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Impacts of natural disasters: a review of recent literature

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Regardless of the agent causing the impacts we are dealing with, what is the definition of impacts of a natural disaster? It can be defined as the wide range of direct, indirect and intangible losses caused on environment and society by the occurrence of a natural disaster. Despite literature widely agree with this definition, the concept of impact is approached in several different ways, according to: the aim of the study, the data availability and the type of scientist working on it.

A collection of recent literature, primarily or secondarily focusing on natural disasters impact assessment methodologies, has been realized focusing on Mass Movements and Floods, two kinds of disasters which every year cause impacts in Mediterranean countries. The work, in fact, is part of HyMeX (HYdrological cycle in the Mediterranean EXperiment), an international research project aims at a better understanding and quantification of the hydrological cycle and related processes in the Mediterranean, with emphasis on high-impact weather events and associated trends in the context of global change.

Without claiming to be exhaustive, this review points out four types of approaches characterizing the analyzed articles. 50 research articles were selected and sorted according to the major themes in the light of which impact of natural disasters are analyzed: 1) risk, vulnerability and mitigation strategies, 2) economical and societal effects of natural disasters, 3) indirect physical and psychological impacts on people, 4) overall approach to disasters impacts assessment.

The work offers a framework of either available methodological approaches or clues and suggestions that can be applied to reach an overall shared impact assessment procedure.