

Prof. Benjamin Dewals
University of Liège

**When disasters strike repeatedly:
a multi-year drought followed by a mega-flood in eastern Belgium**

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11:30 - 13:00

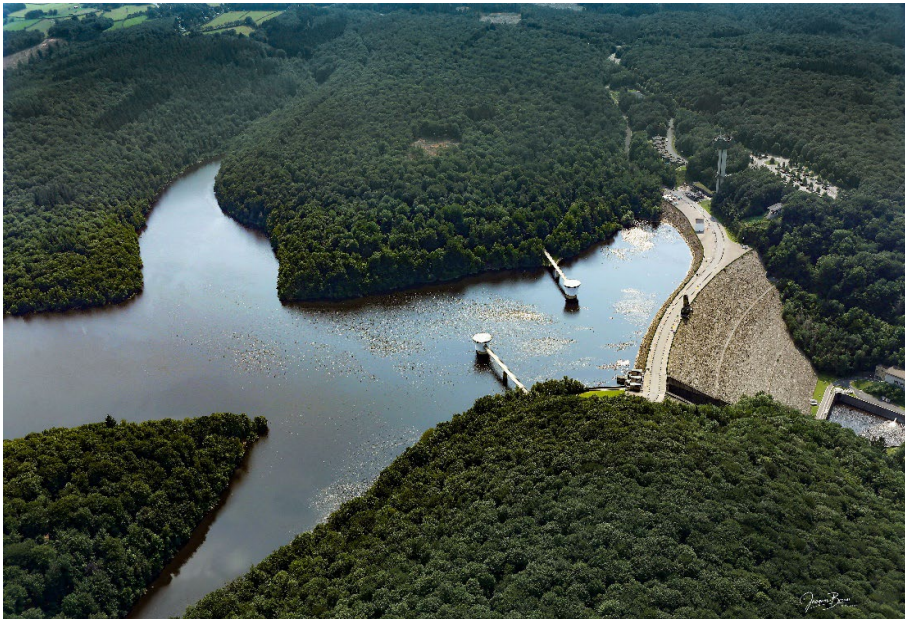
KIT, Bldg.10.81, Room 305

or online:

<https://kit-lecture.zoom-x.de/j/68470746855>



When disasters strike repeatedly: a multi-year drought followed by a mega-flood in eastern Belgium



Abstract

In July 2021, parts of Germany, Belgium, the Netherlands and Luxembourg were hit by catastrophic flooding caused by the Bernd low-pressure system. In Belgium, the most affected catchment (the Vesdre River) had experienced repeated summer droughts in the four years (2017-2020) preceding the flood. This seminar will provide an overview of how a rare hydro-meteorological event combined with unfavourable hydrological conditions in the catchment and a lack of risk awareness and preparedness, which was plausibly exacerbated by the preceding prolonged drought. The four years of record drought contributed to placing water scarcity high on the agenda of policy and decision makers. The seminar will discuss the influence of two large multi-purpose reservoirs in the upper part of the Vesdre catchment, as well as in-depth analyses of flood-related damage and monetary losses in the residential sector, which was the most affected. The results of this research highlight the need to improve the coping capacity of citizens and to better integrate flood and drought risk management.

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Biography

Prof. Benjamin Dewals researches fluvial hydrodynamics and hydrological risk management. He is one of the leaders of the Hydraulics in Environmental & Civil Engineering (HECE) research group at the University of Liège. The group, specialised in hydrological and hydrodynamic modelling, develops the academic computational model WOLF, and operates a hydraulic laboratory. Prof. Dewals has led several regional, national, and European research projects in the fields of urban flood risk modelling, dike breaching, climate adaptation and resilience, and the application of nature-based solutions to mitigate riverine and pluvial floods.

Contact information: b.dewals@uliege.be