Social promotion of flowering meadows enables farmers’ results-based agri-environment measures in France

This study assessed the implementation of the ‘Flowering Meadows’ agri-environment scheme in France, a results-based scheme which encourages farmers to conserve meadows in the Bauges, Haut Jura and Vercors natural parks. While there was limited change in agricultural practices, the scheme did help to maintain meadow habitats. Farmers also welcomed the results-based payments approach, which gave them greater responsibility for and flexibility in managing their farms.

The expansion and intensification of agriculture are major causes of biodiversity loss. Less intensively managed grassland habitats (e.g. meadows) are a particular focus of agri-environment schemes (AES) as they contain a wide range of flowering plant species and are vulnerable to changes in agricultural practice.

This study looked at the management of flowering meadows. Maintaining a diversity of meadow-flower species can maintain a meadow’s value in terms of feed nutrition and appeal longer than a meadow with lower species diversity and higher productivity. Enhanced biodiversity can benefit agricultural landscapes, as it helps to support important ecosystem services, such as pollination, and some farmers mention the positive effect of flowering meadows on milk quality, cheese flavour and animal welfare.

In means-orientated agri-environmental payment schemes, farmers are contracted to carry out certain agricultural practices, while payment in results-orientated schemes is based on the provision of a biodiversity-related outcome, allowing farmers to choose how they achieve the desired result. The French ‘Flowering Meadows’ agri-environmental measure (AEM) was established in 2007 to preserve high floral diversity on meadows. Farmers commit to ensuring that at least four plants, from a reference list of 20 species of ‘high ecological value’, are present in meadows on their land. The reference list was collectively drafted by a range of stakeholders, including farmers.

In this study, 39 farmers from three regional natural parks (Bauges, Haut-Jura and Vercors — representing 26% of the 149 farmers contracted to the scheme) were interviewed to clarify their motivations for taking part in the ‘Flowering Meadows’ AEM and any associated changes in farming practices. Forty-four other stakeholders were interviewed, including representatives of agricultural organisations, the agri-food sector, park and local government officials, members of environmental-protection associations and researchers. Of these, over half (27) had been involved in the development or implementation of the AEM.

Farmers seemed to approve of the flexibility of the results-orientated scheme, as it gave them greater responsibility to decide which practices to use in order to maintain the required ecological indicators, compared to means-orientated schemes, for example, by allowing them to adapt practices from year to year.

The scheme supported continued low-intensity meadow use by providing farmers with another incentive (in addition to good-quality forage) to maintain the ecological diversity of meadows. It also seemed to foster farmers’ interest in this form of biodiversity. However, this could not be attributed solely to the AEM, as other, local measures are likely to have contributed, including training and educational activities for farmers, and annual flowering meadows competitions.

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The result-based approach created few constraints and thus there was a positive response from farmers regarding the maintenance and interest in flowering meadows. In general, farmers selected fields to be part of the scheme that already had more than the required diversity of plant species of high ecological value, and had little need to change their practices. The researchers identified technical changes in farming practices in only four of the 39 farmers interviewed. These were: mowing later in the season; not mowing certain areas to let flowers go to seed; manually gathering and sowing seeds in molehills; buying organic activators to fertilise meadows; and diluting liquid manure before spreading.

A few farmers foresaw making future changes, such as over-seeding fodder plants and limiting fertilisation, and two farmers said the AEM discourages intensification in flowering meadows.

The researchers conclude that for results-orientated AES to be effective, they can be combined with means-orientated measures, to ensure baseline actions are taken and to lower the (real or perceived) risk for farmers. The payment calculations might also be reconsidered; instead of being calculated relative to (as lower than) compensation payments for losses in production and supplementary costs, they could in future be more directly linked with the ecosystem services farmers provide.

Also, they recommend that ecological indicators (such as the 20 flowering meadow plant species used in this AEM) should be compatible with agricultural production. These indicators should also be easily recognisable to farmers and adequate guidance should be provided to allow farmers to implement the measures required to meet them. The researchers also suggest that a two-level payment structure could provide higher rewards to farmers who have improved biodiversity: for example, if they increase the number of ecologically valuable species within their meadows rather than simply maintaining the diversity of ecologically valuable species already present.

They also suggest that preparatory local and collective actions, and participative governance are required to complement and support the AEM — including long-term discussions and mutual understanding between environmental and agricultural stakeholders, and peer discussion between farmers about the implementation of the measure. In this case, the integration of a positive biodiversity norm into agriculture was mediated by a visual symbol, ‘meadow flowers’, and a wording, “flowers in meadows are the proof of a good agro-ecological balance” — which were understandable and mobilised by the farming and wider community, resulting in sustainable social connections and practices.