

THE MOST IMPORTANT HIGH FLOODS IN PRUT RIVER'S MIDDLE COURSE-CAUSES AND CONSEQUENCES

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Abstract

Hydrological risks phenomena on Prut River's middle course are a consequence of the global climate change or variations at the regional and planetary level and secondly, the human intervention in the specific landscape. Statistical analysis focused on the maximum flows recorded at Radauti – Prut, Stanca-Aval, respectively at Ungheni emphasized the multiannual maximum flow variability during 1978 – 2012. The analysis of monthly maximum flows indicates spacial differences caused by local conditions and climatic characteristics of the periods in which they occurred. For the Prut River, the highest flow recorded in the period 1978 – 2012 was 4240 m³ /s at Radauti – Prut in July 2008, as a result of heavy rainfall which fell in Ukraine. The spacial location of the Stanca – Costesti reservoir on the middle course of the Prut river outlined a downward trend of the flows recorded at the hydrometric stations located downstream, due to the mitigating role. Upstream is highlighted a clear upward trend, knowing that the flood peak from 2008 exceeded the flow with the probability of 1 %. Floods study is an important aspect, also the infrastructure monitoring of water resources because they are unevenly distributed and equipped in the middle course. It is necessary to ensure the consistency between quantitative and qualitative management policies applied in Romania, Moldova and Ukraine. Anthropogenic intervention in the Prut river basin triggered negative reactions, and these major imbalances made the floods to emerge stronger.

Key words: flood, variability, risk, maximum flow
