Neighbours can influence farmer participation in PES schemes

Understanding the role of neighbourhood networks in encouraging farmers to participate in Payments for Ecosystem Services (PES) schemes is important as this can help to create local patterns of high and coordinated uptake of PES schemes, and thus an impact on ecosystem protection at a wider, landscape level. This is the outcome of a recent UK study, which found that neighbourhood networks were particularly important for small, remote communities.

Conservation policies aiming to protect biodiversity include paying local landowners to manage the land in a way that maintains biodiversity, habitats and species. Such policies are most effective at the landscape scale, but financial incentives are typically offered to individual farmers participating in Agri-Environmental Schemes (AES). Successful AES that are also intended to preserve ecosystem services though PES partly depend on understanding what motivates farmers and other landowners to voluntarily participate in such schemes. A high level of participation ensures the connection of large areas working at a landscape level that, taken together, are managed by appropriate and well-designed strategies.

At the local level, the decision of neighbouring landowners to join (or not join) a PES scheme can have a strong influence on whether an individual farmer decides to participate. This study explored one design of AES, the Environmentally Sensitive Area (ESA) scheme in Scotland, UK, using the 'Hägerstrand geographical model', which mathematically calculates the distribution of farmers taking up new 'environmental' activities. It investigated whether there are any patterns explaining farmers’ uptake across the different designated areas as ESAs in Scotland. A cluster or a high proportion of farmers in an area joining a scheme with a relatively quick rate of uptake is often an indication of a strong neighbourhood effect.

The study found little evidence that positive views and experiences in existing farmer networks within one ESA would be passed onto farmers in other ESAs.

In some of the ESAs, there were very small clusters of high levels of participating farmers, typically living in small communities and in remote areas. People living in small, isolated communities tend to be close-knit and collaboration with neighbours is common. In addition, in these areas, respected farm advisors have a strong leadership role in encouraging farmers to join the scheme. Trust in advisors is especially important where farmers have less access to other sources of information about the schemes, as can be the case in remote areas.

However, farmers on large farms situated close to cities have a wide range of opportunities to find alternative income to agriculture and are therefore less likely to be influenced by collective decision making.

This study suggests that the Hägerstrand model is an effective tool to determine if design of PES schemes adequately account for factors that encourage the widespread uptake of agri-environmental conservation measures among landowners, such as neighbourhood networks.


Contact: d.vanderhorst@bham.ac.uk

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