

LITERATURE REVIEW: Innovations Benefiting HNV-Farming Systems, Farmers and Communities

OBJECTIVE

A review on EU-level research into innovation relevant for High Nature Value (HNV) farming systems was completed to: 1) identify the state of art in the area of innovation of relevance to HNV farming systems, 2) to identify gaps in research, and 3) to make recommendations for addressing these research gaps through further work in the context of Horizon 2020.

HNV innovation is defined as a change in the institutional, regulatory, market or farming approach that is better able to conserve HNV farming characteristics. This notion distinguishes HNV innovation from “general” innovations that aim at economic and/or social and/or environmental goals, but that are not consistent with the conservation of a significant rate of semi-natural vegetation within the development of farming systems.

METHODS

English-language research papers, reports and other publications (e.g. assessments, case studies) were included in the review. The focus was on work done in the EU between 1992 and 2016 but some key papers for other regions were also included. The innovation typology used in the EIP-AGRI Focus Group on HNV Farming Profitability was followed:

- 1) Social and Institutional: co-operation between farmers, co-operation of farmers with other local actors, catalyzing farmer groups, institutions and institutional structures that favour innovation, including co-innovation across different institutional levels (local-national-EU).
- 2) Regulatory Framework: legislation that affects HNV farming, processing and marketing, and how it can be designed to favour innovation in these areas and not hinder it.
- 3) Products and Markets: development of new products, product processing, adding value, marketing of products from HNV farming systems and areas.
- 4) Farming Techniques: reducing costs and increasing efficiency through development of appropriate technologies, farming techniques (including locally adapted), grazing management and monitoring, organization of labour.

MAIN RESULTS

We identified 540 publications relevant to innovation in agriculture and rural areas, of which 303 were short-listed for more in-depth investigation. Most of the short-listed sources were in the Markets and Products theme (48%), followed by the ones in the Regulatory Framework (28%), Farming Techniques (17%) and Social and Institutional (7%) themes. After revision, only half of the short-listed sources in all innovation themes (160) were regarded as relevant for HNV farming systems. Of these, 99 (62%) were in Markets and Products, 41 (26%) in Farming Techniques, 14 (9%) in Social and Institutional, and 6 (4%) in Regulatory Framework themes.

Limited scientific focus on HNV farming systems regarding innovation

- ü Overall, there is very little research that directly focuses on the challenges faced by HNV farming systems and regions. The issue of natural values (incl. biodiversity) is seldom explicitly considered in work with focus on innovation in HNV farming areas.
- ü The predominance of literature on Markets and Products and on Regulatory Framework themes suggests that solutions to the challenges in HNV farming regions are often sought through developing new market opportunities for the products from the HNV farming systems



and improving the existing policies. However, publications mostly are referring to the *potential* for such solutions and the need to pursue them, rather than actual experiences.

- ü Few of the reviewed publications actually discuss directly HNV markets or products. Market innovations focus mostly on benefits to consumers and/or producers and the environmental benefits mostly refer only to carbon emission savings.
- ü Social and institutional innovations in agriculture are well analyzed in the literature, but not in the specific context of HNV farming. Though most of social and institutional innovations in agriculture are relevant for several contexts (such as smallholder farming), this indicates a research gap in the case of HNV farming specifically.
- ü The current EU policy impacts on HNV farmland are discussed in only a few publications. Most of the research investigates potential scenarios with little analysis of how the existing policy measures impact different farming systems. HNV farming is a peripheral issue lost in the wider policy reform process, which is reflected in the gap for the regulatory innovations.
- ü Few findings of Farming Techniques innovations are specifically from the HNV farming systems. Most are from organic systems or on resource conservation in intensive system.

Some innovation themes geographically clustered

- ü Many French publications are on Protected Designation of Origin (PDO) but very few of them are explicitly dealing with HNV farming. In Spain, a focus is on pastoral livestock systems generally and PDO but again there is little explicitly on HNV farming systems. In Bulgaria and Romania, there is a clear focus on HNV farming and direct sales, but almost none on PDO.
- ü This reflects the historical focus on traditional food (related to HNV farming) in some countries and early adoption of HNV farming concept in some others.

Innovation literature dominated by “wishful thinking” rather than practical experiences

- ü Most literature argues for innovations needs to enable more sustainable farming systems but few papers elaborate on existing innovation examples. We know what is needed, but not how to do it. For example, “in order to preserve this HNV system, it would be good to link more tangible environmental outcomes to Pillar I payments”.

Overlap between innovation themes

- ü The four innovation themes are interlinked; the purpose of social and institutional innovation is sometimes to develop new markets, products, technologies or even to change the context (e.g. the regulatory framework). Some of the social innovations are argued to enable further institutional innovations and vice versa.

RECOMMENDATIONS TO THE PROJECT AND FUTHER WORK.

- ü There is a clear need for more research into innovation potential with HNV farming regions, including in the context of Horizon 2020.
- ü Defining multiple benefits from HNV systems, including explicit biodiversity analysis in the accountability of innovation, and identifying the needs for faster diffusion of innovations within them is important.
- ü Most of our understanding of innovations is described in general terms, and thus might generate a problem for the development of guidelines for assessment or concrete initiatives in a specific HNV-farming context.
- ü Special attention should be given to “hidden innovation”, that is such that are implemented but not reported.

The project work will continue on the national, regional and local levels, also with the national language sources and work that is not published.

