



## **Is risk perception changing with evolving fluvial flood risk management practices in the UK and Netherlands?**

Lucinda Capewell, Anne F. Van Loon, and Chris Bradley

University of Birmingham, School of Geography, Earth and Environmental Sciences, United Kingdom (lkc756@bham.ac.uk)

Flood events are the most common natural hazard affecting society today, and there is growing evidence to suggest that anthropogenic climate change and human activities have amplified flood risk. In response, increasing attention is being directed towards the social and economical drivers of flood risk, including exposure and vulnerability. These factors are characterised by highly complex interactions between hydrological and social processes, and are related to the flood risk perception of individuals of at-risk communities. Increasingly, socio-hydrology concepts and models such as 'the levee effect', relating to a reduced risk perception and an increased risk to individuals living behind large structural flood defences, indicate that structural defences are insufficient to protect at-risk areas, contributing to a shift towards risk-based approaches in flood management.

Significantly, whilst a number of studies have already investigated the risk perception of at-risk individuals to flood events, few studies have investigated whether this shift from structural defences to flood risk management has resulted in a positive change in flood risk perception, and thus reduced the risk of individuals when compared with using traditional structural measures. This presentation aims to introduce a project that will investigate this by comparing two flood prone European countries: the UK and the Netherlands. These countries will be used to investigate three research objectives (1) to understand the evolution of flood management practices in the UK and Netherlands to cope with changing risks, (2) to determine whether risk perception of at-risk individuals changes depending on management option, (3) to investigate whether socio-hydrological models towards risk perception could take into account behavioural changes following a change in flood management (from traditional approaches to flood risk management). The presentation will outline how the proposed methodology: map analysis, community engagement through interviews and questionnaires, and socio-hydrological modelling, will be used to address this research gap.