

Understanding farmer dependence on different income streams and how this influences behaviour and the delivery of ecosystem services associated with permanent grasslands.

Objective: Permanent grasslands (PG) are at risk of loss or degradation due to agricultural land use and land management changes. Assessing which policies optimise PG conditions across different climatic and sociocultural regions in Europe is challenging. Policy development requires an assessment of the main economic influences on farmers in relation to maintaining and managing PG systems, across different contexts, as well as their impact on risks and opportunities for delivery of Ecosystem Services (ES).

Methodology: A systematic literature review of European, peer reviewed studies on farmer responses to CAP from 1962-2019 was conducted. The review was supplemented by data from the Farm Accountancy Data Network (FADN) to provide an economic context in which farmer land use and management decisions are made, as well as CAP subsidies to farm income in selected European countries (i.e. Czech Republic, Sweden, Spain and UK).

Key Findings:

- Many European farmers were dependent economically on Basic Payments and Rural Development Funding. While subsidies (direct payments) can offset low profitability and limit change, they are often not sufficient to prevent significant increases in intensification or abandonment.
- Protection of PG through regulation (CAP Cross Compliance and Greening) is also unreliable in protecting PG, from degradation or loss. This is particularly true in the case of environmentally sensitive PG (ESPG). Agri-environment schemes (AES) can support market premiums, for example for organic and niche products.
- Land abandonment is most prevalent in less favoured areas (LFAs), which experience challenging geographical and climate conditions leading to higher production costs and an inability to adapt the land management to social and economic pressures. The characteristics that make these areas valuable for biodiversity, are often the same that threaten the economic viability of farms.
- Policy can be ineffective at targeting how the land is managed to optimise Ecosystem Service provision. Land use policy which can take account of land capability and carrying capacity could enable more targeted and effective policy.

Policy Implications:

- More targeted support through Agri Environment Schemes can encourage a balance between food production and other Ecosystem Services but uptake is voluntary and farmers may adopt the most economic options, which may not deliver desired environmental outcomes. Locally-focused, or flexible, policy approaches are needed to maintain and improve the provision of ecosystem services from permanent grasslands.
- Payment by Results agri-environment schemes may improve Ecosystem delivery associated with PG.
- Many PGs are associated with valued landscapes and opportunities for diversified income streams e.g. via tourism, food processing, and environmental management, supported by market premiums (e.g., for organic, and pasture-based products).

Key References: Elliott et al., (2024). European Permanent Grasslands: A Systematic Review of Economic Drivers of Change, Including a Detailed Analysis of the Czech Republic, Spain, Sweden, and UK. *Land*, 13(1), 116