

Capacity and vulnerability analysis of flood risk

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Hammersmith bridge, London. Credit: Unsplash/CC0 Public Domain

The increasing frequency and intensity of flooding events worldwide due to climate change have drawn attention to the pressing issue of flood risk management. The loss of life can be devastating, particularly in less developed and more vulnerable parts of the world. In developed countries, the response is likely to save lives but sees a greater economic loss because of the damage to expansive and advanced infrastructure. That said, even in the developed world there is a big difference between the impact on low-income and affluent areas within the same regions.

Research in the *World Review of Science, Technology and Sustainable Development*, has focused on two disparate regions of London: the low-income and ethnically diverse Newham and the more affluent Hammersmith. The study reveals that Newham has a much lower level of resiliency compared with Hammersmith in terms of flood risk, despite both being equally in the Thames flood plain.

The researchers, Arzoo Hassan and Cody Morris Paris of Middlesex University Dubai in the United Arab Emirates point out that it might be argued that floods are not a wholly natural phenomenon given that they are almost always associated with the structures of roads and building in an at-risk area. Moreover, they are socially constructed disasters because those worst affected are usually the most vulnerable communities.

Certain neighborhoods often have a higher susceptibility to damage even within geographically close urban areas, the researchers explain. Poorer and marginalized populations are, they suggest, affected the most. In addition, socio-economic inequalities exacerbate the vulnerability of a given area relative to a more affluent and less demographically diverse area and hinder the ability of the area to recover quickly from the impact of the flood. Part of the problem, of course, is the lack of money to pay for the requisite insurance policies to cover damage and replace and rebuild.

The implications of this study are profound. As flooding events become more intense and frequent, it is critical that the social construct of floods and the disproportionate impact on vulnerable communities is recognized. Investing in resilience-building measures becomes paramount, particularly in [low-income](#) areas, to ensure equitable disaster response and recovery. Indeed, tailored [flood](#) risk management strategies are needed to protect vulnerable populations and foster resilient communities.

More information: Arzoo Hassan et al, Flood risk: a capacity and vulnerability analysis of Newham and Hammersmith, UK, *World Review of Science, Technology and Sustainable Development* (2023). [DOI: 10.1504/WRSTSD.2023.131924](#)

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