

‘Joined up solutions’ vital in the prevention of future major flood events

We must look at all the options and joined up solutions to come up with effective measures against future major flood events.

The downpours in December and January, and the continuing flood events in Northern England and Scotland, from Dumfries and Galloway to the North East require all of those who are responsible for and engaged in managing the countryside to develop holistic, landscape scale solutions that place people first but that take all other factors into account.

Even as this unrelenting, wet winter continues and flooding continues to threaten, a number of different solutions are being proposed by Governments on both sides of the border, and by various organisations, as to how such events can be prevented in the future. Money is being spent – the Scottish Government has made available £1 million through its Agricultural Floodbank Restoration Grant Scheme – but flooding is unpredictable, localised, and at a catchment-scale. Too often the steps taken are in response to events and overdue, for example dredging and pumping the Somerset Levels, when we should be thinking about flood risk in the context of overall better countryside management; prevention rather than cure.

Many of the proposed solutions hold water. Some of the factors attributed as causal to these devastating flood events do not, such as grouse moor management or deer numbers. If they do have even a small part to play then that claim should at least have some science to support it.

Rather than spuriously pointing the finger at individual land uses, the reality is that where there are a combination of factors such as those seen on the River Dee in December, where the highest water levels were recorded since 1928 – incessant, heavy rainfall, warm temperatures causing snowmelt, and already saturated soils – then water levels have no option but to rise, and rise rapidly, and flooding is inevitable.

Flooding of this severity, with fast flowing water, and rapid bank and soil erosion, causes severe damage to everything in its path; not just to property and infrastructure – roads, tracks, bridges, buildings – but also to fields and grazing, dumping stones, rocks, rubbish and debris, tearing down fences, destroying crops and drowning stock. As we saw, a stretch of the A93 west of Ballater simply disappeared into the river.

Flooding, and the force of water, undoes everything that farmers manage diligently – topsoil and nutrients stripped from fields, ditches blocked, water quality compromised. It undoes what conservationists work for too - both in and alongside rivers and streams, tearing down trees and tearing up habitat, wrecking spawning grounds, wreaking havoc. There is the human cost – loss of or threat to life, stress, loss of belongings, inconvenience, businesses challenged because of closed roads, loss of power or internet, or all of these.

Everyone recognises that infrequent flood events are likely to become more frequent. So where does an organisation like the Game & Wildlife Conservation Trust fit in terms of working with others to find workable solutions?

NFU Scotland has called on SEPA and the Scottish Government to allow farmers a fast track process to undertake remedial action, and indeed there are works such as repair with like for like materials of flood defences that have failed or washed away, dredging straightened drainage ditches, and removing vegetation and fallen trees that requires no license. Confor has said that part of the solution lies in planting more trees. The James Hutton Institute has called for “joined up action” too.

The farming community has a major role to play and the debate about flooding fields for flood defence has a long way to go. The best quality farmland often is that most at risk from flooding. One suggestion has been tabled of £200/hectare as a reasonable grant to flood farmland and, indeed there is already EU money available for farms to be used to hold back flood water. Last year the WWF said that farmers should only receive subsidy on condition that they allowed their land to flood.

The Game and Wildlife Conservation Trust is, at its demonstration farm at Loddington in Leicestershire, running the Water Friendly Farming Project with neighbouring landowners and farmers over three river catchments and an area of some 30 sq km.

Among the Project's many objectives, GWCT work monitors water quality in each tributary in each of the catchments, as well as surveying aquatic invertebrates and plants in ditches, ponds and streams. The work looks at many options that could be more widely adopted on farms such as ditch dams, in-field floodwater ponds and field drain interceptor traps to capture silt, sediment and nutrients, and ways to prevent soils leaving fields in the first place. Other measures include fencing animals away from streams, increasing earthworm numbers, reducing soil compaction, and diverting storm water away from slurry storage tanks.

GWCT's Water Friendly Farming Project works closely with farmers by adopting measures that are compatible with and wherever possible beneficial to their businesses. In the future the Project will also explore the benefits of this approach to managing flood risk in urban areas downstream.

As so often, when nature and land management collide, there is balance to be struck – balance between maintaining productive farmland for healthy cropping and stock, and flora and fauna, whilst also providing a line of defence for people and property; and a balance between keeping soil and nutrients where they are needed whilst minimising the risk of run-off damaging the aquatic environment and compromising water quality.

There is also the question of looking ahead and striking a balance between working with those factors that we can manage – tree planting, rerouting and reforming watercourses and meanders, flood plans, and peatland restoration for example, to counter those - like extreme weather events - that we cannot.

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