



## Conversations on multi-hazard risk: Qualitative and quantitative insights from MYRIAD-EU interviews on the dynamics of risk drivers and disaster risk reduction synergies in Europe

**Nicole van Maanen**<sup>1</sup>, Marleen de Ruiter<sup>1</sup>, Wiebke Jäger<sup>1</sup>, Veronica Casartelli<sup>2</sup>, Anne Sophie Daloz<sup>3</sup>, David Geurts<sup>4</sup>, Stefan Hochrainer-Stigler<sup>5</sup>, Lin Ma<sup>3</sup>, Letizia Monteleone<sup>2</sup>, Noemi Padron<sup>6</sup>, Karina Reiter<sup>5</sup>, Robert Šakić Trogrlić<sup>5</sup>, Silvia Torresan<sup>2</sup>, Sharon Tatman<sup>4</sup>, Philip Ward<sup>1</sup>, and the MYRIAD-EU\*

<sup>1</sup>Vrije Universiteit Amsterdam, Institute for Environmental Studies, Amsterdam, Netherlands

<sup>2</sup>CMCC

<sup>3</sup>CICERO

<sup>4</sup>Deltares

<sup>5</sup>IIASA

<sup>6</sup>University of La Laguna

\*A full list of authors appears at the end of the abstract

Navigating the complexities of multi-hazard risks poses a significant challenge, requiring a holistic understanding that extends beyond theoretical frameworks. Although recent frameworks have contributed greatly to theoretical advancements, a critical gap remains in providing practical insights for on-the-ground stakeholders. These stakeholders, including policymakers, decision-makers, and practitioners are often responsible for preparing and dealing with the risks arising from multi-hazard events. Within the MYRIAD-EU project, the objective is to empower stakeholders on the ground with a systemic approach encompassing multi-risk and multi-sector assessment and management.

To unravel the intricate web of systemic risk interdependencies across and within Europe and facilitate an improved assessment and management of multi-hazard risks, several comprehensive semi-structured interviews were conducted within the Pilot regions of the MYRIAD-EU project. These interviews spanned diverse geographic, hazard, and sectoral domains. The Pilot regions are the Canary Islands, the Veneto region, the Danube region, Scandinavia, and the North Sea.

The insights obtained from these interviews, both qualitative and quantitative, including perspectives from both land and sea, offer a nuanced understanding of hazard combinations, vulnerability characteristics, changes in exposure and vulnerability over time, and the synergies and asynergies inherent in disaster risk reduction measures across Europe. Our findings aim to bridge the gap between theoretical frameworks and practical applications, providing valuable

information for stakeholders to enhance their preparedness and response strategies in the face of multi-hazard risks. At the same time, the results will be used to develop a better understanding about the dynamic vulnerability and exposure of multi-(hazard-)risk.

**MYRIAD-EU:** All partners of the MYRIAD-EU project