

Floods have become less deadly: an analysis of global flood fatalities 1975-2022

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Abstract

Floods are amongst the most frequent disasters in terms of human and economic impacts. This study provides new insights into the frequency of loss of life at the global scale, mortality fractions of the population exposed to floods, and underlying trends. A dataset is compiled based on the EM-DAT disaster database covering the period 1975 until 2022, extending previous studies on this topic. Flood impact data is analysed over spatial, temporal and economic scales, decomposed in various flood types and compared with other natural disasters. Floods are the most frequent natural disasters up to 1,000 fatalities, and flash floods lead to the highest mortality fractions per event, i.e. the number of deaths in an event relative to the exposed population. Despite population growth and increasing flood hazards, the average number of fatalities per event has declined over time. Mortality fractions per event have decreased over time for middle and high-middle-income countries, but increased for low-income countries. This highlights the importance of continuing and expanding risk reduction and adaptation efforts.

Keywords

klimaatverandering, overbevolking, overstromingen

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