Institution: University of Edinburgh and SRUC, Scotland's Rural College

Unit of Assessment: 6

Title of case study: Recognising European farms as being High Nature Value (HNV) promotes conservation of fragile ecosystems and is now embedded in EU rural development policy.

1. Summary of the impact (indicative maximum 100 words)

Impact: Policy and economic: Introduction of the concept of High Nature-Value (HNV) Farming and embedding this into EU Rural Development Policy: Guidelines and policy options for exploiting the concept have been refined such that the EC has incorporated the care of HNV into legislation and Rural Development planning.

Significance: HNV farming recognises that sustaining or enhancing biodiversity is a central feature of the management of rural areas.

Attribution: Prof. McCracken (SRUC)

Beneficiaries: Policy makers in all Member States of the EU.

Reach: All EU member states. It is estimated that HNV farming systems are being practiced on 30% (i.e. 52 million ha) of EU agricultural land.

2. Underpinning research (indicative maximum 500 words)

SRUC research highlighted the ecological importance of classifying individual farms as high nature value, as opposed to simply classifying a broad region and has directly led to changes in EU policy.

The High Nature Value farming concept recognises that 50% of all species in Europe depend on agricultural habitats and that the continuation of HNV farming on habitats such as hay meadows, wet grasslands, heathlands, chalk and dry grasslands is essential to maintain their nature conservation value. From 1995 onwards, Prof. McCracken (Team leader, employed 1995-onwards) worked in close collaboration with the European Forum on Nature Conservation & Pastoralism (EFNCP), Institute for European Environmental Policy (IEEP) and other European partners, to investigate a range of HNV farming systems and seek to identify broad factors common to these systems that were important for maintaining the associated nature conservation value [3.1, 3.2].

The research identified that the majority of the HNV farming areas remaining across Europe were livestock-based systems confined to mountainous or other remote regions and that little was known of the characteristics of those systems. Between 2001 and 2003 SRUC coordinated a Directorate General (DG) Research-funded Concerted Action, which used workshops and case studies to provide additional details of the agricultural, ecological and socio-economic importance of such extensively-managed pastoral systems across Europe. The Action made recommendations as to how Common Agricultural Policy (CAP) reform could be used to support such systems more effectively [3.3].

We also contributed agricultural ecology expertise to the European consortia by developing indicators to help identify HNV farming systems through research projects commissioned by the European Environment Agency in 2003 [3.4] and DG Agriculture in 2006 [3.5]. The findings from both these projects highlighted the ecological importance of classifying individual farms as high nature value, as opposed to simply classifying a broad region (since the latter would include HNV and non-HNV farms).

In 2007, the European Commission stipulated that HNV farming systems had to be regarded as a policy priority in all EU Member States' Rural Development Programmes. Between 2010 and 2011 we assisted the Scottish Government in estimating how much Scottish farmland was under HNV farming systems and identifying how this had changed each year since 2007 [3.6].

3. References to the research (indicative maximum of six references)

3.1) Bignal, E. M. and McCracken, D. I. 1996. Low-intensity farming systems in the conservation of the countryside. Journal of Applied Ecology 33 413-424. http://dx.doi.org/10.2307/2404973

3.2) Bignal, E. M. and McCracken, D. I. 2000. The nature conservation value of European traditional farming systems. Environmental Reviews 8 149-171. http://dx.doi.org/10.1139/a00-009

3.3) McCracken, D. I. and Huband, S. 2005. Nature conservation value of European mountain farming systems. In: Global change and mountain regions: an overview of current knowledge, eds. UM. Huber, HKM. Bugmann and Reasoner, MA. 573-582. Springer, Dordrecht, The Netherlands. http://dx.doi.org/10.1007/1-4020-3508-X_57

3.4) Anderson, E., Baldock, D., Bennett, H., Beaufoy, G., Bignal. E., Brouwer, F., Elbersen, B., Eiden, G., Godeschalk, F., Jones, G., McCracken, D. I., Nieuwenhuizen, W., van Eupen, M., Hennekens, S. and Zerva, G. (2003, revised 2004). Developing a high nature value farmland indicator. Report for the European Environment Agency, Copenhagen. 75 pp + appendices. http://tinyurl.com/pw5y9cg

3.5) Cooper, T., Arblaster, K., Baldock, D., Farmer, M., Beaufoy, G., Jones, G., Poux. X., McCracken, D., Bignal, E., Elbersen, B., Wascher, D., Angelstam, P., Roberge J. M., Pointereau, P., Seffer, J. and Galvanek, D. 2007. HNV Indicators for Evaluation: Final report for DG Agriculture. Contract notice 2006-G4-04. Institute for European Environmental Policy. http://tinyurl.com/ogccdsr

3.6) McCracken, D. I. 2011. Describing and characterising the main types of HNV farming systems in Scotland. Supplementary Paper 1 of the Scottish Government Summary report of the Technical Working Group on High Nature Value Farming and Forestry Indicators. http://tinyurl.com/p7s9w6p

4. Details of the impact (indicative maximum 750 words)

Impact on Policy

The research has had a direct and profound impact on European policy. Member States are now required to ensure that the Axis 2 (Sustainable Land Management) element of their 2007-2013 Rural Development Programmes (RDPs) are targeted at "…biodiversity and preservation of high nature value farming and forestry systems, water and climate change". As part of this prioritisation, the EU requires that all 28 Member States (and parts thereof) need to:

- Identify the extent and characteristics of the HNV farming systems occurring within their Member State/region [5.1].
- Identify what steps they are taking to support and maintain HNV farming, especially through Rural Development Programmes (RDPs).
- Monitor changes to the area of land covered by HNV farming systems (and the nature values associated with HNV farming) as part of their monitoring of RDPs.

The requirement for action at a Member State level meant we advised the Scottish Government in 2009 on how to establish how much HNV farming occurs in Scotland and how to track trends in such systems [5.1].

Since 1995, we have made a significant contribution to the dissemination of findings from the research described above via a range of media (e.g. refereed publications, popular articles and newsletters, conference proceedings and workshop outputs, technical reports, policy briefings) to European scientists and policy makers [5.2]. The resulting awareness of the pressures being placed on HNV farming systems, and their associated habitats and species, both stimulated and informed the publication in 2004 of a European Environment Agency/United Nations Environment Programme report [5.3]. This was the first report published by an agency or Directorate within the European Commission to implicitly call for CAP measures specifically targeted at HNV farming systems.

Subsequent research commissioned by the European Environment Agency in 2003 and DG

Agriculture in 2006 underpinned the decision of the European Commission to make HNV farming systems a policy priority in the 2007-2013 EU Rural Development Programme [5.4]. The research also informed the development of DG Agriculture Guidance to Member States as to how best to approach identifying and targeting HNV farming systems [5.5] and associated European Commission Joint Research Centre estimates of where HNV farming systems were most likely to occur across Europe [5.6].

We have therefore had a leading role in providing evidence to the European Commission, EU Member States and international and national nature conservation NGOs, resulting in them recognising that:

- Agricultural policy and market and social pressures are increasingly making HNV farming systems economically unviable.
- Any resulting intensification or abandonment of such farming systems would adversely impact on the land's high nature conservation value.
- There is a justifiable case for directing additional financial support to these systems to help maintain HNV farms.

Impact on the Economy

It is currently estimated that HNV farming systems are still being practiced on 30% (i.e. 52 million ha) of the agricultural land across the EU [5.7] and that between €10 and €16 billion per year would be required to maintain and support those systems effectively [5.8]. The current total spend on the CAP is €53 billion per year. This research has therefore focused attention on the need to target a significant proportion of future CAP spend towards HNV farming systems in order to maintain the associated wildlife considered to be of high nature conservation value.

5. Sources to corroborate the impact (indicative maximum of 10 references)

5.1) An overview of a Good Practice Workshop on High Nature Value farmland and forestry organised by the European Network on Rural Development in February 2012 http://tinyurl.com/owprdbx

5.2) EEA/UNEP, (2004) High Nature Value farmland: characteristics, trends and policy challenges. European Environment Agency Report No. 1/2004, Copenhagen. http://tinyurl.com/ncg6xjo

5.3) The findings from the European pastoralism project coordinated by us are available at: http://www.sruc.ac.uk/pastoral and the outputs from the work of the European Forum on Nature Conservation & Pastoralism http://tinyurl.com/otapds3

5.4) The EU European Development Programme 2007-2013 – details of Legislation and Monitoring & Evaluation requirements. http://tinyurl.com/njzphcz

5.5) Beaufoy, G and Cooper, T (2009). Guidance Document. The application of the High Nature Value Impact Indicator: Programming Period 2007-2013. European Commission. http://tinyurl.com/na82h8x

5.6) Paracchini, ML, Petersen, J-E, Hoogeveen, Y, Bamps, C, Burfield, I and van Swaay, C (2008). High Nature Value Farmland in Europe: An estimate of the distribution patterns on the basis of land cover and biodiversity data. Joint Research Centre Technical Report EUR 23480 EN. http://tinyurl.com/p5rr4mm

5.7) Beaufoy, G and Marsden, K (2010). CAP reform 2013: last chance to stop the decline of Europe's High Nature Value farming? European Forum on Nature Conservation & Pastoralism, BirdLife International European Division, Butterfly Conservation Europe and WWF European Policy Office. http://tinyurl.com/nmowo25

5.8) Hart, K, Baldock, D, Tucker, G, Allen, B, Calatrava, J, Black, H, Newman, S, Baulcomb, C, McCracken, D. and Gantioler, S (2011). Costing the environmental needs related to rural land management. Report Prepared for DG Environment, Contract No ENV.F.1/ETU/2010/0019r. Institute for European Environmental Policy, London. http://tinyurl.com/psxum2p

The following individual users/beneficiaries can be contacted by the REF team to corroborate the impact described here, and our contribution toward it:

5.9) Dr Jan Erik Petersen, European Environmental Agency (letter of support available).

5.10) Ms Zelie Peppiette, (DG AGRI, European Commission) (letter of support available).

5.11) Mr David Baldock, Institute for European Environmental Policy (letter of support available).