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Research brief: Establishing a common baseline for multi-hazard, multi-risk research in a European context: Key observations and recommendations



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Establishing a common baseline for multi-hazard, multi-risk research in a European context: Key observations and recommendations

Highlights

- We developed a **Handbook**, which builds on an extensive body of work, particularly internationally recognised glossaries, to strengthen consensus across the hazard and risk community through a common understanding of multi-hazard, multi-risk terminology and concepts.
- We proposed draft **multi-hazard, multi-risk indicators** and a roadmap for testing their further development and application in disaster risk management.
- We reviewed methods, models and tools for multi-hazard, multi-risk assessment and management in order to serve as an information resource and starting point in the MYRIAD-EU laboratory of systemic multi-hazard risk assessment and management.
- We used the above outputs to develop the **Disaster Risk Gateway**, a Wiki-style online crowd-sourcing platform with a glossary of terms and definitions and examples of qualitative and quantitative approaches, including their application in practice (www.disasterriskgateway.net).

Recommendations

- **Terminology and definitions matter.** The MYRIAD-EU project comprises a multi- and interdisciplinary team, with different disciplinary backgrounds, experiences, and expertise. Establishing a common understanding is central to successful interdisciplinary research and practice.
- **When is it helpful to include the ‘multi-’ prefix?** We question whether part of the paradigm shift needed to successfully address complex challenges facing an interconnected world is through inherently seeing vulnerability, exposure and disaster risk through the lens of multiple, interrelated hazards.
- **Evolution of the terminology.** Within MYRIAD-EU, new definitions are likely to emerge or evolve as the research progresses. This dynamic is captured through the Disaster Risk Gateway which becomes a living resource with relevance within and beyond the project.
- **Indicator sets could be used to drive progress towards multi-hazard, multi-risk management.** Moreover, a systemic, integrated perspective of disaster risk management and adaptation could also support such future work. This requires indicators to be viewed through a multi-hazard, multi-risk lens as standard practice.

Context

The importance of a baseline and common understanding of definitions and concepts is essential to reporting progress on key international agreements including the Sendai Framework for Disaster Risk Reduction (2015-2030), the Paris Agreement on Climate Change and the Sustainable Development Goals of Agenda 2030. Disaster risk terminology has received a lot of attention over the last decades and there have been

several international endeavours to develop a common understanding of disaster risk related terminology led by intergovernmental bodies (e.g. UNDRR, ISC, IPCC, WHO, WMO). An essential first step of the MYRIAD-EU project was to build a common understanding of the current state of play of multi-hazard and multi-risk terminology, identify and recommend existing terminology to adopt, and identify gaps and opportunities for further terminology evolution. To this end, the ‘Handbook of Multi-Hazard, Multi-Risk Definitions and Concepts’ (referred to as ‘Handbook’) builds on existing work, using a multi-method approach to bring together data and insights from across and beyond the consortium (including literature reviews and curation of existing established glossaries). Where possible, we adopted language from established, intergovernmental glossaries to ensure our work and outputs align with national and international efforts to implement the Sendai Framework for Disaster Risk Reduction 2015-2030. The Disaster Risk Gateway was developed to enable users to reflect on what additional benefits may arise from consulting existing tools, methods, or models; to increase understanding of what is currently possible, and how this knowledge can be applied in different sectors and/or for various multi-risk challenges; to introduce the hazards and risk practice community to existing research teams working on these issues as well as important past or present projects. The outputs of this work have key importance for both the MYRIAD-EU project process (interdisciplinary, knowledge co-development) and its impact.



The Disaster Risk Gateway Wiki-style platform logo

Want to know more?

- **Full reference:** Gill, J., Duncan, M., Ciurean, R., Smale, L., Stuparu, D., Schlumberger, J., de Ruiter, M., Tiggeloven, T., Torresan, S., Gottardo, S., Mysiak, J., Harris, R., Petrescu, E.-C., Girard, T., Khazai, B., Claassen, J., Dai, R., Champion, A., Daloz, A. S., ..., Ward, P. (2022). D1.2 Handbook of Multi-hazard, Multi-Risk Definitions and Concepts. Zenodo. <https://doi.org/10.5281/zenodo.7870260>
- **Link to Disaster Risk Gateway:** www.disasterriskgateway.net
- **MYRIAD-EU website:** www.myriadproject.eu
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