



## **Comparative socio-hydrology for the human-flood systems of the regions of England**

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To advance our knowledge about socio-hydrological systems it is valuable to compare different systems with each other. This may lead to further understanding of the different development trajectories a system may follow and why a certain system has ended up on a particular trajectory, and not on another trajectory. England is frequently hit by floods that cause substantial damage. In the last decades the Environment Agency has tried to raise awareness of flood risk among the at risk population in England and to increase their knowledge of what to do in case flooding occurs. At the same time the flood warning systems of the different regions of England have been generalized and improved. The Environment Agency has been monitoring the beliefs and behavior of people to determine how high the awareness and preparedness among the people is and to determine what the effects are of the changes in the flood warning system. We try to capture the important dynamics of this system with a simple conceptual model based on the literature, which describes the interactions between floods, flood loss, awareness, preparedness and flood warnings. The Environment Agency divides England in different regions and for each of these regions empirical data is used to estimate the parameters of the socio-hydrological flood risk model. We compare the results for the different regions to determine whether the human-flood systems of these regions follow different trajectories and why.