SHEEP FARMING ON THE LAKE DISTRICT FELLS ADAPTING TO CHANGE

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Contents

Updated and revised during 2017

Front cover picture showing Glen Wilkinson, Tilberthwaite gathering Herdwick sheep on the fell. Copyright Lancashire Life.

Forward

These notes are my thoughts on fell sheep farming in the Lake District written following my retirement in 2014, perhaps a therapeutic exercise reflecting on many happy years of working as a ‘Ministry’ (of Agriculture) adviser with sheep farmers. Basically, I am concerned for the future of traditional fell sheep farming because a number of factors are working together to undermine the farming system and way of life.

Perhaps time will reveal that my concern was unfounded because the hill farming sector has been able to withstand changes over hundreds of years. I have no doubt that the in-bye and most of the intakes will always be farmed but what will happen on the high fells? Will there be a sufficient number of farmers willing and able to shepherd these areas to maintain the practice of traditional fell sheep farming? Does it matter?

1. Lake District high fells

A very brief introduction to set the scene.....

The high fells, mountains of the Lake District, dissected by the green fields of the dales, provide an iconic landscape, largely influenced by resident hill farmers and appreciated by tourists. Parts have also been influenced by afforestation, quarrying and mining. The area contains significant areas of broad-leaved woodland and many lakes. All these features are highly valued by historians and environmentalists, as well as providing inspiration to many writers, poets, photographers and artists. It's no wonder that the area is designated as a National Park and, recently, a World Heritage Site as a cultural landscape.

Park statistics (taken from the state of the Lake District National Park report 2013) indicated the following land use:

	Hectares
Farmland	76,800
Moorland, heathland and unenclosed grassland	104,250
Woodland	28,901

I equate 'farmland' with crops and grass, and 'moorland etc' with fell which is mostly grazed by sheep with some cattle and ponies.

Approximately 50% of the farms are owner occupied and 50% rented, 91are owned by The National Trust covering 24% of the land, including a number of the larger fell sheep farms. The National Park Authority, United Utilities and the Forestry Commission own about 17% of the land, mostly consisting of woodland plantations and fell land (although United Utilities own a number of farms in the water catchment areas of Haweswater and Thirlemere).

2. Sheep farming - brief history

At the outset, we need to reflect on the history of fell sheep farming. It has been a way of life in the Lake District for thousands of years, initially associated with the Neolithic population in 3000 BC. We know it was practiced by the Celts during the Roman occupation and developed by the Norse folk during the 10th century. It was further developed by the Cistercian monks during the middle ages when wool production became an important part of the national and European economy. By the beginning of the 19th century a pattern of fields and a system of farming was established, although the creation of intakes/allotments by enclosure of large areas of fell continued until 1850. By then, the practice of grazing wethers

(castrated male sheep) on the fell declined because of reducing importance of wool to the economy.

Increasing urbanisation and industrial development with the building of railways during the 19th century boosted demand for meat, skins and wool, providing investment for land improvement and motivation for developing new farming techniques and definitive breeds of sheep (with a stratified system of production and breeding). But later, increasing foreign competition for wool and imports of produce from the 'new worlds' undermined the farming economy causing instability and fluctuation of prices. However, the Second World War exposed the weakness of relying on imports to feed the nation and the country faced a rising population. Consequently, the government introduced livestock subsidies, guaranteed prices and capital grants to provide stability and investment to boost production and modernise farming practices. Whilst government support is continuing under the EU regime, policies since the end of the 20th century are more focused on environmental protection and enhancement, and the broader rural economy.

3. Traditional fell sheep farming

Grazing sheep on the fells is part of a cultural, working and living landscape.

This description relates to fell sheep farming at a time before the launch of a succession of government agri-environment schemes in the Lake District since 1993 which have resulted in some changes to grazing practices. Again, this is needed to set the scene although not everyone will agree with all my understanding!

A predominantly mountainous area with its high altitude (up to about 970m), rugged relief and high rainfall dictate that most farming systems are based on hill (fell) sheep farming. The ewes utilise the rough grazing of the fells (i.e. the mountain pasture) and intakes/allotments (enclosed rough grazing) which altogether cover almost 60% of the farmland in the Lake District. The improved areas of grassland found on valley bottom and the gentler valley sides, collectively referred to as in-bye, are heavily used for a few weeks in spring and autumn when the fell flocks are gathered down for lambing and tupping (mating). During summer, the meadows are closed from grazing to make hay or silage and the pastures grazed by cattle and ewes suckling twin lambs. Also, some enclosures are used for holding fell sheep for shearing mainly during July and grazing weaned lambs in late summer/ autumn.

Twin bearing ewes are normally retained on in-bye or improved intakes, until at least shearing time, as the fell vegetation does not provide the necessary level of nutrition to support ewes suckling more than one lamb.

Most female lambs are kept for flock replacements and are normally away-wintered on lowland farms, returning to the fell as yearlings (referred to as ewe hoggs) in

April. This practice ensures an adequate level of nutrition for satisfactory body growth and condition in their first winter, avoiding the rigours of the fell at a young age and reliance on supplementary feeding. It became more popular during late 19th century and early in the last century when lowland pastures elsewhere became more accessible. Until then, ewe lambs were wintered on the higher grassland pastures and allotments, supported by outlying hogg 'houses' (small barns with hay lofts), many still remaining, some in derelict condition.

Most male lambs are castrated soon after birth and referred to as 'wethers'. They are traditionally sold as 'stores' at special sales during autumn for fattening on lowland pasture. In recent times some lambs are fattened at home, often in sheds through winter after a few weeks of grazing. A few tup (ram) lambs are left uncastrated and retained for breeding.

Traditionally, most breeding ewes graze the fells for the greater part of the year and are gathered into intakes and in-bye for various operations but, following the introduction of government agri-environment schemes, many flocks are now 'off-wintered' mostly in lowland areas outside the National Park.

Gathering sheep on the high open fell is often a cooperative exercise involving friends and neighbours. It can be physically demanding, especially for those walking the higher ground. In some places, where there are a limited number of skilled people available, some farmers now employ paid shepherds.

The fells are either freehold or common. Freehold fells are occupied by one or more flocks of breeding ewes belonging to the same farm. Commons are normally occupied by a number of flocks belonging to a number of farms with land adjacent to the common (having registered grazing rights). Some commons are interspersed with freehold fells with no physical boundaries between them.

The practice of keeping self-maintained flocks is regarded as essential to maintain acclimatisation of the flock to local diseases and prevailing weather conditions. It also supports the system of 'hefting' (or referred locally as 'heafing'). Hefted sheep have a greater tendency to stay together in the same flock and in a recognised grazing area (the heft), making use of strong herding and homing instincts. These traits, passed on to the lambs grazing with their mothers, makes it possible to shepherd flocks on the 'open' fells which have few or no physical barriers between adjacent units. The process is strengthened by active shepherding on the fells, e.g. to encourage ewe hoggs returned from away-wintering to find their place on the heft, and to encourage the flock to make use of their recognised hefting area (taking care to avoid 'dogging' sheep on neighbouring hefts!). This is obviously less important on enclosed freehold fells where individual flocks are well contained.

Acclimatisation to the particular terrain, weather conditions and diseases (e.g. from infestation by ticks) contribute to the vigour and sustainability of the flock. Therefore, fell flocks are normally retained on the farms to ensure the continuation of a viable

enterprise. Where the farms are let, the resident fell flock is often owned by the landlord and is transferred to a successive tenant. Otherwise the flocks are usually transferred on valuation.

The Herdwick is a local breed which can tolerate the harsh conditions of the higher and more rugged fells throughout the year. Perhaps, for this reason, they are reputed to be less productive than the other breeds, particularly Swaledale, and Rough Fell. Ewes from these other breeds are more popular for cross-breeding on the kinder upland farms to produce half-bred ewe replacements valued by lowland farmers. Some flocks have been replaced by Cheviot which generally produces superior carcases. However, Herdwick lambs retained for fattening as yearlings are in demand by specialist retailers, providing added value as a special product (the meat having a reputation for being sweeter, more mature with a firmer texture). In recent years Herdwick crosses, using Cheviot and Texel rams, are increasingly regarded as high value carcases for the wider meat market. In 2013, the European Commission approved the application for Protected Designation of Origin status; the meat can now only be classed as Lakeland Herdwick if they are born, reared and slaughtered at registered abattoirs in Cumbria.

Hill ewes in the north of England are generally tupped for the first time as shearlings (yearlings following their first wool clip in summer) but the later maturing Herdwicks are normally tupped for the first time a year later (i.e. as two-shears). Normally fell ewes are kept to breed for 3-4 years before they are transferred ('drafted') to upland grassland farms for crossbreeding. These ewes are referred to as 'draft' ewes and are either retained on the home farm (if there is adequate in-bye available) or sold at special autumn sales.

Ewes belonging to the flocks kept on the high fells generally lamb during mid April to mid May producing, on average, just under one lamb per ewe. The numbers of barren ewes and those 'losing' lambs are often balanced with twin bearers but results can vary from year to year depending on the weather. More recently, since many flocks have been reduced in size and off-wintered, lambing rates have markedly increased. This has encouraged some farmers to retain more ewe lambs for flock replacements and to draft ewes after only two 'crops' (i.e. two lambings as fell going ewes). Two 'crop' draft ewes command higher prices than older breeding ewes and can be used to service a developing low ground flock on the same farm (especially when more grassland is acquired elsewhere).

Supplementary feeding of breeding ewes kept on the high fells, using purchased feed or home grown hay/silage was, in the past, a limited practice because it was considered too expensive for a low output system. However, some farmers fed hay during periods of severe frost and prolonged cover of snow, particularly when the ewes naturally moved down to the lower slopes. Supplementary feeding became more popular and routine on the enclosed freehold fells from the 1960s in response to government research and development work indicating the benefits of adequate

ewe nutrition, to reduce losses and improve lambing rates, particularly during late pregnancy. The food often consisted of self-help feed blocks and a limited amount of hay. Many farmers moved on to feeding proprietary 'nuts' and big bale silage/haylage, the amounts depending on capacity of the fell and levels of stocking. However, those farmers occupying the high open fells (particularly commoners) were less inclined to practice supplementary feeding partly because of the risk of increasing trespass from neighbouring hefts. Also, in many places, the fells were not readily accessible for daily feeding and practical transportation of food. Consequently, lambing dates for these areas were set later in the spring with hope for favourable weather to promote grass growth to support ewes in late pregnancy. Nevertheless, it was not unusual to see some localised feeding in accessible areas, which encouraged some sheep to congregate waiting for the next delivery of food. Critics felt this practice undermined the system of hefting and often resulted in damage to the ground in feeding areas, especially if it involved using feed troughs and silage. Consequently, it was not surprising that some agri-environment agreements prohibited the practice of routine supplementary feeding on the fell, only permitting the feeding of hay/haylage during wintery conditions.

4. Commons

Commons in the Lake District cover over 60% of the fells. They were included in a study commissioned by Natural England in 2009 on the trends in pastoral commoning in England. Some of the findings by the Pastoral Commoning Partnership, which carried out the study, under general trends were:

- *The overall tendency is towards fewer active graziers on each common and an increase in farm size.*
- *Management of common land has become increasingly time consuming (reduced availability of labour, fewer graziers and public access issues having the greatest impact).*
- *The vegetation of commons is undergoing long term change (increasing areas of scrub and bracken because of altered grazing levels and milder winters).*
- *The reasons why commoners continue to graze commons are complex and involve personal values, not solely geared to economics. Whilst the price of livestock is the most important factor underlying commoner's motivation for grazing, tradition and maintenance of farming systems are highly significant factors.*

I think some of the developments outlined below, as presented in the report, might apply to some Lake District commons:

- *The number of full time commoners will continue to decline in the uplands, with some abandonment possible.*

- *The current generation are likely to remain as graziers but the low level of net income relative to alternative occupations is discouraging the next generation from taking over grazing commons.*
- *The reduction in labour is predicted to reach a critical threshold below which collaborative management and the hefting of stock continues to break down.*
- *Pastoral commoning will decline to unviable levels without new commoners.*
- *The impact on agriculture and local communities is less certain – the greatest concerns of commoners are reduced output, abandonment of land and amalgamation of farms. A breakdown of hefting and a loss of traditional breeds are cited as additional concerns by stakeholders. Loss of skills and heritage is cited as the most frequent impact on communities, by both commoners and stakeholders.*
- *Payments from agri-environment schemes and the EU Single Payment Scheme underpin the current system.*

The study examined a number of individual commons as case studies including Above Derwent (a section of a large common located near Keswick). It noted some of the issues following the application of agri-environment schemes, stating "*the reduction in numbers* (of sheep) *has damaged the natural hefting instinct of the sheep and as a consequence gathers and general shepherding duties are more difficult than 20 years ago"* and "*the reduction of sheep numbers and large compensatory payments resulted in famers buying land away from the central fells. Consequently, the importance of the common to the farm business has declined and farmers spend less time on the common and home holding".* But, the report cautioned against taking the findings as representative of all commons across the Lake District because conditions vary from one common to another (e.g. the terrain, ease of shepherding, the levels of stocking and number of graziers involved).

5. A way of life

It's not all about making money; there are social and cultural aspects; but the way of life is challenging.

Fell farming adapts agricultural practice to the difficult conditions of the hill/fell where the weather is often wet and windy and the winter extends from October to May. Average rainfall ranges from 2061mm (81inches) at Ambleside, situated in the centre of the Park, and 3552mm (140 inches) for Seathwaite located at a higher dale in the north west of the Park. Occasionally, winter storms are challenging, especially when many ewes have to be dug out of snow drifts.

Shepherding relies on using working dogs familiar with mountainous terrain and a high level of physical fitness to walk up and down steep slopes and across rocky paths and boggy ground for several miles, sometimes in cold, wet weather. The

gather can take a number of days with follow-up time to collect and exchange stray sheep, often several miles away.

Fell sheep prices have often been poor and farm incomes not great despite government support. Consequently, the farmers cannot afford to employ much labour and, as self-employed, work long hours and are reluctant to take holidays. At the same time, they have had to cope with increasing amounts of 'paper work' associated with claiming farm subsidies (cross compliance), monitoring movement of their livestock (all sheep and cattle must now have individual ear tags) and participation in agri-environment schemes. The burden is often shared with other members of the family but they are apprehensive of government inspectors who can issue financial penalties for non-compliance.

Fell farmers have tenacity and determination to succeed and the reputation for tightening their belts during periods of low prices; many have led thrifty and frugal lives. Obviously, conditions vary from farm to farm. The larger units have economies of scale, make more money and are more able to employ labour and contractors.

Most fell farmers are therefore born into a culture or lifestyle and learn from a very young age; the culture is based on agricultural production, contributing to feeding the nation**.** There is a very strong sense of pride and tradition. Many of them would admit it's a good life despite the hard work. But does it pay and will there be enough farmers in the next generation willing and able to take it on board?

Statistics show an ageing farm population and it is becoming apparent (at least to me) there are now fewer families with young people wishing to enrol as fell sheep farmers. Perhaps this is not surprising when there are now smaller families (it is now rare to see more than three children in families as compared with much larger numbers two or three generations ago) and young people have more access to a wider range of occupations, many more financially rewarding and offering more leisure time. The lack of affordable housing for the younger generation of hill farmers and shepherds is also thought to be a contributing factor.

However, fell farming apprenticeship schemes (as recently initiated by LEADER and Cumbria Farming Network) are fostering a number of eager young fell farmers; and it seems there are no shortages of strong applicants for renting Lake District farms. Also, staff at Newton Rigg College report a healthy interest by farming students and are, perhaps, held back by lack of opportunity. **But**, **I wonder whether they are willing and able to maintain the traditional system of shepherding on the high fell.**

6. **Foot and Mouth disease outbreak 2001**

The outbreak in 2001 devastated the lives of many farmers and rural people and resulted in significant reductions in sheep numbers. Fortunately, most hefted flocks survived, although many had lost the generation of ewe lambs, some breeding ewes and rams which were away-wintered in the lowlands. Where whole flocks were slaughtered, some farmers decided not to re-establish their hefts because they would face several years of additional shepherding. Also, it gave the opportunity for some farmers to consider alternative options for continuing with their farm businesses, e.g. developing an in-bye flock or diversifying into a non-farm enterprise. Some were persuaded to limit re-stocking by entering into agri-environment schemes.

7. Government policy and support

Government intervention and support has influenced the development and profitability of hill farming and provided the basis of my career (of over 40 years as a government farm adviser).

In 1968 I joined the **National Agricultural Advisory Service** (NAAS) which had the remit to promote and facilitate an increase in national food production. The Service offered free information and advice, often associated with payments of livestock subsidies and farm capital grants administered by the Ministry of Agriculture, Fisheries and Food (MAFF). There was a small army of agricultural advisers working from a network of offices throughout the country, backed-up with a number of Experimental Husbandry Farms which developed and demonstrated productive farming practices. In Cumbria, there were offices at Kendal, Ulverston, Penrith, Cockermouth and Carlisle. NAAS was later replaced by the Agricultural Development Advisory Services (ADAS) which continued to deliver a succession of schemes to improve grassland production and modernise farm buildings.

Hill farmers received additional subsidies and higher rates of grant to regenerate the upland economy and compensate them for the natural disadvantage of farming in remote upland areas. Government also recognised that maintaining an agricultural population in the uplands was vital to the social and environmental well-being of these areas.

The hill ewe subsidy established during the 1940s was supplemented by the EEC Sheep Annual Premium on joining Europe's Sheep Meat Regime in 1981. Headage payments fuelled an increase in numbers of breeding sheep, nationally rising from 15m ewes in 1980 to 20m ewes in 1990 (having already increased from just less than 14m during the1960s). In the National Park, ewe numbers increased from 363,723 in 1983 to 462,362 in 1992 but it is not clear whether this scale of

increase applied to the fells (although some fell farmers had acknowledged that headage payments had resulted in excessive numbers of sheep grazing on some fells). This development, according to environmentalists, contributed to overgrazing of the fells resulting in large areas of heather based vegetation changing to coarse grassland. And they pointed out that the thrust for increasing production had resulted in degradation of soils and habitats and uplands subject to increased soil erosion and diffuse water pollution. The conservation of beautiful and historical landscapes and wildlife habitats had become a matter of increasing concern.

It became obvious during the mid 1980s that government policies were quickly changing from those encouraging efficiency of agricultural production to protecting and improving the environment. Grants for hill land improvement and new buildings to promote agricultural production ceased and were replaced by grants to improve environmental features (e.g. the planting and renovation of hedges) and supporting on-farm diversification projects to improve the wider rural economy.

At the same time, it also became apparent that officers employed by the Nature Conservancy Council (followed by English Nature) were becoming increasingly pro-active in examining the grazing of Sites of Special Scientific Interest (SSSIs) which covered large areas (about 40%) of fell in the Lake District. They had been established "*to protect the best of England's natural habitats, wildlife and geological heritage for the benefit of present and future generations."* Discussion with officers focused on levels of stocking and how grazing practices could be modified to protect and improve the ecology of vegetation. This included the option of fencing (e.g. on Armboth Fell) which became a sensitive issue because it conflicted with the National Park policy of maintaining the character of open fell.

The 1986 Agriculture Act recognised the importance of farming not only for food production but also for maintaining the fabric of the countryside. It required MAFF to balance efficient food production with rural socio-economic interests, the conservation of the environment and archaeology and public enjoyment of the countryside. This allowed the introduction of agri-environment schemes that would support the protection and enhancement of the classic landscapes, wildlife habitats and historical/archaeological features. **Consequently, in 1993, the Lake District Environmentally Sensitive Area (ESA) scheme was launched**, one of a number of ESAs established throughout the country, providing payments to farmers and other land managers to maintain or adopt farming practices sympathetic to the environment. To be accepted into this 10 year scheme, **many farmers had to make significant reductions in their fell flock.** This was controversial because it undermined the culture of productive sheep farming and threatened to disrupt the system of hefting, particularly on common land. The scheme was voluntary but uptake was over 90% (nearer 80% of commons) and it was rare for anyone to use the 5 year opt out clause. The payments were obviously advantageous but the uptake was facilitated by experienced ex ADAS agricultural

advisers who had a good working relationship with the farming community. The ESA scheme has subsequently been succeeded by the Environmental Stewardship scheme which focuses more on environmental improvement (now administered by Natural England, see below).

In 2001, the headage subsidy for hill ewes (under the Hill Land Compensatory Allowance scheme) was replaced by an area based payment under the Hill Farm Allowance scheme (HFA). This closed in 2007 when, in England, the money was transferred to funding an Entry Level Stewardship (ELS) scheme targeted specifically in the uplands "*to reward upland land managers for business decisions which actually or potentially optimised public benefits"*, confirming the Government's change of policy of focusing public expenditure on wider public benefits (i.e. rather than agricultural production). The objective was "*to promote livestock farming that is environmentally, economically and socially sustainable*".

In 2005, all the livestock headage payments and agricultural production subsidies were replaced by area payments under the EU's Single Farm Payment Scheme (now referred to as Single Payment Scheme)**.** In England, the historical levels of payments made to individual farming businesses were transferred to common flat rate payments. This process divorced the link between government/ EU support to farmers and levels of agricultural production.

The re-structuring of payments relating to the HFA and Single Payment Scheme (SPS) penalised many occupiers of common land because payments on common land were then based on notional areas representing the proportion of grazing rights held, irrespective of the number of sheep grazed. Many commoners did not use their rights (or all their rights), those who did often occupied a greater area of the common than their allocated notional area but the amount of subsidy was restricted to the notional areas.

In 2006, Natural England was formed replacing the Rural Development Service, English Nature and parts of the Countryside Agency as a new large, powerful and independent statutory public body with the purpose "*to protect and improve England's natural environment and encourage people to enjoy and get involved in their surroundings*". The department was often criticised by fell farmers because the Higher Level Stewardship (HLS) agreements usually involved significant reductions in the size of the fell flock (i.e. the key enterprise), normally beyond those agreed under ESA agreements, with associated negative issues (see later section on government agri-environment schemes). However, many fell farmers enjoy a good working relationship with local 'project' officers, although their numbers seem to be in decline.

8. Fell sheep farming economy

Hill farm incomes have always been comparatively poor and heavily reliant on government support which would often equate with farm income or even exceed farm income. Financial results produced by Newcastle University in 2005/2006 for 22 Hill Rearing Farms across Northern England showed an average Net Farm Income of £24,999 (receipts less expenses excluding the value of unpaid labour). This compared with average receipts of £24,784 from environmental (compensation) payments plus HFA and £28,600 from the Single Farm Payment scheme (SFP), both in total accounting for half farm output.

The report for 2011/2012 for 21 farms was more up-beat, indicating an improved performance, achieving a Net Farm Income of £36,423. This improvement was fuelled by more favourable Euro/Sterling exchange rates boosting EU subsidies and livestock prices. Environmental schemes plus HFA payments amounted to £32,367 and SFP £37,032, the total of both representing 43% of farm output.

The 2011/2012 data related to an average farm size of 446.7 hectares (including 85.3 ha of in-bye and 352.3 ha of rough grazing), average flock size of 649 ewes achieving a lambing rate of 94 lambs reared per 100 ewes. Perhaps this farm size is comparable with the larger fell farms in the Lake District but some of these are likely to have lower profit margins per ewe because the young generation of Herdwick ewes (the shearlings) are usually not productive, i.e. they are not put to the tups (rams) until two and half years old. I am also sure that accounts from the smaller units are likely to show lower incomes, although they can be supplemented with non-farming or contracting enterprises.

The report for 2015/16 using data on 16 farms indicated an average Net Farm Income of £40,732 (an increase of over £10,000 from the previous year). This included £48,089 received from environmental schemes and £46,190 from SFP, both in total representing 53% of total output.

The Newcastle University's 2013 report on Farming and Farm Forestry indicated that the average Lake District hill farm (of the 14 farms recorded) has just about broken even over the last 10 years after allowing a modest wage for the farmers' own labour; pointing out that breaking even is not sustainable in the medium to long term as viability of a business depends on continual re-investment.

Most farmers would prefer to manage without subsidies, i.e. to obtain a reasonable income from market prices, but the price of red meat would have to be substantially higher than it is now. Prices may well increase with the prospect of a global shortage but no doubt costs will also continue to increase. Perhaps a few of the larger and more productive farms would manage without the SFP, particularly if they

can add value by marketing a branded product or develop a profitable diversified enterprise?

Setting aside the fluctuation of farm incomes over the years, incomes on hill farms will vary according to size of farm (including extent of common land grazing) and amount of in-bye. **A high proportion of in-bye provides more scope and flexibility for managing sheep and cattle enterprises** with an opportunity to keep an in-bye flock for cross-breeding, perhaps making use of draft hill ewes. Therefore, most hill farmers in the country took advantage of land improvement grants during the 1970s and early 1980s, but there has always been limited scope in the Lake District because of the cool, wet climate, steep slopes and thin, stony ground. At the same time, they tried to acquire more in-bye in the dale or lowland outside the dale, either by purchase or rent. But there has always been a limited amount of land available in the dales and acquiring areas of lowland on the outer fringe of the Lake District has been difficult to afford or economically justify, competing with lowland farmers. Most fell farmers would have had difficulty generating enough capital to enable them to expand their business by purchasing land and providing new buildings to house livestock.

There is little employed labour on fell farms, perhaps a shepherd on a comparatively large farm, plus a farm manager where the owner is not actively involved. Some farms employ part-time labour and make use of contractors but there is often reliance on family labour and a degree of cooperation with neighbours. This situation reflects limited amount of skilled labour available (since the World Wars of the last century) and insufficient profitability to justify paid labour. Traditionally, hill farming is a low output business which demands a low input approach. June Census data indicates a reduction in total labour employed on Lake District farms (from 3,307 in 1983 to 2,762 in 2009, numbers in full-time employment falling from 2,386 to 1,316 over the same period).

The situation obviously varies from farm to farm but the motivation and ability to expand has often been related to the size of family involved in the business and succession by sons and daughters.

There has been a trend of fragmentation and amalgamation of farms as farmers strive to maintain or improve the viability of their businesses against a trend of increasing costs outstripping farm output. Agri-business advisers have advised farmers to ‘get bigger or get different’. Some have been able to ‘get bigger’ and others have been able to ‘get different’ through off and on-farm diversification, e.g. provision of tourist accommodation and farm contracting services. Consequently, re-structuring has resulted in fewer commercial farms and an increasing number of larger holdings. **There are now fewer and larger fell farms**. June Census data indicates that the total number of holdings exceeding 5 ha has declined from 1,319 in 1983 to about 1,200 in 2009 whilst the number of holdings

exceeding 100 ha has increased from 122 to about 354 over the same period of time. Analyses of common land registered rights indicate a marked decrease in the number of farms using their grazing rights. A number of fell flocks have been removed and a number of farms with rights attached are no longer commercial units.

Agri-environment agreements introduced in 1993 have provided significant amounts of capital, particularly for the larger fell farms with their own freehold fells. These agreements often resulted in substantial reductions in size of the fell flock but, with the availability of new capital, some farmers were motivated to acquire additional land in order to maintain the size of their sheep enterprise. This has often involved the development of lowland cross-breeding flocks.

Annual agri-environment payments in the Lake District have, in many cases, exceeded £30,000; a few have exceeded £50,000 (and a lot more). Larger farms have benefited because there were no limits or scaling of payments on an area basis, i.e. the area payments were the same per hectare irrespective of the size of holding (although rates vary according to category of land). Consequently, the larger farms could take advantage of economy of scale, particularly where large areas of fell were concerned. Some of them also had the advantage of having lower levels of stocking than the smaller more intensive farms which meant lower reductions required to meet the prescribed stocking limits. Conversely, there was less scope for common land graziers who, generally, had smaller (notional) areas of fell land and more demanding reductions in levels of stocking.

9. Technical developments

The provision of new livestock buildings on fell sheep farms was normally geared to winter housing of cattle but they are often used to accommodate sheep throughout the winter, including fattening lambs and ewes at lambing time, providing more flexibility for their management. But many upland farmers across the country did not make use of generous rates of grants towards the cost of new livestock buildings during the late 1960s and 1970s because of limited capital available and a low cost approach to the farm business. However, where it was possible to make extensive land improvement allowing expansion of grazing livestock enterprises, spending money on new buildings was more easily justified and was supported by a period of rampant inflation. In some places, extensive areas were reclaimed from bracken but with mixed long term success because of the effort required to prevent reversion.

Later, in the 1990s, some farmers took advantage of EEC grants (Objective 5B) towards the cost of new farm buildings when ESA payments were available. But the opportunity for expansion depended on the size of the business, the larger farmers being in a better position to obtain the capital. Progress and affordability also depended on careful National Park planning requirements and, in the case of farm

tenants, the attitude of landowners. The National Trust, which own many fell farms, have also taken a careful approach to the provision of new farm buildings, ensuring that they fit in with the character of the landscape. This has often resulted in higher specifications, thus increasing the expenditure.

There have been **advances in the availability of drugs and medicines to** improve flock health, prevent and treat diseases, although this is still an ongoing battle, e.g. tick borne diseases, sheep scab, parasitic worms and liver fluke. At the same time, sheep farmers are aware of increasing vet and medicine bills!

The introduction of **quad bikes** during the 1980s has been a tremendous help in gathering and shepherding as well as providing transport around the farm. They are also used for towing small trailers for transporting materials, sheep and supplementary food. This development has saved on labour costs and allowed 'closer' shepherding to improve flock performance.

Ewe 'scanning' (pregnancy diagnosis) introduced in the 1980s has allowed fell sheep famers to select twin bearing ewes for preferential treatment and early return of barren ewes to the fell. The practice has become more popular as lambing rates have increased but some farmers restrict the operation to cross breeding flocks.

The process of making **big bale silage**, again developed in the 1980s, has greatly improved the prospect of conserving reasonable quality winter fodder on many livestock farms, particularly in the uplands where the weather is normally not conducive to make enough hay. Making hay is weather dependent, normally requiring four days or so to dry and bale cut grass. This was a challenge on most hay making farms, particularly on the larger units. Making big bale silage by baling and plastic wrapping cut grass can be done in two days offering an alternative option to making hay depending on the season. Whilst big bale silage has improved the prospect of harvest for fell farmers, only small amounts are normally required by the fell flock, often when ewes are grazing the lower intakes and in-bye during lambing time. Hay is often preferred because small bales of hay are easier to transport and feed in the more remote areas of the farm. Haylage is another option which can be regarded as dry big bale silage or partly dried hay, preserved by plastic wrapping. Some agri-environment agreements prohibit the use of any form of silage feeding, including haylage, on the fell (although the difference between hay and haylage without the plastic wrap is not easily detected!).

Farm machines have extended in range and size, including the provision of livestock trailers. The larger farms are more able to afford the larger models (sometimes referred to as livestock 'boxes') which can be towed by some tractors (with road gears) and can carry up to 100 ewes. These are particularly useful where farmers have land several miles away from home.

10. The National Trust

The Trust owns many of the high fell farms and their resident fell flocks in the Lake District where tenancy agreements support the system of traditional fell sheep farming. The agreements maintain the practice of keeping hefted flocks which are transferred to successive tenants. Landlord flocks have provided opportunities for tenants with limited capital to quickly establish farm businesses, often on a comparatively large scale.

The Trust also attempts to maintain the number of viable farms, although this policy was difficult to apply in the case of High Yewdale Farm, Coniston. Many farmers in the Lake District were disappointed to see what they considered to be a high profile and viable farm fragmented in 2005, following retirement of the tenant, and the land amalgamated with other Trust farms in the locality. Perhaps this was an opportunity to improve viability of the other farms, although many tenants in the Lake District have been able to acquire additional land from other sources. The question of viability often considers the ongoing need to reinvest in new buildings which is demanding on capital.

On reflection, it is likely that some farms in the Lake District would have been fragmented or inappropriately developed without the intervention of The Trust (although development would also be subject to the National Park Planning Authority).

The Trust has declared its wish to support their 'farm tenants in the maintenance of healthy, sustainable flocks, and the shepherding skills and capacity to care for them'. At the same time, The Trust now wishes to support a multi-skilled upland farming community to explore opportunities to restore rivers, landscapes and habitats, as well as the production of high-quality food. My thoughts are, whilst this seems to be a laudable objective (to be more pro-active in the delivery of environmental benefits), progress will largely depend on tenants having shepherding skills to manage traditional hefted flocks on the high fell.

11. The Lake District National Park Authority

The National Park Authority is largely recognised by the farming community as a planning authority. It has the following objectives:

- 'To conserve and enhance the natural beauty, wildlife and cultural heritage of the Lake District National Park; and
- To promote opportunities for the understanding and enjoyment of the special qualities of the National Park by the public'.

I suggest traditional fell sheep farming is part of the cultural heritage. Indeed, the Authority recognises that farming 'has a special place in the Lake District National

Park at the heart of its communities, a core part of the economy and shaping the landscape over centuries that millions of people love to visit every year. And it has a vital part in the National Park's future, evolving to continue to deliver high quality livestock and a healthy environment.'

Proposals to erect new fencing on open fell have proven to be controversial. It has implications for landscape and open access. In principle, proposals are seriously resisted by the Authority (and Friends of the Lake District) although, in the past, some temporary fencing has been approved to support the shepherding of flocks where the practice of hefting has been weakened (e.g. by the Foot & Mouth outbreak) and to support restoration of valued environmental features. The issue, I think, will not go away because some farmers will desire some new fencing to effectively shepherd flocks spread over a wide area of fell following marked reductions in sheep numbers (to comply with agri-environment schemes) and removal of stocks (where the farmers wish to retire from fell sheep farming).

Many Lake District farms are heavily visited by an increasing number of tourists using public rights of way, making shepherding and farming operations difficult at times. Visitors and their dogs have an impact on the movement of sheep, sometimes disrupting hefting boundaries. Issues are often eased by the valuable work done by the National Park Rangers and Volunteers by improving footpaths and bridleways. The Rangers are also valued for their role in educating visitors relating to farming practices and the countryside.

12. Forestry and woodland

Afforestation in the Park covers a substantial area of land (about 13%) and is regarded by some agriculturists as a competitor to fell sheep farming.

Government policy has sought to encourage the expansion of forestry both to reduce dependence on imported wood and to provide employment in forestry and associated industries, particularly in the more remote and less fertile areas where afforestation would help maintain rural employment. Significant areas have been planted with conifers including Ennerdale, Whinlatter, Thirlemere and Grisedale amounting to about 7% of the National Park. Reflecting on my experience in Wales, there is the risk of plantations removing areas of intakes (i.e. the middle ground on fell farms) which provide holding areas for gathering sheep off the fells, reducing the dependency on in-bye land. They also provide escape routes for fell ewes during winter ahead of stormy weather.

Some farmers have expressed concern about the long term financial liability of maintaining the condition of boundary fences against the fells and in-bye. Inadequate maintenance would result in obvious straying of sheep into afforested areas where they would be difficult to gather.

Agri-environment agreements applied to the fells often include some gill planting of trees with the aim of improving wildlife habitat. Also, some agreements include plantations where land is covered with scrub and bracken. A number of environmentalists have suggested more comprehensive planting of broad-leaved trees to improve the condition of soil, wildlife habitats and a means to alleviate flooding downstream. This would obviously be resisted on valued in-bye but, otherwise, I think woodland pasture could possibly work hand in hand with sheep farming provided the infrastructure allows the practical movement of sheep from in-bye to fell (although there could be issues relating to the Single Farm Payment scheme payments?).

'Confor', an organisation which promotes forestry and wood, has recently produced a report comparing productivity and economic impact of forestry and hill farming based on a site in Scotland (Eskdalemuir). The comparison was made between an established productive conifer forest and hill sheep farming on an equivalent area of land. *"The results of the study indicate that once in a sustainable production cycle, forestry generates around three times the economic output of hill sheep farming before subsidy payment. Forestry also results in almost double the level of spending in the local economy as agriculture. Once established forestry is also much less dependent on annual subsidy payments to maintain viability. Forestry generates a significant trading surplus before subsidy whilst hill farming trades as a loss."* However, these findings (I suggest) may not fully apply to areas within the Lake District where there are other considerations, including impact on the value of tourism and National Park Authority policies. Also, comparison made on selective areas may not be appropriate as farms in the Park normally cover different types of land some of which some may not be suitable for afforestation.

13. Sites of Special Scientific Interest (SSSIs)

A large proportion of the fells (about 40%) are designated as SSSIs. Government environmentalists (from the Nature Conservancy Council followed by English Nature and Natural England) have been concerned for some time that most of them required significant improvement to meet their definition of good (favourable) condition.

The ESA scheme offered the opportunity of cross-departmental activity to work towards securing improvements which was largely focussed on grazing practices and stocking rates. It became evident that the scheme on its own would not achieve the desired progress on all sites. Officers had to respond to the government's Public Sector Agreement (PSA) target of 95% of England's SSSIs to be in favourable condition or management to meet this condition by 2010. They introduced additional funding through **Wildlife Enhancement Schemes** recognising that changes could impact on the profitability and structure of the farm business.

This enabled English Nature to make timely interventions following the outbreak of Foot and Mouth Disease during 2001, particularly where some commons had not entered into ESA agreements. The department's report on its achievement between 2000 and 2006 under the Sustainable Grazing Initiative in Cumbria stated that "*the proportion of land in favourable management (that is management that will eventually bring habitats into favourable condition) has risen from 10% to 70% over this six year period.*"

The same report acknowledges the **concern about the spread of bracken.** Besides the loss of grazing, it creates problems for gathering and improves condition for Sheep Tick. This has been an issue for several decades; historically, bracken may have spread because of declining cattle grazing and cutting for bedding, possibly associated with a decline in numbers of small farms when every effort was made to keep intakes clean following enclosure from the fell. But bracken cover has seemed to increase during the last 25 years or so. Some farmers believe it's associated with the decline of sheep grazing since the introduction of the ESA scheme. I think milder winters (with less spring frost days) may be a factor.

The focus on improving the condition of SSSIs is ongoing and applied to successive agri-environment agreements (also targeting non SSSI fells to minimise disruption of heafs between adjacent commons and freehold fells). Natural England reported that "d*uring the past decade considerable improvements were achieved in the overall condition of SSSIs, as well as in the way they were monitored. As a result, more than 95% of SSSIs by area were assessed to be in a favourable or recovering condition at the end of 2010. Today, the network provides a foundation for the government's strategy for the natural environment, 'Biodiversity 2020'. This sets out an ambition to increase the proportion of sites in favourable condition to at least 50% by 2020 – an increase of 17% from 2010."*

14. Government agri-environment schemes

Government agri-environment schemes, now administered by Natural England, "*provide funding for farmers and other land managers in England to reward them for managing the land in ways that improve the environment".* The succession of agreements under the ESA and Environmental Stewardship schemes have resulted in reductions in the levels of stocking and changes to traditional fell sheep farming practices. Government June Census data for the Lake District indicates an overall reduction of breeding ewes from 465,073 in 1993 to 340,338 in 2013, a reduction of 124,735 (just under 27%).

Almost all the ESA scheme agreements were renewed, or have been entered into Environmental Stewardship launched in 2006 (replacing the ESA scheme). The early ESA agreements on renewal were supplemented with English Nature's Wildlife

Enhancement scheme payments to effect further reductions in the levels of grazing on SSSIs. Many fells are now subject to Higher Level Stewardship (HLS) options (as well as Entry Level requirements).

ESA payments were tailored to the local circumstances of the Lake District but Stewardship payments were geared to typical national situations. Consequently, for most new agreements, **the Stewardship payments seem less attractive than those paid under the ESA.** Comparison of schemes indicates more demanding requirements (under HLS options), particularly regarding autumn stocking rates and, for some farms, lowers overall payments. This provides increased environmental benefit and value for money to the tax payer but more demanding contracts for many Lake District fell sheep farmers. However, the new terms (under HLS) are being accepted (not everywhere), possibly because the payments are still advantageous and electing not to enter into HLS (limiting agreements to Entry Level requirements) would cut across strategic changes in their farming businesses taken several years ago under ESA agreements.

The reduction of sheep numbers grazing the fells, some flocks by as much as 50% plus complete off-wintering **has undermined the hefting process** because it relies on a threshold number of sheep staying as a flock grazing the same area. A sparse population is more difficult to gather and have a tendency to stray; some farmers now have to travel several miles to retrieve their sheep from other dales, more so than previous times. The threshold number of sheep is difficult to quantify and quality of hefting is influenced by several factors.

Some fell sheep farmers believe that complete off-wintering, i.e. removing all the breeding ewes off the fell in winter, has further undermined hefting and acclimatisation of the flock to prevailing weather conditions and resistance to disease, particularly on the high open fells. Whilst all agreements require some off-wintering, generally the farmers were given a choice of options for reducing the overall levels of stocking on the fell (i.e. to meet stocking limits). They could either elect to reduce the size of the flock with partial off-wintering or with complete off-wintering. Most chose the latter in order to minimise the reduction in size of flock, protecting the integrity of the enterprise. However, in most cases, this meant having to away-winter more sheep on lowland units which are becoming more difficult to find (particularly for the whole winter period) and increasing in cost (possibly associated with the reduction in number of dairy farms).

The process has also resulted in a high proportion of twin births putting pressure on the in-bye because twin bearing ewes are not turned out to the fell until shearing time, during July at the earliest, when wether lambs could be weaned. This delay of turning out further undermines the hefting process which relies on ewes showing the lambs the location of their grazing ground; and off-wintering reduces the scope for young sheep to become familiar with this ground and maintain their winter

hardiness. The increasing pressure on the in-bye has further motivated some farmers to acquire additional land.

The succession of agri-environment schemes has provided an economic lifeline for many farmers but, as mentioned above, there are negative issues. These were acknowledged in English Nature's Sustainable Grazing Initiative in Cumbria report in 2006 referring to outstanding problems as a result of the scale and pace of change (following reductions in stocking and more off-wintering). These included loss of hefts and stock trespass. In mitigation, the report states *"problems of stock trespass are not a new occurrence and it is accepted that on many fells the hefting system has been in decline for some years. Stock have always wandered to some extent and it is likely that the general decline in hefting is associated with the general reduction in availability of farm labour. However, hefts are partly kept in position by the territorial behaviour of sheep, and stock reductions are bound to alter the patterns of sheep distribution. Reducing grazing can create a vacuum into which stock move. This makes gathering more difficult and can have a knock on effect across whole fell sides."*

Therefore, payments were made under the Wildlife Enhancement Scheme for additional shepherding to re-establish hefts and agreements have been applied across whole 'blocks' of fells, including non-SSSI land, to minimise the impact of differential levels of stocking. These payments were useful following the impact of Foot and Mouth Disease outbreak in 2001 and continue to apply in some agreements (under HLS).

The report also acknowledged the issue of complete off-wintering relating to increasing incidence of twin births. The kinder weather and natural shelter provided on lowland is likely to reduce the incidence of foetal re-sorption which can occur during periods of inclement weather in mid-pregnancy. But perhaps the main factor influencing ewe fertility is the general increase in ewe body condition as result of lower stocking rates and the continual cycle of off-wintering and more inbye available in relation to tupping, lambing and post-lambing for twin bearing ewes.

Lower levels of stocking on the fell might, in the short term, increase general body condition of the ewes (and consequently birth rates) but many fell farmers believe that, in the longer term, the impact of lower levels of stocking on sheep nutrition is negated by a deterioration of the quality of grazing (as a result of under grazing promoting less digestible vegetation). However, as mentioned above, the higher levels of ewe body condition may largely relate to increasing availability of improved nutrition gained on in-bye and lowland pastures.

15. Hefted flocks on the Lake District commons and fells – project report June 2017

The following extracts are particularly relevant.

Aim of the project: The aim was to strengthen the knowledge of sheep grazing practices on the Lake District fells.

Method: The project identified and recorded the location of hefted flocks grazing on common land and freehold fells in the Lake District National Park during the summer of 2016 (representing a 'snapshot in time'). The project also recorded the breeds of sheep kept in the flocks and changes that have occurred over the last 25 years or so (since 1990).

Results – Commons

Number of graziers and flocks:

Total number of graziers	271
Number of graziers removed since 1990	71
Number of new graziers	8
Net reduction in total number of graziers	63 (18.9%)
Total number of fell flocks defined as separate stocks	309
Number of fell flocks/stocks removed	75
Number of new flocks/stocks since 1990	8
Net reduction in number of fell flocks/stocks	67 (17.8%)

The numbers of graziers and fell flocks have declined by just under 20% over the last 25 years or so. A small number (at least 5) of new flocks were established because of the attraction of agri-environment schemes.

Most of the reductions in numbers of graziers and flocks seem to be as a result of retirement with no succession, although a small number of these flocks have been acquired by the remaining graziers. The numbers removed as a result of the Foot & Mouth epidemic of 2001 was significant and mostly related to Caldbeck Common where most of the flocks were completely slaughtered. Perhaps the epidemic hastened the decision to remove some fell flocks and focus on other farming/non-farming options. A small number of flocks were removed to accommodate agri-environment agreements requiring a substantial reduction in sheep numbers. Some graziers have combined different flocks to simplify their management in the development of their farm businesses.

Results – Freehold Fells

Number of graziers keeping self-maintained fell flocks on freehold fells:

Number of graziers	83
Number of freehold fells not grazed	3
Number of different flocks	112

There have been very few apparent reductions in the number of graziers occupying the larger freehold units. Sheep have been completely removed from Skiddaw Forest (which includes Little Calva Common) and a large part of Shap Fells following agri-environment agreements.

Emerging issues

The farm visits to meet contacts and other graziers raised two main issues:

1. Apparent lack of succession; a number of graziers were concerned that there seemed to be few young people qualified and available to manage fell flocks, especially on the 'harder' sectors of the Lake District fells. In their opinion, qualification largely related to young people brought up on these farms.
2. Many believed that the traditional system of hefting flocks is breaking down largely due to the substantial reductions in flock size to meet agri-environment agreements. In many places this has resulted in flocks grazing wider areas of the fell and more sheep inclined to stray further away making gathering and the collection of strays more demanding. The successful practice of hefting on areas of 'open' fell relies on a threshold numbers of sheep grazing particular areas to maintain traditional boundaries.

16. World Heritage Site

The Lake District National Park was designated as a World Heritage Site in July 2017. The Park website outlines the reasons for the designation, entitled – **Continuity of traditional farming and local industry in a spectacular mountain landscape.** Extracts taken from the website during the following October:

The unique Lake District farming system is based on rearing the native Herdwick sheep. It has developed for over 1000 years in response to the upland landscape of fells, lakes, valleys and native woodland. The great beauty of the Lake District comes from the combination of stone walled fields and local farm buildings with a compact and spectacular natural landscape. Both the long duration of our farming culture and the survival to the present day of its distinctive character is considered to be of outstanding universal value.

The social side of Lake District farming is important. It includes:

- *the pattern of family farm tenure*
- *the 'hefted' grazing system which allows communal shepherding without fences and walls on the largest area of common grazing in Europe*
- *the survival of local dialect'*

The increasing numbers of visitors to the Lake District was supported by traditional open access to the extensive common land of the fells for walking and climbing. This has resulted in the Lake District becoming a globally acknowledged and genuinely inclusive site for outdoor recreation, personal development and spiritual refreshment.

Shortly after the news of the designation, Mr George Monbiot wrote in the Guardian newspaper, expressing his apparent disappointment and frustration. Extracts from the article:

The entire high fells have been reduced by sheep to a treeless waste of cropped turf whose monotony is relieved only by erosion gullies, exposed soil and bare rock. Almost all the bird, mammal and insect species you might expect to find in a national park are suppressed or absent, and 75% of wildlife sites are in an unfavourable condition. So you could be forgiven for thinking that the balance should be tilted back towards nature. Oh no: apparently it's "the cultural values and benefits of the farming activities" that have been neglected.

Given that sheep-worship is the official religion in the Lake District, and that sheep exist here only because of lashings of public money (hill farming is sustained entirely through subsidies), it's not easy to see what more can be done. But world heritage status will make attempts to defend our natural heritage much harder. It will be used to block efforts to reduce grazing pressure, protect the soil and bring back trees.

Our infertile uplands, including most of our national parks, would be better used to protect and restore the wonders of the living world. In trying to contest the bid for world heritage status, I found myself almost alone: only a handful of independent ecologists spoke out. Privately, major conservation groups might have expressed misgivings, but in public they not only failed to oppose this attack on everything they claim to defend: they actually put their names to it. The National Trust, the RSPB, the Lake District national park authority and Cumbria Wildlife Trust are members of the partnership that petitioned for world heritage status. These turkeys not only voted for Christmas; they canvassed for it.

End

Many folks would agree with me that the fells contribute to a rich cultural landscape and I accept that environmentalists, generally, are concerned about the

condition of vegetation, wildlife habitats and degree of soil erosion. Some of them are promoting re-wilding. But the value of what millions of people regard as a beautiful landscape with its links to traditional fell sheep farming cannot be underestimated. The succession of agri-environment schemes has made significant improvements. Consequently, the environmental/conservation groups (that Mr Monbiot refers to) have, I suggest, taken a pragmatic approach in supporting the bid for World Heritage Site status. It's better to work with farmers and other land managers to seek practical solutions for all concerned. The challenge to government policy makers is to develop and manage a balanced approach.

17. Concluding thoughts

There are a number of developments undermining the practice of traditional fell sheep farming fuelling the trend of declining numbers of fell sheep farmers. The developments concern economic, environmental and social factors. More than one and different ones apply in combination depending on individual circumstances.

Perhaps the issues just reflect the symptoms of ongoing change which is not always welcomed by an ageing population of sheep farmers (and retired agricultural advisers!). We can reflect on the developments in the dairy farming sector where re-structuring has resulted in a substantial reduction in the number of dairy farms and increases in size of herds. But change is not necessarily for the better and there needs to be an understanding of the 'drivers' for change.

The traditional system has been negatively affected by the increasing practice of complete off-wintering of the flocks, largely encouraged by succession of agri-environment schemes. This, together with lower levels of stocking through the summer, has resulted in a much higher proportion of twin bearing ewes which are usually retained on the in-bye until at least shearing time during July. Consequently, there are now fewer sheep grazing the fells and a high proportion of breeding ewes grazing just for three to four months of the year (July to October). Where this occurs, perhaps fell sheep farming has become a seasonal practise, only making use of the fells for summer grazing?

As mentioned earlier, the marked reductions in flock size has compounded the difficulties of maintaining hefts. One can argue that total ewe numbers in the National Park are now not far from what they were in the early 1980s; June census stats in 1983 recorded a total of about 364,000 ewes as compared with 465,073 in 1993, an increase of over 20% in line with the national picture. The numbers have now reduced to 340,338 (2013). But, the stats do not reveal the impact of off-wintering and many farms have developed inbye/ lowland flocks.

These negative issues (as judged by the farming community) have probably undermined the sense of purpose and motivation of some fell sheep farmers and potential successors. Whilst they accept that the regular payments have provided an economic lifeline, some are frustrated by the restrictive nature of the agreements and astonished by the imposition of (what they perceive as) very low levels of stocking. Most of the existing generation (young and old) of fell farmers wish to be regarded as farmers (to feed the nation) rather than be 'conservation graziers' or 'park keepers'. They will therefore naturally seek to develop alternative enterprises more focused on agricultural production, e.g. cross-breeding sheep on in-bye and lowland units.

Most farmers strive to grow their business and improve profitability. Historically, the problem on Lake District farms was how to do this against a background of limited income, capital and scope for land improvement. **But agri-environment scheme payments have, for the larger farmers, provided some of the capital and released labour to manage livestock on additional land or start a new enterprise.** It seems to me that many farms have been able to acquire more land without much additional paid labour (although there might be increasing use of contractors, casual/part-time workers and family labour). Consequently, the importance of the fell flock has declined on some farms with increasing interest in developing an in-bye or lowland flock which are more productive and not subject to the restrictive nature of agri-environment fell land agreements.

The trend of declining number of fell sheep farmers and fell flocks has taken place alongside amalgamation of farms and more part time farming (increasing diversification with on and off farm enterprises) as in other parts of the country. Therefore, fell sheep farming is increasingly dominated by the larger farms, particularly those with family succession.

There is a possibility of some abandonment on areas of the high fells and less time taken to shepherd fell flocks on the heft (some folks would say it's already happening). In other areas of the UK, some farmers only use the hill to graze 'dry' stock, i.e. ewe replacements, barren ewes and ewes post-weaning, even on common land. This is achieved by adopting 'two pasture' system where the sheep are allowed to graze the fell with adjacent enclosures at the same time (i.e. the gates between fell and enclosure are left open). However, this might not be feasible on most 'open' fells in the Lake District where areas of rock and bracken could make gathering poorly hefted sheep problematic. Also, many farms have limited areas of in-bye or intakes available to support this system. Enclosed fells offer greater flexibility of sheep management but provision of new fencing on the high fell is a sensitive issue in the National Park, as mentioned earlier.

The risk of abandonment is discouraged where farm tenancies are subject to continued management of hefted flocks (as found on The National Trust farms). It

was also discouraged by Uplands ELS as agreement holders were obliged to maintain a minimum level of stocking of ewes and lambs from June to September, and commoners had to keep hefted flocks.

But, to be more positive, whilst there is concern for the viability of traditional fell sheep farming in the Lake District (and possibly elsewhere in the UK), it is still a major farming enterprise and the 'heart' of the hefting system survives, i.e. the ewes are transferring the territorial grazing instinct to their lambs during the summer months. A recent study recorded the existence of over 420 hefted flocks grazing the Lake District fells (see section 15).

The practice of traditional fell sheep farming remains across most of the Lake District fells, even if there are variations according to the development of individual farm businesses. It is also evident there are potential successors to fell sheep farming who are or could be inclined to manage traditional fell flocks. Therefore, **if there is a desire to maintain this practice, a more rounded approach is required** by the authorities **in the application of agri-environment schemes.** This should include consideration of agricultural production as well as environmental issues, delivered by advisers who have a credible understanding of fell sheep farming. Whilst change is inevitable or desirable, there is a need to respect the role of fell sheep farmers as producers of food. Otherwise, fell sheep farmers will be replaced by 'conservation graziers' who will probably not have the same skill and motivation to effectively shepherd the high fells. This will mean either broadening the objectives of agri-environment schemes (to include support for agricultural production) or combining the delivery of these schemes with agricultural support programmes, possibly involving a number of government/public sector departments and non government organisations. This would help to provide a more integrated approach and discourage the tension and mistrust expressed by many farmers towards environmental groups in their design of 'green' schemes.

The 'key' is to have meaningful communication between all parties to achieve understanding of the issues and obtain an appropriate balance between agricultural and environmental interests. The communication of emerging environmental issues leading up to the introduction of the ESA scheme in 1993 and subsequent renewal of agreements was, in my view, inadequate. The sudden change in government policy during the 1980s (as perceived by many farmers), the concern for the condition of SSSIs and the term 'overgrazing' as described by environmentalists were not readily understood by most farmers (and many agricultural advisers!). I likened the situation to the existence of populations living on two planets operating in parallel without an effective two way communication, i.e. one populated with well meaning environmentalists thinking that the farmers living on the other planet had accepted and understood the terms 'overgrazing' and 'conservation grazing' and the need to change grazing practices; whilst the farmers were still focussed on agricultural

production, resisting the need for changes, not trusting the science presented by the environmentalists.

The continuation of traditional fell sheep farming would maintain a working landscape, promoting diverse farming practise and support a promising niche market for Lakeland lamb and mutton. The alternative option of abandonment (of the fells) would reduce the numbers of working farms and create wilderness areas. This would be attractive to some environmentalists and like minded tourists but would undermine the idea of having a rich cultural landscape and increase the risk of wildfires from the proliferation of scrub growing on the lower fell slopes.

Initiatives to maintain the traditional practice of fell sheep farming could include financial support for farmers to keep hefted self-maintained flocks, prescribing a minimum level of grazing for a period of four months, say between 1 June and 30 September. This could be tied into a package of grant support schemes to include environmental initiatives (including maintenance of dry stone walls) and provision of sheep housing to accommodate twin bearing ewes and modern sheep handling pens. Also, funding to facilitate apprenticeships and share farming agreements', providing low interest loans to young farmers wishing to develop a farm business which would include a traditional fell sheep flock.

The recent designation of the Lake District World Heritage Site now provides a great opportunity to focus all those bodies and leading individuals with an interest in Lake District fell sheep farming to develop a local strategy to meet the requirements of the designation. I am sure it will recognise that traditional fell sheep farming and hefted flocks are a significant part of the whole Lake District experience for visitors.

Acknowledgements

I thank my ex-colleagues and friends Ian Condliffe and David Welton for reading through my notes (Ian in 2014 and David in 2017) and making suggestions for changes to improve their presentation.

Also, my thanks to all the fell sheep farmers I met during my career for their welcome, kind hospitality and guidance. They include past and present members of the Cumbria Hill Farming Discussion Group and several members of the National Sheep Association. I am also grateful for the guidance of my ex-colleagues who helped me to understand the application of technical developments and environmental issues on upland farms.

My background

I was brought up on a hill farm on the Berwyn Mountains of North Wales, the oldest of eight children. One of four boys, our duty and dedication, throughout our school age was to help father on the farm, in all the hours that were available. We thought hill sheep farming was one of the best jobs that existed.

Father was a traditional hill farmer, a hard task master who enjoyed shepherding Welsh Mountain Ewes and breeding Welsh Black cattle. He died at the age of 93 in January 2011, still farming but had obviously become more of a 'looker' rather than a 'doer', increasingly confused with more and more bureaucracy associated with claiming livestock subsidies. I reflect that he was one of a declining number of shepherds that had the ability and motivation to gather sheep off the hill and collect all the strays, often in poor weather.

My life changed by going to Seale Hayne Agricultural College in Devon to study agriculture and farm business management. College directed me to become an agricultural adviser, joining the Ministry of Agricultures' National Agricultural Advisory Service in 1968. Subsequently, I had over 40 years working as a government adviser in North West England, 23 years in agri-business followed by 18 years in agri-environment before retiring from Natural England in 2011 (followed by part-time employment with H&H Land and Property for two years or so). During the 1990s and entering the millennia I helped to deliver the Lake District Environmentally Sensitive Area (ESA) Scheme. This involved working closely with the farming community, returning to the experience of my formative years at home in Wales and as a young agricultural adviser in the uplands of Lancashire. In my latter years, working for Natural England, I joined a national team as upland agri-environment adviser helping to develop Higher Level Stewardship (HLS) and Uplands Entry Level Stewardship (Uplands ELS).

My links to the hill farming community was strengthened by my involvement with the National Sheep Association (NSA), being a member of the Northern Region Committee for over 20 years, and Secretary of the Cumbria Hill Farming Discussion Group for 30 years.

In 2009, I was awarded with an MBE for services to agriculture in Cumbria; two years later the NSA's TI Allinson Memorial Award for a lifetime contribution to the North of England sheep industry and, more recently, the Blamire Memorial Award for service to hill farming in Cumberland.

The author presenting the award of Herdwick Champion to Anthony Hartley from Dunnerdale on the occasion of The National Trust's celebration of Beatrix Potter's 150th anniversary awards event in February 2017.