



Contribution ID: 228

Type: **Presentation**

FAIRer Hazard Information: principles, implementation and novel uses of the updated UNDRR/ISC Hazard Information Profiles

Tuesday 14 October 2025 16:11 (11 minutes)

Standardized hazard definitions are a key element of the analysis of disasters. Without them, monitoring and reporting of the impacts of the hazards is difficult, and so is the development of effective early warning systems and response plans. Forecasting of future events and the generation of disaster risks reduction strategies are also hindered by a lack of standardized definition. To address this gap, in 2019 the UN Office for Disaster Risk Reduction (UNDRR) and the International Science Council (ISC) established a Technical Working Group to identify the full scope of hazards relevant to the Sendai Framework for Disaster Risk Reduction as a basis for countries and other actors to review and strengthen risk reduction policies and risk management practices. The resulting UNDRR/ISC Hazard Information Profiles (HIPs) were published in 2021 [1]. They provide to a broad range of users standardised definition and information on more than 302 hazards organized into 8 groups: meteorological and hydrological, extraterrestrial, environmental, geological, chemical, biological, technological and societal.

Following on from the recommendation in the UNDRR/ISC HIPs for regular review and update, experts from different disciplines, types of organizations (United Nations agencies, academia, government agencies, inter-governmental organizations and the private sector) and geographical regions are again working together to review the UNDRR/ISC HIPs. This process is systematically reviewing all sections of the current HIPs to identify potential updates in alignment with new scientific information, and decide on the inclusion of additional evidence additionally addressing the multi-hazard context of each hazard.

One of the main additions to the updated version of the HIPs is a section on multi-hazard context. The experts are specifically reviewing the interrelations between the hazards in a multi-hazard approach. The HIPs aim to summarize direct interactions between hazards in a concise and visual way.

In the future, the HIPs will be coded to be machine actionable, to support a broader range of applications when machine readability is extremely useful, for example, for analysis of large databases and datasets. This is especially relevant in the context of disaster risk management and of loss and damage associated to climate change.

This second review concludes in 2025, with the release of the enhanced UNDRR/ISC Hazard Information Profiles at the Global Platform for Disaster Risk Reduction. The updated document will continue to inform a broad community and support data analysis resulting in better early warning and event forecast and disaster risk management and planning.

In addition to presenting the HIPs and their background, the session intends to collect ideas for innovative uses of the HIPs and ways to encourage the reuse of the information

REFERENCE

1. Murray, Virginia; Abrahams, Jonathan; Abdallah, Chadi; et al. (2021) Hazard Information Profiles: Supplement to UNDRR-ISC Hazard Definition & Classification Review: Technical Report: Geneva, Switzerland, United Nations Office for Disaster Risk Reduction; Paris, France, International Science Council. DOI: 10.24948/2021.05

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Session Classification: Presentations Session 6: The Transformative Role of Data in SDGs and Disaster Resilience

Track Classification: SciDataCon2025 Specific Themes: Empowering the global data community for impact, equity, and inclusion