
PREFACE

Flood disasters cost lives and cause damage every year. According to the Centre for Research on the Epidemiology of Disasters (CRED), global estimates for flood impacts in 2014 were nearly 3,000 lives lost, 35 million people affected and \$30bn in damages. Flood control and the reduction of flood hazard has been a goal of governments and communities for generations. However it is clear that with massive urbanisation, sea level rise and changing weather patterns globally, floods will continue to happen, perhaps with increasing frequency. Therefore the management of risk through minimising the consequences of flooding is increasingly important in ensuring the safety and security of citizens. Risk assessment, emergency management and preparedness measures are all proposed in order to mitigate flood impacts.

The papers in this special issue all fall within this theme of management of the consequences of flooding. They relate to all parts of the disaster cycle from real time warning and emergency management of the flood itself, through assessment of damages and recovery in the aftermath through to improvements in preparedness and property level protection to limit future damages.

Mioc *et al.* discusses early warning systems and stresses the advantages of including social data into such systems in order to adequately inform the authorities of the needs and priorities for evacuation of populations. Dostal considers the strengths and weakness of cooperation between governments and non-governmental organisations in managing flood emergencies concluding that this can be an effective use of resources if longitudinal relationships and trust are built up over the long term. Maiwald & Schwarz describe a loss assessment system that can be used to prioritise resource allocation in the aftermath of flooding. Joseph *et al.* describes the tendency of households at risk to take protective action to limit future losses. Finally Bhattacharya & Lamond consider the commercial sector and the need to minimise indirect impacts such as business disruption as well as the physical direct damage caused by the action of flood water.

It is readily apparent that in this field of flood risk management it is important to consider the local context in terms of governance, risk sharing and cultural characteristics. For example Dostal discusses volunteering within the context of the emergence of the Czech Republic from central planning to a more pluralistic governance. The specific insurance regime in the UK permeates Joseph *et al.*'s discussion of property level protection and specificity of building types to regions and nations are central to the loss and damage assessments presented by Maiwald & Schwarz. The complexity of combining the complex human-made urban system with the natural hydrological system nested within cultural and governmental risk regimes provides fresh challenges to researchers but also opportunities to increase the safety of communities and minimise risk to physical and financial security.

A second common theme between the papers is that of engagement of people in the proposed flood risk management measures. For example, Bhattacharya & Lamond stress that the local people's perception of risk and the effectiveness of risk reduction strategies – rather than scientific evaluation of risk and potential loss – influences the vulnerability of

commercial property value. Mioc *et al.* demonstrated that engaging citizens in the design of risk communication leads to a more transparent system that empowers decision makers by providing the information they need in a timely fashion. Furthermore Joseph *et al.* suggests that the need to protect the emotional security of homeowners through property protection is equally important as the need to protect assets.

Therefore the papers in this themed issue demonstrate breadth of knowledge needed in the management of the consequences of flooding from multiple disciplines and contain a richness of contextual detail as well as highlighting some universal themes around the benefits of engagement of communities in facilitating their own protection.

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