&isAllowed=y> (accessed Dec 5, 2021).