

Science for Environment Policy

Local pressure following Somerset flooding leads to policy change

Researchers have analysed the policy response to the 2013–2014 flooding of the Somerset Levels and Moors in the UK. Analysis of media coverage and interviews with stakeholders revealed how local pressure promoted dredging — a policy that had fallen out of favour with the national Environment Agency (EA). Although dredging was eventually readopted by the EA, there remain uncertainties over its long-term viability due to funding constraints and debates over its effectiveness.

In the UK, over 5 million people and 2 million properties are at risk from flooding. Flooding events are also expected to increase as a result of climate changes. Historically, flood defences and other 'hard' engineering solutions have been widely used. Dredging — the widening or deepening of waterways to allow more water to pass through the channel — is an example of such an approach. However, dredging has fallen out of favour as a policy due to its expense, questions over its efficiency and concerns over its impact on wildlife.

More recently, flood defence has shifted towards flood management and 'softer' measures designed to work with nature. This change is reflected in the UK Government's most recent flood strategy, '[Making Space for Water](#)'. There has also been a shift towards more local decision-making, giving those affected a greater say in how flood risk is managed. This is reflected in the UK [Flood and Water Management Act 2010](#), which gives local authorities lead responsibility for coordinating flood management.

This study focused on recent flooding in the UK. The winter of 2013–2014 was the wettest on record for the UK, and the Somerset Levels and Moors, an area of 650 square kilometres (km²) in south-west England, was subjected to severe flooding, with over 115 km² of land inundated (under water). A 20-year action plan was produced in response to the flooding, which included new tidal barriers, sluice gates (sliding gates that control the flow of water) and extra pumping stations to remove water at a cost of approximately £100 million (€118 million). The EA also reversed its flood policy and agreed to dredge the Rivers Parrett and Tone, and included dredging in the 20-year plan, marking a victory for local campaigners who had fought for several years for dredging to be reinstated (prior to the flooding, dredging had not been used in the region for 20 years).

In this study, researchers analysed national and local newspaper reports and interviewed key stakeholders to examine the policy shift. The study used a framework designed to unpick how particular policies gain prominence above others.

The researchers analysed 275 newspaper articles from four national broadsheets and 12 local newspapers from 1994–2014. They assessed how often newspapers mentioned river dredging in Somerset. To supplement the newspaper review, interviews were conducted with 10 stakeholders, including local government officials, EA staff, professional engineers and residents affected by the floods.

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**09 September 2016
Issue 469**

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Source: Smith, A., Porter, J.J. & Upham, P. (2016). "We cannot let this happen again": reversing UK flood policy in response to the Somerset Levels floods, 2014. *Journal of Environmental Planning and Management*, DOI: 10.1080/09640568.2016.1157458.

Contact:
j.j.porter@leeds.ac.uk

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To cite this article/service: "[Science for Environment Policy](#)": European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.

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The newspaper analysis indicated that prior to 2012 dredging was a low-key topic in the media, mentioned in fewer than 12 articles in national and local newspapers. Of these articles, 56% were broadly positive regarding dredging whereas 33% focused on the negative environmental impacts, such as the loss of the local mussel population.

Following the 2013–2014 flooding, the number of articles grew tenfold, to 120 articles. Reports were mostly positive in relation to dredging; for example, of the 35 local articles published from January 2014, 77% supported dredging. In the national newspapers, 67% of articles focused on the benefits of dredging during this period and only 15% flagged any concern with dredging. Findings from press analysis and interviews were that criticism towards flooding policy over this period focused on the EA not dredging rivers, as well as on national government funding cuts. Local politicians, residents, farmers and drainage engineers all called on the government and the EA to invest in dredging.

The study attributes the policy change to the work of campaigners and extensive newspaper reports highlighting the reduced channel capacity of the Rivers Parrett and Tone (which were at 65% of 1960s levels). The other main factor was local public opinion, particularly via the creation of the local campaign group [Flooding on the Levels Action Group](#) (FLAG), which pressurised the government and EA to justify its flood-defence spending and the anti-dredging policy.

Despite the policy reversal in this case, the long-term viability of reinstating dredging is uncertain. Dredging is an expensive process (costing up to €23 700 per km on the Parrett River) and must be repeated every 5 to 10 years as riverbeds naturally accumulate silt and narrow again. The EA's modelling of flood risk in the area following the flooding also indicated that, while dredging would have reduced the level and duration of previous flooding in 2012, it would not have prevented it. These concerns were reflected in interviews with EA staff and flood experts.

