

Hazards defined and classified to strengthen disaster risk reduction

The world is faced by a broad range of complex hazards, whether they are due to natural or environmental phenomena, human interventions, or societal challenges. However, the lack of common definitions for such hazards can hamper effective monitoring of disaster risk reduction efforts.

Recognizing this challenge, The International Science Council¹ partnered with the United Nations Office for Disaster Risk Reduction (UNDRR) in 2019 to launch a science project to identify the full scope of all hazards relevant to the Sendai Framework² and the scientific definitions of these hazards. The outcome of the project was *The Hazard Definition & Classification Review: Technical Report*³, which targets the following 6 recommendations.

Recommendation 1: Regular review and update of a standard set of classifications of hazards, and the development of an agreed process of identifying and defining hazards for risk-based decision-making and action

Recommendation 2: Facilitate the development of a multi-hazard information system. The next step should be the continuing development of hazard definitions as online resources, encoded following linked-data and open-science best practices through a meta-data approach.

Recommendation 3: Engaging with users and sectors for greater alignment and consistency of hazard definitions. Engagement with a range of users working in disaster risk reduction, emergency management, climate change, and increasingly sectoral actors pursuing sustainable development is needed to further develop hazard definitions.

Recommendation 4: Use this hazard list to actively engage policymakers and scientists in evidence-based national risk assessment processes, disaster risk reduction and risk-informed sustainable development, and other actions aimed at managing risks of emergencies and disasters.

Recommendation 5: Conduct further work to operationalise parameters for exposure, vulnerability and capacity, building on the existing UN General Assembly definitions, a much needed complementary exercise to the hazard definition process.

Recommendation 6: Address cascading and complex hazards and risks. There is an urgent need to investigate further the direct and indirect linkages and effects of natural, biological, technological and other human-induced hazards to identify better and understand cascading and complex hazards and risks in a systematic way.

¹<https://council.science/>

²<https://www.undrr.org/implementing-sendai-framework/what-sendai-framework>

³https://council.science/publications/hazards/?utm_source=ISC+Newsletter&utm_campaign=916e52196c-&utm_medium=email&utm_term=0_6e20810dfd-916e52196c-34368581