Dartmoor Learning Area: The innovation report

This project has received funding from the European Union Horizon 2020 research and innovations program under Grant Agreement No. 696391
Introduction and contents

This report looks at innovation that supports HNV farming in **Dartmoor**, and identifies the types of innovation that are missing and needed in order to secure a sustainable future for HNV farming.

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

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

---

**Contents**

Slide 1: Introduction and contents
Slide 2: The challenges facing HNV farming on Dartmoor
Slide 3: Innovation overview Dartmoor
Slide 4: selected innovations from Dartmoor
Slide 5: Innovation needs - Social and institutional
Slide 6 & 7: Innovation needs - Regulatory framework
Slide 8: Innovation needs - Products and markets
Slide 9: Innovation needs - Farm techniques and management
Slide 10: Innovation in UK but outside LA
Slide 11: Potential innovations from EU Member States relevant to LA
Slide 12: Innovation fiche from UK (Dartmoor).
Slide 13 - 18: The Dartmoor Vision
Slide 19 - 23: Dartmoor Farming Futures
Slide 24 – 28: Commons Fire Management Plans
Slide 29 – 33: TB Control Plans
Slide 34 – 38: Dartmoor Commoners’ Council
Principal abbreviations:

Defra – UK Government’s Department of Environment, Food and Rural Affairs.

RPA – Rural Payment Agency (Defra agency).

APHA – Animal & Plant Health Agency (Defra agency) formerly State Veterinary Agency.

BPS – Basic Payment Scheme (pillar 1 support)

AE – agri-environment scheme (pillar 2 support).

ESA – Environmentally Sensitive Area, an agri-environmental scheme.

HLS – High Level Stewardship, an tier with the Environmental stewardship agri-environment scheme.
The challenges facing HNV livestock farming on Dartmoor

- Hill farming is economically marginal, even with agri-environment support.
- To maintain and enhance the priority habitats requires HNV farming, especially extensive grazing, but there is no ‘product’ where HNV farming has both a competitive advantage and a well-functioning market.
- Whilst agri-environment (via commons agreements) provides financial support, many of the prescriptions are not appropriate for common land.
- Regulations relating to animal health (TB) and land management are often impractical for common land.
- The cultural aspects of commons has its own challenges relating to governance.
- Many policy and farming narratives are not favourable to HNV farming.
- Additional significant challenges as a result of the UK’s decision to leave the EU.

Challenges facing HNV livestock farming on Dartmoor

The Learning Area consists of the 36,000+ ha of registered common land within Dartmoor National Park (DNP) in SW England and the farms which actively use their pasture rights on those commons – currently around 500 farms. These farms are located overwhelmingly within the DNP, but don’t include all farms within the DNP, with about 60% of farms activating their common grazing rights. Some hill farms also have their own sole use moorland (new takes). This is also HNV and shares some, but not all, of the issues facing common land within the National Park.

The extensive grazing regimes face many challenges, including; competition from intensive farming systems, whether locally, nationally or internationally; poor financial returns, with little recognition in the market of the high quality product and most other outputs taking the form of public goods for most farms; resultant dependency on support via pillar 1 and 2; inappropriate prescriptions in agri-environment, which is the main instrument which purports to engage with management practices in any detail; impact of TB Regulations (not the disease) in failing to recognise the generally low risk status of the moor and making grazing a greater management and potentially financial risk for farmer; and uncertainty in the future for UK agriculture due to Brexit, both in terms of the likely future trajectory of English (i.e. UK) spending on agriculture and in terms of potential changes in the terms of trade with the EU-27 and the rest of the world.
Overview of innovation on Dartmoor

• Beneficial innovation has been within an overall context of intensifying farming (and associated innovation) away from the moor
• The capacity provided by farmers working together on commons has contributed to a number of innovations.
• Inspirational leaders within the farming community have been essential to the majority of innovations.
• Agri-environment agreements on commons have provided challenges but also the finance to develop ideas into solutions.
• The Dartmoor National Park Authority and others have encouraged entrepreneurship and innovation, by providing facilitation and funds.
• Local innovation has rarely been adopted or properly integrated into/by national policy

Overview of the innovation situation

Relevant innovation at the UK or English level is minimal; most occurs at National Park level. Innovation and investment in research and development and dissemination have all largely focussed on the intensive systems which are themselves increasingly marginalising those Dartmoor systems which use the moor pastures; if anything, there has been a reduction in UK/England-wide structures for the development and dissemination of relevant innovation relevant or supportive of HNV farming.

Within that overall context, Dartmoor has been notably innovative. Innovation has often been spawned by a crisis and local bodies, especially the Dartmoor National Park Authority (DNPA), have proactively encouraged innovation in response to such crises. There is also a potential co-funder on Dartmoor not present to the same extent elsewhere, namely the Duchy of Cornwall (the principal land owner).

Dartmoor has taken the national lead in providing a long-term vision (25 year) for the moorland and providing evidence of the impressive array of public benefits linked to farming on the moorland. This innovation itself provided the inspiration and basis for a number of other initiatives, for example, a new trial agri-environment scheme that is outcome based.

These initiatives have all sought to support farming as the principal means of managing the diverse and important HNV ecology, especially – blanket bog, wet and dry heath, mires and extensive grass moors all providing the habitat for important species. The other public goods have initiated innovation,
including re-wetting the mires (for water and carbon benefits), fire control (to protect the ecology and stored carbon in the peat).

The dominance of common land has required governance and led to some innovative processes.

Further innovation is required – not just in the regulatory and support areas where it has so far been largely focussed, but in other fields; marketing, animal welfare and farming efficiency have all been identified as gaps by farmers. However the uncertainty created by the decision to leave the EU has impacted on the climate of entrepreneurship and innovation, removing potential funding sources and interestingly making at least some farmers think that the route to survival lies in individual technical innovation.
Innovation examples in Dartmoor: what are their strengths and weaknesses for HNV farming?

**Strengths:**
- The innovations show that there is a set of local voices and a local ability to develop and implement innovations, at least in certain fields.
- Support and funding from DNPA and major land owner is very important.
- The building of capacity in the case of some groups (e.g. Forest of Dartmoor Trustees) is impressive and builds on long history of cooperative working on commons.
- There can be positive feedbacks where things work well, e.g. Vision leading to Dartmoor Farming Futures and the Dartmoor Hill Farm Project (DHFP a local advisory service)

**Weakness:**
- Starting point is ever-increasing competition from unfettered intensive farming elsewhere – this puts greater demands on innovations for HNV farming
- Innovation has been mostly in social/institutional/regulatory/support fields, at best addressing the symptoms, not the cause of marginalisation
- Technical innovation is minimal and ad hoc (though a lot of store is put on it)
- Product and market innovation has mostly disappointed farmers so far
- Many social/institutional and almost all regulatory/support innovations are highly dependent on the decisions of English (UK) ministers, which have in general proved to be uninnovative, centralising and unintegrated in terms of policy objectives
- Mainstreaming, nationally or even locally, is poor or non-existent; success of initiatives seems to depend on individual staff members not just in their inception but for roll-over/continuation

- The HNV challenge is not an integrating principle driving innovation (and support for innovation)
Social and Institutional Innovation Needs

In some ways, the social and institutional field is one of the stronger areas in the Learning Area, but innovation in this area is perhaps taken for granted by farmers where it exists (e.g. commons governance) or perhaps not seen as possible where it isn’t (e.g. relevant agricultural lifelong learning). It has largely emerged through various times of crisis.

Local tradition of farmers coming together (despite it co-existing with strong individualism) has provided at very least a seedbed in which innovations can grow (importance of farmers’ perceptions of their capacity to change/develop things at a particular point in time in the way they respond to possible innovation opportunities comes across clearly – it is something which needs to be nurtured specifically).

There have been quite a few good examples, but they are restricted to certain fields, e.g. commons governance and management (there is a feedback loop – the lack of examples in other areas both explains and results from the lack of an innovation process in those fields).

Policy and regulation frequently fail because they are unsuitable for common land, leading to frustration and disengagement by farmers, but while the gap between government agencies and farmers appears to be widening, the local bodies which either speak for farmers or could potentially

<table>
<thead>
<tr>
<th>Social and institutional - innovation needs</th>
<th>Possible approaches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education suitable for hill farmers and potential hill farmers is very limited.</td>
<td></td>
</tr>
<tr>
<td>Research into farming in the uplands is almost non existent</td>
<td></td>
</tr>
<tr>
<td>Strong, broad and relevant advisory, dissemination, guidance function for hill farming systems.</td>
<td>Some farming advice is provided by the Dartmoor Hill Farm Project – need to be less financially vulnerable and able to address more issues.</td>
</tr>
<tr>
<td>Stronger local body with the capacity and legitimacy to develop/deliver policy measures?</td>
<td></td>
</tr>
</tbody>
</table>

Social and institutional innovation
deliver solutions have little financial or human capacity at present.
Regulatory Framework Innovation Needs - 1

Regulatory and support. Some good examples which illustrate the relative strength and increasing capacity of local partnerships, but ones which also illustrate the weakness of and resistance to innovation on the national scale and the lack of a tradition of locally adapted/developed/led policy.

Whilst the UK Government’s policy is to support hill farming (including on Dartmoor) in practice the payment of pillar 1 and 2 on common land is often severely delayed, complex and vulnerable giving little confidence in the intention to support these farmers.

The relative disadvantage of Dartmoor’s moorland-using systems in part reflects the technical development of intensive systems; many of the negative effects of those systems remain external to the economies of those farms (thanks to policy choices in the field of regulation). There is thus a strong case for arguing that, if one takes the broad view, the greatest need for innovation is in internalising the many costs to society of pursuing ever more intensive farming systems. That means not only the management of permanent grasslands, or of other aspects of cattle and sheep systems, such as the sourcing of feed, but wider questions such as the regulatory framework for pork and chicken production, rules pertaining to imported food etc.
Immediate regulatory needs flowing directly from current mainstream or pilot/locally-adapted measures can be seen to relate back to the supposedly-shared Vision. There a need for a long-term agreement on each common on actions and outcomes. All payments need to be adapted to the commons institutional framework, as do regulations. In the case of the latter, the HACCP (Hazard Analysis and Critical Control Points) framework supposed to underlie all EU health policies should be much more apparent in the implementation of TB rules in particular.

Restoring institutional memory is essential – examples where good initiatives and approaches have lost their vigour due to personnel changes have been found in the biodiversity and biosecurity fields, for example, reflecting poorly on the amount of buy-in to those innovations in the organisations concerned as a whole.

Our perspective is that there is much scope for major and positive improvements, not least by rolling out properly the excellent pilots and experimental approaches which have been trialled on Dartmoor. Given that farmers often do not disagree with the objectives of schemes and that agri-environment income is not only important at present, but likely to become even more so in the near future, it seems to us that this has to be one of the major focusses of the project.
Products and Markets Innovation Needs

True innovation, whether in terms of products or markets or marketing techniques, has been limited.

Looking first at conventional agricultural products (e.g. meat, wool, breeding stock), micro-scale innovation has been relatively successful; medium-scale through cooperative groups less so.

Payment for Ecosystem Services (PES) potential is there (water & carbon storage payments, for example), but so far experience has been discouraging. There is a complex issue of how commoners (the farmers) would potentially benefit from payments linked to the soils and water that lie outside their rights on the common – how important is their grazing practice, and particularly how much of that benefit could be delivered through basic regulation?

Dartmoor and its association with the Prince of Wales (Duchy of Cornwall) are potential brands that could provide the added value required by farmers to produce high quality products linked to extensive grazing (organic systems). However efforts to use these brands have not been very successful.

Dartmoor is a huge tourist draw as well as a major brand in the region. Initiatives which truly link this
vast amount of diverse economic activity to the economy of HNV farmers are relatively thin on the ground; to the economy of specifically HNV systems and practices, even rarer.
### Farm Techniques and Management Innovation Needs

Considered very important by farmers, to some extent this perhaps reflects the ‘we are all different’ narrative, but also the feeling that too much is dependent on the decisions of agencies – a high risk situation for the farmer to find himself in. In addition, the feeling there is a strong feeling (possibly encouraged by the poor experience of efforts to increase prices by niche marketing) that ‘cutting costs’ is essential in the future. Innovations which promote labour efficiency are thus seen to be essential, but innovations which increase technical effectiveness, make better use of the pasture and genetic resource, productivity etc., would also be seen as relevant.

Innovations in this field should be encouraged not discouraged by the ‘schemes and regulations’ and encouraged/supported both directly by the State and through the encouragement of local and/or farmer-organised knowledge transfer bodies and initiatives. The strong impression is that most of the basic innovations of recent decades have been (and still are?) antipathetic to HNV farming, but less systemic ones have potential to improve the effectiveness etc. of HNV systems. There is in fact a need for ‘agroecological’ type innovation on the more intensive side of the HNV farming systems, as well as innovation on that part of the system which interacts directly with the semi-natural pastures. This means a recognition that the current dependence on commercially-driven research weakens the position of HNV farming, since innovation is also needed in aspects where new products aren’t necessarily a part of the solution.
Another strong impression is that innovations are largely spread informally by self-learning. Education system seems not to have major or positive role. Lifelong learning structures are poorly developed at present. (See social and institutional above)
Innovations from outside the LA that could help address LA needs

- Lessons from knowledge transfer initiatives in the hills
- Lessons from initiatives using ‘problem’ biomass
- Lessons from collaborative approaches between farmers
- Technological innovations e.g. Fenceless fencing
Examples from the stakeholder discussion group:

1. Markets
   - Wool fest, replicate event in Cockermouth in southern England to attract wool/fleece buyers
   - Any other initiatives to add value to wool, e.g. establish local wool washing units?
   - How to get successful and stable relationships on the large scale between farmers and local consumers
   - How to educate chefs and retailers on use of whole carcass.
   - Any initiatives which deviate from the standard model of pricing/valuing the product, e.g. sheep meat pricing grid more suitable for hill breeds?

2. Schemes and Regulation
   - Anywhere with something like a challenge fund - pot of money to enable innovation.
   - Anywhere with schemes which are less prescriptive and encourage “real” dialogue.
   - Anywhere with a workable approach to animal health and biosecurity rules

3. Social & institutional
   - Anywhere with successful machinery rings and other cooperative purchasing good – how to get
round the drawbacks

- How to organise and fund an education/training/advice system which is comprehensive and not focused on one issue. Lessons from Monitor Farms, Making Livestock Profitable etc etc.
- How to fund and carry out experimentation which is not attractive to commercial companies (i.e. not about drugs, fertilisers, etc) - need a fund for development of ideas that is not risk averse. How to fund farmers’ participation in experimentation.

4. Techniques & technology

- Invisible fencing/fenceless fencing need more information.
- GPS technology to track extensive grazing animals; ovulation monitoring of cattle etc etc.
- Management techniques for ‘difficult’ vegetation - how to cut and remove *Molinia*, turn waste vegetation (rush, reed and grasses) into animal feed, biomass etc. What lessons from existing initiatives.
- Consider the integration of woodland into farm business.
1) **The Dartmoor Vision** – provides a 25 year vision shared by agencies and farmers.

2) **Dartmoor Farming Futures** – an new approach to agri-environment based on outcomes and no prescriptions.

3) **Commons’ fire management plans** – provide information required to fight fires, new equipment and train farmers to work with professional fire fighters.

4) **TB Control plans** – ensuring Regulations are practical on common land.

5) **Dartmoor Commoners’ Council** – farmer led governance.
Problems addressed by this example

Poor communication between various government agencies and between those agencies and farmers. The Vision was initially an exercise to address what farmers perceived to be different demands from archaeologists and ecologists, often on the same piece of land; farmers were not confident there was a long term view of what was intended to be achieved by agri-environment schemes.

Story in a nutshell

The process of designing and creating a vision for the moorland began in 2003, while the Vision itself was completed and adopted by the statutory agencies and farmers in 2005. A long term (25 year to 2030) vision was produced for Dartmoor’s moorland. It encompasses all the open moorland on Dartmoor – c45,000 ha. of which 80%+ (35,000 ha) is common land and describes what the agencies want the vegetation (HNV) and archaeological landscapes on the moorland to look like in 2030. The Vision is owned and endorsed by the main regulatory agencies and by the farmers. The process used to achieve the Vision was as valuable as the final product (a map) in securing a shared understanding of what each contributor wanted the moorland to look like in 25 years time. All relevant agencies contributed and endorsed so provided confidence to farmers that they all wanted the same thing.

A new process of identifying archaeological landscapes helped farmers and agencies better understand priorities, introducing a new concept, PALs – Premier Archaeological Landscapes. These
are mapped areas that contain important (internationally important) archaeology that requires to be set in a suitably managed landscape. Adoption of PALs enabled the ambitions of ecologists and archaeologists to be compared and assessed with the top priority taking precedence. This is very helpful to farmers with responsibility for managing such areas.
Achievements

- The process resulted in a clear picture of what vegetation was wanted and where, not least for farmers, who now know what they are to achieve. Detailed management is then set out in the agri-environment agreements that are underpinned by the Vision.
- The invention of a process to resolve potential conflicting demands for different land management on the same area of ground.

Improved economics of HNV farming

- Better understanding of the intended outcomes for agri-environment agreements resulted in an increased uptake of this important funding resource

Maintaining or improving HNV values

- The full suite of HNV vegetation (Annex 1 and non-Annex; within and outwith designated sites) was addressed through the process and included in the Vision.
Ironically for an innovation which is so intimately connected to policy and indirectly therefore to support and innovation, there is a strong case to be made that at present at least the main impact of the vision was social and institutional; regulatory and policy effects are certainly present, but could be much more thoroughgoing and fundamental.
The DNPA initiated the proposal following concerns from farmers that they had little faith in the agencies long term view of Dartmoor and conflict between the aspirations of the archaeologists and ecologists. An independent facilitator was employed and the process was to secure agreement between all the ecologists and then the archaeologists and then bring their agreed positions together to see if there was conflict. There was very little overlap of ambitions, both groups’ visions could be accommodated to each other.

All the government agencies with responsibility on Dartmoor participated. They eventually signed off the Vision and by doing so clarified their position. Farmers claimed this to be the first time that agencies had clearly stated that they wanted a farmed landscape to continue. The farmers then ground-truthed the draft, i.e., asked themselves whether it could it be delivered, and then signed it off.

The process that was developed to deliver the Vision has been used successfully elsewhere. The employment of a facilitator was the only significant cost. Providing sufficient time was very important, enabling full participation by those busy with other work.
Lessons learnt from this innovation example, and its potential replication

- Vision restricted to moorland, fails to provide vision for inbye land.
- NGOs did not participate.
- Process, including use of Premier Archaeological Landscapes (PALs) used to produce vision for Bodmin Moor and moorland units on Exmoor.

The Vision process has been used on Bodmin Moor (a similar discrete upland in south-west England). It is suitable for replicating on other uplands or discrete areas to resolve conflict between different land management for differing outcomes.

The following aspects of the Vision process were found to be valuable:

- Independent facilitation by someone with access to statutory agencies and farmers.
- Sufficient time allocated to secure participation
- Adoption of a term to describe discreet areas of high archaeological value that require a landscape selling – Premier archaeological Landscapes (PALs).
- Timing of meetings tailored to participants (farmers met in the evening at less busy times of the year)
- Ambitions of various disciplines captured on maps that could be shared and amended.
- Process improved communication between agencies as well as between agencies and farmers.
- Designed to compliment and enhance existing delivery mechanisms and not to replace (AE agreements).
- Useful so it is still used and referred to.
The process did not include NGOs; if it were to be repeated, some NGOs would be invited to contribute so they could learn about the ambitions and constraints facing the farmers whilst contributing their information.
Problem addressed by this innovation

Partly as a result of clarity on objectives from the Dartmoor Vision, farmers expressed concern that their existing agri-environment agreements (with their prescriptive approach to many issues, not least stocking regimes) were unlikely to deliver better environmental benefits. They also noted that they were not clear what the phrases used by agencies (‘favourable status’, for example) meant in practice.

Story in a nutshell

A group of Dartmoor farmers were invited to design a new approach to agri-environment in 2009. Trials, using the new design, started in 2011 and are continuing and being evaluated on two commons - one of 554ha and the other 11,170 ha. The pilot ‘sits on top of’ standard agri-environment agreements; the grazier association agrees a set of outcomes and participating graziers do not have to be bound by the standard prescriptions – any variations they propose have to be agreed through a formal mechanism. Some of the outcomes (move towards ‘favourable status’ of Annex 1 habitats) were subject to a process of clarification and simple exposition on an illustrated A3 field sheet by the relevant agency, itself an innovative development. Some of the participating farmers are now undertaking elements of the monitoring of the agreements. Recent evaluation confirms improved ownership and delivery from those participating in the trials.
- It recognises the value of farmers using their skills and experience to deliver public policy outcomes on HNV farmland. It is new approach to agri-environment for the UK, focussing first and foremost on outcomes; as a result, it is not prescriptive, allowing farmers to make decisions in a framework of assessment by their own peers.

- It has brought farmers and agencies together (building on the Vision) to better understand and then agree detailed objectives, which has involved the agencies examining how to make legal and ecological concepts meaningful in the field for farmers.

- Farmers monitoring parts of the agreement has secured better engagement and ownership of the trial. Ecological monitoring training was particularly successful and was based on the agency work to turn their objectives into ‘plain English’.

- Recent independent evaluation confirms participating farmers have better understanding of HNV farming and what it should achieve.
Social and institutional - This innovation has significant benefits for farmer participation in a scheme. If the agreement is better understood and is deliverable then it results in less effort to ensure the terms of the agreement are met. It does however require trust between both parties. This results in lower administration costs and enables professional effort to be targeted on outcomes rather than administration. The State was involved in one significant innovation, which was a new way of setting out and explaining its policy objectives (Favourable Conservation Status for Annex 1 habitats) to farmers. This involved a good deal of work on the part of local staff, followed by training events etc., but its character is if anything more social and institutional than regulatory, despite being carried out by employees of the State – never before had such a search for common language and practical explanation of policy taken place in this way.

Regulations and policy - While non minimising the innovation of doing anything different within a national agri-environmental scheme in England, the irony is that, for an innovation centred on an agri-environment scheme, the impact on regulation and policy is less than might be imagined. And while the participating grazings and commoners have a certain freedom from the standard prescription, the innovation has its limits. There is no impact on payment levels, while the standard prescription remains as the default option for graziers even on the participating commons (a good half-way house for a pilot, but given the underlying logic of the experiment that the standard prescriptions are less effective than they should be and
potentially ineffective, the possibility of significant numbers of graziers opting for the default may not be sustainable in a roll-out). More disappointingly, there has been no attempt to integrate the lessons of DFF into the national scheme, nor to roll it out even to other Dartmoor commons under AE contract, nor to extend the scope of the innovation on these or other experimental commons. Neither have the farmers’ self-monitoring efforts been collated and analysed or somehow incorporated into wider monitoring or evaluation processes.

**Farming techniques and management** – While the pilots allow a potentially much greater range of management approaches and techniques to be legitimised as appropriate for delivering AE undertakings, there is no reason to think that it has so far spawned approaches or techniques which are in themselves innovative; that possibility remains open however.

**Products and markets** – The lack of a link between ‘quality’ (or even hours of work expended) and payment level means that strictly speaking this innovation has not led to a new ‘product’ nor a new market for the farmers’ products. Taking this extra step would be challenging but should at least be considered in depth.
Partly due to the Vision farmers were critical of the current and past agri-environment schemes claiming the schemes failed to reflect local conditions and local farming systems. In response to the criticism a Government Minister suggested that the farmers design a better approach. A group of farmers designed a new scheme based on outcomes for a range of public benefits and later given the opportunity to trial this innovative approach on two commons.

Dartmoor National Park Authority, Natural England and the major land owner (Duchy of Cornwall) provided funding for facilitation to enable farmers to design scheme.

Important that sufficient time allowed for farmers to design. Security for trials provided by under-pinning by existing AE agreement with consent to deviate from prescriptions. Annual monitoring programme and sign-off mechanism reduces risk to both parties.
The list of outcomes to be delivered includes a number of public benefits/ecosystem services in addition to the more usual ecological and historic environment outcomes.

Capacity provided by common agreement useful but not essential, the approach can be adapted for a farm.

Farmers participating have more understanding and ownership of agreement. Similar approach under consideration elsewhere (Exmoor).

Farmers enabled and encouraged to contribute experience, skills and local knowledge.

Clear outcomes are reported each year. Flexibility enables farming practice to respond to climate and vegetation growth. Reflects local conditions.

Ownership within farming community is high and it has increased trust between farmers and between farmers and agencies.

BUT changes within the statutory agencies have created problems, since new staff do not understand the reasons for the trials.

Greater clarity as to how this pilot is regarded in national policy and how/when its lessons will be rolled out to other areas (even within Dartmoor) would be very beneficial. A clear process of using farmers’ monitoring data would also help build positive feedback loops.
Problem being addressed:
Wildfires were destroying priority habitat (HNV) threatening property and jeopardising agri-environment agreements. Farmers were less confident of carrying out controlled burns and this valuable management tool was being lost.

Story in a nutshell:
The control of wildfires was a priority for Environmentally Sensitive Area agreements (ESA), as a result of which the Dartmoor Hill Farm Project worked with a group of partners including Ministry of Defence, Natural England, Duchy of Cornwall, Devon and Somerset Fire and Rescue Service (DSFRS) and Dartmoor National Park Authority, to establish a model Management Plan.

Prior to the adoption of the fire plan no commoners/farmers were allowed to work alongside the professional fire fighters. The professional fire fighters when they attend a moorland fire have to wear the same uniform and carry the same equipment that they would use when fighting a house fire; this heavy protective clothing reduced the speed they could reach fires away from roads or tracks. The professional fire fighters’ only equipment are fire beaters – a pole with a heavy rubber flap, traditionally used to put out grass fires. The commoners could improve the time in reaching a fire by the use of quad bikes, a vehicle that the professional fire fighters are not allowed to use.
The solution was to train some commoners to work alongside the fire fighters. Training, provided by the Fire Service, was arranged and once a commoner had successfully undertaken the training they were allowed to work alongside the professionals at the front line. The training has to be refreshed each year and only those farmers with this up-to-date accreditation can directly fight the fire. There is a debriefing session, identifying issues and solutions, after every fire.

The Fire Plan provides the necessary information to help tackle fires (access routes for vehicles, water sources etc.) and training to enable farmers to tackle fires on the common by providing equipment and training. It also resulted in the invention of a new water based fire fighting kit carried on a quad bike - a fogger.

This plan has enabled 29 commoners to be trained and equipped to respond quickly in controlling and managing wild fires on the Forest, alongside DSFRS and DNPA rangers.
Achievements

The huge reduction in the extent of wildfires is considered to have been achieved largely by the use of trained farmers to tackle wild fires and to be better equipped for controlled burns. The initiative ensured the local farmers had some responsibility and participated in controlling wild fires. Wild fire damage to priority habitats, especially blanket bog much reduced.

The skills and relationships developed has also had an impact on the confidence of farmers in carrying out traditional controlled burns (swaling) to manage vegetation such as gorse (Ulex) and Molinia, while within the DFF pilot commons, applications to vary the approach to burning laid out in the original AE contracts can be regarded with more confidence and favour.

Not only are the plans seen as the major achievement of AE schemes in general on Dartmoor, but it is the one aspect of AE (apart from the payments) which non-participating commons look on with envy – regret has been expressed that something so useful in its own right is only available if the associated perceived burdens of AE are undertaken.
The plans have been innovative in all regards:

- New way of working together when previously partners were hampered by health & safety rules etc. Has led to upskilling of farmers and a high degree of ‘ownership’ of fire control on their commons.
- Delivered through AE, and one of the most prized innovations within AE by all parties
- While perhaps not per se innovative, the management of both wildfires and controlled burns has improved in quality in a way which is new to the area
- New machinery was developed by the commoners for their own use in collaboration with the fire service, and is now available commercially
Initially the fire plans and associated training of farmers to fight fires on the common were part of the agri-environment agreement on the Forest of Dartmoor common. The Dartmoor Environmentally Sensitive Area (ESA) scheme was launched in 1994 and the Forest of Dartmoor association entered into an agreement in 2001. Although a fire management plan was not a prerequisite members of the association and staff from the Dartmoor Hill Farm Project soon realised that uncontrolled fires could put their agreement at risk and they designed a plan and associated training to ensure that fires did not jeopardise their income. The Fire Management Plan was soon recognised by Natural England to be very successful in reducing the impact of wild fires and aiding controlled fires (swaling) and become a requirement within all the other commons' agri-environment agreements on Dartmoor. This reflects well on this aspect of the English project officer-led AE implementation model which in some ways at least permits the putting together of an appropriate package of support. Unfortunately, it is only available within the AE ‘package’, so that commons associations which would benefit from it, and want it, but are unable or unwilling to enter into an AE contract.

Two individuals were responsible for the concept, the chairman of the common’s association and the project officer from the Dartmoor Hill Farm Project. The Fire Management Plan, training the farmers and the purchase of equipment were funded from the ESA agreement. Although initially there was no specific money allocated within the agreement to address fire issues the size of the agreement (almost £1m per year) enabled a discreet “pot” of money to
be set aside to develop the fire plans, buy equipment, train farmers and pay farmers to attend fires without having a significant impact on the payments to individual members of the agreement (c280 farmers). The farmers soon recognised that new equipment was needed to fight fires and this led to the invention of foggers, power sprays mounted on quad bikes.
This approach is highly exportable to other sites as long as professional fire fighters willing to adopt. New equipment is cheap compared to fire engines, but expensive for farmers (£1200/2000 euro for a fogger) and training requires funding. At present it is tied to a wider AE contract; while the ideal might be to tie it firmly to wider land management commitments, it seems that the benefits of the approach are such, even on a standalone basis, that some mechanism for wider roll-out might be desirable. Funding innovation is a real issue; the size of a large agri-environment agreement, enabled small but substantive separate pots of money to be created without a significant impact on individual farmers. The creation of a separate pot of money for fighting fires was supported by all the agreement members. This pot still exists for funding farmers to fight fires, replace equipment and training. Surplus money at the end of the agreement will be reallocated to all beneficiaries.
Problem being addressed:
New TB Control regulations introduced in 2014 were impractical for common grazing. The Regulations included post movement testing on leaving the common and introduced multiple tests for animals moving between the farm and common. This made little sense for biosecurity (the commons are often, probably usually, the lowest risk area for TB) and further discouraged the use of the commons for cattle grazing at a time when numbers were already at a low point (probably the lowest ever). If a farmer is under TB restriction and is unable to keep the cattle that tested clear on their land, isolated from other cattle, the main option is to sell the cattle at a special market – the prices at such a market can be very low or in the case of hardy hill cattle non existent.

Story in a nutshell:
A small group of farmers worked with the State Veterinary Service now called Animal and Plant health Agency (APHA) to provide locally appropriate solutions to these problems. A model plan was designed by farmers in close cooperation with APHA to provide the basis for a risk assessment on individual commons, with the aim of reducing the burden from inappropriate regulation whilst retaining the necessary measures to minimise the risk of spreading TB. Holding areas, off the common but treated as being part of the common for this purpose, are identified to reduce the need for multiple movement tests every time cattle leave the common to go to the bull (bulls are not permitted on the common land) or for veterinary purposes. On
the basis of such a plan, licences are issued to avoid post-movement testing off the common. Such plans are in place for most of the individual commons on Dartmoor affecting c300 cattle graziers.
Cattle grazing is an essential ingredient of HNV farming on the commons and loss of cattle grazing was already a significant issue before TB. When South-west England became a high risk TB area, with strict and onerous biosecurity rules in place, cattle farmers faced impractical Regulations. This resulted in some farmers deciding not to put cattle on the commons and many more farmers considering such a move. Two out of every 3 farmers on Dartmoor will have been affected by TB in the last two years. When under restriction options for farmers are few; 29% sell to approved premises (not possible for hardy slow growing cattle breeds) but the rest (71%) have to keep the cattle on the farm until the herd tests clear. This has huge practical implications – no silage, hay making and high costs. Farmers say ‘TB could be the end of grazing cattle on the commons; not the disease, but the rules’. (It has already led to a tendency towards finishing of cattle, rather than the traditional selling of stores and this has implication for breed type).

**Achievements**

A Common’s TB Control Plan enables the state vets to undertake a risk assessment that may allow cattle to return to the common. The plan also reduces the need for post movement tests on the common (impractical)and introduces the concept of holding areas (to be treated as part of the common) allowing free movement between the holding area and common without incurring need for movement tests. Reducing the burden of impractical regulations allows cattle farmers to continue to graze the moorland. The process encourages better dialogue
between state vets (APHA) and farmers.
**Social and institutional:**
Communal grazing has a unique set of issues that new TB Regulations failed to recognise. Dialogue between state vets and farmers led to collaborative working to secure a solution. Although cattle herds are “hefted” or “leered” to specific parts of the common and rarely mix with other cattle on the same common policy makers assumed otherwise. Demonstrating that farmers could work together and consider the implications of a TB breakdown in a neighbours herd gave the vets confidence in the proposals.

**Regulation and Policy:**
Regulations and policy are rarely designed for common grazing resulting in impractical and poor practice. Examples include: 1. all cattle movements over 10 miles requiring a movement test. 2. Post movement tests when leaving the common – impractical because the facilities to retain and test on the common do not exist.
Defra proposed new regulations in January 2014, after concerns raised by farmers/commoners. Defra officials visited Dartmoor. Critical meeting between three AHVLA (now APHA)vets and six Dartmoor commoners in February proposed idea of plan to provide necessary info for risk assessment and better understanding of how commons/cows operate. Drafts exchanged between APHA and farmers, led to agreed process by mid summer.

Critical to success was certain individuals willing to contribute time and expertise alongside a willingness by APHA staff to find a practical solution.

Recent changes of staff within APHA threaten the process due to a poor understanding of the plans and how they operate. Failure to ensure new staff are made aware of previous agreed procedures and process now of concern. However, the innovations are significant enough that they should be taken on board at a higher level in APHA and rolled out with local adaptation in other high risk TB areas of the UK – failure to do so thus far is extremely disappointing, given the supposed commitment to ensuring that control measures are risk based.
The policy-makers had failed to recognise the significant difference between common grazing and herds kept on one enclosed farm. Farmers prepared to explain the differences can be very successful.

The principle of joint working between practitioners and regulators is easily replicated but requires engagement and element of trust from both sides.
**Problem being addressed:**
A Dartmoor Commons Association was formed in 1954, a federation of 32 local common’s associations. The Dartmoor Commons Association lacked enforcement powers and remit to ensure the number of grazing animals did not exceed an individual’s common rights, correct animal husbandry on the commons and the appropriate management of the common land. Specific issues included damage from winter feeding, erosion and over burning.

**Story in a nutshell:**
A Dartmoor Commons Association worked with the Dartmoor National Park Authority and Devon County Council (who largely funded the work) to secure new legislation - the Dartmoor Commons Act 1985. This legislation enabled the formation in 1986 of the Dartmoor Commoners’ Council with enforceable powers (the Regulations) to manage the commons. The Council is composed of <28 members, 20 of which are elected from the local farming community, 2 from the National Park Authority, one from the Duchy of Cornwall, two co-opted members and a veterinary surgeon. A chairman is elected from the within the Council who is responsible for ensuring the Council’s business is undertaken correctly. A member of staff (secretary) is employed to ensure the register of rights is updated and correct together with supporting the commoners with issues relating to their rights. The Council’s Regulations address animal husbandry (health, condition and no bulls or rams), timing of grazing (reduced winter grazing) and the burning of the vegetation.
All farmers wishing to activate his/her rights and graze animals on the common land must pay an annual fee to the Council. The revenue so raised enables the register to be maintained and the functions of Council to be fulfilled. The number of registered grazing rights on Dartmoor is impressive; totalling some 95,745 livestock units that can be used for sheep, cattle or ponies (most rights state which animal they refer to). In practice the numbers actually grazed today are much smaller, and although 915 farmers register their rights to graze (78,985) many farmers choose not to activate their grazing.

Council has imposed regulations that require all graziers to remove their stock (except ponies) for “clear days” to ensure all stock are properly marked, in good health and are grazing within their permitted area. Farmers failing to register their rights and found to be grazing stock can be fined as can any grazier who fails to abide by the Council’s Regulations can be taken to court and fined and their animals removed from the common. In practice these powers are rarely used (3x in 30 years) but act as a deterrent for poor behaviour.

For 30 years the Dartmoor Commoners’ Council was unique as a Council in Britain. The 2006 Commons Act enabled other councils to be established. Two other Councils are in the process of becoming established with a third group of commoners considering applying to become a council. Without a Council the associations have no powers to enforce the correct behavious on their common.
Achievements

An up to date register of rights, ensuring grazing animals do not exceed rights. Prior to the Council become established in 1986 the commons were considered (by many observers including some commoners) to be over stocked resulting in damage to the condition of the HNV vegetation (particularly blanket bog and heaths), the moorland was burnt too frequently and the areas burnt were too large and the livestock were in poor condition. There was also some abuse of grazing rights with farmers grazing more animals than their rights permitted.

Council’s Regulation and subsequent enforcement have addressed:

1. Good husbandry of all livestock on commons; grazing animals hefted/leered, animals properly marked, diseased animals removed from the common and restrictions on stallions, bulls and rams.

2. Ensure commons not over stocked; introduction of clear days, counts and checks.

3. The conservation and enhancement of the natural beauty of the commons, HNV farming by controlling burning, prohibiting motor vehicles and stock prohibition periods.
Social and institutional:
The Council acts as a voice and sounding board for all issues. Encourages social cohesion and ensures cultural issues are not neglected and recognised as important drivers for wider Dartmoor management including HNV farmland. Ensures commons are better understood.

Regulations and Policy:
The Council is established by Act of Parliament and can enforce powers through its own Regulations. Initially this was essential to ensure respect for enforcement, though by now, conformity has become normalised. A statutory function enables dialogue with policy, political and government officials.

Products and Markets:
No direct links.

Farming Techniques and Management:
The Council’s Regulations require good land management, good animal husbandry and the continued functioning of the commons; regulating grazing to ensure HNV farmland is maintained and enhanced.
The large number of commoners (850) and the large number of rights of grazing (145,000 for sheep, 33,000 for cattle, 5450 for ponies and 12,330 for non specified animals), even though not all of these are active/used, provide the critical mass necessary – through the payment of grazing fees - to deliver the capacity to provide regulation and enforcement, including an annually-updated register of rights.

The emergence of leaders from within the farming community has been a vital part of the Council’s ability to command respect, but the role of it’s paid staff and its unpaid chairpersons is also key; failure to find appropriate people would be a severe blow to the Council’s work and the unpaid nature of the onerous role of chair makes it a potential Achilles’ heel.
The benefits of a Commons Council: Those common associations considering establishing a commons council have identified a number of potential benefits:

- Regulation in respect of stock numbers and land management.
- A mechanism to overcome disputes and resolve long standing obstacles associated with land management and funding.
- Providing a consistent approach to divisive issues across a number of associations and commons. Such issues include the process of dealing with the number of rights held by individuals on a number of commons, clarifying the role of active and non graziers and reaching agreement with the land owners.
- A means of addressing disease control, bio-security and stock welfare.
- Removing the power of veto through the introduction of majority voting.
- The preparation and maintenance of a record of grazing rights (i.e. a live register).
- Empowering commoners and providing a stronger single voice.

Potential issues: Capacity to fund and steer the establishment process; sufficient members (commoners with an interest) to raise sufficient income; plenty of time to secure agreement and participation, inclusive for all commoners; availability of good support staff etc. and an awareness that funds need to be set aside to pay for them.
**Replication:** The Dartmoor Commoners’ Council model was used to inform new legislation, the 2006 Commons Act, that enables the creation of new councils for common land throughout England and Wales. To date only two areas of common have successfully applied for Council status and both still wait for Government approval of their regulations before they can become active. The process has proved expensive (Government has funded some of the process), complex and very slow, the capacity of Defra to respond and support is very poor. A third group of commoners (Cumbria Federation of Commoners) has agreed to apply for Council status but the expense and slow progress is acting as a deterrent.