



Are we safe? A tool to improve the knowledge of the risk areas: high-resolution floods database (MEDIFLOOD) for Spanish Mediterranean coast (1960 -2014)

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The Mediterranean coast of the Iberian Peninsula concentrates an important part of the population and economic activities in Spain. Intensive agriculture, industry in the major urban centers, trade and tourism make this region the main center of economic dynamism and one of the highest rates of population and economic growth of southern Europe. This process accelerated after Franco regime started to be more open to the outside in the early sixties of the last century.

The main responsible factor for this process is the climate because of warmer temperatures and a large number of sunny days, which has become in the economic slogan of the area. However, this growth process has happened without proper planning to reduce the impact of other climatic feature of the area, floods. Floods are the natural hazard that generates greater impacts in the area. One of the factors that facilitate the lack of strategic planning is the absence of a correct chronology of flood episodes. In this situation, land use plans, are based on inadequate chronologies that do not report the real risk of the population of this area.

To reduce this deficit and contribute to a more efficient zoning of the Mediterranean coast according to their floods risk, we have prepared a high-resolution floods database (MEDIFLOOD) for all the municipalities of the Spanish Mediterranean coast since 1960 until 2013.

The methodology consists on exploring the newspaper archives of all newspapers with a presence in the area. The searches have been made by typing the name of each of the 180 municipalities of the Spanish coast followed by 5 key terms. Each identified flood has been classified by dates and according to their level of intensity and type of damage. Additionally, we have consulted the specific bibliography to rule out any data gaps.

The results are surprising and worrying. We have identified more than 3,600 cases where a municipality has been affected by floods. These cases are grouped into more than 700 floods events.

The database presents a number of cases 600% higher than the official catalogues of flood data. Catastrophic events affecting large sectors of the study area happen each decade. On the other hand, since the mid of the nineties of the past century, an increase on the number of cases has been registered which coincide with the "housing spanish boom" and the massive development of the "Sun and beach" tourism model. Without a fast intervention, this scenario presents a danger for the inhabitants of the area and for the millions of tourist coming to enjoy the climatic benefits in the area each year.