



Assessing cascading effects in multi-hazard and multi-risk analyses: Examples from Naples, Italy.

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Multi-hazard is a wide concept that, in general terms, can be split into two possible lines of applications: (1) multi-hazard assessment may be seen as the process of assessing different (independent) hazards threatening a given (common) area, and (2) it represents the process of assessing possible interactions and/or cascade effects among the different hazardous events. In theory, a holistic multi-hazard assessment should include both parts of the concept; however, according to the typology and specific objectives of the project of interest, it may be possible that just one of them is sufficient. In this work, we analyse different cases of cascading scenarios among hazards in Naples, Italy, considering some interactions at the hazard level (i.e. cases in which the occurrence of one event/hazard modifies the occurrence probability of another), and interactions at the vulnerability level, in which the effects on exposed elements caused by one hazard, will affect the element's vulnerability to other kinds of hazard.