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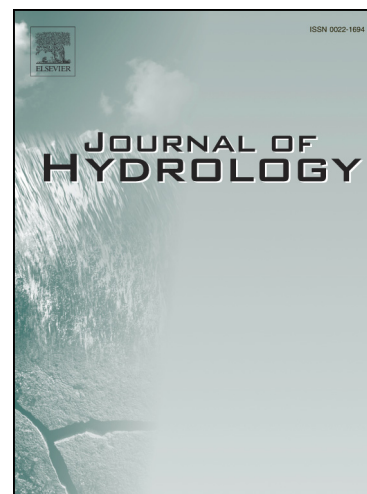
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# A quantitative methodology for the assessment of the regional economic vulnerability to flash floods

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## Abstract

Economic losses caused by flash floods are expected to rise worldwide in the coming decades, which is largely due to the increasing exposure of elements at risk. Therefore, a comprehensive analysis of the economic context of the potentially affected areas is highly recommendable. Numerous papers have been published to date that focus on quantifying vulnerability in general and in areas affected by floods in particular. However, the number of studies devoted to flash flood-prone areas is far lower. Integrated economic vulnerability assessment enable one to learn what characteristics explain, trigger, intensify, and attenuate the exposure, sensitivity, and resilience of economically vulnerable populations, which can be combined to achieve an Integrated Economic Vulnerability Index (IEVI). The methodology deployed here was conducted in Castilla y León (northwest Spain; 94.223 km<sup>2</sup>) and has allowed the economic vulnerability of urban areas to be analyzed, which has been primarily addressed by the estimation of economic losses or, more recently, including a few economic variables within social vulnerability assessments. Thus, 118 economic variables were initially gathered and then divided into groups through a hierarchical segmentation analysis.

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