Supporting HNV farmland conservation: Lessons learnt and future needs for science into policy and practice

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Outline

• HNV farmland in Ireland and its identification
• Socio-economic context-need for support
• HNVf initiatives in Ireland
• Lessons learnt-mapping a way forward
• The Future–Innovation, partnership, locally adapted and results orientated solutions
HNV Farmland in Ireland

- 6.9 million ha
- Climate: mild and wet
- Mean annual temp. 12°C; 1150mm (800mm to >2000mm uplands)
- 4.5 million ha UAA
- 91% pasture: intensive to semi-natural pasture (heaths and grasslands)
HNV Farmland in Ireland

- Natural constraints - soils, topography, climate and remoteness
- High biodiversity, landscape and socio-cultural values
- Legal nature designations (Natura 2000), common land
Extent and distribution of HNV in Ireland

- Map of potential HNV farmland
- High HNV potential areas (class 4 and 5)
- Approx. 25% of agricultural area

Source: IDEAL HNV Project
Extensive upland areas
Semi-natural vegetation extending to sea level in west
Drumlin-wet grasslands
Calcareous grasslands, heaths and limestone pavement
Cattle and sheep grazing
HNV farmland in Ireland – Need for Support

- Regional: a good balance in Ireland between provisioning and regulatory ecosystem service?
- Masks serious threats to HNV farmland and consequences for ecosystem service supply

Source: Garcia-Feced et al. 2014
HNV farmland in Ireland – Need for Support

- Threats to HNV farmland include:
  - Land abandonment and afforestation
  - Intensification
  - Polarisation (intensification and abandonment on the same farm)

- FADN: Market returns
  - Hill sheep (0.36 LU/ha) -€6,329 (Income €9,252)
  - Hill Cattle Rearing (0.66LU/ha) -€11,562 (Income €5,219)

Source: Terres et al. 2015
Timeline 2000-2015: HNV farmland concept and Ireland

Regional research projects (Burren, South west, East Galway, North west)
Best Practice and Demonstration Projects

- BurrenLIFE 2004-2020
- AranLIFE 2013-2017
- RBAPS 2015-2018
The Burren Life (‘Burren Farming for Conservation’) Programme divides its annual farmer payments roughly equally between payments for actions and payments for outputs. Here we look at the cumulative impact of 5 years of funding for farm-level actions – a total investment of c. €2.3m.

Actions
The actions supported by Burren Life vary from farm to farm and from year to year, allowing the farmer the flexibility to tailor these actions to the needs of his/her farm at that point in time...

Outputs
The Burren Life (‘Burren Farming for Conservation’) Programme divides its annual farmer payments roughly equally between payments for actions and payments for outputs...

Socioeconomic
The Burren is best known for its bare limestone landscape, rare flowers and iconic archaeological sites. But many people forget that the Burren is a living landscape...

Reaching Out
The concept of high nature value farming developed from a growing recognition that the conservation of biodiversity in Europe depends on the continuation of low-intensity...
# Evolution: Conflict to Sustainable Management of HNV


<table>
<thead>
<tr>
<th>Payment for restrictions</th>
<th>Little targeting in national scheme</th>
<th>Agriculture intensification and abandonment persists</th>
<th>Research-importance of farming to nature value</th>
</tr>
</thead>
</table>

## BurrenLIFE R&D Phase (2004-2009) EU LIFE Nature Funding

<table>
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<tr>
<th>Partnership between agriculture and conservation (20 monitor farms)</th>
<th>Marrying science with traditional knowledge</th>
<th>A sustainable model for the agricultural management of Natura 2000</th>
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</table>

## BurrenLIFE Phase 2 (2010-2014) Article 68 Pillar I CAP

<table>
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<tr>
<th>Roll out of Hybrid Results Based AES (160 farms)</th>
<th>Targeted payments for ecosystem services (PES) scheme</th>
<th>Payment for results</th>
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## BurrenLIFE Phase 3 (2015-2020) RDP Pillar II CAP

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<th>Expansion of Hybrid Results Based AES (500+ farms)</th>
<th>Improved payment structure for ecosystem services (PES) scheme</th>
<th>Payment for results</th>
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</table>
Seeking to develop best conservation management practices of local farmers on designated Natura 2000 sites while harnessing local knowledge with scientific expertise of Project partners

The Project Team

The day-to-day operation of the project is being run by a project team, who are based in an office on Inis Oírr. They report to a project steering committee which operates under The Department of Arts, Heritage and the Gaeltacht who oversee, guide and support the work of the project team. The members of the project team are:

Louise Duignan - PhD Researcher
Dr. Patrick McGurn – Project Manager
Dr Amanda Browne – Scientific/ Technical Officer
Gráinne Ní Chonghaile – Administration & Finance Officer
Testing and developing results based AES
€1.4 million budget
70% EU funded
30% from partners, & support from Heritage Council, DAFM & Teagasc
3.5 year project
1st Jan 2015 to 30th June 2018
3 pilot areas:
- County Leitrim, Ireland
- Shannon Callows, Ireland
- Navarre, Spain
Lessons Learnt from Demonstration/pilot projects

• Participatory-partnership approach to design, development and implementation
  – Local champions - Farmer led
  – Supported by NGOs and state agencies

• Needs to be:
  – Targeted to specific area (local and practical), Results based, flexible and adaptive management approach, tailored to individual farm
  – Well researched – knowledge based (science and tradition)
  – Integrated knowledge transfer/advisory service

• Results based Hybrid approach – farmers paid for result and actions that support delivery of result (10 point scoring - ecosystem health check)

• Putting the “value” back in High Nature Value
Awareness Raising, Policy and Advocacy Work (2010-2015)

• HNV Ireland Project 2010-2015 : Supporting HNV farmland in Ireland.

• Building on success of BurrenLIFE

• EFNCP, IT Sligo partnership (Heritage Council and EU LIFE NGO funded): Work with a wide range of partners (NGOs, farm organisations, state agencies and government departments)

• HNV Ireland officer
Focus Areas

- **Awareness raising** - Identify threats, opportunities and practical solutions for HNV farmland
- Building a **Network and capacity building** (local partnerships working together)
- **Improving understanding and knowledge building**: Series of case studies and demonstration projects
- **Policy and advocacy work**: Formal responses to call for submissions on RDP 2014-2020
- HNV farming in Ireland receives workable, appropriately funded support 2014-2020 CAP, complementary well-designed measures
RDP Measures (July 2014) €4 billion

- **Agri-Environment and Climate Measures:**
  - GLAS, GLAS+, Organic Farming, Locally led
  - €1.564 Bn

- **Areas of Natural Constraints + Islands:**
  - €1.37 Bn

- **Beef Data and Genomics Programme:**
  - €0.3 Bn

- **Leader-Wider Rural Economy:**
  - Enterprise development and job creation; social inclusion capacity building; rural environment
  - €0.24 Bn

- **On Farm Investments:**
  - TAMS, Bioenergy
  - €0.4 Bn

- **Knowledge Transfer Measures:**
  - €0.11 Bn

- **Collaborative and Quality Focused Measures:**
  - €0.018 Bn

- **RDP 2014-2020**
Overall Structure of AES in RDP

Tier 1
- Natura, Farmland Birds, Commonages, High Status Water, Rare breeds, Intensive farms

Tier 2
- Vulnerable water areas, Min. tillage, low emission slurry, wild bird cover

Tier 3
- General env. actions e.g. bird boxes, new hedgerows, low input permanent pasture, hay meadows, archaeological sites

GLAS and GLAS+ (€1,450 Million)

Locally Led AES
- Burren, Hen Harrier, Freshwater Pearl Mussel, Call For Proposals (€70 million)
Problems still exist

- Land eligibility vs. conservation objectives
- Resources not optimally targeted to secure maintenance and enhancement of high nature value farmland
- Semi natural vegetation outside commonage and Natura 2000 has no targeted actions
- Farms dominated by semi-natural pasture don’t exist in Ireland outside Natura 2000 and Commonage areas?
- Risks of abandonment and intensification persist
Opportunities for HNV in RDP

- Locally Led AES - A significant opportunity to further test and pilot innovative measures
- BurrenLIFE (Phase 3 funded) and there will be a competitive call open in 2016
- Action being instigated by local groups/partnerships - need support (LEADER a possibility)
- Potential for High Nature Value Farming EIP to develop knowledge transfer framework
Lessons Learnt from policy and advocacy work

• Building local partnerships and wider HNV network essential (need HNV community of practice)

• Partnership approach works
  • Need to secure stakeholder involvement
  • Need dedicated community champions to take initiative and drive innovation

• Knowledge based of initiatives (research marrying science and traditional knowledge) - need dedicated research programme for HNV farmland (25% of UAA)

• Knowledge transfer: Advise, education and capacity building
  • Knowledge transfer initiatives needs to be mainstreamed into National Farm Advisory Service (FAS)
  • Need HNV farmland Innovation Partnership (based on European Innovation Partnership) funded under RDP

• Need for direct involvement in RDP - Government working group on HNV policy development, implementation and monitoring
Future Research Needs

- Multidisciplinary projects (ecologists, agricultural and environmental scientists, economists, social scientists etc.)
- Mapping and quantification of Ecosystem Services associated with HNV farmland
- Optimising farm management to deliver biodiversity and relationship with ecosystem services (synergies and trade offs)
- Design of agri-environment schemes – payment for ecosystem services
  - Quantifying ecosystem health/service supply as a basis for payment systems
  - Financing: Biodiversity trading/credit system, voluntary markets?
- Development of remote sensing techniques to monitor changes in quantity and quality of HNV farmland.
- What is HNV farmland role in wider land use spectrum - re wilding; organic farming; sustainable intensification; conventional agriculture; context of GHG targets and various Food and Forestry Strategies etc.
Next steps in Ireland

- Working towards CAP Reform 2020
- Ensure effective use of available resources and measures in RDP
- Community engagement - Locally Led AES (test bed for results orientated, innovative solutions)
- To support implementation and towards 2020 NEED a knowledge and innovation network (marrying tradition and science)
  - Focused on knowledge transfer, creation and development of innovative solutions
  - Occurring in a favourable policy and institutional framework
A pathway to a sustainable future

Innovation network, partnership, locally adapted and results orientated solutions