



HYDROLOGICAL EXTREMES OR SENSATIONALISM?

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Abstract

Mass media can play a major role in providing public with sufficient and correct information on flood risk and in improving their perception on flood consequences and damages. However, they often present professed experts' view and opinion that might provide a distorted interpretation of the events.

This is the case of a severe event that struck the Tiber river basin and the Aniene (Tiber's tributary) river basin in mid December 2008. The event captured the attention of the national and international media and was announced and labelled as an “extreme event” by several sources. High relevance to such flood event, induced by intense precipitation occurred over the Tyrrhenian Sea side of the peninsula, is attributed because of the actual damages occurred in several zones over Rome area, in particular due to failure and inefficiency of urban drainage systems, and to potentially devastating damages which would have occurred if Tiber river had overflowed its banks.

To substantiate the actual “extremity” of such event, a frequency analysis has been performed from both a pluviometric and a hydrometric point of view. This analysis has shown that rain gauge stations located in the central Rome urban area have a return period of about 10 years, whereas the return period for the stations located in the Aniene river basin was

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generally about less than 5 years. Moreover return periods corresponding to the observed peak discharge values are equal to about 5 years. These results have been also confirmed by comparing the Tiber peak water level observed during the event in the centre of Rome at the Ripetta station (12.55 m) with the peak values recorded in the last ten years and the historical maximum of 16.90 m registered in 1937.