A thematic network on High Nature Value farming
Learning, Innovation & Knowledge

Learning Area *"The Burren"* (Ireland)

INNOVATION EXPERIENCES AND NEEDS

Contribution to deliverable D2.6.1

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Introduction and contents

This report looks at innovations that support HNV farming in the Burren, and identifies the types of innovation that are required in order to secure a sustainable future for HNV farming in the region.

We present examples of innovation existing in this Learning Area (LA) and examples more widely in Ireland that could usefully be transferred to address challenges in the LA.

Types of innovation that seem to be absent in Ireland and that we would like to explore in other countries of the HNV LINK network, are also summarised.

Contents

The challenges facing HNV farming in the Burren

Poor economic outlook

Poor social structure

Land abandonment and intensification

Lack of integrated land use strategy

Over-regulation/ Bureaucracy

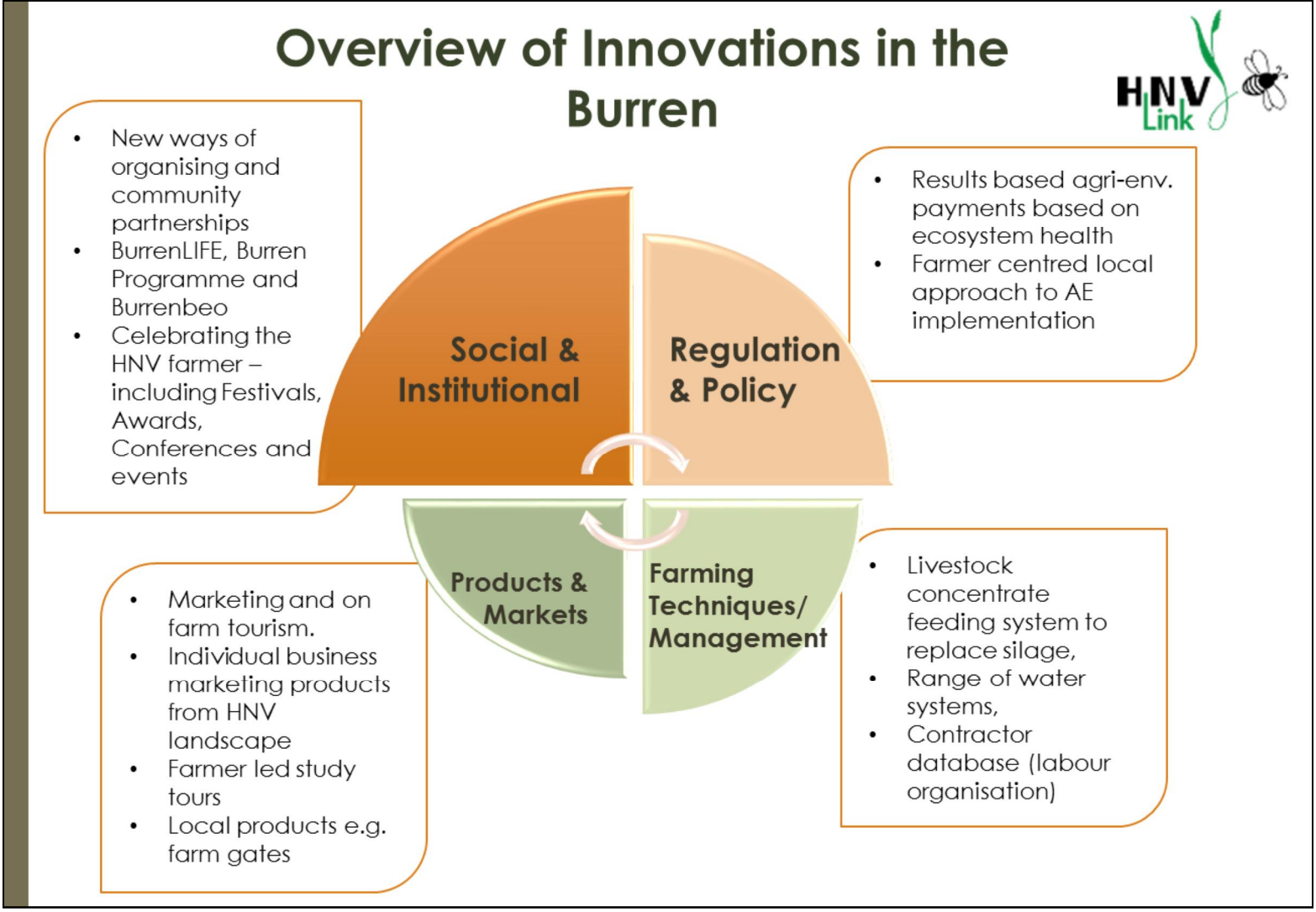
Apathy

The Burren faces a number of social, economic and environmental challenges.

- Social: an ageing farming population with very few young farmers resulting in a loss of management knowledge and skill and insufficient labour to carry out required HNV conservation actions.
- Economic: Farming remains an unviable occupation for most farmers, even with additional funding provided by the Burren Programme. Farmers currently gain very little from tourism or added value gained from livestock sales.
- Environmental: Notwithstanding the impact of the Burren programme, scrub continues to encroach onto the Burren's grasslands while on lowland areas there is continued, often damaging intensification (reclamation, nutrient input).

The main barriers to realising a sustainable future for HNV areas are identified (through research and HNV LINK Seminar) as:

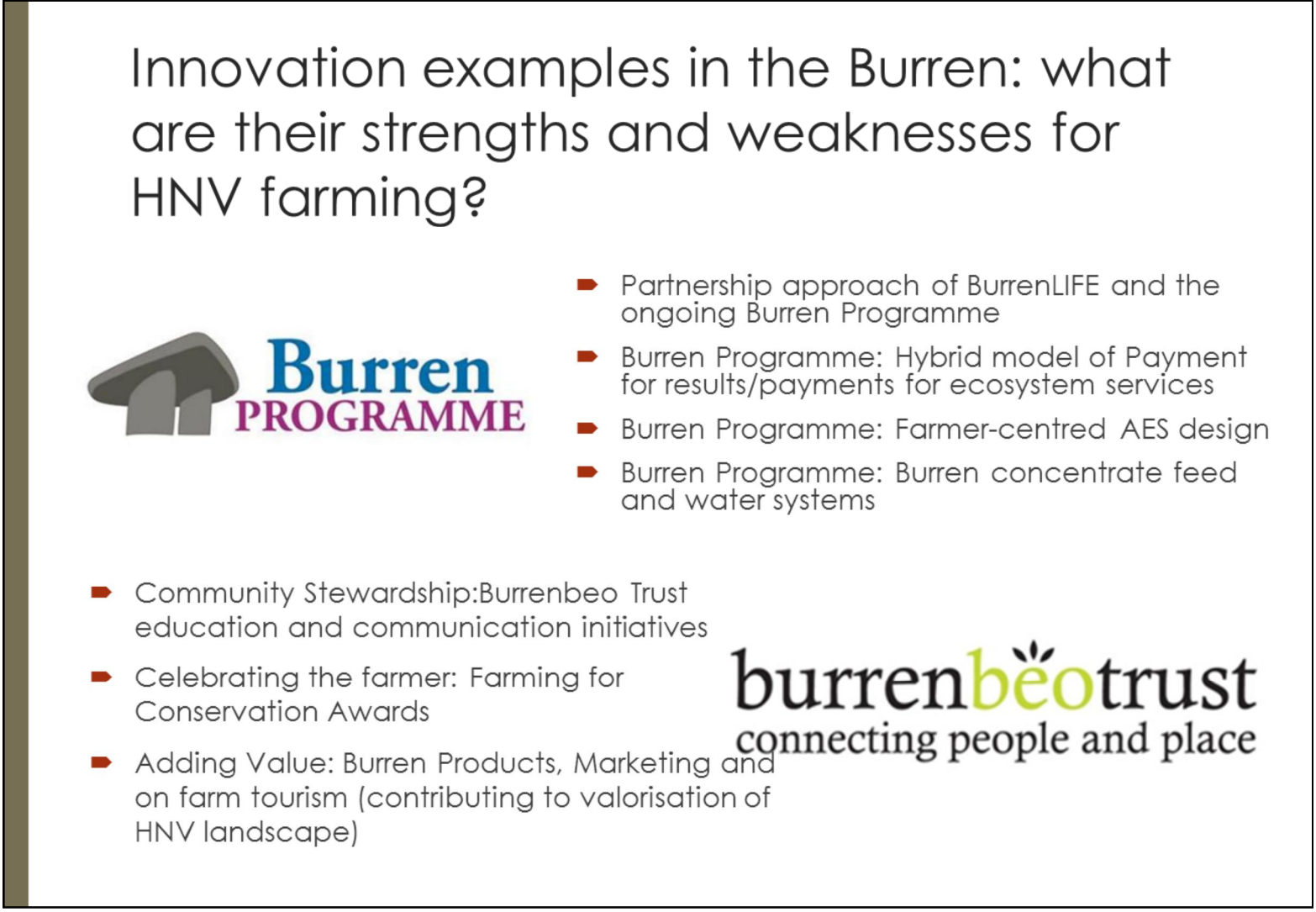
1. Bureaucracy – too much paperwork, restrictions (eg planning).
2. Access to land – includes inheritance/succession issues but also farmers attachment to land and their reluctance to rent or sell land.
3. An ageing farming population with very few young farmers resulting in a loss of management knowledge and skill.
4. Poor social opportunities especially for young farmers – less people, more machinery, fewer social outlets.
5. Insufficient labour to carry out required conservation actions.
6. Poor infrastructure – broadband, roads, community facilities.
7. Limited skills and confidence among (some farmers) to undertake alternative enterprises.
8. Poor viability of current systems and their limited product range – mainly weanling beef.
9. Lack of a coherent, long term approach to the management of the Burren.
10. Poor overlap between two main industries – farming and tourism.
11. Lack of off-farm employment opportunities close to the farm.
12. Security and short term (5 years or less) nature of public funding.



The Burren is recognised as a HNVF change leader and centre of innovation. Much has been achieved in the Burren through the partnership and participatory approach of BurrenLIFE and the follow-on Burren Programme. Organisations such as the Burrenbeo Trust have complemented the Burren programme leading to the creation of a local and institutional environment which inspires creation of innovative solutions.

Many innovations have been piloted in the area, but issues around rural isolation and infrastructure mitigate against a healthy future for the Burren community. Individual businesses/farms have seized the opportunity to create new products and markets but more could be done to build capacity in this area. It appears that answers lie in a lot of small solutions from a range of quarters, if we want farming to be an attractive option for a new generation of Burren farmers.

In particular, it is clear that further work is required in the area of the regulatory framework to enable and support local communities to create local solutions. Social infrastructure and community wellbeing initiatives are required to combat rural isolation and improve attractiveness of farming as a career choice for the next generation. Improved marketing, product development and diversification opportunities are needed to realise a vision of sustainable HNV farming in the Burren.



The BurrenLIFE and follow on Burren programme developed and cemented of a positive, respectful working relationship between agricultural and conservation interests which continues today. This partnership can be viewed as the umbrella for the implementation of the range of innovations outlined in this report. The overall strengths and weaknesses for HNV farming of the existing innovations are:

Strengths

- Strong partnership and positive working relationship across a range of key stakeholders
- Support and trust of farming community
- Ongoing public funding for delivery of public goods through payment for results/payments for ecosystem services approach
- Individual businesses availing of opportunities to develop new products (e.g. Burren gates), market food products and create on farm tourist experiences
- Local "one stop shop" advisory services: minimises bureaucracy for farmer while providing guidance and support
- Support of wider community enabled and captured through Burrenbeo Trust initiatives
- Pride of farmers in producing biodiversity and landscape product

Weaknesses

- Short term basis (5 years or less) and ongoing uncertainty of future availability of public funding. Farmers are delivering the biodiversity/HNV products and a market has been created but will this continue.
- Under current regulations and member state implementation rules, many high nature value features are ineligible for farm payments creating a negative perception of value of these areas.
- Despite current initiatives, farming is still a relatively low income occupation - financially non-viable.
- Attractiveness of farming as occupation for next generation.
- Overly dependent on public funds and need to diversify funding sources.
- Limited number of farm business benefiting directly from tourism or selling products directly to consumer.

Burren social and institutional innovation

Social and institutional - innovation needs	Possible approaches
Farmers hosting (guiding, accommodating) study groups, volunteers, students and visitors	Training programme and development of best practice guides and demonstration businesses.
Innovation re inheritance and succession	Investigate approaches to farm partnerships, share farming (possibility to expand to shared land use e.g. farming and tourism?)
Networking between farmers and among farmers, local businesses and other local residents	Farmers network discussion groups for knowledge sharing. Wider network initiated at Burren Winterage School and developed throughBurrenbeo.
Community wellbeing initiatives	Work with range of organisations to develop community projects in Burren, building on ChangeX Burren Initiative www.changex.org

Social and Institutional Innovation Needs

To date the Burren has shown capacity for social and institutional innovation which has been the foundation of much of its success in the area of HNV farming. However there is an need for this innovation to tackle wider needs in the areas of attractiveness of the region to young farm families and wider community well being. Initiatives have begun in this area under the ChangeX Burren programme (https://www.changex.org/blog/3-years-changex-burren-the-power-of-ideas-and-passionate-people-driving-them/). ChangeX is a platform which aims to enhance community well being through exchange and development of innovations across the world.

There is also a need to improve access to land for the next generation and innovations are needed in the area of inheritance and succession. Much work has been done in this area by the national agriculture advisory and development agency Teagasc but this has mainly focused on intensive farming system. There is a need to adapt existing share farming (https://www.teagasc.ie/rural-economy/farm-management/collaborative-farming/share-farming/share-farming-a-short-guide) and partnership approach adapted in the dairy sector to HNV systems. Share farming is where two parties carry on a shared farming business on the same piece of land without forming a partnership/company.

Could the share farming concept be expanded to a shared land use programme? This may be a means of facilitating a tourism operator and a farmer working together to develop their businesses on the same area of land. This could get around issues relate to skills gap and age profile that may be currently acting as barrier to farmers developing alternative enterprises on their land that would complement the HNV farming system.

Burren regulatory framework innovation

Regulatory framework - innovation needs	Possible approaches
Long term future for RBAPS/Hybrid Agri-environment schemes	Future CAP RDP regulations need to have dedicated article for this type of AEM. Needs to facilitate 15 year contracts
More devolved (local-level) decision-making powers to streamline regulations	A new model for government departments and agencies to support local communities; "local area innovation officers" to encourage and support new ideas
A more strategic/integrated approach to the management of the Burren	Government at EU and national level need to work closely together to develop a more integrated approach to land use policy and management

Regulatory Framework Innovation Needs

There is a general feeling in the LA that the innovations that have taken place in the Burren have had to work around the existing regulatory framework rather than being facilitated by it. There is a real need to support and engage with local areas to co-create innovative solutions to emerging challenges. There is need for a more integrated approach to land use as there are currently conflicting messages from a range of policies communicated to communities on the ground.

Burren products and markets innovation

Products and markets - innovation needs	Possible approaches
New product development	New products might include goat meat; hazelnut products; biochar
Direct sales by farmers	Individual farmers market products to tourist on farm walks. May need to revisit a Burren producers group which has been piloted during BurrenLIFE
Other ecosystems services (apart from productive services) marketed as product from land	Create a market akin to the market created by the Burren Programme for biodiversity for other ecosystem services
Farmers need to harness opportunities from tourism and environmental credentials of Burren	Burren as a learning landscape with farmers as the main hosts.

Products and Markets Innovation Needs

Currently the Burren farming has a limited product base due to specialisation of agriculture in suckler beef production with most beef animals sold as weanlings (animals 6-9 months of age) for finishing in other parts of Ireland and Europe. This situation has evolved due to limited availability of pastures suitable for finishing continental breeds which are the predominant breeds in the Burren today. Innovative ideas are particularly needed in the areas of new product and market development.

Burren farm techniques and management innovation

Farm techniques and management - innovation needs	Possible approaches
Techniques to aid control of scrub	Efficient control of regrowth and use of brashings needs to be investigated
New technologies to reduce labour intensive practices	Satellite technology/trackers/drones be used to reduce herding times. Automated timed feeders for concentrate using solar/wind power
Consolidating scattered holdings and enhancing access to holdings	Possible to investigate as part of share farming/partnerships (see social and institutional innovations needs above)

Farm Techniques and Management Innovation Needs

Management techniques needed to maintain the nature conservation value of the Burren are labour intensive and new labour saving technology needs to be investigated.

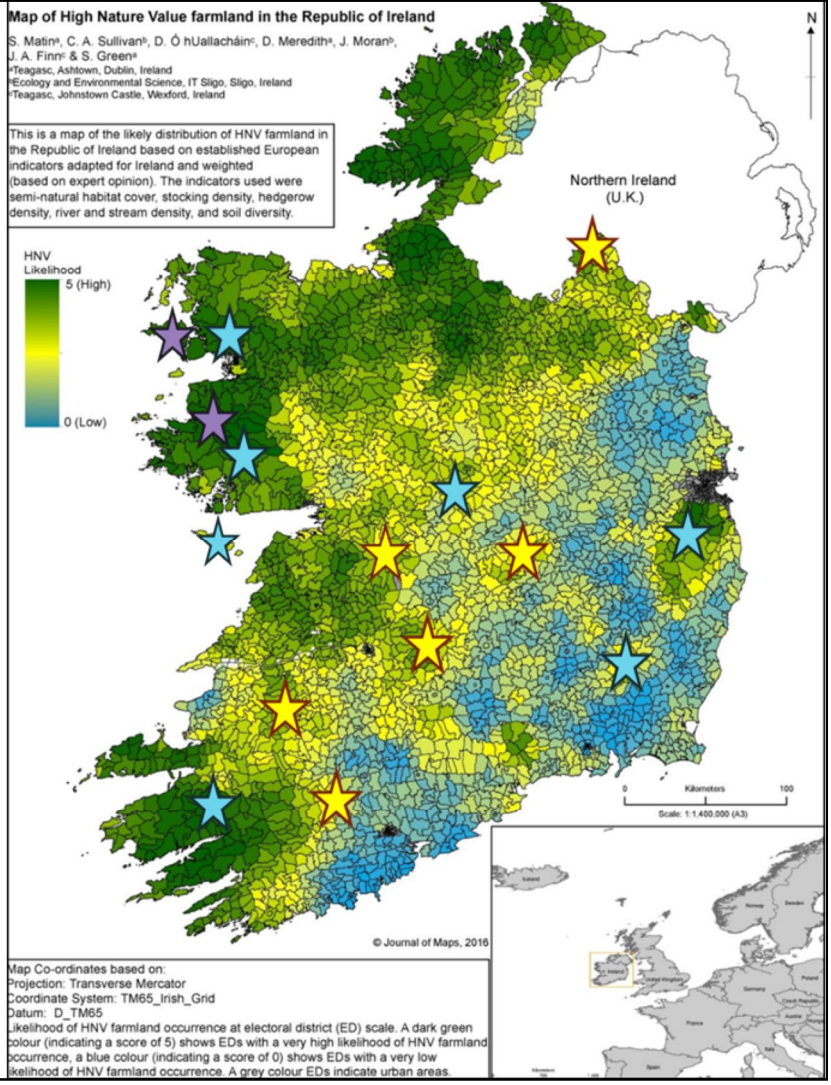
Innovations from outside the LA within Ireland

EIP Hen Harrier: European Innovation Partnership locally led project for Hen Harrier Special Protection Areas

EIP-Open Call: European Innovation partnership operational groups with specific objectives for HNV farmland

HNV Products and Markets: Achill Mountain Lamb and Connemara Mountain Lamb

Irish Natura and Hill Farmers Association (INHFA). New farmer's organisation representing farmers in hill land and designated areas



- EIP Hen Harrier: European Innovation Partnership operational group focused on the development of local agri-environment projects to be based on the Burren model focusing on the Hen Harrier SPAs: 1. Mullaghanish to Musheramore Mountain SPA; 2. Stack's to Mullaghareirk, West Limerick Hill and Mount Eagle SPA; Slievefelim to Sivermines Mountain SPA; Slieve Aughty Mountains SPA; Slieve Bloom Mountains SPA and Slieve Beagh SPA.
- European Innovation Partnership operational group open call: An open call to develop innovative solutions for environmental or climate related issues. Priority themes such as the preservation of landscapes; water quality; climate mitigation/adaption; resource efficiency and biodiversity. Restoration of uplands peats was highlighted as a particular priority. A number of successful phase 1 application have focused on HNV farmland in the open call and the sustainable management of HNV farmland: 1. Irish Breeding Curlew Conservation group; 2. Nephin Beg Uplands Farming Group; 3. Caomhnu Arainn (Managing HNV Farmland Aran Islands); 4. Callows Farming and Wildlife Conservation Partnership; 5. Wicklow uplands Council; 6. Grazing for Ecosystem Services Group; 7. Blackstairs Farming Futures Partnership; 8. MacGillycuddy Reeks Mountain Access Forum.
- HNV Products and Markets: Achill Mountain Lamb and Connemara Mountain Lamb. Lamb marketed on the basis of its High Nature Value origins. Achill Mountain Lamb located on island off west coast with own abattoir, direct and online sales. Connemara Mountain lamb one of only four products with Protected Geographical Indication status in Ireland.
- Irish Natura and Hill Farmers Association (INHFA). A newly formed farmers association focused on HNV farmland issues, membership from across hill and Natura 2000 farmed land in Ireland.

Innovation examples for which the Burren is looking to other Member States

- Producers groups involved in direct sales and online marketing of products.
- Marketing and novel products for adding value to meat and other products from relatively remote HNV areas.
- Innovations linking tourism and HNV farming directly e.g. revenue raised to fund community projects through bed taxes.
- Labour saving technologies – e.g. for control of invasive species, for herding of livestock.
- Integrated approaches to land use management.
- Community well being initiatives.

INNOVATION FICHES FROM IRELAND

1) BurrenLIFE: co-creating solutions to HNV farming challenges
2) The Burren Programme: a locally targeted 'Hybrid' Agri-Environmental Scheme (AES)
3) Adopting a farmer-centred approach to AES design and delivery
4) Developing locally tailored livestock feeding and watering systems
5) BurrenBeo Trust: building a conservation 'culture' and community in the HNV Landscape
6) Farming for Conservation Awards: celebrating the HNV farmer
7) Adding value to HNV farming

Ireland – innovation example 1)

BurrenLIFE: co-creating solutions to HNV farming challenges

Location: Burren Region, Ireland

HNV system: Extensive winter-based grazing of rough limestone pastures by suckler cows.

Scale of operation: 20 pilot farms (2,500ha) but with an impact on c.30,000ha of HNV farmland

Timespan: 2004-2010

Keys to success: Improved understanding of the importance of HNV farming and farmers by conservation authorities; better appreciation by farmers of the potential opportunities arising from HNV farming and of their role in positively managing the HNV landscape; adequate funding (€2.3m) and time (5 years) to co-create solutions at farm level to resolve some of the key threats to the HNV landscape; practical solutions with multifaceted (economic, agricultural and environmental) monitoring of impact by a dedicated project team.

For further info: related to implementation of Burren programme: http://burrenprogramme.com & For original BurrenLIFE project information see: http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=2661 and http://files.nesc.ie/nesc_research_series/Research_Series_Paper_9_BDunford_Burren.pdf

Problems addressed by this example

A number of issues relating to agricultural intensification and extensification which were impacting negatively on the environmental health of the Burren needed to be resolved. However the high levels of mistrust and poor working relationship between the key conservation and agricultural interest groups mitigated against any such resolution.

Story in a nutshell

After a period of conflict in the late 1990s – arising from the introduction of the Habitats Directive (SACs) and the introduction of ill-fitting AES (REPS) – relationships between farmers and conservation authorities were at an all-time low. However, following a research project which established the importance of traditional farming practices to the natural heritage of the Burren (Dunford, 2001), there was a growing realisation among the disparate interest groups that they needed each other to achieve their objectives.

Arising from this, the parties came together to make a successful application in 2004 for funding from the EU LIFE Nature fund for €2.23m. The National Parks and Wildlife Service (NPWS), Teagasc (the Irish agricultural advisory body) and the Burren Irish Farmers Association (IFA) participated as co-funders and key stakeholders. The project's objective was to develop a blueprint for the sustainable agricultural management of the Annex I habitats of the Burren.

The project approach was simple; to implement a range of management interventions across a selection of working farms in the Burren and to monitor the agricultural, economic and environmental impact of these interventions. The project worked on 20 pilot farms.

On these farms, key management challenges were identified and potential solutions (mainly proposed by farmers) were implemented, monitored, adapted if necessary, and costed. Key achievements of the project included the development of new cattle feeding systems, livestock watering facilities and scrub removal techniques.

The key output was a blueprint for the sustainable agricultural management of the Burren which included a range of actions, their impact and cost. This provided the basis for the subsequent development of the Burren programme (2010 - present) and for the positive, respectful working relationship between agricultural and conservation interests that continues to exist.

What did working together under BurrenLIFE achieve for HNV farming?

Achievements

- Improved conservation status of 2,500ha of HNV Farmland.
- New technologies for feeding and watering livestock, new scrub removal techniques, resulting in better utilisation of available HNV grasslands.
- Better HNV farming infrastructure on 20 pilot farms – access, water, fencing, feed systems.
- Better understanding of conservation issues by farmers, and farming issues by conservationists.
- A blueprint for sustainable farming in the Burren which is now being applied across the Burren.

Achievements

From 2005-2010 improvements were made on 20 holdings (2,500ha of Annex I habitat) through the development of new feeding systems, improved grazing levels and improved conservation infrastructure (stone fences, water facilities, access paths, gates, feeding equipment etc.). All works were closely monitored in terms of their agricultural, environmental and economic impact and this information was used to generate a series of Best Practice Guides for the sustainable agricultural management of the Burren. The project also allowed farmers, scientists and management authorities to work closely together and the positive working relationships continue today. BurrenLIFE served to engage farmers in environmental issues in a very practical way and created a strong sense of ownership and pride among these farmers. The project also helped to raise public awareness of the importance of HNV farming in the Burren.

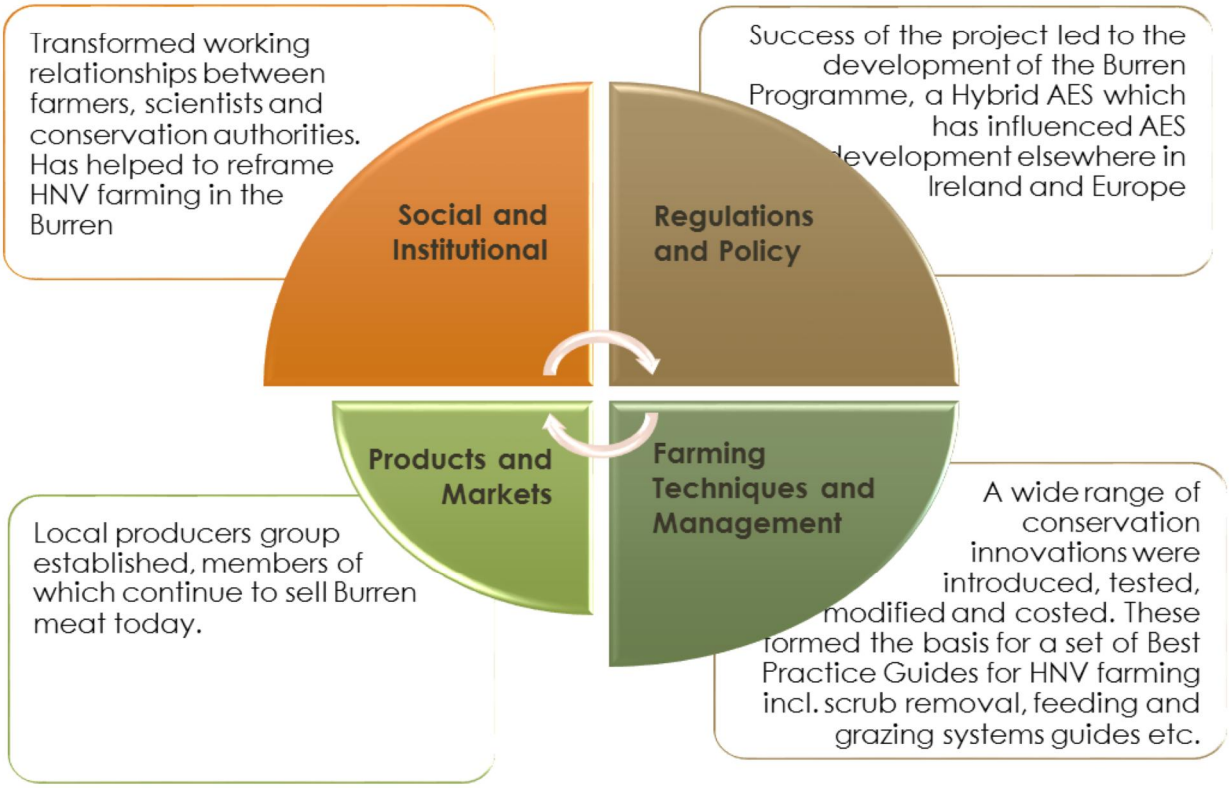
Economics of HNV farming

Data generated during BurrenLIFE confirmed the poor socio-economic outlook for most HNV farmers in the Burren. The project addressed this directly by investing in these farms – paying farmers for carrying out works, including agricultural monitoring - and indirectly by developing a costed blueprint for sustainable farming which led to the Burren programme which now pays these farmers on average €6,600 per annum.

Maintaining or improving HNV values

BurrenLIFE explicitly targeted a number of key nature conservation objectives and was successful in improving the conservation status of the 20 HNVf monitor farms (2,500ha). This has also led to an improved outlook for the Burren HNV landscape (c.30,000ha) – particularly focussing on species rich grasslands and water quality - through the consequent development of the Burren Programme.

How did BurrenLIFE respond to the HNV LINK innovation themes?



BurrenLIFE addressed all innovation themes to some degree – resulting in significant social, institutional and regulatory impacts arising from the successful implementation of new farm management techniques – but diversification of outputs in terms of new products and markets remains relatively unchanged.

The process that made it happen and critical factors for success

- A locally based research project proved the importance of HNV farming: this empowered farmers and convinced management authorities to work with these farmers
- A project was conceived which was farmer-led, very practical but scientifically rigorous
- All partners were kept fully informed and engaged and treated with respect

Actors and roles: An initial research project (1998-2001) by an embedded student researcher highlighted the important role of HNV farming and identified the main threats.

This was published by Teagasc in book form 'Farming and the Burren' (Dunford, 2001) which placed farmers centre stage in the Burren. This led, in 2004, to NPWS sponsoring an application for EU LIFE funding with Teagasc and the Burren Farmers Association (IFA) as partners.

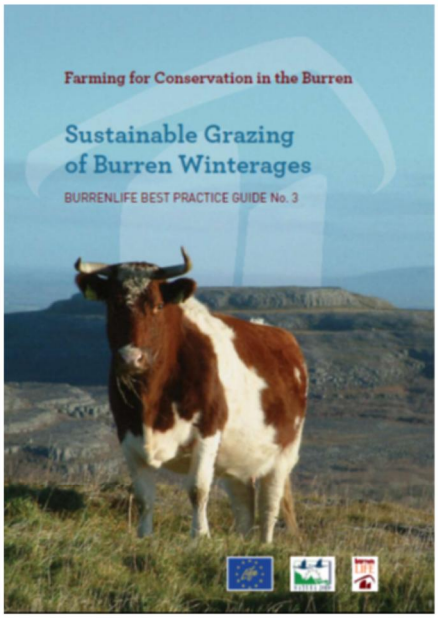
Institutional context that made it possible: LIFE nature funding and closer co-operation among key stakeholders
Funding, staff etc. €2.23m and a local team of 4 people for 5 years (2005-2010)

Critical factors for success: Close working partnership by stakeholders, farmer-led approach to problem solving, rigorous monitoring, dedicated project team, good communication,

Limiting factors: High expectations by farmers – managed expectations carefully and emphasised the long term

Lessons learnt from BurrenLIFE and its potential replication

- Understanding the perspective of others, identifying the common ground and the mutual benefits of working together, are all fundamental.
- Involving farmers in the co-creation of solutions to HNV challenges results in much more embedded and effective outcomes.
- Having a practical but robust scientific approach to developing targeted local solutions gives a high level of credibility to these solutions among farmers and management authorities
- This steps involved in this innovation – and the principles that underpin it - are very replicable but require time and resources
- A key first step is to get disparate stakeholders to identify common ground and focus on opportunities as well as challenges



Overall lessons for HNV farming

A well resourced (time, money) applied research project such as BurrenLIFE can form the foundation (partnerships, measures, costs) on which an effective AES for HNV farming can be built.

The engagement of the farming community in all phases of the project – designing, implementing, monitoring and disseminating – is fundamental to the success of the project and to its subsequent implementation.

Replicability of innovation and key requirements to do so

This innovation is not only replicable but is essential for the development of an effective approach to addressing the challenges to HNV farmed landscapes.

The key needs for this to happen are a good working relationship between stakeholders, clear objectives and actions to meet these objectives, as well as resources to carry out actions and monitor and disseminate impact.

Ireland – innovation example 2)

The Burren Programme: a locally targeted 'Hybrid' Agri-Environmental Scheme (AES)

Location: Burren Region, Ireland

HNV system: Extensive, winter-based grazing of rough limestone pastures by suckler cows.

Scale of operation: Approx. 450 farm families working on c.30,000ha of HNV farmland.

Timespan: 2010 - Present

Keys to success: Creating simple but effective incentives to reward farmers for the delivery of clearly defined environmental outputs; supporting practical farming interventions to improve the management of HNV farmland in the Burren; continually adapting to reflect new information, ideas and objectives; providing clear guidelines and training to farmers and advisors; ensuring respectful working partnerships.

For further info: http://burrenprogramme.com/

Problems addressed by this example

National, action-based, Agri environmental schemes were not adequate to deal with the main environmental challenges facing the Burren HNV farmed landscape, particularly undergrazing of key habitats and scrub encroachment. While the BurrenLIFE project was successful in developing a blueprint for sustainable farming in the Burren, HNV farming in the region remained fundamentally unviable for many farmers and so these farmers were reluctant to change their feeding and grazing systems. A new incentive was required to encourage the restoration of grazing and the adoption of environmentally friendly feeding systems, as well as supporting investment in key conservation infrastructure (walls, water, access etc). Thus, a new type of AES was needed for the Burren.

Story in a nutshell

Arising from the success of the BurrenLIFE project (which adopted a mainly action-based AES approach) the Department of Agriculture provided funding to roll out this new 'blueprint' for sustainable farming across 15,000ha of the Burren. The key stakeholders, recognising the fundamental limitations of an action-based approach to AES to the problems facing the Burren, worked instead to develop a locally targeted 'Hybrid' AES whereby farmers are paid for project actions (on a co-funded basis) and also for project impact/results. The resultant 'Burren programme' contains two main measures.

- Firstly, an annual 'works budget' - based on the HNV area of the farm - is allocated to each farmer. Conservation works to improve the farm environment are chosen by the farmer to suit his/her needs. These works are submitted by a trained farm advisor for approval by a local team. Payment (for 25-75% of the cost of the work) is made on completion of work by the farmer.

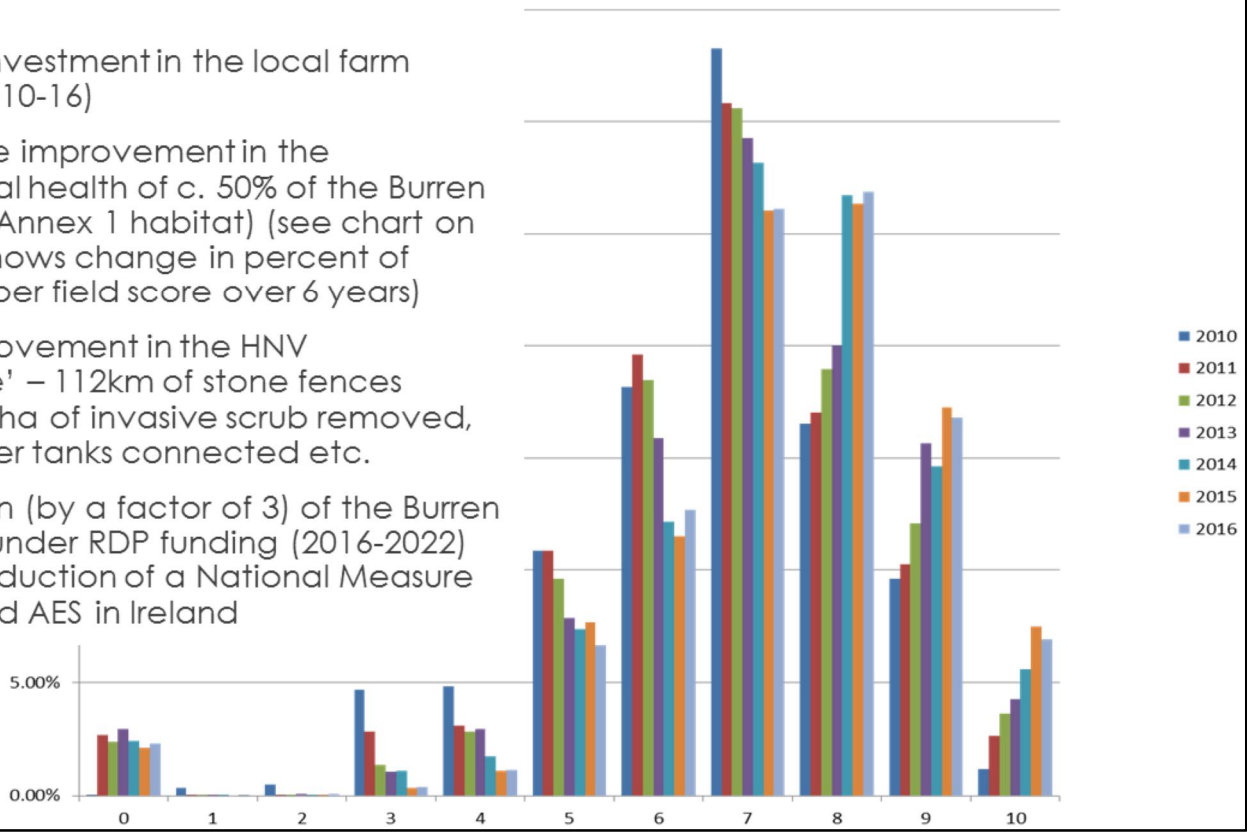
- Secondly, the farm advisor assesses the 'environmental health' of every HNV field within the farm annually. This is captured in a field score (1-10) which is verified by the local team and is then used to calculate an 'environmental performance payment' for the farmer. Bonus payments made for exceptional scores of 9 and 10, no payments are made for scores less than 5.

The two programme measures are closely linked in that, with targeted conservation works and improved management, field scores can be improved and payments increased. Data from 6 years of applying this approach on 15,000ha of land (160 farmers) have proved the positive impact and value for money of this hybrid model and it has now been expanded to the entire Burren (30,000ha) under Ireland's RDP.

What did the development of a locally-targeted 'hybrid' AES achieve for HNV farming?

Achievements

- €6m direct investment in the local farm economy (2010-16)
- A measurable improvement in the environmental health of c. 50% of the Burren (15,000ha of Annex 1 habitat) (see chart on right which shows change in percent of target area per field score over 6 years)
- A major improvement in the HNV 'infrastructure' – 112km of stone fences repaired, 242ha of invasive scrub removed, 440 new water tanks connected etc.
- The expansion (by a factor of 3) of the Burren Programme under RDP funding (2016-2022) and the introduction of a National Measure for Locally Led AES in Ireland



Achievements

Over the period 2010-15, the Burren Farming for Conservation Programme targeted up to 160 HNV farms on c,15,000ha on Annex I habitat. The positive environmental impact of the programme can be demonstrated by an analysis of the annual 'environmental health' scores for over 1,000 fields on the 160 farms: the average score was 6.61 in 2010 and by 2015 this had increased to 7.37. Grazing levels had increased, damaging feeding systems had been replaced, water sources had been protected and new water facilities had been provided, over 130km of pathways had been opened through encroaching scrub thus improving livestock access. The high impact and excellent Value for money of the programme has led to its being expanded to 450-500 farmers in the period 2016-2022 and has contributed to the inclusion of a dedicated €70m measure for locally led AES in Ireland's RDP.

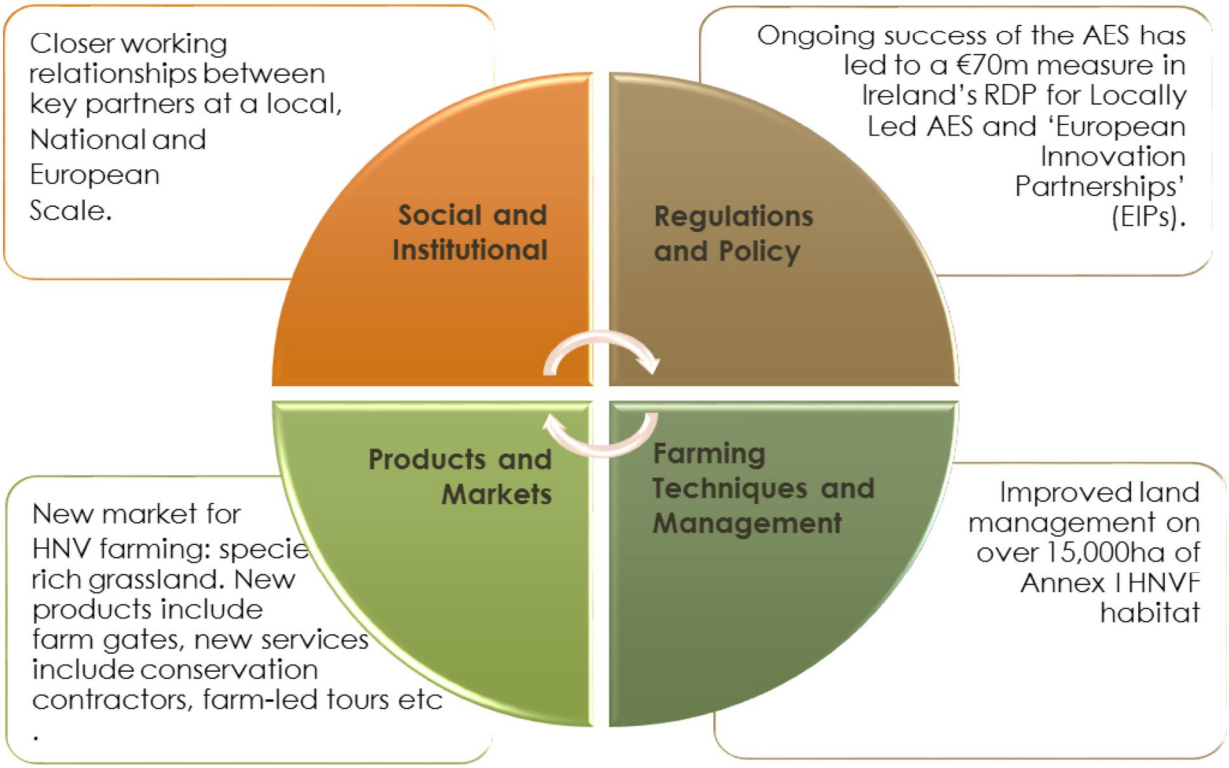
Economics of HNV farming

The programme invested a total of €6m directly in up to 160 farms between 2010-16 equating for example to an average annual payment of €6,600 per annum in 2015. This is in addition to payments made to farmers as part of their participation in the National Agri-environment scheme. Farmers, when surveyed, frequently claim that the programme has also 'improved' the farm. The €1m annual investment into Burren HNV farming has now (2016-2022) increased to €2-3m as the programme continues to expand.

Maintaining or improving HNV values

The programme was designed to maintain and improve the HNV values of the Burren (biodiversity, water quality) and the cultural heritage of the region. It has been demonstrably effective in doing so (see data above).

How did the Burren Programme respond to the HNV LINK innovation themes?

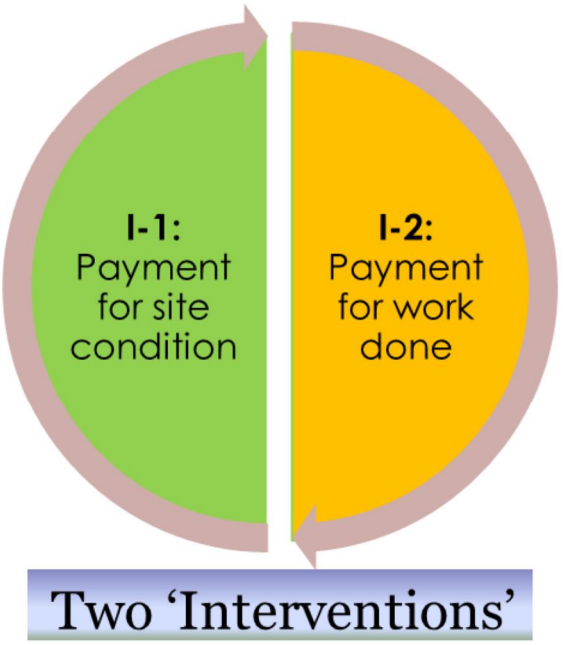


This innovation has proven to be very impactful across all innovation themes and has been a game-changer for HNV farming in the Burren.

The process that made it happen and critical factors for success

- A good working relationship between partners and a solid research base
- Trust in an established local team to design a farmer-centred, results based approach that met the HNV need
- The flexibility to adapt and evolve
- High levels of ownership by farmers and other stakeholders

Burren PROGRAMME



Actors and roles: Building on the success of the BurrenLIFE project, the data generated and the excellent partnerships that existed, The Department of Agriculture and Food and the National Parks and Wildlife Service came together to supply funding and support for an expansion of the project.

Institutional context: €1m annual budget for farmers supplied by DAFM (Article 68 – unspent Single Farm Payment money) and a dedicated local team of 4 people funded by NPWS for 6 years (2010-2015)

Critical factors for success: dedicated local team who were given the freedom and trust to design a programme which met the needs of the Burren and its farmers and to adapt and 'fine tune' (especially he new results based scoring system) this programme over time

Limiting factors: rapid scaling (20 to 160 farmers) – addressed by the phasing in of the programme (119-143-156 farmers in years 1-2-3)

Lessons learnt from the Burren Programme and its potential replication

- Farmers respond well to a results-based payments as this gives them an incentive to improve their environmental output while allowing them the flexibility to adapt the AES to their own farm and to the year to year circumstances of the farm.
- Results-based payments alone may not be enough to address HNV challenges: additional funding for capital works is often also needed.
- A well-designed and costed results-based approach can deliver much better value for money and a measurable impact.
- This approach may be adapted and replicated to address a range of environmental objectives across a range of circumstances but may not suit all situations.

Farm Works (2010-16)	Total
Area of Scrub removed – not incl. paths (ha)	241.99
Scrub pathways (m)	164,047
Area of scrub stump-treated (ha)	181.45
Stone wall repair (m)	111,823
Wire fencing (m)	32,735
Gate installation (no.)	723
Water Troughs (no.)	443
Water storage tanks (no.)	79
Feed Troughs (no.)	180
Feed Bins (no.)	132
New Access Tracks (m)	21,738
Upgrade Access Tracks (m)	34,388
Habitat Restoration Jobs (n)	127

Overall lessons for HNV farming:

The hybrid-AES design exemplified by the Burren Programme can offer the flexibility, focus, incentive and support for HNV farmers to deliver measurable environmental impacts at a very competitive cost. While some environmental challenges may be best met by an action-based approach, others by a results based approach, the Burren Programme suggests that a hybrid approach works best in many situations.

Replicability of innovation and key requirements to do so:

The principles underlying the Burren Programme are very transferrable to other agri-environmental objectives in other regions. These design principles include local targeting, farmer-centred design, high levels of adaptability over time and place, and payments which are at least partly results-based.

Ireland – innovation example 3)

Adopting a farmer-centred approach to AES design and delivery

Location: Burren Region, Ireland

HNV system: Extensive winter-based grazing of rough limestone pastures by suckler cows.

Scale of operation: Approx. 450 farm families working on c.30,000ha of HNV farmland.

Timespan: 2010 - Present

Keys to success: Understanding farmer's issues with traditional AES approaches and addressing these issues; placing the farmer at the centre of AES design and delivery; simplifying complex concepts without diluting their impact.

For further info: http://burrenprogramme.com/

Problems addressed by this example

Generally poor farmer engagement with, and understanding of, AES's arising from poor design, communication and training.

Story in a nutshell

When developing the Burren Programme, a farmer-centred approach was adopted to every aspect of the programme design. Payment structures were designed to be very clear and transparent – for example, every payment is linked to a specific action or a specific field (score).

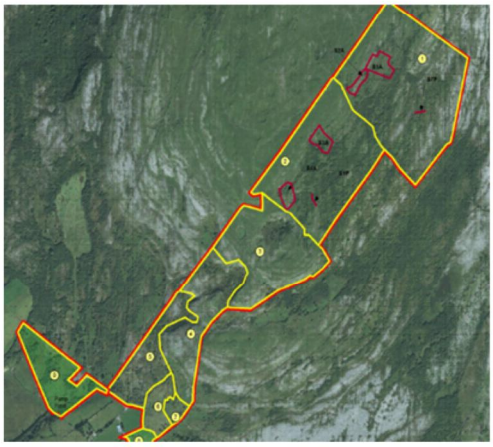
Payments are made on the basis of delivery and impact, and are made of a co-funded basis: farmers have more respect for payments that have to be 'earned' rather than for 'compensation'. Recognising farmers dislike of paperwork, farm plan documents were redesigned to be short, simple, visual and transparent - often less than 2 pages long. Receipts for work done were rarely required - instead unit costs for work are used. Payment claims are simple, just requiring a signature. Permissions to undertake work are handled by a local team using a local authorisation structure whereby the local team can 'sign off' on an agreed list of actions, thus expediting what is often a very tedious process.

Annual training courses - usually based on the farm and with a lot of input from the farmer - are organised and additional technical support (e.g. dealing with monuments, designing grazing and feeding systems etc) are made available locally. All of these measures allow farmers to get on with what they do, and love to do, best: managing their land and livestock.

What did adopting a farmer-centred approach achieve for HNV farming?

Achievements

- High (>90% approval) levels of satisfaction by farmers of programme structure and management
- High levels of interest in participating in programme (consistently oversubscribed)
- Better understanding by farmers of programme as it impacts on them



Achievements

The farmer-centred approach to AES design and delivery contributed to high levels of farmer satisfaction with the AES and its management – reflected in survey data but also in the high levels of oversubscription to the AES.

Levels of paperwork for participating farmers was greatly reduced.

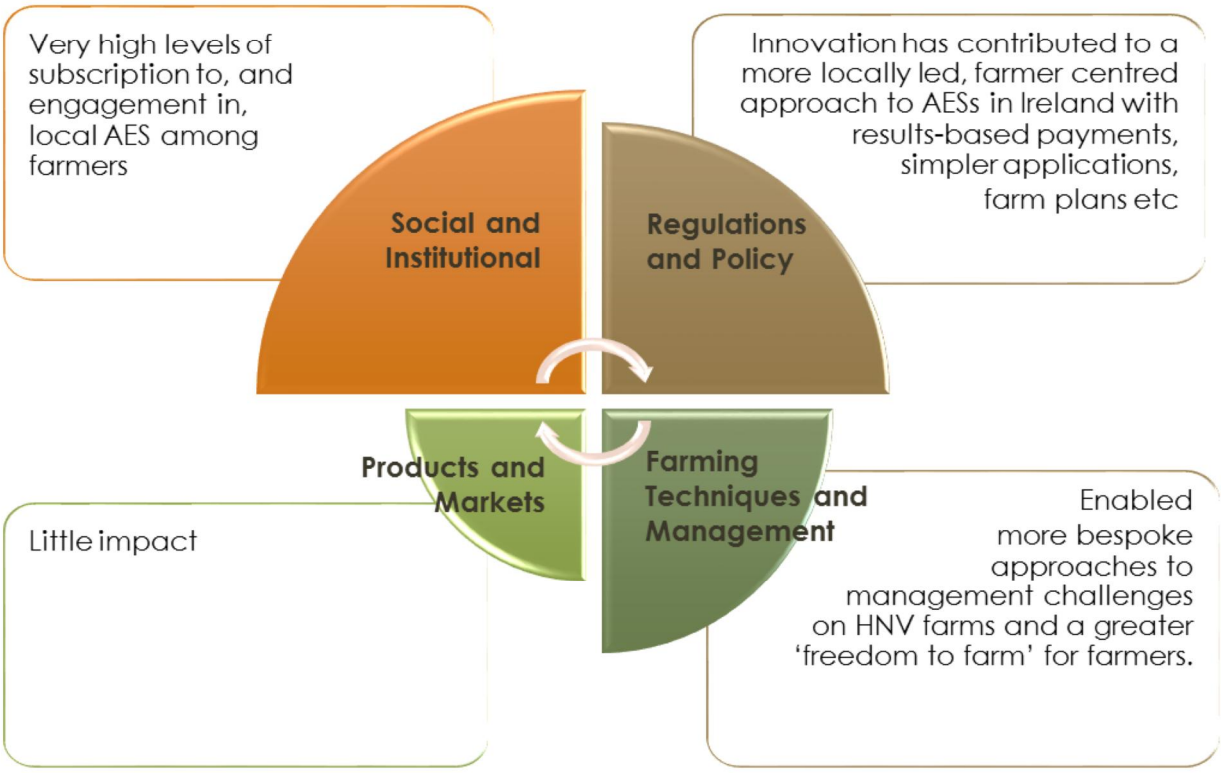
Economics of HNV farming

While there has been no direct impact on HNV farm economics, the farmer-centred principle is central to the Burren Programme which will bring €2-3m per annum to farmers.

Maintaining or improving HNV values

This approach is part of a wider approach to HNV farming which does play a key role in maintaining and improving HNV values.

How did a farmer-centred approach respond to the HNV LINK innovation themes?



This innovation has been important in improving levels of farmer understanding and engagement (clearer farm plans, simpler applications for entry, simpler mechanisms for payment claims), has informed more impactful payment structures (payment for results), and enabled more bespoke farm plans. It has contributed to a rethink of AES's in Ireland. It has not however impacted on products and markets in a significant way.

The process that made it happen and critical factors for success

- A recognition that the farmer is the key actor at the 'coalface' of conservation farming
- Building an understanding of barriers to farmer engagement in AES – bureaucracy, unintelligible plans, impractical actions, lack of freedom and flexibility, penalties not incentives etc
- Integrate solutions to these barriers in the design and delivery of a bespoke AES – the Burren Programme

Actors and roles: A local team, who had worked in the Burren with farmers for almost 10 years, designed an AES which was build around the farmer. Previous research (Dunford 2001) and experience from the Burren LIFE project identified key problems that farmers had with existing AESs and these were addressed in the design of the new AES.

Institutional context: Local team funded by NPWS, AES funded by DAFM.

Processes: Critical factors for success: having the creative freedom, trust (of all stakeholders including farmers) and experience to create a farmer centred AES.

Limiting factors: difficulty in planning budgets (results-based payments), securing permissions for works, abiding by funding conditions: these were addressed by working closely with all partners and continually monitoring impact to give reassurance. A year to year approach was adopted rather than 5 year contracts.

Lessons learnt from this innovation example, and its potential replication

- AES's should always be designed with the end user – the farmer – at the core
- While programme design may be complex, interface with farmer should be clear and simple
- Freedom to farm is a core value for farmers and should be incorporated in so far as possible into programme design
- Clarity of language, use of visual aids, conciseness of documentation are vital
- Reducing bureaucratic burden allows farmer to focus on his/her strengths: land and livestock management

Overall lessons for HNV farming:

Designing AES's with the farmer in mind will result in more engaged farmers and better environmental impacts.

Payment levels are not the only motivational issue for HNV farmers: fairness and transparency of payments, practical, locally-relevant measures, clarity of objectives and of communications, adequate advice and support and freedom to farm are also very important. These must be borne in mind when designing AES's.

Replicability of innovation and key requirements to do so:

These design principles are easily replicable and should be fundamental to AES design in most if not all situations.

Ireland – innovation example 4)

Developing locally tailored livestock feeding and watering systems

Location: Burren Region, Ireland

HNV system: Extensive winter-based grazing of rough limestone pastures by suckler cows.

Scale of operation: Tested on 20 farms (2,500ha) but adopted by many of the 450 farmers on c.30,000ha of Burren HNV farmland.

Timespan: 2005-2010

Keys to success: Rigorous scientific approach to developing the alternative feeding system; testing of the new system by local farmers on their holdings; monitoring of environmental, financial and agricultural impact; peer-dissemination of new system; support for required infrastructure (feed bins, troughs, water provision facilities).

For further info: http://burrenprogramme.com/portfolio-items/feeding/

Problems addressed by this example

The negative impacts of silage feeding systems on Burren HNV grasslands. These impacts include water pollution, poaching of soils, introduction of weed species and visual pollution at feed sites, as well as issues with waste silage plastic and metal feeders. Silage feeding also contributes to the undergrazing of species-rich grasslands and the encroachment of scrub. Animal health issues – including blood scours etc – may also be more prevalent at such feed sites.

Story in a nutshell

The two biggest challenges to the HNV farmland of the Burren are undergrazing, leading to scrub encroachment, and silage feeding, leading to pollution and species loss. These two problems are closely related (more feeding means less grazing and more scrub) and so a solution was identified to help solve both: replacing silage feeding with concentrate feedstuffs which could, in turn, increase forage uptake by livestock.

To achieve this, forage samples were taken from the HNV grasslands of the Burren on a year round basis. These samples were analysed (including mineral content) for their nutritional value, and compared with the nutritional requirements of the main grazers – in-calf suckler cows. A specifically formulated (with high protein and mineral content) cattle feed was then developed to meet the nutritional requirements of the suckler cows who were foraging on these HNV grasslands.

The new feeding system was tested on 20 farms and the resultant agricultural, environmental and economic impact was assessed by the farmers and a local team of scientists.

The research findings demonstrated that feeding the Burren ration increased grazing on rough pastures as the cows could process the rough forage more efficiently with the high-protein ration: increased grazing helped improve biodiversity while reducing pollution levels from silage.

Animal health and performance - for cows and their calves - also improved and the cost of the new system was shown to be lower than the prevailing silage based systems.

Other benefits included easier herding of livestock. As a result of these proven benefits there was, and continues to be, a gradual move to this new feeding system. Feeding of this ration requires a good water supply, a particular challenge in the karst Burren - so a range of solutions have also been implemented to address this. These include rainwater harvesters, solar and wind pumps, pasture pumps, hydram pumps, water storage tanks etc.

What did developing a new supplementary feeding system achieve for HNV farming?

Achievements

- Major reduction (>65%) in the feeding of silage with a consequent increase in grazing levels on undergrazed HNV farmland and reduced levels of water and soil pollution
- Improved animal performance (less illnesses, better calving intervals)
- Improved cost-benefit scenario for Burren farmers (reduced costs and time spent)

Achievements

In the period 2005-2010 there was a reduction by over 65% in the feeding of silage on project farms.

This feeding concentrate feeding system reduced animal health issues and increased animal performance (verified by local vets).

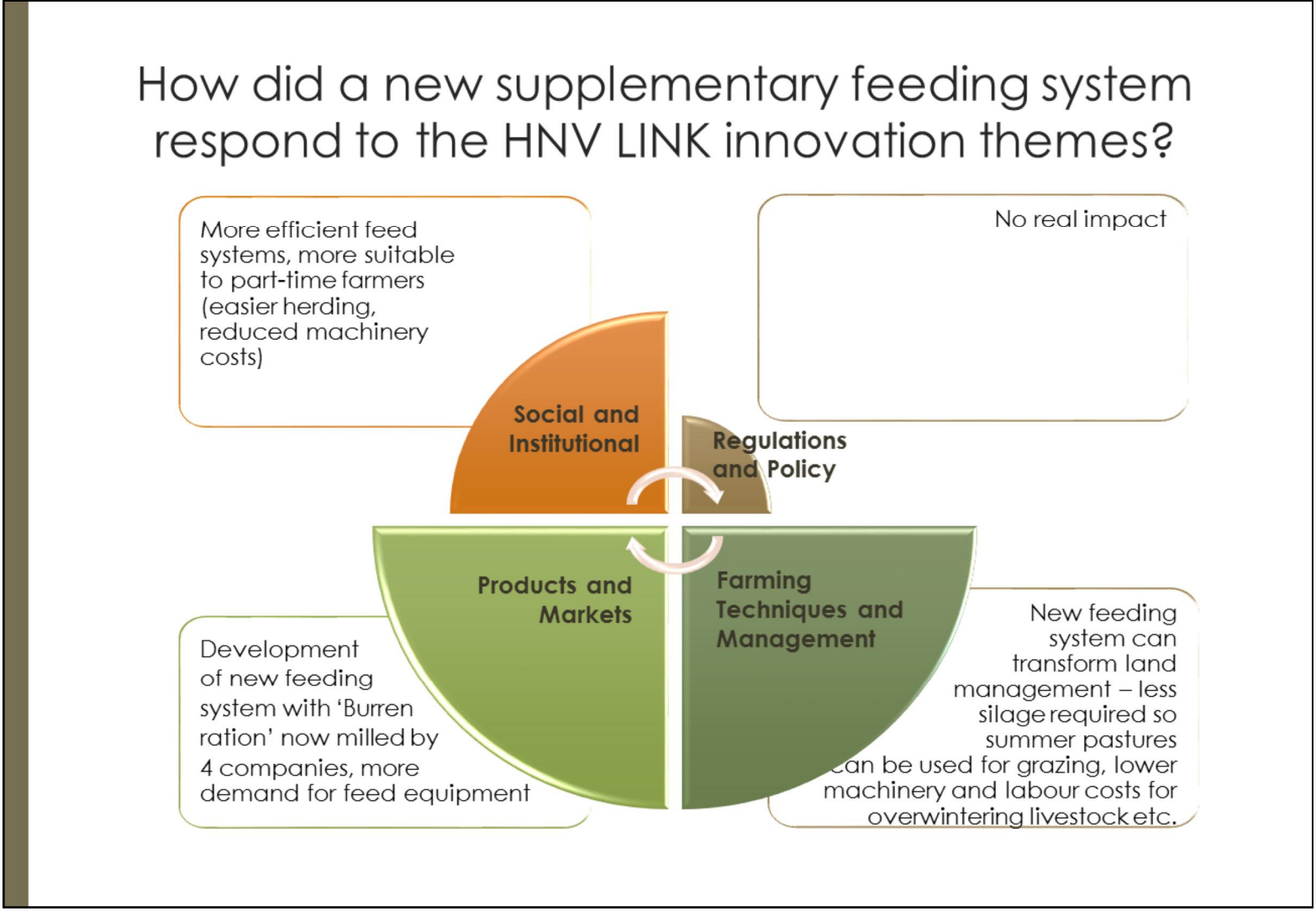
A best practice guidance document was published outlining the details of how best to supplementary feed outwintering livestock.

Economics of HNV farming

The new feeding system was demonstrated to be very cost-competitive when compared with the existing silage-based system.

Maintaining or improving HNV values

The new feeding system greatly improves a number of HNV values: reduced water pollution, reduced soil damage, reduced levels of visual pollution and increased forage uptake resulting in improved biodiversity.



This practical farming innovation significantly changes farm management systems and enables a more efficient farming system in the Burren. It has resulted in the production of a dedicated 'Burren ration' feed stuff by feed mills. It has not had an impact on policy.

The process that made it happen and critical factors for success

- Listening to farmers regarding possible solutions to the problem of silage feeding
- Co-creation of solution by farmers and scientists; monitoring of environmental and agricultural impact
- Peer recommendation of new feeding system by local farmers to others

Actors and roles: Teagasc (the National farm research and advisory service) through Dr James Moran and with the support of the BurrenLIFE project team developed the new feeding system. The impact was monitored by the team and by the farmers and results shared by the team and farmers through farm demonstration events. A major feed company – Kerry Food – milled the ration and it was initially subsidized for a trial period.

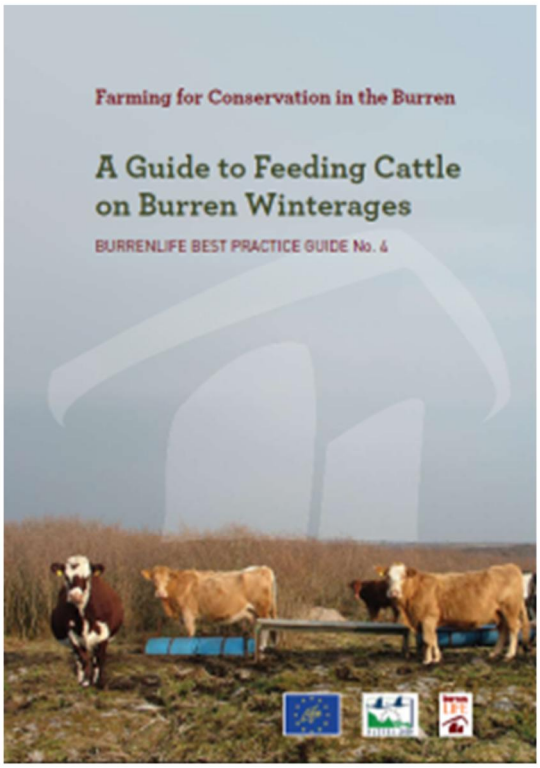
Institutional context that made it possible: LIFE funding (2.23m) was available, a small proportion of which was used to develop the new feeding system. Technical support and credibility of Teagasc was a key factor.

Critical factors for success: rigorous development process, high level of farmer involvement, careful monitoring and dissemination of findings. Practical outcome.

Limiting factors: reluctance among farmers to change from familiar silage-based system: still being overcome, mainly by peer testimonial as to the efficacy of the new system.

Lessons learnt from this innovation example, and its potential replication

- HNV farmers have a lot of good ideas and when involved in the 'co-creation' of solutions they have a far higher sense of ownership
- Targeted use of high protein ration can be very effective of increasing forage uptake on HNV grasslands and can be an important tool to help restore undergrazed grasslands
- The development pathway for this innovation is easily replicable: analysis of forage value of HNV grassland, comparison with nutrient requirement of primary grazers, development of a feedstuff to bridge any gap; test on local farms and monitor impact; share results with farming community on demonstration farms



Overall lessons for HNV farming:

- Practical solutions to key HNV farming challenges do exist and can have a huge impact when implemented well.
- New approaches to animal nutrition can have a major impact on the environmental health of HNV farmland.
- Co-creation of solutions which involve farmers at all levels ensure far better levels of buy-in and roll-out.

Replicability of innovation and key requirements to do so:

This innovation is highly replicable. It requires co-operation between farmers, scientists and feed companies along with modest resources for research and development.

Ireland – innovation example 5)

Burrenbeo Trust: building a conservation 'culture' and community in the HNV Landscape

Location: Burren Region, Ireland

HNV system: Extensive winter-based grazing of rough limestone pastures by suckler cows.

Scale of operation: The Burren (72,000ha) and the c.18,000 people who live there.

Timespan: 2002 – Present.

Keys to success: Communicating the importance of HNV farming in a positive and creative way; investing in community education;; empowering farmers to become the conservation leaders and spokespeople for their place.

For further info: www.Burrenbeo.com

Problems addressed by this example

Low levels of engagement by the local community – farmers and others - in their natural and cultural heritage and their role in its care. Poor understanding of the importance of farming in sustaining the HNV landscape, the challenges faced by these farmers, and the consequent threat to the landscape.

Story in a nutshell

The Burrenbeo Trust is an independent charity dedicated to connecting the people of the Burren with their place, and their role in its care. Burrenbeo - 'the living Burren' - was initially established to highlight the importance of HNV farming in the Burren by affirming that the Burren was a 'living landscape' and not a heritage museum. This was done through a 2002 website www.burrenbeo.com and through articles and images in local and national media. The next focus was offering local schoolchildren - the future farmers - the opportunity to learn more about their heritage and their role in safeguarding it. This was achieved by developing the 10-module 'Eco-Beo' programme in local schools: over 2,000 children have now graduated as 'local experts' in the Burren from this free course, enthusiastically taking ownership of their place and its care. Burrenbeo has also organised a wide range of HNV farming -related learning experiences: these include monthly walks (which have run for over 8 years now) often led by farmers who bring people across their land; 'Tea Talks' where people come together in the local community hall to learn more about their place; the Burren Winterage Festival where the importance of HNV farming is celebrated through open farm events and a community cattle drive across the landscape. Burrenbeo also co-ordinates the Burren Winterage School on sustainable farming which is now a National forum to discuss and develop ideas on how to support HNV farming in Ireland (www.burrenwinterage.com). A group of Conservation Volunteers was also organised whose monthly outings are usually on farmland and include works such as stone fence repair and scrub removal.

What did the establishment of theBurrenbeo Trust achieve for HNV farming?

Achievements

- HNV farming is now as much a part of the Burren 'story' as the flora, archaeology and geology of the landscape.
- Burren HNV farmers now leading monthly walks, organising festivals, chairing workshops, hosting study groups, acting as spokespeople for HNV farming
- Over 2,000 young Burren children – mostly from farm families – graduated as 'Burren experts' having completed an intensive 10-moduleEco-Beo programme.
- A team of Conservation Volunteers who do monthly work on HNV farmland

Achievements

Since its inception in 2002 (and its re-constitution as a Charitable Trust in 2008)Burrenbeo has:

- Built up a membership of 500 active members, many of whom are HNV farmers
- Organised monthly walks (year round) and talks (winter) for over 8 years: many of the walks are led by farmers.
- Since 2011, organised the annual Burren Winterage Weekend which celebrates the importance of HNV farming
- Since 2002, graduated over 2000 children – mostly from farm families - from the Eco-Beo programme
- Established the Burrenbeo Conservation volunteers who hold monthly conservation outings

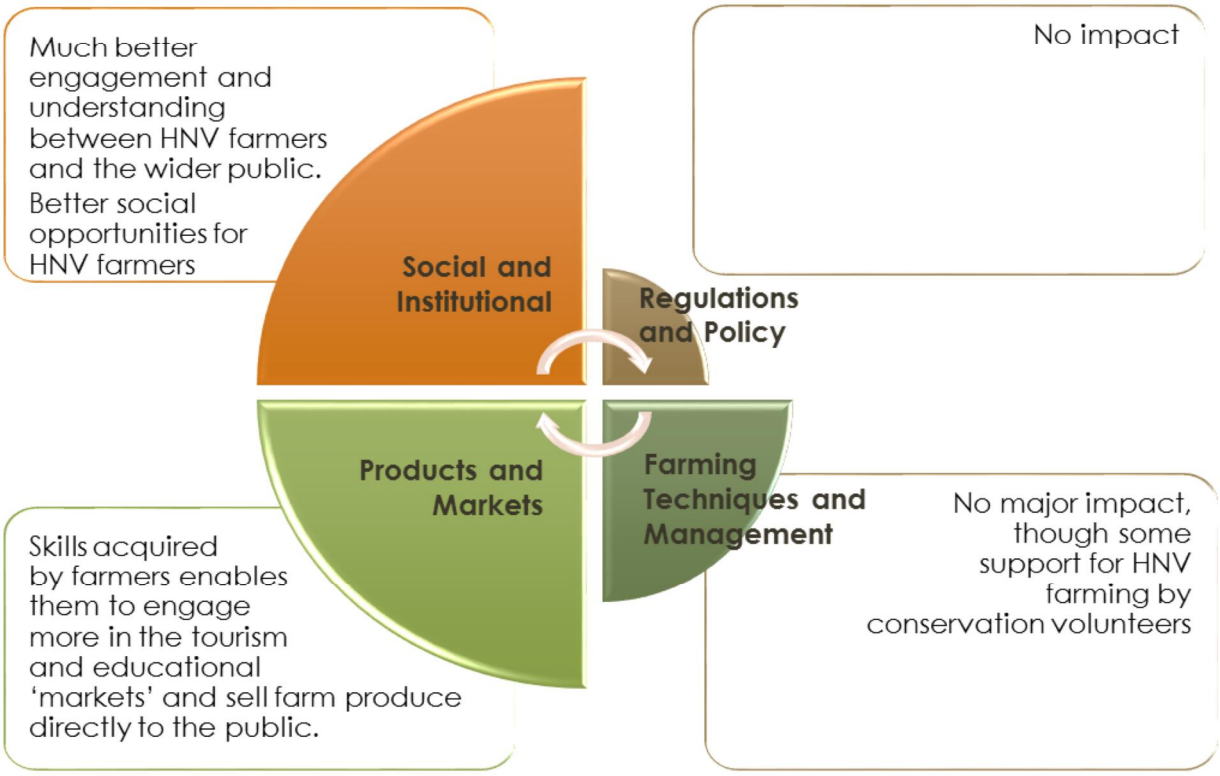
Economics of HNV farming

While Burrenbeo does not contribute economically to HNV farmers, it has given valuable skills to the HNV farming community, some of whom are using these skills (as walk leaders etc) for economic gain. Burrenbeo has made a very significant positive contribution to the social situation of HNV farming through monthly walks and talks, annual conferences and festivals, volunteer outings, study group visits etc.

Maintaining or improving HNV values

Burrenbeo Trust has made an enormous contribution to raising awareness, restoring pride and creating a culture of stewardship within the Burren and beyond. This is the best long term investment in the future of this HNVF landscape and to the efficacy of future conservation efforts.

How did the work of the Burrenbeo Trust respond to the HNV LINK innovation themes?



The work of Burrenbeo has been fundamentally important in improving relationships between, and awareness among, key HNV stakeholders – farmers, rural communities, NGOs, scientists, public authorities and the general public. This has resulted in improved social and economic opportunities for farmers, though has not significantly impacted on policy or on farm management techniques.

The process that made it happen and critical factors for success

- The commitment of key individuals within the community who want to contribute to a brighter future for the Burren
- Focussing on impact: identifying and meeting the key needs on the ground
- A highly professional and inclusive approach while remaining independent

Actors and roles: Burrenbeo was established in 2001 by Ann O'Connor and Brendan Dunford, a locally-based couple with skills in communications and HNV farming respectively. Until 2008 most ofBurrenbeo's innovations were developed and delivered directly by Ann and Brendan. In 2008Burrenbeo was reconstituted as Charitable, Membership Trust and its range of programmes (now over 40) and impact has grown under the guidance of its co-ordinator Brigid Barry.

Institutional context that made it possible: Burrenbeo does not receive any core funding and relies on membership fees, donations and grant-aid and sponsorship for certain programmes and events. It has an average annual turnover of c. €130,000 and has three part-time staff based in Kinvara on the edge of the Burren. Funding has been received from Leader, Local Authorities and others.

Critical factors for success: passion, determination and hard work of staff and volunteers and a positive, inclusive approach to its work.

Limiting factors: low levels and unpredictability of funding. Mistrust of ENGO. Overcome by building the organisations impact, credibility and trustworthiness.

Lessons learnt from the Burrenbeo Trust, and its potential replication

- There is a real need for, and benefit from, raising awareness of the importance of HNV farming within the farming community but also within the broader HNV community and among the wider public, particularly given the increasing need for public funding and support for HNV farming.
- Investing in the education and support of the HNV community is a fundamental long-term investment in the future of the HNV landscape
- A range of low-cost, easily replicable initiatives have been developed in the Burren including HNV festivals, Farmer-led walks and talks, Heritage educational courses, Volunteer groups.

Overall lessons for HNV farming:

The importance of HNV farming needs to be better communicated to the broader public and HNV farmers themselves are the best ones to relate this message.. Simple, low cost initiatives such as farm walks, community festivals are very effective mechanisms for farmers to achieve this. There is also a need for investment in the education and skills of the local 'HNV community' through schools educational projects and skills training.

Replicability of innovation and key requirements to do so:

The range of innovative educational initiatives developed by the Burrenbeo Trust are very replicable individually or collectively. These are low-cost innovations which mainly require a good network of local volunteers and modest resources. The Burrenbeo Trust organises annual 'Learning Landscape Symposium' where many of these innovations can be witnessed first hand.

Ireland – innovation example 6)

Farming for Conservation Awards: celebrating the HNV farmer

Location: Burren Region, Ireland

HNV system: Extensive winter-based grazing of rough limestone pastures by suckler cows.

Scale of operation: Approx. 500 farm families working on c.30,000ha of HNV

Timespan: 2015 – Present.

Keys to success: Identifying a credible, high profile sponsor for the award; organising an awards event which attracts the wider community; having clear criteria through which the awards are made.

For further info:
www.burrenwinterage.com

Problems addressed by this example

Residual suspicion and negativity among the wider farmer community and general public regarding farmer's role in managing the environment. The social and cultural challenges faced by some HNV farmers in 'going against the grain' and embracing farm practices that deliver environmental benefits.

Story in a nutshell

To farm in a way that delivers for the environment can often mean that a farmer needs to 'put his neck on the line'. Having the courage to embrace new ideas such as HNV farming isn't always easy in a 'modern' farming culture, so it was decided to organise an awards ceremony to celebrate and acknowledge the farmers who took this leap of faith and achieved success in doing so.

The annual 'Farmer for Conservation Awards' has five categories: 'Best HNV pasture', 'Best HNV meadow', 'Highest standard of HNV works', 'Farm family of the Year' and 'Farmer of the Year' (the latter based on environmental performance scores, work completed and additional effort). The awards (2000 euros in total) are sponsored by Bord Bia (the Irish Food Board – one of the most trusted organisations in Ireland according to recent research) and are presented in front of the local community during a 'community feast' which is organised as part of the Burren Winterage Weekend.

The awards have been a huge success in terms of affirming the work done by farmers and inspiring others to follow suit. It is intended to expand this into a National Awards Ceremony in the coming years for HNV farming across Ireland.

What did developing a new awards ceremony for farmers achieve for HNV farming?

Achievements

- Successful annual awards ceremony in 2015 and 2016 with €2k in prize money per annum.
- Public recognition locally and nationally for farmers who deliver positive HNVF outcomes

Bord Bia
Irish Food Board

Achievements

In 2015 and 2016 Bord Bia sponsored five awards for HNV farmers in the Burren: 'Best HNV pasture', 'Best HNV meadow', 'Highest standard of HNV works', 'Farm family of the Year' and 'Farmer of the Year'. The awards received national recognition – featuring in the main farming publication The Irish Farmer's Journal – and were widely covered in local media also.

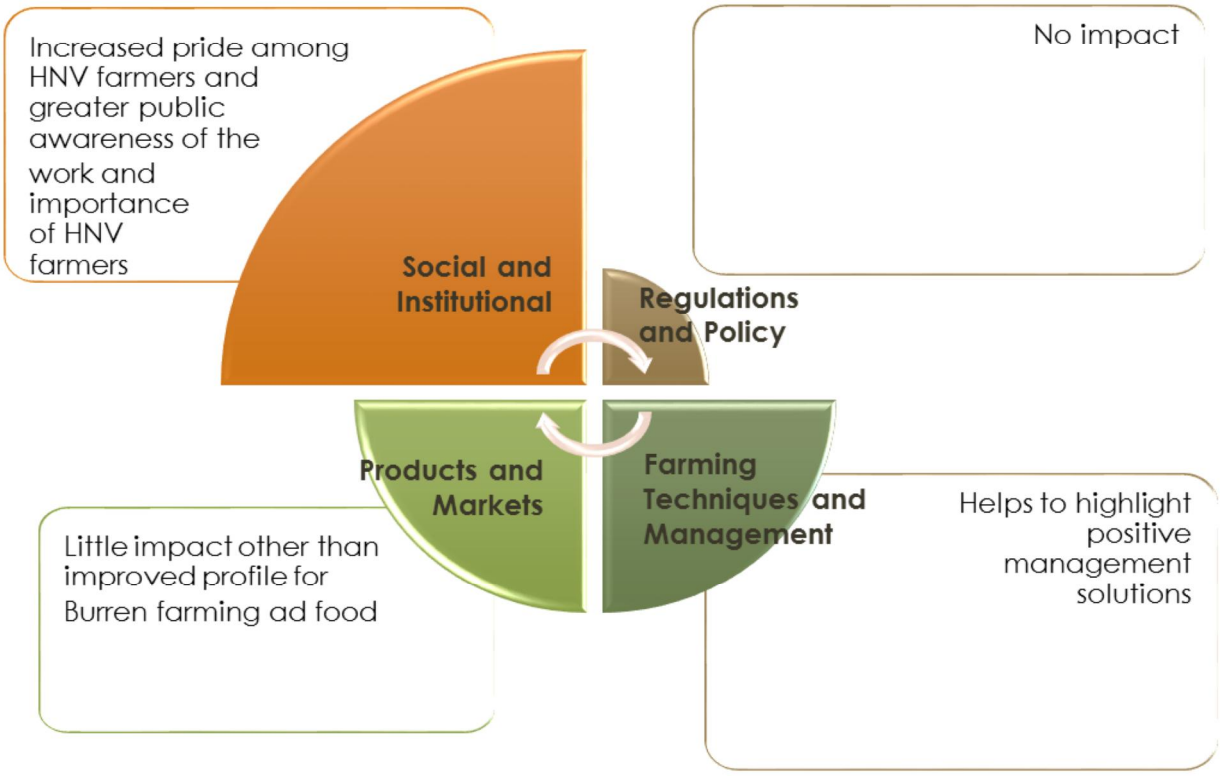
Economics of HNV farming

€2,000 in annual prize money for Burren farmers

Maintaining or improving HNV values

This innovation highlights the importance of HNV farming and celebrates HNV farming champions in front of their own community, empowering these farmers and others.

How did this Farmer Awards innovation respond to the HNV LINK innovation themes?



These awards improve the social standing of HNV farmers and the social opportunities available to these farmers, while raising the profile of HNV farmers and their produce and highlighting exemplary HNVF management systems. Little impact on policy.

The process that made it happen and critical factors for success

- Identifying a funder for the awards, one that had a high level of relevance and credibility
- Deciding on award categories as well as nomination and assessment protocols
- Organising an awards event within the local community but with national coverage

Actors and roles: Burren Programme Manager B Dunford approached Bord Bia to sponsor an awards event and they agreed to do so. Farm advisors and BP Staff nominated farmers (and fields!) for each award category and an assessment process was agreed.

Resources: €2000 in prize money is provided by Bord Bia, for 4x €250 and 2x€500 prizes. The awards are held as part of a night organised by the local community in their hall.

Critical factors for success: Credible sponsor, lucrative prizes, community participation, good media coverage.

Limiting factors: Limited profile: this will be addressed by making this a National Award in future.

Lessons learnt from the 'Farming for Conservation' Awards and their potential replication

- It is really important to recognise and celebrate excellence in the field of HNV farming.
- This counters the impression of HNV farmers as being largely irrelevant, 'poor' farmers depending on hand-outs rather than hard-working, innovative multifunctional farmers valued by society.
- This is a simple and easily replicable innovation: the main requirement is for a credible sponsor.
- Steps are being taken to develop National Awards for Ireland and having a similar European level award would be easily achievable.

Overall lessons for HNV farming:

- Celebrating success helps to embed positive management ideas and creates new farmer advocates for HNV farming.
- Such award ceremonies help counter the prevailing negative opinion of HNV farmers and farming systems.

Replicability of innovation and key requirements to do so:

Highly replicable, simply requires a credible sponsor and an organising committee.

Ireland – innovation example 7)

Adding value to HNV farming

Location: Burren Region, Ireland

HNV system: Extensive winter-based grazing of rough limestone pastures by suckler cows.

Scale of operation: Approx. 500 farm families working on c.30,000ha of HNV

Timespan: 2005 - Present

Keys to success: Ensuring farmers are the first to benefit from the increasing recognition of HNV farming in sustaining the landscape; giving farmers the confidence and support to deliver new products and services.

Problems addressed by this example

The poor socio-economic outlook for Burren HNV farmers and the limited number of mechanisms through which value is added to the important work of these farmers.

Story in a nutshell

A number of mini-innovations have been developed to 'add value' to the HNV landscape, community and economy of the Burren. As part of the BurrenLIFE project, a producers group was established to add value to local beef and lamb: while it no longer exists, its development generated a number of useful lessons and spin-offs, including private direct sales businesses.

A database of local workers (with up to 80 listings, mostly local farmers) was also developed and made available to Burren farmers who are unable to carry out conservation works themselves due to age, infirmity or off farm work for example.

Some of these workers have joined forces to work together on Burren farms. As part of the Burren Programme, a traditional Burren gate was identified as being very fitting for use when upgrading walls and gates under BurrenLIFE - three local businesses now manufacture and install these gates. Arising from the success of the Burren programme, a large number of study groups visit the region: these are increasingly hosted by local farmers who provide lunches and guided tours, affirming the Burren's potential as a 'learning landscape'. Additional initiatives are planned with the expansion of the Burren Programme.

What did 'adding value' achieve for HNV farming?

Achievements

- Establishment of a Beef & Lamb producers group
- Mini-businesses including farmer-led walks, farmhouse catering, production of farm gates
- Establishment of a Database of workers to support farmers in HNV farming

Achievements

Since 2005 a significant investment has been made in the development of AES to support HNV farming in the Burren. During this time a number of smaller innovations have also been instigated and supported to try to add value to HNV farming systems, including:

- A Beef & Lamb Producers Group (2007-2010) which has led to some offshoots in private meat sales
- A Workers Database (80 listings) of available labour to support HNV work in the Burren
- The production of a traditional Burren gate, now made by three local suppliers
- The development of 'learning packages' for study groups which include farmhouse lunches and farmer-led walks across the land.

Economics of HNV farming

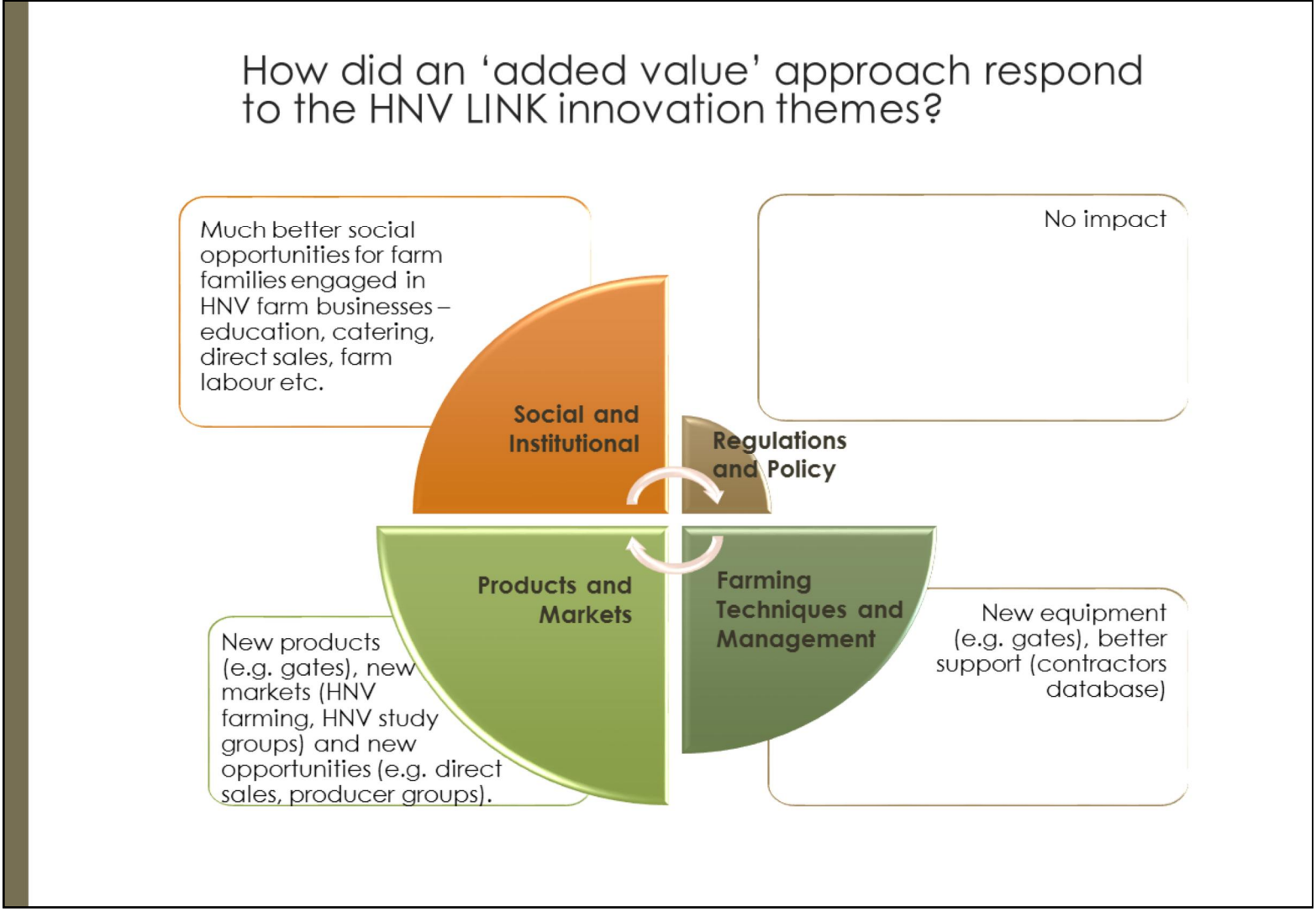
The initiatives have contributed to the economy of HNV farmers and to the social opportunities available to these farmers (by interacting with visitors, customers and other farmers).

Maintaining or improving HNV values

The Workers database has helped address key labour shortages in the HNV landscape while training offered to these workers has helped improved outcomes for nature.

Traditional Burren gates have enhanced the visual appeal of the Burren and helped improve stock management and thus natural values.

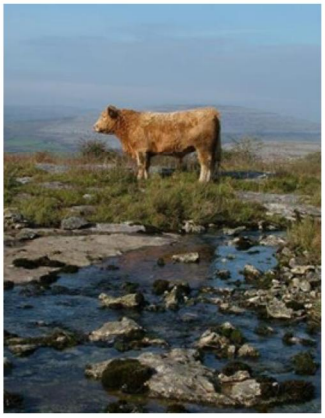
Farmer's engagement with tourism has encouraged them to engage more fully with conservation farming work.



Adding value for HNV farmers – whereby innovations are developed with the intention of benefitting HNV farmers directly – have really helped create a suite of new business and social opportunities for Burren farmers and other local businesses. These innovations have also enabled HNV farmers to work better by having good pool of local skills to draw on. Little impact on policy however.

The process that made it happen and critical factors for success

- Responding to the need – e.g. for farm labour, for better marketing of local food.
- Focussing on the farmer when opportunities do arise – e.g. hosting of study groups from other HNV landscapes.
- Keeping things local – e.g. in terms of local product design and manufacture.



Actors and roles: The Burren Programme Team and Burrenbeo Trust Team have supported many of these value-added initiatives.

Institutional context: Investment in HNV farming (funded by DAFM, NPWS) and the higher profile of HNV farming in the Burren (BurrenLIFE) has created new employment opportunities and new product and service needs.

Critical factors for success: building the skills and confidence of farmers to do new things through skills training (e.g. for scrub removal), piloting ideas (e.g. leading walks) and selling their products (producers group), as well as creating new markets for HNV products and services.

Limiting factors: low confidence levels among farmers and a reluctance to change, limited product range (weanling cattle) and seasonality of tourism.

Lessons learnt from this innovation example, and its potential replication

- Farming alone is not sufficient to address the weak socio-economic outlook for many HNV farmers.
- Seeking to add value through new products and services, collective working processes, developing new markets and funding mechanisms etc will become increasingly important.
- HNV farmers have the capability to create added value but will need ongoing support and encouragement to do so.

Overall lessons for HNV farming:

While HNV farming generates a lot of added value for other industries (e.g. tourism) HNV farmers often do not benefit from this added value. To address the weak socio-economic outlook for HNV farming in many regions, this situation needs to change. While farmers have the ability to generate added value from their work and their place, they need a lot of encouragement and support, ideally at a local level, to do so.

Replicability of innovation and key requirements to do so:

Some of the ideas listed under this innovation are easily replicable: developing workers databases, producer groups, local products, agri-tourism services etc. Local support structures will be needed to ensure these initiatives are not short-lived.