

Editorial

Climate Change and Human Health—The Links to the UN Landmark Agreement on Disaster Risk Reduction

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This special issue addresses the impact of climate change on human health—an enormous topic that, at many levels, is proving challenging to address. The recent (2015–2016) synchronous adoption of the five UN landmark agreements—comprising the Sendai Framework for Disaster Risk Reduction 2015–2030 [1]; the Agenda 2030 for Sustainable Development Goals (SDGs) [2]; COP21’s Paris Climate Conference [3]; World Humanitarian Summit [4]; and Habitat III New Urban Agenda [5]—provides a new opportunity to build coherence across different but overlapping policy areas that all link the impact of climate change on health. Disasters, many of which are exacerbated by climate change and are increasing in frequency and intensity, significantly impede progress towards sustainable development.

Specifically, the Sendai Framework for Disaster Risk Reduction states that ‘more dedicated action needs to be focused on tackling underlying disaster risk drivers, such as the consequences of poverty and inequality, climate change and variability’. The Sendai Framework goes on to state that ‘addressing climate change as one of the drivers of disaster risk while respecting the mandate of the United Nations Framework Convention on Climate Change represents an opportunity to reduce disaster risk in a meaningful and coherent manner throughout the interrelated intergovernmental processes’. Furthermore, the Framework calls for action on many wider factors that can determine health outcomes, including unplanned and rapid urbanization, poor land management and compounding factors such as demographic change, weak institutional arrangements, non-risk-informed policies, lack of regulation and incentives for private disaster risk reduction investment, complex supply chains, limited availability of technology, unsustainable use of natural resources, declining ecosystems, pandemics and epidemics.

Taken together, these UN General Assembly-adopted frameworks make for a complete resilience agenda requiring action that spans development, humanitarian, climate and disaster risk reduction spheres to reduce the impacts on human health. To reduce the impact of climate change on health, the synergies between policies, programmes and institutions need to be highlighted and supported by the alignment of actions. These frameworks serve to strengthen the existing risk and resilience frameworks for multi-hazard assessments and aim to develop a dynamic, local, preventive, and adaptive urban governance system at the global, national, and local levels that can help to address climate change issues.

The five Agreements represent a major turning point in global efforts to tackle existing and future challenges in all countries. Specific emphasis to support resilience-building measures and a shift away from managing crises to proactively reducing their risks is apparent. In order to respond

efficiently to all the Agreements, the effective use of best available knowledge, innovative thinking, leadership, coordination mechanisms and partnerships are vital. A systems approach, complemented by a new style of research thinking and leadership, can help align the needs of this emerging field with existing policy agendas [6]. This will require the engagement of stakeholders at all levels, as well as the breaking down of traditional silos to be replaced by more integrated partnerships that reflect a more holistic approach to risk management. Scientific methods, networks and communication offer critical assistance to the development of well-informed policies and decisions across all countries [7].

Yet, stronger links between evidence and decision making in policy and planning are also needed to ensure delivery of the 2030 agenda for sustainable development. The UN Office for Disaster Risk Reduction of the UNISDR has acknowledged this and has issued a roadmap to support the implementation of the Sendai Framework [8]. Understanding disaster risk is a priority action in the framework, with four expected outcomes:

1. To assess and update the current state of data, scientific and local and indigenous knowledge and technical expertise availability on disaster risk reduction and fill the gaps with new knowledge.
2. To synthesize, produce and disseminate scientific evidence in a timely and accessible manner that responds to the knowledge needs of policy-makers and practitioners.
3. To ensure that scientific data and information support are used in monitoring and reviewing progress towards disaster risk reduction and resilience building.
4. To build capacity to ensure that all sectors and countries have access to scientific information for better-informed decision-making.

Many roles exist for practitioners, scientists and researchers to achieve these outcomes, including the promotion of crucial coherence with disaster risk reduction and the UN landmark agreements (in particular, the SDGs and climate change) in data collection and indicators to assist in monitoring and evaluation. In addition, the development and promotion of multi-hazard early warning systems, which incorporate improved climate information, aerial and spatial data, emergency response services and communication to end users, will support the needs of policy- and decision-makers at all levels for scientific data and information to strengthen preparedness, response and to “Build Back Better” in the ‘three Rs’: recovery, rehabilitation and reconstruction.

By reducing losses and the impacts on the most vulnerable communities and locations around the world, the scientific community can help achieve the Sendai Framework goal, which is to prevent new and to reduce existing disaster risk by implementing integrated and inclusive measures that minimise hazard exposure and vulnerability to disaster, increase preparedness for response and recovery and, thus, strengthen resilience.

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References

1. United Nations International Strategy for Disaster Reduction. Sendai Framework for Disaster Risk Reduction 2015–2030. 2015. Available online: http://www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf (accessed on 6 April 2018).
2. UN General Assembly Transforming Our World: The 2030 Agenda for Sustainable Development Resolution Adopted by the General Assembly on 25 September 2015 A/RES/70/1. Available online: http://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf (accessed on 6 April 2018).
3. United Nations Framework Convention on Climate Change. Conference of the Parties Twenty-First Session Paris, 30 November to 11 December 2015. Adoption of the Paris Agreement FCCC/CP/2015/L.9/Rev.1. Available online: <https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf> (accessed on 6 April 2018).

4. UN General Assembly Outcome of the World Humanitarian Summit 23 August 2016 A/71/353. Available online: <https://www.agendaforhumanity.org/sites/default/files/A-71-353%20-%20SG%20Report%20on%20the%20Outcome%20of%20the%20WHS.pdf> (accessed on 6 April 2018).
5. UN General Assembly. New Urban Agenda. United Nations Conference on Housing and Sustainable Urban Development (Habitat III), Resolution Adopted by the General Assembly on 23 December 2016. A/RES/71/256. Available online: http://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_71_256.pdf (accessed on 6 April 2018).
6. Berry, H.L.; Waite, T.D.; Dear, K.B.G.; Capon, A.G.; Murray, V. The case for systems thinking about climate change and mental health. *Nat. Clim. Chang.* **2018**, *8*, 282–290. [CrossRef]
7. Aitsi-Selmi, A.; Blanchard, K.; Al-Khudhairy, D.; Ammann, W.; Basabe, P.; Johnston, D.; Ogallo, L.; Onishi, T.; Renn, O.; Revi, A.; et al. *Report: Science Is Used for Disaster Risk Reduction*; United Nations Office for Disaster Risk Reduction, Scientific and Technical Advisory Group: Geneva, Switzerland, 2015. Available online: <http://preventionweb.net/go/42848> (accessed on 6 April 2018).
8. United Nations Office for Disaster Risk Reduction. *UNISDR the Science and Technology Roadmap to Support the Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030*; United Nations Office for Disaster Risk Reduction: Geneva, Switzerland, 2015. Available online: https://www.preventionweb.net/files/45270_unisdrscienceandtechnologyroadmap.pdf (accessed on 6 April 2018).



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