

Science for Environment Policy

Rewilding as an option for abandoned farmland

Leaving land to return to its wild state could be beneficial for abandoned farmland, according to a new study. The researchers argue that 'rewilding' provides valuable ecosystem benefits and in certain cases could be a more achievable goal than maintaining traditional agriculture in areas of Europe where rural populations are declining.

In Europe, rural populations have fallen by 17% since 1961, driven in some regions by low agricultural productivity of the land, an ageing population and the migration of young people to urban areas. One argument for maintaining traditional agricultural landscapes is that they protect biodiversity and important ecosystem services. Policies and subsidies, such as Less Favoured Areas (LFAs) subsidies (LFAs-Regulation 1257/1999)¹, have been designed to prevent farmland abandonment. Rewilding promotes the slow return of land to natural forest and other natural habitats following abandonment by farmers. It involves little active land management, although farmland may take 15-30 years to return to forest and, until then, scrubland (sparsely vegetated land, dominated by low shrubs) prevails. In some cases early management interventions are required, such as encouraging increases in populations of large herbivores or assisting forest regeneration.

The researchers examined arguments used to support the maintenance of farmland over rewilding, such as the belief that maintaining traditional agriculture is more environmentally-friendly than abandoning farmland altogether. To gain a better understanding of traditional agriculture's effects on biodiversity, they reviewed previous studies on the subject and, from these, identified 110 species that would benefit from farmland abandonment but 101 that would lose out. However, further research is needed to understand how species diversity might change at a regional level. They argue that if a mosaic of closed forest and open landscape patches was maintained, biodiversity could be just as strong on a regional scale as it is on traditional farmland.

Secondly, they examined the changing quality of life for traditional rural populations. They claim that, since the Industrial Revolution, traditional farming has become uncompetitive under globalisation's effects, and European mountain communities now have low incomes and limited access to jobs and education. Finally, they considered whether efforts to maintain traditional landscapes are likely to succeed. Despite current efforts, farmland in Europe is predicted to continue in its decline, with between 10-29 million hectares expected to be lost between 2000 and 2030. According to the researchers, rewilding has previously been disregarded as a land management option. They suggest it could be used in Europe as one possible strategy for improving biodiversity. Additionally, it could be suitable for other abandoned areas, such as decommissioned military areas and forests previously used for timber. However, the study does not account for social, cultural and economic drawbacks and costs of abandonment.

Rewilding could eventually provide important ecosystem services, such as carbon sequestration and water cycling in forests, improved nutrient availability and cultural benefits, the study argues. This has been witnessed in the Abbruzze region of Italy, for example, where rising numbers of bears and wolves on newly-wild land have boosted tourism. Rewilding's suitability depends on local context and goals, and its benefits must be weighed against its disadvantages. While some species will benefit locally, some will be negatively affected, for example, threatened species that depend on extensive, traditional agro-ecosystems, and do not have alternative habitats to turn to, will be lost along with these farmland habitats. Moreover, rewilding also presents challenges in terms of managing fire risk in scrubland and unmanaged forests, and protecting livestock protection from forest predators, such as wolves, and crops and plantations from grazers, such as deer.



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1. http://ec.europa.eu/agriculture/rurdev/lfa/comm/index_en.htm