The influence of the extreme hydrological regime of the last two decades upon the sediment flow in the romanian sector of the Danube River

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The paper provides a comparative analysis between the sediment flow during major flash floods and the sediment flow in very dry periods in the romanian sector of the Danube River over the last two decades, including the repartition of this parameter on its three main branches.

In detail the paper provides a valoric presentation of the sediment volumes transported along the Romanian sector of the Danube during the flash flood of 2006 (the most important flash flood of the last hundred years) compared to previous flash floods (1981 and 2005) including details regarding its formation.

Regarding the sediment transport during the dry hydrological regime of 2003, the analysis points out a sharp decrease of the values, with serious implications in restraining the deltaic area.

Together with this main objective, the analysis also contains aspects regarding the sediment contribution of the main tributaries that come from the romanian territory during the extreme moments of the hydrological regime as well as an evaluation of the type and share of granulometric fractions on the romanian sector of the Danube.