

groundhog day - the great floods of 2015

The floods of December 2015 underline yet again the need for a fundamental rethink of flood policy, say **Graham Haughton** and **Iain White**, who highlight the recurring nature of public debates and propose developing an integrated, multi-level approach to change the policy direction



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Flood waters breaking the banks of the Ouse in the centre of York in December 2015 - a product of the continuing 'Groundhog Day' approach to flood policy

Government flood policy has once again been found wanting, with responses to the great floods of 2015 following an all too predictable pattern. After the Somerset floods in the winter of 2104, an article in this journal¹ suggested, in somewhat tongue-in-

cheek fashion, a checklist for how the media and politicians respond to new major flood events – sadly, virtually all of the boxes had been ticked within a week of the December 2015 floods in the North West, Yorkshire and Scotland.

Calls for a major review of policy, tick.² Doubts about existing flood risk assumptions and forecasting models, tick.³ Concerns about whether cities and prosperous regions have benefited more from flood investments while poorer areas are left behind, tick.⁴ Questions about whether planners should do more to prevent development on floodplains, tick.⁵ Debates about whether the floods are related to climate change, tick. Calls for drawing on Dutch drainage expertise, tick.⁶ Calls for officials to listen to local knowledge, which might have helped prevent the most recent floods, tick.⁷ Major figures in flood policy vilified for not being present on site quickly enough, tick; followed by visits from leading national politicians and royalty, double tick.⁸ Government money promised to help out affected householders and businesses, tick.^{2,9} Gesture politics, tick. In 2014 a UKIP politician linked gay marriage policy to floods; in 2015, some MPs claimed money to help flood-affected communities should be diverted from the aid budget to help the poorest around the world.

In short, while the precise nature of the recent floods might not have been predictable, the immediate political and journalistic response certainly has been.

Despite repeated calls from scientists and the public in recent years for a fundamental rethink of flood policy, it remains essentially unchanged – the radio wakes us all up with the same awful song and ‘Groundhog Day’ begins anew. It’s time to acknowledge both the recurring nature of the disaster-response cycle and the need to design steps that have the potential to change it.

Given the most recent promise to undertake a major rethink of policy, what should the Government consider doing? We outline here a multi-scalar approach for developing an integrated approach to flood policy.

Local scale

At the building scale, more needs to be done to educate developers, homeowners and businesses about the range of available resistance and resilience measures¹⁰ that can be used to help in the event of future flood events. Insurers also need to recommend this approach and accept that smart recovery should promote adaptation over restoration. Equally, the limits to what flood protection measures can achieve need to be made clear: they cannot prevent all floods, but what they can do is reduce risk levels.

At local government level, all Local Plans need to be flood proofed, and developer and political pressure to build on flood plains without appropriate mitigation strategies needs to be resisted. The rapid onset of extreme events as the new ‘normal’ means that plans will be quickly out of date and the conventional scientific approach of using the past to

predict the future is now less reliable. History demonstrates how knowledge quickly develops and areas delineated as being at high, medium and low risk may need to be revised to a more cautious estimate.¹¹

Specifically, we propose a new ‘blue belt’ policy to improve flood protection around major rivers, coastal areas and other watercourses known to be at risk of flooding. For built-up areas, we need funding and policies to create more soakaways and water retention areas, some acting as parks and riverside walkways in everyday use, but readily convertible as flood retention ponds when required – an approach that has been successful in cities as diverse as Curitiba in Brazil¹² and Glasgow.¹³

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Given the growing concerns around surface water flooding and the inadequacy of our aging urban drainage systems, priority must be placed on upgrading them, but not to existing 1-in-30 year standards, which are plainly no longer appropriate. Urban drainage standards need to be revisited as a matter of urgency, and Ofwat, the economic regulator, needs to be encouraged to rethink its position over this issue.

During negotiations within every periodic price review, water companies routinely apply to Ofwat for additional funds to upgrade their assets, but these are ranked down due to the fear of passing on costs to the customer. As a result, drainage infrastructure fails more often than it should. The Government should charge the regulator with assigning greater weight to infrastructure capacity in future to provide and maintain urban drainage systems, with a higher level of ‘head room’ to allow for them to cope with extreme weather events.

In flood-prone areas we also need to encourage a ‘local conversation’ involving all stakeholders about what kind of flood policy people want for their

particular areas – what levels of risk they are willing to tolerate.

Regional and catchment scale

But local policy on its own will not be enough, given that flood policies in one area will almost always require integrated policy interventions in surrounding areas, both upstream and downstream. To address this issue, we need more effective regional- and catchment-scale thinking. The introduction of 'softer', less powerful policy initiatives such as catchment flood management plans has clearly been ineffective at providing the

which will require a national conversation to ensure that the public, landowners and visitors appreciate why landscapes will change, as more shrub and tree cover is brought in as a means of improving water retention at source. Certain agricultural grants need to be flood proofed, for example being made conditional on not overstocking land where soil compaction is a concern. There are examples of where this catchment approach has been effective,¹⁴ and upstream and downstream policy silos, such as those between agriculture and flooding, need to be tackled as a matter of urgency.



Cheshire Fire & Rescue

Flooding in Carlisle in the aftermath of Storm Desmond

overarching governance and strategic approach that has the authority to bring stakeholders together. A new, stronger approach is required for future flood policy governance at all scales, but improved catchment level powers and funding are essential for integrating policy across local areas.

National scale

Planning policy needs to be strengthened at national level to require active management of land for flood risk prevention purposes. This would include new rights to intervene over agricultural usage – something that historically the planning system has been discouraged from engaging with. We are now in a new era and a new approach is required.

The management and usage of upland areas in particular needs to be fundamentally rethought,

Global scale

We will need to make tackling global warming a central part of a multi-scalar approach to flood policy. Extreme weather events have become the new 'normal' – there will be no reversion to earlier climate patterns even if we address global warming, owing to the lag in the system and the high development pressure. The majority of climate scientists tend to agree on two things: that recent extreme weather events are unprecedented; and that we will continue to experience more of them.

As a matter of urgency, we need to find ways of integrating policy at all scales. An example of an easy win here would be to address the drying out of peat bogs and reduce carbon dioxide emissions, while improving both carbon retention and water retention. But in isolation these measures do not break out of the silo approach to flood policy and its

governance. The repeated events lend weight to the argument that we are in need of serious reform that integrates across scales and sectors rather than a small-scale tinkering or an incremental rise in flood defence funding.

Changing the status quo

These proposals accept that, while flood protection measures are helpful, we need to do much more, as the December 2015 floods have made clear. None of these proposals will be without their detractors. Vested interests will endeavour to ensure that there is minimal change to existing policy. Measures which require strong state direction and change the status quo routinely run the risk of being simplistically pigeon-holed as 'red-tape' on business efficiency.

The alternative, however, is that we continue with our 'Groundhog Day' approach to flood policy, but with the unpleasant twist that with each repeated failure to understand the consequence of our actions, things get worse.

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Notes

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