

NATURAL FLOOD MANAGEMENT – THE FARMERS VIEW

Introduction

A new sustainable approach to flood risk management which utilises land management has been brought to the forefront of policy making in Scotland through a policy chain including the EU Water Framework Directive 2000, the Water Environment and Water Services (Scotland) Act 2003, the EU Floods Directive 2007 and the Flood Risk Management (Scotland) Act 2009. This new approach manages risk in an integrated and holistic way, to proactively tackle the causes of flooding. Land use is central. Natural flood management (NFM) utilises land management measures to store water and slow the flow in upland areas to reduce flood risk downstream. NFM measures typically include wetland and bog creation or restoration, improvement and maintenance of buffers strips, contour ploughing and afforestation, and the installation of leaky barriers in water courses. To date, uptake of NFM by farmers has been poor - suggesting substantial barriers to implementation exist.

Key Points

New research and a review of the literature shows that a number of factors are likely to be influential in farmers' view of natural flood management and whether they might consider implementing it on their land. The key barriers are:

- Economic factors such as maintaining a viable farm business
- Funding and organisations such as the amount of funding and the relationship farmers have with key organisations
- Availability of support such as appropriate information, trusted advice, help if things go wrong
- Policy landscape such as the volume of regulations and complementarity of NFM with other policies
- Social factors such as tradition and what other farmers and the public think of farmers and NFM
- Pests and parasites such as fluke, geese, spreading wetlands as a result of NFM

Catchment issues such as a catchment wide plan, multiple farm involvement, action in urban areas

Research Undertaken

In order to better understand barriers that exist to implementation of NFM by farmers a literature review has been conducted, and communication with 193 farmers has taken place in Scotland in 2011. Below is a summary of the factors which farmers have said affect implementation of NFM features on their land. We use the farmers own words to illustrate each issue.

Economic factors *“you have to remember that farmers are businessmen, our key concern is that our businesses are viable”.* Farmers have to run a viable business. If implementation of NFM affects the viability of the business farmers are unlikely to consider it. Business viability can be affected by land being taken out of production because of NFM; economies of scale of the farm being affected by land taken by NFM; and whether funding is available and compares favourably with other income that could flow from the farm.

Funding and organisations *58% of farmers in the survey said more funding would encouraged them to implement NFM.* Research shows that the amount of funding available is important, but the characteristics of a funding scheme can be important such as how difficult and time-consuming the application process is. The relationship with key organisations also seems to be important. If farmers have a difficult relationship with a key organisation responsible for NFM, they are less likely to consider implementation. On the other hand, if farmers have a positive relationship with an organisation, perhaps acting as a “trusted intermediary” between farmers and agencies, NFM uptake is likely to increase.

Availability of information and support *“It’s one of those things you hear about in all the stuff they send you but it’s in one ear and out the other”.* 93% of farmers in the survey had never heard of or knew very little about NFM. 64% said lack of advice is a barrier to implementation of NFM. It is clear that farmers themselves are not well informed about NFM, but there is also evidence suggesting that farm advisors are not well informed and therefore are unlikely to advise farmers to implement NFM on their farms or apply for relevant funding packages.



Policy landscape *“it must tie in to your whole farm business; you can’t be given money for one thing and then have it taken*

away in another area". We found that farmers are concerned about the amount of legislation, regulation and guidelines they are subject to. Further, farmers are unclear about exactly how the regulations relate to them and their farm, for example farmers find regulations regarding dredging of ditches confusing and unclear. As the quote above illustrates farmers are worried about the lack of co-ordination between different policies that affect them. A particular issue is whether NFM features on their land might affect their eligibility for single farm payment. When asked "Is there anything that will encourage you to put NFM on your farm", 29% of farmers said yes, if it didn't affect my single farm payment.

Social factors "I have a wetland. It's spread so much it has become an eyesore. I am embarrassed about the field [...] it looks like it's just been abandoned". Our research shows that a number of social factors are important in implementation of NFM features. Many farmers think NFM features are or will be "unsightly". The survey showed that farmers see themselves as custodians of the countryside and like tidy landscapes, but also think that they will be judged by their peers and the public on how tidy their farm is. Farmers want the public to see that they work hard, and don't get money for nothing. They worry that an "untidy" farm might give that impression. Farmers want to demonstrate to other farmers that they are good at their job and worry that NFM does not show this. Farming tradition is also important. For example, farmers may have been draining parts of their land for many years and are resistant to reversing this practice. The quote in the box above is typical.

"My great grandfather was paid by the Duke of Gordon to cut the ... burn straight through the farm and beyond ... they would turn in their grave if they thought I was ignoring the work they did".

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Pests and parasites "Next door dug a pond ... all it does is smell, entices vermin and is full of weeds which blow on to our ground and that involves more pest eradication ... we have more spraying costs". A common perception amongst farmers is that NFM features will encourage pests and parasites onto the farm and at the very least increase farm costs as these pests and parasites would have to be dealt with. Farmers we spoke to were worried about badgers, foxes, mink, geese, as well as the parasites BVD, TB, Fluke.



Catchment-wide issues "Too much has been built on flood plains. When there is a big flood it wouldn't have happened if they weren't building houses on flood plains. If everybody kind of went together and did something, it would help"

Farmers were keen to see NFM be considered on a catchment-wide basis.

There are two elements to this. First, the urban-rural connection. Farmers asked why they should do anything about flooding when urban communities were building on floodplains. Second, farmers wanted any flood risk management plan to consider not just their farm, but other farms in the catchment. They were clear that implementing features in isolation would not work. It was suggested that a "catchment champion" might pull all parts of the catchment together and

promote catchment wide buy-in to a flood risk management process. 38% of farmers stated that if NFM were part of a catchment wide approach, they would be encouraged to implement it on their land.

Solutions to barriers "I would like somebody to come round once a year and to give a bit of advice as to how to manage it ... where do you go for help?" Farmers suggested a number of solutions to these barriers to implementation of NFM features on their land. They include providing clear concise and targeted information about NFM to farmers and their advisors; developing and promoting viable funding schemes that are relatively simple to access; using or promoting a trusted intermediary or catchment champion to provide information and support to farmers; identify locations for NFM that would not negatively affect the farm business; and to ensure a catchment wide approach is adopted, promoted by a catchment champion.

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More information: <http://www.crew.ac.uk/projects/natural-flood-management>

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