

Cherished Heartland

Future of the Uplands in Wales

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Brecknockshire
Agricultural Society

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Preface

The Brecknockshire Agricultural Society celebrates its 250th Anniversary during 2005, and as such is the oldest continuous such Society in Great Britain, if not the world. From the earliest days of its history it has continued to try to educate and encourage innovation and excellence in agriculture within our County, not just as the organiser of an annual County Show. Indeed, its inspiration came from founder members of what is now the Royal Society of Arts in the previous year of 1754. It was therefore felt more than appropriate, in this very special year, to commission a serious study of the likely problems and opportunities for the uplands of not only Breconshire but for the whole of Wales in these uncertain times when the whole basis of support for agriculture is changing dramatically, not least for the uplands with their very special needs.

A Steering Group to oversee the project was established jointly by the Brecknockshire Agricultural Society and the Institute of Welsh Affairs, comprising: myself, Charles de Winton, Chairman of the Society; Edward Morgan, a Breconshire farmer and a member of the Society's Executive Committee; Gaina Morgan, the Society's media adviser; Gareth Jones, a member of the IWA's Board of Trustees; John Osmond, Director of the IWA; together with the authors of the study, Professor Peter Midmore and Professor Richard Moore-Colyer, both of the University of Wales, Aberystwyth.

Our thanks are due to the Institute of Welsh Affairs for their major contribution to this project, and to the Brecon Beacons National Park Authority, the National Westminster Bank, and the Welsh Development Agency for their financial support to the Society in this and past years. Thanks are also due to the farmers whose opinions helped shape the conclusions of this study. It is hoped that it will concentrate the minds, not only of our own members, but also of government, economists and conservationists. We all have responsibilities in recognising that farming is the vital management tool for preserving the heritage and long term environmental integrity of the hills and uplands which cover so much of the Welsh landscape. We hope, too, that this study will have relevance further afield to both England and Scotland, not to mention parts of continental Europe as well.

We therefore commend this study which we hope will form one of the core sources for future debate on this subject. Our very great thanks go to its authors for their work and their thought-provoking challenges for all stakeholders in our future sustainability.

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President

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Abbreviations

AONB	Area of Outstanding Natural Beauty
BSE	Bovine Spongiform Encephalopathy
CAP	Common Agricultural Policy
EPC	Environment, Planning and Countryside (Committee of the National Assembly for Wales)
EU	European Union
FUW	Farmers' Union of Wales
HLCA	Hill Livestock Compensatory Allowance
LFA	Less Favoured Area
NFU	National Farmers Union
RDP	Rural Development Plan
RDR	Rural Development Regulation
SDA	Seriously Disadvantaged Area
SFP	Single Farm Payment
SSSI	Site of Special Scientific Interest
YFC	Young Farmers Club

Summary

The upland areas of Wales, while unrewarding in terms of agricultural potential, play a pivotal role in terms of culture, recreation, environment and national identity. Their future is determined by dependence on a complex range of external pressures, and the historical record indicates that trade policy, consumer pressures and a desire to conserve cherished spaces through regulation are certainly not new phenomena. Farming has produced, and is indissolubly interdependent with, the landscape of the uplands, and this relationship is demonstrated by the impact of economic change on the visual landscape and environmental quality. At present, however, fundamental changes in agricultural support and uncertainties over the value and form of special consideration provided for Less Favoured Areas suggest that future changes may compromise the valued contribution which the high, remote areas make to Wales' national quality of life.

Case studies of individual hill and upland farms have been undertaken to uncover attitudes, aspirations and management approaches at the local level. Whilst there are many differences between the farmers interviewed, they have many things in common as well. These include a commitment to farming as a primary occupation, detailed knowledge of the capacities and qualities of the land resource they manage, and a sincere determination to continue in agriculture as long as possible while taking seriously the public interest and environmental issues involved.

A more general exploration of the future involved development of two possible scenarios: one in which the environment and population of the hills and uplands is flourishing; the other where land abandonment and environmental degradation are widespread. Systematic analysis of these scenarios provides four conclusions:

- The *status quo* is not an option.
- Continued and even expanded support for the uplands will be vital.
- Returns from the market will be critical in assuring the integrity of upland rural community structure.
- There is a need for improved public confidence in, and affinity towards, agriculture.

Historical understanding, insights from the farm profiles and scenario analysis all contribute to the case for a set of actions. They are aimed to maximise support from the wide range of stakeholders involved, and to improve the resilience of the hill and upland resource at a time of considerable uncertainty. The following are the main recommendations emerging from this study:

- Greater resources are needed to aid the continuation of upland farming for environmental goals. What is required is a higher rate of transfer of funds (modulation) from Single Farm Payments into expanded and retargeted agri-environment schemes. There should also be a change to the basis of compensation whose principle of "profit foregone" currently operates to limit output. In future a minimum level of production will be required for conservation objectives to be met, especially to ensure that an appropriate mix of sheep and cattle stock be maintained on upland farms.
- Latent but valuable knowledge in the farming community should be unlocked to design locally appropriate and efficient channelling of resources through combined *Tir Mynydd* (hill farm), *Tir Gofal* and *Tir Cynnal* (agri-environment) schemes under the control of local groups. These should represent farmers and other key stakeholders, with further future potential to undertake collaborative marketing, promotion and integrated planning of tourism and leisure use developments.

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- There should be selective, voluntary withdrawal of agriculture to develop community-managed 'wild' areas for public benefit. Financed by a small proportion of Rural Development Regulation funds this would provide scope for wood extraction, educational and leisure use, and where appropriate some controlled seasonal grazing.
- There should be an honest appraisal of the way in which National Park planning powers limit or obstruct the development of upland farming businesses. There needs to be fundamental reform which recognises the interaction between sustainable development of upland communities and landscape conservation.
- The Welsh Assembly Government should promote further debate on the purpose and management of upland areas through a major conference bringing together specialist expertise and user and producer interests. At the same time the Environment, Planning and Countryside committee of the National Assembly should launch an inquiry into the future of the hills and uplands.

Introduction

Most of the agricultural land in Wales is classified as hill or upland, with steep slopes, rocky or poor soils, and a relatively unfavourable climate. Farms at this level require substantial land areas to make even a bare living and, despite their number, contribute only a small proportion of the total output of Welsh agriculture. On the whole, they are located in the most sparsely populated interior of the country, so that access to the services and conveniences of modern life is not easy. Yet they have an importance to Wales as a whole which is out of proportion to their economic and geographical status. Human intervention over the generations has shaped, and continues to influence, a landscape that is emblematic of the many origins of Welsh national culture and identity. The activity of upland farming also makes an environmental contribution to society more generally, providing habitats for rare and threatened plant and animal life, and is increasingly understood to be important in buffering the impacts of climate. In the future, as essential energy and material supplies become scarcer, the role of the uplands as a source of water and renewable resources may become even more important.

The uplands of Wales are a critical asset for the promotion of tourism and leisure, and the farm communities clustered around them have a resilience and unspoilt nature. In particular, in many farming families Welsh is a living and working language. Where it is not, even despite changes, the way of life bears an imprint of a culture far removed from the mainstream of urban society. Even so, there are many outside influences on the hills and uplands which, currently and in the future, have a profound impact on this social and environmental structure. The main focus of this report is how to cope with such pressures in the future, and to ensure that negative effects on the characteristics and benefits valued by society in general can be allayed.

This is not an easy task. Both agriculture and forestry, the principal users of elevated land in Wales, face continuing economic pressures of static or declining returns and significant extra costs associated with difficult production conditions. The quality of life (not just for farmers, but also non-farm residents living in the uplands, many of whose livelihoods depend on the primary activity) is constrained by poor infrastructure, weak communications and unsatisfactory public and private service delivery.

There are compensations in other respects, not least in terms of access to a clean and spectacular environment. Even so, growth in incomes and technological changes in wider society lead to heightened and legitimate expectations from life in the hills. Often the balance between the costs and benefits of location leads to the decision to leave, especially among younger age groups. Outside pressures further manifest themselves in the form of growing demands for recreational access, and constraints on freedom of action arising from environmental concerns. These are controlled, at least in principle, by a number of landscape and ecological regulations, including National Parks and Areas of Outstanding Natural Beauty, Sites of Special Scientific Interest, and overlapping tiers of European and international designations.

None of this is new, as subsequent discussion will show. However, at the present time it can be argued that the hills and uplands are at a tipping point. Commodity-based support payments, criticised in the past for creating incentives for damaging intensification and farm amalgamation, are being decoupled from levels of farm output and replaced with a Single Farm Payment. The effect this will have is uncertain, and it will take some time to become clear. At the same time, the whole purpose, resources and strategy of the European Commission's Common Agricultural Policy are being increasingly questioned, and may result in

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further re-orientation of the farm subsidy framework. Additionally, consumer awareness and unrest concerning nutritional health and the consolidation of power in the food supply chain are responsible for major changes in the market environment. Moreover, growing competition for global energy supplies could significantly raise farming costs.

Determining how upland farming and the social structure of its communities will evolve in the future is thus a difficult task. It requires an unravelling of the complex interplay of the internal and external influences which shape it at present, assessing their current strength and importance, and then predicting how they might themselves change and develop. Standard forecasting techniques are of little use in this respect, because the nature of interdependence between what happens in the hills and uplands and the preponderant economy and society is so pronounced. Rather than trying to describe how future developments might occur (and in all probability being wrong) we feel it more important to analyse why developments occur. In this way advocates for the Welsh uplands and their communities and other interested stakeholders will have an improved understanding of the implications of any future changes, and will be able to react to them in a more informed and effective manner.

So instead of trying to predict a single probable future, some of the extremes of widely differing possible futures can be explored by examining the consequences of various credible combinations of the major influences. In order to do this, we have to take into account the historical and political context of agriculture and other land uses in the uplands. We also need to recognise the significant influence of farmers themselves, their likely actions and reactions to changes, their outlook and aspirations. Finally, these need to be related to an evaluation of the policy framework as it currently exists, and a range of possible developments in other external influences.

The remainder of the report is divided into six chapters. Chapter One provides a brief sketch of key issues in the history of the Welsh hills and uplands, outlining how they developed to their present state. This begins, appropriately, in the mid 1700s, roughly concurrent with the foundation of the Brecknockshire Agricultural Society, which was established on a basis of confidence in science and technology as a means of improving the quality of life in farming and rural communities.

Chapter Two describes the current state of Less Favoured Areas in Wales, the European policies that affect them, and the current process of reform which is being driven by expectations of future trade liberalisation, and budgetary and supply developments. Chapter Three gives a selection of views from upland farms, in particular the attitudes and ambitions of the families who manage them. Chapter Four discusses possible future developments from changes in external influences affecting the upland region in Wales. It offers two scenarios, one relatively benign and the other suggesting an 'abandonment' of upland Wales. These are not put forward as predictions, but in order to clarify the discussion. Chapter Five describes the developing policy framework within which choices will have to be made. Finally, Chapter Six comes to some conclusions and offers some policy recommendations for the Welsh Assembly Government, together with suggested further lobbying which will be required at the Westminster and European levels.

The entire discussion draws on a wide range of sources, but rather than encumber the text with references, the Appendix provides selected reading for those interested in pursuing any of the themes further. Our overall conclusion is that although some hard choices need to be made to secure the future of this cherished constituent of Welsh national identity, some of which will be unfavourable for at least some stakeholders, we have at least provided fuel for a wide-ranging debate about their future.

1 Background

Social, Economic and Cultural Change

Throughout much of their modern history, more especially between the middle of the eighteenth and the twentieth centuries, the hills and uplands of Britain were dominated by the short and long-term effects of the industrial and agricultural revolutions. In turn they were subject to a fluctuating ebb and flow of settlement and depopulation. Concurrent with the growth of population in Britain as a whole, agricultural output from the hills and uplands expanded steadily between 1750 and 1880, while extractive industries and textile manufacture helped to underpin the upland economy. On the urban fringes, where there was a buoyant demand for agricultural products, ready markets for butter, cheese, bacon and woollen products ensured particularly impressive growth in output.

Meanwhile, a long tradition of seasonal migration to the industrial south at times of underemployment was converted into a permanent exodus as the attractions of industrial wages and urban amenities drew increasing numbers from the hills and uplands. So much was this the case that the concentration of the Welsh speaking population in the counties of Monmouthshire and Glamorgan advanced from under 20 per cent in 1800 to more than 60 per cent in 1850. Although this siphoning-off of upland dwellers had the short-term benefit of relieving land hunger, it was to bring longer-term problems in its wake.

By the closing decades of the nineteenth century, dramatic, and even traumatic, change was afoot. The penetration of the Mid-West prairies by American farmers had enabled the United States to export vast quantities of cheap cereal grains across the Atlantic, while the development of refrigerated shipping facilitated the import of Australasian meat products. However, Welsh upland farmers who, for some time had been turning their attentions away from mutton and in the direction of early lamb production, continued for the moment to find a market for their animals in the coalfields of the south where increasing real wages sustained demand for meat and meat products. Other areas of the upland economy were severely dislocated, however. As manufacturing industry concentrated around the ports and coalfields, the mines and factories of the uplands were driven out of business. The Welsh woollen industry, already flagging in the 1880s, declined rapidly after 1920. The lead, zinc, and other metaliferrous industries followed suit. Eventually, the upland livestock producer also felt the chill of depression as lamb and wool prices fell to 34 and 64 per cent of their 1911 levels by the early 1920s. Moreover, as migration reduced the availability both of family labour and of local cooperative help, periodic farm tasks became increasingly difficult to perform effectively.

Reflecting the economic condition of agriculture and rural industry, the population of the Welsh countryside continued inexorably to decline with only Carmarthenshire, Denbighshire and Flintshire returning higher populations in 1931 than 1921. This had the inevitable knock-on effect on the demographics of language so that the proportion of monoglot Welsh speakers in Breconshire, for example, fell from 10.5 per cent in 1891 to 5.5 per cent in 1911, with bilingualism advancing from 27.4 per cent to 36.4 per cent over the same period. As Welsh gave way to English in the hills of Breconshire and other parts of central and eastern Wales so did the web of regional life begin to rot at the centre. Ancient traditions of craftsmanship and rural industry began to decay and the previously self-reliant rural community moved towards dissolution.

The Hills and Uplands before World War II

One of the compilers of the magisterial *Land Utilisation Survey* of 1943 noted that two phenomena were virtually inseparable: a declining rural population and deteriorating grassland.

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While abandonment of a holding enabled a neighbour to expand his farm, much of the extra land would often be utilised sub-optimally, particularly in areas where insufficient labour was available. Consequently a few acres might be well-run, but "...thistles and Knapweed, bent, Yorkshire Fog and bracken, aided by the rabbits, take the rest."

Throughout the difficult years of the inter-war period much of the uplands of Breconshire and the rest of Wales had been progressively deteriorating. The cultivated agricultural area of Wales as a whole had fallen by 142,000 hectares (350,000 acres) between 1900 and 1939 during which time upwards of 101,000 hectares (250,000 acres) of this had reverted to rough grazing, nearly 18 per cent of it being *Nardus/Molinea* moorland. In Breconshire, the controversial enclosure of the Great Forest in 1815 and subsequent enclosures at Merthyr Cynog, Garthbreny, Llanddew and elsewhere, had led to a reduction in waste and common from 104,000 hectares in 1795 to 36,000 in 1880 (256,000 to 90,000 acres). Yet there still remained 49,000 hectares (120,000 acres) of "waste" in the county at the turn of the twentieth century. The tradition of exploiting the uplands for summer grazing, well-established since medieval times, continued into the inter-war period. However, by this time not only had the carefully-constructed nineteenth century enclosure walls fallen into decay, but the enclosures themselves were undistinguishable from rough mountain grazing. Great tracts of the Mynydd Epynt, Fforest Fawr, the Brecon Beacons and the Black Mountain, hitherto assiduously stocked with the appropriate balance of sheep, cattle and horses as determined by the manor courts, were in an increasingly ruinous state.

The Framework of Restoration

From a purely economic viewpoint, the rehabilitation of the moribund uplands seemed rather absurd in the 1920s and 1930s as cheap food from imperial and foreign sources flooded into British ports. Yet there remained an influential body of ruralist commentators who divined the importance of conserving rural communities and who saw the upland farmer both as guardian of a vital element of the cultural heritage and an important player in the emerging tourist industry.

For some years, interest in the uplands as amenities had been growing. The Commons, Open Spaces and Footpath Preservation Society had been flourishing since the 1860s. *The Ancient Monuments Act* (1882) gave protection to sites of archaeological importance, while the Councils for the Protection of Rural England and Wales had been respectively founded in 1926 and 1927. Later *The Access to Mountains Act* (1938) and *The National Parks and Access to the Countryside Act* (1949) would significantly transform official approaches towards the uplands of Britain.

In the 1930s it was widely believed that restoration of the uplands could never be achieved merely with reference to discrete sectors of the economy. Only by understanding the complex interdependence between environment, economy, society and culture and viewing these in a holistic manner could the problem be realistically tackled. Climatic and edaphic marginality occasioned by high rainfall, inherently low soil fertility and frequent combinations of steepness of slope and unfavourable aspect were endemic. Often poor accessibility and unsatisfactory farm layout were additional problems making efficient management of many upland holdings very difficult. Alongside these problems, formidable in themselves, lay the issues of isolation, lack of electricity and piped water supplies and, in particular, remoteness from decent roads, railways and market centres.

The terrain imposed severe limitations on mechanisation so that in many areas the horse-drawn sledge continued to be the principal mode of transport. This may account in part for the accumulated lime deficiency throughout much of the country at the outbreak of World War II.

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In Wales as a whole there were 1,619 tractors in 1939, very few of these being found in the hills which, by and large, machinery salesmen had given up as a lost cause. These various factors restricted the scope of farmers to break away from the traditional system of store cattle and sheep production, whose profitability was dependent on the unpredictable lowland market.

Rural Conservation and the Upland Farmer

As early as 1536 John Leland had noted that Welshmen in the uplands "...did study more to pasturage than tilling, as favorers of their consuete idilness". Leaving aside Leland's apparent ignorance of the prevailing *hafod/hendre* system, the inherent conservatism of the upland farmer is repeatedly emphasised in the literature well into the twentieth century. Independent of outlook and fiercely protective of their traditional way of life, Welsh hill farmers had taken good care to reject the majority of the crackpot schemes of eighteenth and nineteenth century gentry "improvers". Many of these were irrelevant to their circumstances and, in any case, were impossible to implement without heavy capital outlay. If anything, suspicion of change (unless it yielded cash benefits in the relatively short term) intensified towards the later nineteenth century as farmers reduced their dependence on hired labour and came increasingly to rely upon family members, especially their wives.

Witnesses before the Welsh Land Commission in the 1890s testified to the "industrious and shrewd" nature of the hill farmer's wife who served her husband as a maid-of-all-work. However, a large-scale study of the training needs of the hill land labour force in Wales, carried out in the early 1970s, offered a rather different perspective. In this survey hill farmers emphasised their spouses' roles in book-keeping, lambing and calf-rearing. At the same time they were somewhat dismissive of their technical skills which tended to be limited to "...opening gates and standing in gaps when sheep are being moved." Some years previously, the Mid-Wales Investigational Report had implicitly attributed the essentially conservative nature of the hill farmer to his concern at the possibility of the disintegration of a centuries-old way of life.

Conservatism of outlook cannot be decoupled from economic and financial circumstances. With the social, political and fiscal events leading to the break-up of landed estates throughout Wales, owner-occupation increased from 10 per cent of total acreage in 1909, to 39 per cent in 1941-3. Having no legal security of tenure and fearful of external purchasers subjecting them to quantum increases in rent, or even to eviction, tenants in the hills and uplands flocked to gain liberty and status by purchasing their freeholds. Since two-thirds of Welsh farmers in the 1920s had no other occupation than that of residents or workers on the parental farm, and three-quarters of them were farmer's sons, anxiety for future security was hardly surprising. Desperate to cling to their ancestral acres under any circumstances, many tenants bid inflated prices of between 30 and 40 years purchase when a figure of 20 years purchase would have been more realistic. At a mortgage rate of between 4 and 6 per cent, the investment was sustainable while the prices of agricultural products were buoyant. However, as the index of agricultural prices began to decline against an increase in the real value of wages after 1922, recent purchasers found mortgage repayments increasingly burdensome.

In effect, this situation provoked a withdrawal of capital from the business of farming to the business of landowning. Those who had bought in a period of relative prosperity saw their investment decline sharply during the deflationary 1920s and 1930s. Some sold out to neighbours, some survived by progressive belt-tightening, or by relying on the availability of extensive upland rough grazing, and yet others by conversion to liquid milk production.

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Whatever the case, the rise of owner-occupation witnessed a haemorrhage of already scarce capital from farming and, (with the notable exception of developments in milk production) a profound unwillingness to adopt methods and technologies appropriate to expanding the output of traditional hill produce onto what farmers perceived to be an over-supplied market.

Wartime and Upland Restoration

At the outbreak of World War II there had not only been little fundamental change in the techniques and structure of Welsh upland farming over the previous three decades, but the hills and uplands stood, as the Welsh Agricultural Land Sub-Commission later put it, in an "advanced state of dereliction." With the declaration of war in September 1939, British agriculture came immediately under the control of the County War Agricultural Executive Committees. Equipped with enormous powers of compulsion and requisition, the Committees controlled virtually every aspect of farming and set to work with a will to prepare the rural home front for a lengthy war. As each farm was graded and classified, mandatory cultivation orders were issued, ploughing quotas established, and the productivity of every holding strictly monitored.

Farmers in the hills and uplands of Britain were eligible for substantial levels of grant aid for drainage, lime and basic slag under the terms of the *Agriculture Act (1937)*, while the *Agriculture Act (1939)* provided for a grant of £2 per acre where pasture was converted into arable or worn-out grassland was rehabilitated. Despite the various attempts to grow potatoes and cereals on hill land ploughed out from bracken, it was abundantly clear that maximising the contribution of the uplands to the war effort would be best achieved by grassland improvement.

The potential of cultural treatments and applications of lime, superphosphate and basic slag towards the restoration of upland pastures in Wales had been demonstrated by R. G. Stapledon and his colleagues at Aberystwyth as early as 1916. Together with other enthusiasts, Stapledon perceived the improvement of the hills and uplands as a moral, cultural and aesthetic necessity. The preservation of the upland community he believed to be a key element in national regeneration, and that would only occur by way of improvement in its agricultural prosperity. From this would follow social stability, enhanced communications, better rural amenities and services, and a general rejuvenation of a moribund physical and social environment. As depopulation was stemmed, the higher land would once more become the repository of those traditional "spiritual" values whose disappearance alarmed him. To this end he and his associates at the Welsh Plant Breeding Station embarked upon the celebrated Cahn Hill Improvement Scheme near Devil's Bridge in Cardiganshire. It attracted world-wide attention and became the model for the restoration of large tracts of land in Wales and the rest of Britain. Confronting the reservations of the economists who lamented the high cost of the project, Stapledon retorted that the cost of doing nothing would be the total loss of community with its concomitant cultural and human consequences.

Post-war Developments

It was this theme of community, highlighted by Stapledon, A.W. Ashby and others in the years before the war which remained central to official thinking in the early post-war period. Meanwhile, the De La Warr Committee report, published in 1944, included the unequivocal judgement that technical improvement of hill farms at great Exchequer cost could only be justified within the framework of a sound economic context. In short, some element of price stability was required if hill producers were to face the future with confidence.

The outcome was the *Hill Farming Act (1946)* which provided for grant aid of up to 50 per cent for the rehabilitation of hill sheep holdings; the establishment of the principle of hill sheep and

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cattle subsidies within the framework of the *Agriculture Act* (1947) and eventually the extension of the provisions of the 1946 legislation to the upland store cattle and sheep sector under the terms of the *Livestock Rearing Act* (1951).

These measures brought about direct and immediate assistance to beleaguered upland farmers. Nevertheless, during the 1950s and 1960s a variety of official reports and Government White Papers expressed continued concern over rural depopulation and the need for economic diversification. They also emphasised the compelling requirement for the continued expansion and sophistication of the basic land-using industries of agriculture and forestry. Among the more significant documents were the 1953 White Paper, *Rural Wales* and the *Mid-Wales Investigational Report* of several years later. *Rural Wales* and other reports from a range of sources placed heavy emphasis on afforestation to generate employment in the uplands, at the same time arguing the case for larger upland farm units capable of exploiting economies of scale. The latter recommendation would eventually be woven into the fabric of the *Agriculture Act* (1967), providing grants to promote farm amalgamation and to compensate outgoers. Previously, the *Agriculture Act* of 1957 had raised the level of Exchequer support to ensure that the net farm income of an employer remained at least as high as that of a hired farm worker.

With the demise of the ill-fated Wales Rural Development Board, set up under the terms of the 1967 Act, the Development Board for Rural Wales, established in 1977, became the principal instrument for economic development both in the hills and uplands and in other areas of the Welsh countryside. For this body and the authorities succeeding it, the successful future of the higher land was dependent on a combination of flexibility of approach and joined-up thinking. By the early 1980s, when environmental, historical and cultural conservation had become issues of major public concern, it was clear that the upland farming community's claim on Exchequer funds could no longer be justified by agricultural arguments alone.

At the same time, conditions for farmers were becoming increasingly difficult. Significant real-terms cuts in support, through quotas and limits on payments at EU member-state level, began to have an impact on returns, while high interest rates raised costs. The market environment also became demanding, with health concerns, culminating in the recognition of BSE as potentially transmissible to humans, affecting both consumer confidence and the ability to access livestock export markets. Throughout the 1990s crisis conditions affected the hills and uplands as much, if not more than, other sectors of agriculture. These problems culminated in the 2001 outbreak of foot-and-mouth disease which, ironically, occurred just after the export restrictions imposed to deal with BSE had been lifted.

Agriculture in the higher lands of Britain has come to be seen as a vital means towards multiple ends. The arguments articulated by Stapledon and others half a century previously are even more compelling. If the hills and uplands are indeed a unique and irreplaceable national asset, then imaginative support measures are required to ensure the economic prosperity of the upland farming industry so that multiple demands on the landscape can be met.

2 The Hills and Uplands Today

The Less Favoured Area

As British hill farming became subsumed within the European legislative framework in the 1970s much of the hills and uplands were incorporated within the Less Favoured Areas (LFA) Scheme. Indeed, virtually all the semi-natural vegetation of the hills and uplands of Britain have enjoyed LFA status since 1975. In Wales, they now comprise some three quarters of the total agricultural area, with 69 per cent of farmers being wholly or mainly within it. The framework of support set out in the initial LFA Directive sought "... to ensure the continuation of farming, thereby maintaining a minimum population level or conserving the countryside", an objective designed primarily to preserve increasingly fragile social structures.

From a United Kingdom perspective, the LFA designation allowed continuation of the structural support previously offered by the *Hill Farming Act* of 1946. This included a wide range of schemes for capital improvements along with direct subsidies both for sheep and beef cattle, enshrined in variable slaughter premiums for sheep (withdrawn in 1992), the Sheep Annual Premium Scheme, the Suckler Cow Premium Scheme, and the Beef Special Premium Scheme. In addition, the Hill Livestock Compensatory Allowance (HLCA), payable on a headage basis for sheep and beef cattle within the LFA, was a major component of support arrangements. However, as protection was switched from market support to direct payments in the late 1980s, the proportion of overall payments derived from HLCAs declined. Thus sheep support from this source fell from 71 per cent in 1980 to 13 per cent in 1995, with cattle support declining from 77 to 17 per cent over the same period. There is a strong body of evidence to support the view that before they were finally replaced by *Tir Mynydd* in 1999, HLCAs played a dominant role in reducing the rate of decline of the upland population so that there was a marginal increase in the total farm labour force in the Welsh LFA between 1986 and 1995 if farmers, partners and directors are included.

Land, People and the Hills and Uplands

Inherently low soil fertility, steepness of slope, poor accessibility, infrastructures and service support are among the numerous factors limiting agricultural potential in the Welsh hills and uplands. However, it has been established in a series of recent studies that whatever the economic realities and whatever the pressure for diversification and pluriactivity, there remains among the upland population a powerful and continuing commitment to farming.

Upland farming families, many having occupied the same holding for generations, represent the continuation of a system of communities existing within a framework of meaningful social relationships underpinned by a deeply-embedded mythic tradition, itself arising from the rhythms of the farming world. Farming remains an essential and integral part of life in the hills and uplands despite ever-declining emphasis on commodity payments within the support structure. Opportunities for supplementing income through pluriactivity normally depend on the dynamics of the farming family and the social and economic structure of the area. Thus diversification only becomes feasible where surplus labour with appropriate skills exists, while the potential for off-farm activity will be determined by patterns of local employment.

Farming, the Environment and the Hills and Uplands

Despite the development of protective designations in many areas, changes in management practices both within the forestry and farming sectors have led to significant losses in what might be broadly defined as "environmental quality". Post-war afforestation doubled

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coniferous forest cover in Wales between 1947 and 1973, resulting directly in fragmentation of heather moorland and rough grazing. Meanwhile, as headage payments for livestock attracted greater revenue than funds available for woodland planting and management, the quality of semi-natural woodlands on hillsides adjacent to moorland began to decline.

Fuelled by capital grants, 250,000 acres of semi-natural grazing was reclaimed in the two decades prior to 1986. Concurrently stocking rates increased, and as sheep numbers advanced at the expense of the cattle population, sheep densities grew to levels three or four times those of the 1950s. As relative numbers of cattle fell, the overall effect of these changes was to allow for the expansion of bracken infestation and, critically, to produce short, uniform swards of limited habitat value both to invertebrate and avian populations. In the latter case the combined effects of drainage, afforestation, predation, persecution and increased grazing intensity have meant that throughout Britain as a whole, of the 110 species of birds occupying upland habitats, 58 per cent are either in moderate or rapid decline. Although difficult to quantify, it might also be argued that the simple botanical composition of the "improved" upland sward reduces its capacity to intercept precipitation thereby increasing the potential for surface run-off and erosion.

The general problem of overgrazing applies equally to the common lands which comprise 36 per cent of the area of Welsh semi-natural grassland. Protected from agricultural improvement and afforestation by legal restrictions on fencing and other factors, there are strong indications that many commons are being overgrazed with the inevitable deterioration in species diversity and plant communities. Similar effects occur on heather moorland where stocking levels in excess of 2 ewes per acre yield a heather flora in which some three quarters of plants exhibit growth forms typical of chronic damage.

It is important to stress that at the local level patterns of vegetation change related directly to stocking densities are highly complex and there can be substantial variation both in the distribution and extent of impacts. Thus the same level of stocking can cause severe ecological damage in one area while leaving another relatively undisturbed. On the other hand there can be little doubt that historical systems of agricultural support encouraged intensification, which has had adverse effects on upland wildlife habitats.

Protection of the Hill and Upland Environment

The terms of the European Community Agri-Environment Regulation of 1992 provided a variety of measures to promote agricultural production methods compatible with protection of the environment and maintenance of the countryside. In Wales this has led to the establishment of six Environmentally Sensitive Areas where payments are made for conservation objectives, and subsequently the *Tir Gofal* scheme whereby farmers receive conservation payments through formally-drafted management agreements. An application is currently being made for a less restrictive entry-level scheme, *Tir Cynnal*, which only requires a minimum eligible habitat of 5 per cent of farm area to be maintained.

As environmental considerations become an integral part of regional, national, and European agricultural policy, so the concept of the farmer as steward assumes a central role both in and beyond LFAs in Wales. The original socio-economic justification of support for LFAs from the European Agricultural Guidance and Guarantee Fund has, since 1999, been modified to embrace the situation where, "... the requirements of environmental protection, upkeep of the countryside, tourism or coastal protection justify maintaining some agricultural activity". Indeed, recent discussions regarding the new Rural Development Regulation (RDR), to be implemented from 2007, have focussed substantially on environmental issues.

The Framework of Policy Reform

Fundamental changes to the CAP were agreed in 2003. These reinforce previous reforms and enlarge its scope to embrace environmental protection, the quality and safety of food, and animal health and welfare, within an overall constraint requiring minimum budgetary cost. This overall budget limit is frozen, in real terms, until 2013. The change has four main components:

- The first progressively reduces price targets for agricultural commodities to levels at or near the world market price. Effectively these become stabilisation measures.
- Secondly, direct payments to farmers will no longer depend on levels of production, but will be consolidated into a Single Farm Payment (SFP), linked to payments received within the reference period of 2000-02. While member states have some freedom to retain some elements of coupling, for example where agricultural land may be threatened by abandonment, in the UK this option is not being taken up. They can also apply the SFP at either farm or regional level. In Wales, historic payments made to individual farmers will lessen the impact of the change.
- Thirdly, cross-compliance has been made compulsory, and the scope extended from the maintenance of environmental standards to cover food safety and animal health and welfare. Breach of these extended conditions can lead to the SFP being partially withdrawn, with more severe penalties for repeated or intentional non-compliance.
- Finally, extension and deepening of Rural Development Plan (RDP) measures is to be financed through 'modulation' of all direct payments to farmers in excess of 5,000 Euros. In effect, this means a gradual, progressive removal of payments to all farmers, from three per cent of the total in 2005, to five per cent from 2007 onwards. The 1,200 million Euros released in this way will provide for new measures to improve quality and safety of food in addition to increased funding for LFAs, agri-environment schemes and support for structural change to farms and rural communities. (There will be a further option for member states to voluntarily remove greater percentages in order to further enlarge their Rural Development Plans.)

However, because of difficulties in agreeing on the urgent need for reform of the way member states contribute to the overall EU budget, there is as yet no agreement on the basic value of the RDP budget itself, the main source of the differential support provided to hill and upland areas.

Changes in the method of support produce uncertainty, and for some farm families, considerable anxiety. The impacts are complex, since some come from measures to divert payments from one channel into another, and others will depend on the impact of decisions on how to react to lower levels of prices. Because the livestock production cycle extends over a number of years, the consequences often do not emerge until a number of discrete actions and reactions have occurred. At present, there can be no clear assurance that outcomes will be wholly beneficial for community, society and economy in the high areas of Wales.

Towards a New Scenario

It is sometimes argued that with the relative decline in the economic significance of production-oriented farming in the hills and uplands, these lands should be transformed into zones where the scope for human intervention is limited. In other words, depopulation and the financial cost of reconstruction should be accepted and the rest left to nature. But this is to deny the broader cultural importance of hill and upland communities with their special way of life, born in many cases of generations of working in this not always congenial environment.

Social and spatial mobility has meant that the economic and cultural constituency of the upland community is rather different today than it was 80 years ago. Yet the view aired in the inter-

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war period, that the rugged independence and socially-altruistic nature of upland folk provided a healthy antidote to the excesses of mass-consumerism, is surely just as relevant today.

If many members of today's upland communities have little direct relationship with agriculture, it would be unwise entirely to neglect the pivotal role of the farmer in producing what is increasingly termed the "consumed" countryside. As the hills and uplands become transformed from areas of production to consumption spaces for residence, recreation and tourism, policymakers should remember that the commodified rural idyll is largely the creation of the farmers, representing as it does the culmination of centuries of environmental, agrarian and social change. The responsiveness of communities to change is, of course, reflected in the rich archaeological heritage of the Welsh upland environment, itself the largest single reserve of historic landscape in Britain. Irrespective of scientific, cultural and educational considerations, an awareness of the past engenders an enhanced sense of place and citizenship of profound psychological importance. This being the case conservation of the historic landscape as part of the "consumed environment" becomes every bit as vital as the conservation of natural features and species.

Given the range of interests and potential conflicts involved, a highly-sophisticated framework for policy development, capable of dealing both with the broader issues and explicit local contexts, will need to be elaborated. This could involve creating conditions for the evolution of demographically stable communities in the hills and uplands with adequate resources to sustain a distinctive lifestyle and retain "traditional" values. In return the community would offer the skills required to manage fragile landscapes and ecological and cultural systems for the benefit of society as a whole. At the same time it would provide access and services for those who might wish to take advantage of the space they provide for recreation.

3 Views from the Uplands

To illustrate and enlarge on the context provided so far, six hill and upland farms have been selected to demonstrate the differences, and also the similarities, occurring across a range of the circumstances which exist in Wales. This small number of case studies rules out any possibility of representativeness. However, the approach allows questions to be explored in more depth and from the point of view of the individual family. Consequently it raises concerns which would not emerge from a more systematic and structured approach. Nevertheless, as far as possible the farms were chosen to demonstrate combinations of sizes, tenure types and family circumstances, and also to draw examples from different parts of the country.

A semi-structured questionnaire was developed to allow as natural as possible a conversation between researchers and farmers. Topics covered included farm history and resources, links between the farm and different elements of surrounding communities, business strategy, succession, aspirations and concerns about the future. We also walked the farms to gain further insight. Interviews were recorded, and a summary of the transcriptions is provided in the following reports.

Dylan Hughes, Bryn Celynog, near Trawsfynydd

In partnership with his mother and father, Dylan farms 700 acres of land, of which 500 acres is rough grazing, at between 975 and 1,950 feet. It was originally purchased from his grandmother following her husband's death. Although relatively little grassland has been improved – 15 years having elapsed since the last field was ploughed – present policy is to incorporate clover into existing permanent pasture by slot seeding. More recently Dylan bought land near Ruthin which provides 17 extra acres for summering both ewes and suckler cows. In addition to 600 Welsh



Mountain ewes, the farm supports 32 suckler cows which over recent years have been converted from Welsh Black stock to pure-bred performance-tested Limousins.

Dylan is now able to sell accredited Limousin breeding stock along with Welsh Mountain rams to supplement sales of lambs at the auctions in Ruthin. He is strongly in support of the auction market as a place where quality is recognised and where reputations can be made and maintained. Besides, he sees going to market as an essential break from routine and as a means of establishing contact with other farmers. Attending the market and being closely involved with the FUW, YFC, Farming Connect, and a variety of discussion groups allows Dylan to be part of a network of young farmers who find that it really does help to talk.

Married with two daughters and a son, Dylan's longer-term policy is to secure the farm for the next generation. In common with the overwhelming majority of farmers' wives in the area, Mrs Hughes works off the farm for three days of each week to contribute to the family income.

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This apart, opportunities for diversification are limited, although Dylan is considering the development of a farm park as an educational and commercial project which he may initiate in a few years' time, should one or more of his children be interested. This idea corresponds with his belief in the importance of extending public understanding of farming by welcoming people to the land. "We should educate them as well", he says. To this end he has worked closely with the National Park in developing the old railway line connecting Trawsfynydd with Bala as a permissive footpath. If more people come into contact with the land and those work it, Dylan believes they will see that "we have always managed the land, we try to keep the boundaries as they are with dry-stone walls and to keep the countryside in its beautiful state." For this to be maintained, Dylan hints, those responsible for *Tir Gofal* and the management of SSSIs (such as the community of rare plants in the corner of one of his fields) should adopt a rather more flexible and practical approach towards the needs of the farming world.

In the Pysor Valley, some 99 per cent of the population speak Welsh as their first language and the chapel and its various cultural ramifications still enjoy strong support. Dylan is passionate in his allegiance to the language and culture. "If we don't support the culture the Welsh language will die," he declares. And, of course, that culture is inextricably linked to the land and farming. For Dylan and his family, farming is the first priority. Local life may have changed as the tradition of mutual cooperation has given way to self-reliance, yet the production of quality food and quality breeding stock remains a prime objective. Even if a situation arose which required him to take off-farm work and in consequence to reduce stock numbers, he would strive to continue, more especially if his children showed interest in following the family farming tradition.

Dylan thinks that in the years to come the larger farmers in the hills and uplands will expand at the cost of the smaller, who will either resort to part-time farming or will disappear altogether. For the moment, though, he is quietly confident that the SFP, combined with returns from the market and *Tir Gofal* will secure the immediate future. As he put it, "If I didn't see a future in it I'd get out now."

Huw Roberts, Y Gyrn, Llanuwchllyn, near Bala

In his mid-thirties, Huw farms 340 acres of hill land running up to 1,675 feet. The farm was purchased in 1963 to supplement a pre-existing holding which had been in his family for several generations. Over the years some adjoining land has been bought, and between them Huw and his late father have improved much of the mountain, with rough grazing now amounting to just under a quarter of the total. Being located within the Snowdonia National Park both the system of farming at Y Gyrn and any potential for diversification is strictly limited.



As a result the farm is run on traditional lines with nearly 1,000 Welsh Mountain sheep (720 breeding ewes and 220 replacements) and 45 Welsh Black cattle providing the majority of farm income. Every effort is made to produce top quality lambs, qualifying as Farm Assured.

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Purebred lambs are sold through the Welsh Mountain Sheep Society, and a Suffolk tup is used for 300 of the breeding ewes for the fat lamb trade to the end market via Sainsbury's. Half of the Welsh Black cattle are crossed with Charolais, and the other half are purebred to provide replacements. The majority of male calves are sold at market although the best are kept for bull beef. Female cattle are sold to a local butcher, and a useful supplement to income arises from the disposal of rams at the Welsh Ram Sales. Having invested heavily in machinery, Huw is also enabled to gather further earnings by contract work, as and when time allows. His wife, meanwhile, in addition to bringing up the children, is training as a primary school teacher, in which capacity she will work when qualified.

While Huw believes that some of the earlier agri-environment schemes provided money for farmers to do very little, he is of the view that evolving schemes should form a compromise between the interests of farming and the environment: "Some sort of scheme that is middle of the road". Farmers, after all, have created and maintained the present landscape by ensuring the balance of livestock essential for retaining both the botanical and aesthetic integrity of the hills and uplands. Being a "manager of land" is merely a form of words for, as Huw says, "nothing is going to change as far as the land is concerned – you still have to farm it." To Huw, whose farm has accumulated insufficient points to be eligible for the *Tir Gofal* scheme, the very idea of land reverting to scrub and bush "goes against the grain".

Y Gyrn is located at the heart of an almost exclusively Welsh language community where traditional cultural values are cherished and the people are four-square in support of the farmers and their families. According to Huw, the local community "is holding its own" against the temptation for young people to seek work and a way of life elsewhere. Asked if more people would remain in the community if free rein were given to diversification, he observed that in a sense the National Park was "more of a hindrance". There is a demand from young people to renovate existing, derelict houses but they are not allowed to do so. Consequently, there is the paradoxical situation whereby diversification is held to be the way forward, but this is inhibited by the institutional framework of the National Park.

Perhaps if more members of the public had the opportunity to view and understand the role of the farmer, such inhibitions might be removed. For this reason Huw welcomes walkers on his land "to see what we are doing." As he remarked, "After all, they are all taxpayers".

Like many of his colleagues representing a long farming tradition, Huw is concerned above all with keeping his land in good heart. In this respect, regardless of the limited profitability of upland cattle production, he would never consider relinquishing his suckler herd, even though a high proportion of the farm's costs are attributable to that enterprise. Although some local farmers were turning to bought-in store cattle to replace suckler cows, Huw does not see this measure as a satisfactory substitute.

In common with many younger farmers, Huw is flexible both in his outlook on farming and his attitude towards the future. Essentially, his strategy is to ensure that the farm survives in its present condition. To this end he would be prepared to consider seeking off-farm employment although he is only too aware that a man cannot effectively serve two masters. Before taking this course careful consideration would need to be given to both the agricultural and environmental consequences of reducing his daily input to the farm itself. As he said, "You can earn some money away from home, but at the same time you can lose some money at home".

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Despite the growing isolation of the world of the farmer, Huw is a deeply contented man. However embattled his profession seems to be, however much the public may be "turning their backs on us", Huw loves his work, his home and the community in which he plays a prominent part. Above all, he loves his land which he would never sell at any price. Indeed, he would welcome the chance to add to his acres if adjoining land were to come up for sale.

Barrie Williams, Penlon, Blaenpennal, Ceredigion

Barrie Williams farms 170 acres, most of which lie at between 1000 and 1100 feet. A single man, Barrie runs 400 Welsh Mountain breeding ewes and 18 Hereford-Friesian crossbred suckler cows on a farm originally owned by his grandfather. While the farming system is very similar to that practiced by his father and grandfather before him, much of Barrie's land has been improved from rough mountain grazing over recent decades and stocking rates are much higher than formerly.

Little apart from straw and concentrates is bought into the farm where the broad objective is to sell lambs on a deadweight basis and Limousin cross calves at the store sales. The location of Penlon some distance from the coast limits opportunities for diversification by way of bed-and-breakfast or the establishment of a caravan site, while the prohibitive cost of insurance premiums eliminates any equestrian option. Besides, since he runs the farm on his own with the occasional help of a contractor, Barrie has little time to spare from routine activities.

Given the lack of flexibility in his system there is negligible scope to exploit niche markets. Barrie's essential strategy is to "add value" by the timely marketing of the very best quality produce. With the loss of the suckler cow premium and the need to produce substantial amounts of conserved forage, Barrie is concerned at the local decline in suckler cow numbers and its potential effect on grassland quality. Nevertheless, he would seriously consider reducing his herd in the future. Three windfarms are currently visible from Penlon and Barrie would be interested in any proposal to site a concentration of turbines on his land.

In common with many local farmers, Barrie is acutely aware of environmental and wildlife issues and has provisionally applied to participate in the *Tir Cynnal* scheme. Yet he finds it a great shame that after so much effort has been put into improving the land, environmentalists and others "want to let it go". What are the demands of the environmental lobby, he asks? "Do they want to keep the countryside as it is now, or do they want to turn the clock back as it was 40 or 50 years ago?"

Over the past 20 years the uplands of mid-Ceredigion have experienced enormous social and cultural change. The ancient tradition of inter-farm cooperation has all but disappeared, the fireside culture has evaporated away "as everyone seems to be more independent", and farming has become a more isolated and lonely vocation. Perhaps for this reason and for the compelling need to increase income, some farmers are taking off-farm employment and either leaving routine farm tasks to family members or dealing with them as and when time allows. Indeed of the dozen holdings within three miles of Penlon, only half are providing a full-time family income, the remainder having become part-time units over the past 15 years.



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Alongside this trend the growing tide of incomers from England or other parts of Wales has stimulated the demand for country cottages and smallholdings with the inevitable socio-cultural effects. Twenty years ago the area around Blaenpennal was exclusively Welsh-speaking. Today, however, only a handful of families would come into that category. Moreover, of the 30 pupils at the local school, only two are from Welsh-speaking families. Yet both Barrie and his mother identify several positive aspects of this change. The incomers bring money and initiative to the area, while they often have young children who attend the local school where they learn Welsh and become involved in local *eisteddfodau* and other cultural activities. In the longer term the presence of these people may ensure the survival of many village schools and other facets of rural infrastructure in the remoter rural areas.

Mick Wright, Glanusk Estate, near Crickhowell

Mick combines the running of his own and his wife's property of 140 acres in Tretower with contract farming of the 1,200 acres home farm of the Glanusk Estate. Of the total area under his management, some 40 per cent comprises Seriously Disadvantaged Area hill land which attracts payments from *Tir Mynydd* at a higher rate. Among Mick's many concerns is that of the "public image" of the farmer which he believes to have been severely tarnished in recent years due to a combination of misfortune, misunderstanding and media hostility.



As part of a long-term public relations exercise their own Tretower farm has, until recently, welcomed visits from schoolchildren and other groups. Unfortunately, however, the rigours of health and safety regulations combined with what might best be described as parental paranoia over the unjustified fear of disease has brought this venture to a conclusion. Mick nevertheless believes the continued engagement of children with farm and countryside to be highly beneficial. Moreover, in the hills and uplands and elsewhere, planners and bureaucrats need to take a sensitive approach towards people and communities.

The idea of officialdom proscribing developments in the countryside is, from Mick's standpoint, anathema. Such an approach, he maintains, will only alienate the farming world. Far from being told what to do, the farmer will respond more effectively to being steered in a desired direction by the intelligent allocation of funding: the "carrot and stick" approach. Mick regards many of the present agri-environment schemes (including *Tir Gofal*) as excessively bureaucratic and inflexible and considers the notion of farmer as merely a landscape manager to be both mistaken and "patronising". Blanket legislation over environmental issues causes him some concern more especially where this leads to situations in which "... badgers have more protection than inner city schoolchildren." Besides, as pressure on farming families increases, the growing burden of bureaucracy is in danger of becoming a disincentive to young people to remain in the farming business.

Whereas the Welsh language is less widely spoken in eastern Breconshire than in other parts of Wales, upland community culture is still vitally important. The arrival of incomers out of sympathy with farming which has been a recent feature of the demography of the Usk Valley

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contrasts markedly with the Epynt villages where communities are overwhelmingly farming-based. Here, Mick observes, shows, feasts and *eisteddfodau* thrive and people spend their money locally. "If farming is right", he observes, "so communities will be". He takes the view that some modest development of these upland villages to yield critical mass would be in many ways be the lesser evil. As he said, "Better to have strangers living among you than have communities falling apart."

Although he believes that every farmer would like to make a profit over and above the Single Farm Payment, Mick concedes that this is likely to be difficult. In particular, niche marketing often needs a degree of attention and an allocation of time which many farmers working alone are unable to give. On his own property, Mick is exploiting the market by producing high quality British White and Welsh Black purebred beef animals for supply to specialist buyers. While he recognises the paramount importance of the hill suckler herd as a tool in both grassland and environmental management, he is rather pessimistic as to its future. He wonders whether the coming generations of hill farmers will be prepared to tolerate the hard work in harsh conditions required in the management of upland sucklers, especially where returns are likely to be modest at best. Herd numbers, he believes, will decline and with progressive increases in fuel prices less conserved forage will be made and more animals will be out-wintered. In turn this could have considerable implications for the maintenance of cross-compliance conditions, as indeed could the future spread of very low intensity grazing enterprises.

Taking a broad view of the future of the hills and uplands, Mick believes that those farmers whose former "subsidy-chasing" practices are likely to yield a satisfactory Single Farm Payment (more especially where they have inherited farms free of encumbrances) will be able to withstand a number of lean years. Others may well find relying on their partners' off-farm earnings a robust recipe for survival and "...the best form of diversification."

David Lloyd, The Cnewr Estate, near Sennybridge

Having overseen the 12,000 acre family estate for many years, David has recently handed over the managing directorship of the enterprise to his daughter Rachel, although he continues to retain a "watching brief". Originally part of the Great Forest of Brecknock, the Cnewr estate lies within the Brecon Beacons National Park and the highest land runs up to 2,400 feet.



Virtually the whole of the property comprises rough hill pasture within the *Tir Gofal* scheme. It accommodates some 5,500 Brecknock Hill Cheviot ewes along with 400 suckler cows. The purebred Galloway cows are crossed with a White Shorthorn bull to produce Blue-Greys which in turn are put to a Charolais bull for autumn calving. The resultant progeny are disposed of as stores in Sennybridge market while a high proportion of draft sheep are sold at the annual sale held in September at Cnewr. This sale, a core activity of the business, is a major community occasion which has taken place each year since 1869, several years after David's family descended on Breconshire as tenants from Scotland.

A generation ago, the Cnewr estate employed up to 50 men and although this has been reduced to around ten in more recent years, the estate continues to play a significant role in the community, both in terms of providing work and managing the environment. David is firmly of the view that it is the duty of the farmer to "... look after the environment in the widest aspect", since it only helps improve his rather tarnished public image. After all, as he says, from a public relations standpoint "farmers don't do themselves much good."

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The Cnewr Estate regards itself as responsible for the peregrines, merlins, hen harriers and other species to which it plays host and actively engages in a range of conservation activities. This includes a steadfast adherence to the principle of retaining an appropriate ratio of cattle to sheep as a means of maintaining the structure and composition of upland rough pastures. Besides, argues David, if changing support payments bring about a decline in the number of beef herds, those remaining, provided they yield a quality product, are likely to gain some advantage.

Acutely aware of its external image and of a duty to educate a public increasingly divorced from the source of its food, the estate originally welcomed visitors and visiting groups. Unfortunately, however, the bureaucratic excesses of health and safety regulations and the burden of insurance premia have brought this valuable exercise to an end. Problems with insurance have also obliged the estate to limit the commercial development of several facilities. Thus caves and potholes are leased to caving clubs rather than being directly exploited, while hang gliders are allowed access to appropriate areas of the estate strictly at their own risk.

"There is always pressure to diversify," says David, and the estate has developed a number of properties for use as holiday homes. On the other hand, potential for diversification is limited by National Park regulations, so that wind turbines, for example, are not an option. Again, David's enthusiasm for reinstating a previously flourishing grouse moor is tempered by the anticipation of problems in controlling hen harriers and other raptors within the National Park. The right to roam has so far made little impact, although they will keep a watching brief. For the moment, says David, "we will quietly ignore it and carry on."

Located in what remains a vibrant rural community with its shows and *eisteddfodau*, the Cnewr Estate, like other farms large and small, faces an uncertain future. Yet David believes that at Cnewr there will be little substantial change. Fuel prices might advance and labour costs increase, and a little land might be bought here and sold there. However, the traditional pattern of farming will continue as every effort is made to produce livestock of the highest quality. As for the Single Farm Payment, for a business of this size it provides significant opportunities.

Keri and Julie Davies, Glwydcaenewydd Farm, Crai, near Sennybridge

Keri and Julie Davies farm some 320 acres of land in the Brecon Beacons National Park, 70 acres being true hill land ascending to 1100 feet. Stocking, which has doubled over the past five years, now comprises 700 Blackface and Texel crossed with Mule ewes and 75 Limousin and Belgium Blue crossed with Friesian suckler cows. Lambs are sold to Waitrose and suckled calves to the Sennybridge and Brecon markets.



Farm income is substantially augmented by Keri's contract work and by the letting out of award-winning renovated cottages under Julie's supervision. Julie is deeply involved with and committed to the farm, working within the daily routine, handling up to 95 per cent of the livestock marketing, and developing an ambitious and sophisticated mushroom-growing

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enterprise. As Keri observes, "Without Julie this place would fall apart." Like her husband, Julie is in the farming business "for the long haul" with the ultimate objective of creating a vibrant enterprise to hand on to their young son and two daughters.

As people learned from the recent foot-and-mouth outbreak (to use Keri's words) farming is "pivotal to the local economy". However, for this to be understood by the public at large farmers need "to get our story across". Despite this, he said, "We are bordering on the pathetic in translating what goes on in a working family farm into how the general public perceives farming in the modern 21st century". The position would only be reversed if the younger, dynamic voice of farming engages with the public on both the national and local scale. Julie, in particular, is closely involved with a variety of local community activities. She and Keri believe the community is profoundly important and deserving of protection from cultural fragmentation.

The whole of their acreage lies within the *Tir Gofal* scheme and despite the bureaucracy involved, they are enthusiastic about its operation. However, as "land managers" ("a whole new ball game", as Keri puts it) they find Brussels-generated bureaucratic interference increasingly irksome and to some extent demotivating.

While the developing mushroom business "has the potential to make our form of agriculture look insignificant", Keri would argue that traditional farming with sheep and cattle is essential for maintaining the physical integrity of the upland environment. Even so, there are at present compelling arguments for getting rid of suckler herds. Keri believes that somehow or other the public have to be persuaded to pay a realistic price for quality beef if the national upland suckler herd is to be retained.

On their own farms Keri and Julie are already operating at the high-cost top end of the quality market and when confronted with further cost increases (notably that of fuel) they have few alternatives but to retrench, perhaps by attending more closely to on-farm self-sufficiency. The diversification option of wind farms is precluded within the National Park, and off-farm work can often induce on-farm inefficiencies. On the other hand, the highly-capitalised mushroom enterprise, aimed at a valuable niche market, could in the medium term relieve pressures on other areas of the business, besides exploiting under-utilised buildings on the farm.

Assessment of the Farm Profiles

Among the farmers to whom we have spoken, perhaps the most striking common element is a deeply-seated love of the land and a quiet determination to continue farming despite future uncertainties. Their commitment, enthusiasm and resourcefulness all indicate that the uplands of Wales are in good hands. They see themselves first and foremost as farmers, as producers of high quality food, as exploiters of niche markets where appropriate, and as guardians of a cherished landscape which they have played a vital role in creating.

Aware of the profound importance of wildlife conservation and of a widespread belief among the public that farmers should engage closely with conservation issues, our interviewees nevertheless express the view that "letting land go" would be very much against the grain. One hazard which all the farmers recognised as a consequence of the introduction of the Single Farm Payment was a further decline in cattle numbers. While some were committed to retaining their suckler herds either for interest or for management purposes, all had extensive anecdotal evidence of other farmers around who would abandon cattle production. This can be expected to intensify problems of bracken and other invasive weed infestations, reducing the productivity of grassland, and over time effecting substantial visual changes in the hill landscape.

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Improving public understanding of farming and of the role of the farm in the community is considered to be of foremost importance. However, issues such as insurance and health and safety regulations limit the opportunity for farmers to welcome visitors to their holdings. In this instance, bureaucratic considerations inhibit scope for public education and improved public relations.

Farmers also view with concern the growing burden of bureaucracy, more especially where this is combined with intransigence and inflexibility. Those farming in National Parks see it as starkly ironic that on the one hand they are encouraged to diversify and seek novel sources of income, while Park regulations place insurmountable obstacles in the way of many conventional methods of diversification. The availability of surplus labour, usually in the form of family members, largely determines diversification on the farm itself. Farmers believe that where insufficient labour is available, attempts to spread the efforts of the existing workforce over an extra enterprise can seriously endanger the managerial welfare of the rest of the farm. The same applies where farmers are obliged to seek work off the farm, since less time is available to attend both to daily farming jobs and the important tasks of routine maintenance.

Several of the farmers interviewed play pivotal roles in the local community by way of involvement with church, chapel, youth and farming organisations or local politics. They also unanimously expressed interest in developing their own technical and managerial knowledge by engaging with agricultural discussion groups of varying descriptions both within and beyond the local area. This not only creates opportunities for meeting fellow farmers, but offers an important break from routine.

Faith in the rural community as a vibrant, cohesive unit with a sound economic, social and cultural base was a core belief among our interviewees. Proud of their traditions and language, they would argue that the hill and upland communities of Wales are only realistically sustainable against a background where the basic industries of agriculture, tourism, heritage and the associated trades and professions are enabled to flourish within a context of environmental sensitivity. This will eventually allow for the modest growth of communities, the maintenance of rural infrastructure, and, in the medium term, for appropriate economic developments associated with the main countryside industries and trades.

4 Future Scenarios

The uncertainties arising from radical change in farming support have a more serious impact for hill and upland farms. Earning a livelihood in marginal production conditions has become increasingly difficult in recent years. The most common response to lack of certainty about future conditions is a cautious, damage-limitation approach to strategic planning, reflected systematically in our case study farms. However, while the future cannot be foreseen, exploring its potential can help to inform current decision-making, and that is the focus of this chapter.

The scope and method of rural policy delivery at all levels in the EU is at a point of considerable change. The Single Farm Payment will be introduced in the coming production year, and although there are some indications of how farms will react, no real confidence exists as to how actual strategic decisions will be taken when farmers are faced with conditions the reform will engender.

Financing for the new Rural Development Regulations for the period 2006-2013 is under negotiation. Although a revision of the boundaries of Less Favoured Areas, introducing clear, uniform physical criteria, is expected towards the end of this decade, uncertainties about the European Budget will need to be resolved before the final shape of support from this source emerges. Some member states, including the United Kingdom, are using the Budget stalemate to re-open the 2003 CAP reform package. Future major and more radical changes to its framework cannot yet be ruled out.

In Wales, there has been a recent history of imaginative progress in rural policy. The *Tir Cymen* pilot, and its fuller implementation in *Tir Gofal*, have attracted interest and admiration from across Europe. The various stages of the experimental LEADER programmes have, at local level, unlocked some exciting possibilities for innovative rural development actions. Despite important caveats concerning the administrative burden and inflexibility in interpreting regulations, the advent of devolved government has allowed Wales to appear as a leader, in some respects, in advancing policies for a sustainable rural environment in which the community dimension has a leading emphasis. However, prior discussion makes clear that there are major threats and problems looming, especially in the hills and uplands of Wales. So to maintain momentum, rather than attempt to put off change (as, for example, was apparent in the recent decision to adopt historic payments for the calculation of the Single Farm Payment) substantially original developments in policy should be contemplated. We use scenario analysis to stimulate fresh thinking about how this might be achieved.

Scenario Analysis

Scenarios differ from forecasts in that, instead of making single predictions about the most likely future trends, they can explore a number of possible but often very different futures. This more creative approach can help focus on and convey key issues. It can build a shared understanding between the various interests involved. It can also develop a resilient strategy which, in a variety of circumstances, will help to achieve common objectives. The technique has often been applied on a large, even global scale, for example to model the long-term implications of climate change. But it has also been used successfully to guide planning for individual businesses.

Here, its use is ultimately to identify and recommend appropriate policy actions. The period covered by the scenarios extends to 2020, which means that long-term external influences (such as climate change) need not be taken into account. Key drivers of change impacting on rural livelihoods, the upland ecology and landscape include market demand, policy development, technology, and general social values. These may change in substantially different directions.

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Usually, the method employed is to outline the driving forces which affect the system, suggest the range of potential future states they might adopt, and from the large number of possible combinations, choose the most interesting, realistic and internally consistent to describe, develop and compare scenarios. However, an alternative is to begin with (often extreme or unlikely) future states and then to search backwards for convincing sequences of events that might lead up to them. These can produce more challenging results, which can help develop organisational flexibility, allow testing of various options against extreme but possible outcomes, and suggest the action required to create a more positive or preferred future.

For that reason, we outline and discuss the consequences of just two extreme scenarios. Because there is a wide consensus of views among the various interests involved, at least in general terms, of the kind of future hill and upland farmers desired, the first is a preferred future. This needs to be examined closely to determine the combination of future changes which could lead to it, and what scope exists at different scales of action to help to bring it about.

Similarly, concerns and apprehension about depopulation and consequent environmental and social decay are also widely shared, so the second is a hostile future comprising the converse (although not necessarily the mirror image) of the first, where current fears are realised and all that is valuable to wider society is permanently lost. The contrast between these two futures is highly informative and helps to clarify the key issues discussed so far.

However, in considering these scenarios it has to be remembered that the narrow official definition of a Less Favoured Area does little to indicate the enormous geographical variation in hill and upland environments throughout Wales. Severity of slope, aspect, rainfall and soil type impose physical differences, while the nature of hill and upland society will vary, *inter alia*, according to the presence or absence of a nearby nucleated village or township and to the extent of recent in-migration. This means that in effect it is improbable that a "one size fits all" scenario will be appropriate. As a result, against the background of any central policy initiative, a wide range of local variation will be desirable.

Scenario One: Future Perfect

In this preferred future state, the natural, social and cultural environment of the hills and uplands is in good heart. Viable, self-reliant communities exist which are based on today's settlement structure, although some evolution might occur to improve and expand delivery of services, such as health, education and retail supplies.

A number of changes in lifestyles will have been inevitable, but traditional values, culture and husbandry can still be discerned. Farmers are sufficiently confident and independent to take a long view and exercise stewardship rather than exploitation over the natural resources they manage. These are communities wherein cherished social, cultural and even religious values serve as a counterweight to some of the brasher values of late modern mass-consumer society.

There is thriving biodiversity, which at macro-level results in an attractive landscape, full of interest. Land is mainly used for extensive production, with appropriate stocking rates and a balance between cattle, sheep, deer and horses to reverse the problems of bracken and *Molinea* invasion of predominantly permanent grassland. Stocking rates are considerably lower than at present – in total, some 20 per cent lower than at present but with a substantial shift back into extensive beef production. More marketable livestock are produced as a result of higher standards of animal health and welfare.

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Livestock husbandry will predominate, perhaps utilising indigenous breeds to produce high quality, high value products both for local and wider consumption. Even so, where production conditions permit there will be opportunities to grow niche vegetable crops, especially where additional family labour can be utilised. Although some residual forestry plantations remain, the majority of woodlands are managed for amenity or environmental benefit, with some residual opportunities for fuel production from coppice species.

Unravelling this scenario to explain how it can have come about brings to light a number of changes from today. The population of the hill and upland area will have increased slightly, to allow for the development of service provision. This will have been under pressure to reduce costs, and also to contribute to a renewal of community integrity.

While the population of the upland area has declined over recent decades, between 2005 and 2020 it should grow from today's 698,000 to 730,000. The economic support for this revived demographic sustainability has to come from a variety of sources: some from tourism and some from public sector sponsored industrial development which has mainly focused on value addition to primary products. However, to achieve the environmental state depicted in this scenario, the farm and farm-related population has also had to increase. The reason for this is that, at present, farms have too little income to farm in a way which maintains the fabric of the landscape, even though they would actively prefer to do so. Present-day financial pressures dictate that partners are frequently obliged to seek off-farm work, often at some considerable distance from home. While clearly beneficial to family income, the effect on daily routine of the absence of a partner can in some circumstances lead to domestic tension, or to a deepening sense of loneliness and isolation on the part of a farmer working alone on his or her hill. Indeed, we have been impressed by the frequent suggestion that the farmhouse kitchen, the hub of family life, no longer radiates the warmth, happiness and conviviality of former times. We envisage a scenario wherein not only do the expanded population of the hills and uplands make their living from that environment, but wherever possible opportunities are created for farmers and their partners to work together so that the family farm retains its essential integrity. More use is made of this environment by people who live outside it, resulting from a shift in tastes away from, and rising costs of, foreign travel, creating demand for services from the expanded resident population.

That in turn implies that the economic circumstances of farming have changed considerably, a point that can be illustrated through the following approximate but persuasive reasoning. To provide an adequate workforce to farm and conserve the landscape to high environmental standards, the current farm-related population probably needs to expand by 20 per cent, to around 30,000 employed full-time. As recent experience shows, demand for environmental services generated by agri-environment schemes has established a number of specialist contracting firms, and therefore some of this workforce growth will take place off-farm. However, as the most important source of off-farm income at present is from contracting services (of this and other types), there is much scope for growth of the labour force employed on pluriactive farms.

To retain this workforce, there needs to be an incentive in the form of enhanced earnings. These have not risen to a level comparable to those received outside of agriculture. However, an annual average of £20,000 per person at current prices could support adequate if modest lifestyles, if borrowing is kept to manageable levels. To achieve this, a net total income of £600 million at today's prices is required.

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While the majority of this income will be derived from traditional agricultural sources, there is some limited scope to increase the scope and scale of farm tourism. In Wales overall, tourism currently contributes around £10 million annually to farm incomes. The proportion of this which reaches hill and upland farms is likely to be quite low, and concentrated more in areas which have traditionally attracted visitors. It could reasonably be supposed that this accounts for half of all farm tourism activity, and that it might grow by up to 50 per cent in the coming 15 years, thus contributing £7 million. Any greater expansion in farm tourism would have had the effect of distracting attention from the primary business of farming.

Historic commodity payments to farmers on average between 2001 and 2003 form the basis of the Single Farm Payment. These will be modulated, that is to say reduced, although so far the rates of reduction have only been announced for 2005 and 2006. The maximum modulation rate allowed (including the standard rate of 5 per cent, from 2007, across the EU) in the period 2006-2013 is 20 per cent, although it may be safe to assume that it will be less. In this scenario the rate is 10 per cent. At current stocking rates which form the basis of this Single Farm Payment, hill and upland farmers receive around £134 million in total, equivalent to an average payment of £60 per acre.

The Commission's share of modulation will be allocated according to a formula to equalise Rural Development Plan spending across member states, although there is a safety net requiring at least 80 per cent of the modulated portion to be retained by the member state from which it is drawn. Thus, at least £13 million of the Single Farm Payment base will be channelled into enhanced agri-environment spending, initially through the new *Tir Cynnal* scheme. The Treasury is committed to match-fund this at 100 per cent, providing an extra £26 million in addition to current estimated agri-environment and *Tir Mynydd* spending commitments of £47 million.

This leaves a deficit of £382 million to be provided from market sales of livestock and livestock products. Currently, Farm Business Survey gross margins (excluding subsidies, and weighted to reflect different hill and upland conditions) are approximately £19 per breeding ewe, £205 per beef breeding cow, and £661 per dairy breeding cow. With the reduced stocking rates envisaged in this scenario, and a modest allowance for fixed farm costs of £20 per acre, this will produce a total net revenue of a further £214 million. Table 1 below illustrates the unavoidable conclusion that almost half of the target income for the farm-related workforce remain to be accounted for in this calculation.

Table 1: Estimated Farm incomes in Scenario One, Future Perfect

Income source	£ million
Farm tourism	7
Single Farm Payment	134
Agri-environment and <i>Tir Mynydd</i>	74
Market returns:	
Sheep gross margin	67
Beef gross margin	38
Dairy gross margin	119
Less fixed costs	-114
Farm net margin	110
Total income	325
Target income	600
Shortfall	275

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There are two major sources from which this shortfall will need to be made up. One is a considerable improvement in margins from livestock production, with higher quality output, improved input efficiency, and better targeting of markets, local and external, taking advantage of much greater local value-addition to products. To achieve this, margins on average would have to rise by more than double their present value. The other would require a more focused targeting of agri-environment and *Tir Mynydd* spending, with continued Treasury match funding, increasing the value by a factor of more than four. In combination, a 75 per cent improvement in margins and a doubling of Rural Development Plan resources would just about reach the target desired income to support the expanded farm-related workforce envisaged in this scenario.

This mixture of effects results from a complex blend of external influences. Clearly, the market environment has significantly improved, and although it can be expected that trade liberalisation will continue, prices on the world market for livestock products have risen significantly, mainly due to increased transport costs and demand from newly industrialised countries, especially China and India. Domestic demand conditions have also developed, from a combination of consumer affinity to local, regionally distinctive products, increased incomes, and food safety perceptions that favour high levels of traceability in food. More food is consumed closer to the areas in which it is produced, and its origin is clearly recognised as such.

Additionally, a modest shift in technology, improved collaboration between producers, and better distribution and local processing infrastructure contribute to higher production margins. Most importantly, public perception has shifted definitively in favour of recognition of the value of the hills and uplands, sanctioning rising levels of support and contributing to increased demand for both products and outdoor leisure and recreational activities. This helps to improve self-confidence and consolidation of the special identity of communities in the area, improving the demographic balance between age groups, and completing a virtuous circle of recovery from the difficult conditions of the turn of the century.

Scenario Two: Abandonment

In contrast to the previous scenario, the second is both more plausible, and less palatable. It involves large-scale abandonment of the landscape, significant reduction of the resident population, and creation of swathes of countryside where nature and natural processes predominate.

From an ecological standpoint, the effects of abandonment vary according to locality, slope, aspect, soil type and drainage profile. However, in the relatively short term the development of *Nardus/Molinia* grasslands, increasingly dominated by rushes or bracken, becomes apparent. A radical reduction of livestock numbers subsequently permits the establishment of scrub and eventually the spread of tree species native to the area. While this might be seen as an opportunity for wildlife, the expansion of the population of raptors, corvids and foxes in this environment severely limits the proliferation of many species of small mammals and birds.

In the interest of creating environmental diversity the case might be made for the *selective* abandonment of areas of upland pasture, especially on marginal rough grazings. The development of managed "wild" areas on a local basis would offer a variety of psychological, educational and recreational benefits to the community. It might even, in some circumstances, be exploited by households for fuel. Indeed, such areas might eventually develop into the community woodlands successfully utilised for domestic firewood in central France. Given that some effort is directed towards the control of predators, the juxtaposition of these "wild" areas alongside a farmed landscape of relatively low intensity could give rise to an ecologically-rich environment of benefit to a multiplicity of species.

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Managed retreat from the margin and the creation of “wild” spaces for community and public consumption would not conflict with the objective of maintaining a vibrant rural population in the hills and uplands. Wholesale abandonment, on the other hand, heralds drastic change. A continuing decline in returns from farming, allied with a Single Farm Payment which remains proportionately greater than the market-derived share of farming income, induces full and part-time farmers to sell their holdings, either to other farmers who have to expand their operations to offset the poor returns, or to institutional buyers.

This haemorrhage of farming capital and labour from the hills and uplands has concomitant effects on community structure, institutions, utilities and services. As farming families leave, the pool of traditional skills and knowledge are lost and a central keystone of rural cultural tradition is removed. The number of officially registered farm holdings changes little, but those providing the main family income decline in number by more than half, with numbers of full-time workers in agriculture or related activities reduced to 12,000.

Amalgamated farms require the sale of associated dwelling houses and buildings, although the current buoyant demand for rural properties in upland areas collapses as landscape increasingly reverts to its natural condition. Academic studies of public perception of the environment have repeatedly emphasised that, in the Welsh context, the desired landscape – the landscape of public consumption – is the farmed landscape with its traditional structure, scale, livestock and crops. Hence, properties vacated by farmers and their families are not, in this scenario, eagerly sought by incomers keen to establish roots in the countryside. Nor can it be assumed that tourists and casual visitors would relish what would for many years be an unkempt, unmade and rather scruffy landscape.

Abandonment consequently results in the creation of a countryside characterised by a declining population and services of little attraction to visitors in pursuit of a total cultural experience. Decline in tourism activity has consequential impacts on the viability of settlements and services, and the total population of the hill and upland area experiences an accelerated decline. Between 1981 and 2001, it fell by around 8 per cent, to approximately 698,000. By 2020 it falls from current levels to 580,000, a decline of a further 13 per cent.

With this reduced population, delivery of services becomes increasingly costly. The response is to centralise public provision, especially of primary schools which are key emblems of community identity, into fewer and fewer key settlements. This undermines the viability of the smaller villages and towns. Against this background, fewer resources are devoted to infrastructural maintenance so that the scientifically and culturally important tasks of archaeological and architectural conservation and interpretation become increasingly difficult to undertake and to justify. Cultural impoverishment is allied to environmental impoverishment in a countryside of advancing dereliction.

The simple financial illustration of the previous scenario is, in truth, less necessary to illustrate the features of this scenario, although it can be seen how it drives the spiral of decline. Tourism activity declines, so farm earnings from tourism are decreased by two effects: there is an overall reduction in demand, and greater competition between providers further reduces prices. The consequent net contribution to farm revenues falls to £3 million. Market returns remain at or near present levels, but although stocking rates decline by 25 per cent, the proportion of breeding cattle (both dairy and suckler) falls by much more, as farms aggressively restructure enterprises to cut costs and to cope with the management of much larger areas.

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The full-time holdings that support the agricultural population are larger than those existing today, on average nearer to 620 rather than 295 acres. As this expansion in size of individual farm businesses predominantly occurs by rental or purchase of additional land, additional rent or interest payments for these 371,000 extra acres need to be attached to fixed costs, which have otherwise reduced to reflect the lower level of intensity. Consequently, the value of the aggregate farm net margin before subsidy is £23 million.

In this scenario, the rate of modulation of the Single Farm Payment is less, since the additional voluntary member state share is lower. This is because increases in the voluntary modulation rate have been conditional on the level of demand for agri-environment schemes. The predominant strategy of farms rules out any significant programme expansion. Overall, therefore, the rate of modulation remains at the 2007 level of 5 per cent, and consequently total payments are worth £140 million, or approximately £63 per acre. With a lower rate of modulation, the total amount of agri-environment subsidy paid is less, as the requirement for Treasury match-funding of schemes is reduced.

Indeed, as deterioration of the overall environment and visual appearance of the landscape is a feature of this scenario, the match-funding provided declines to only 50 percent, with just £6 million extra for agri-environment payments. *Tir Mynydd* and existing agri-environment spending remains the same as at present. These values, entered into Table 2 in the same way as in those in the scenario dealt with in previous section, appear below.

Table 2: Estimated Farm incomes in Scenario Two, Abandonment

Income source	£ million
Farm tourism	3
Single Farm Payment	140
Agri-environment and <i>Tir Mynydd</i>	56
Market returns:	
Sheep gross margin	60
Beef gross margin	17
Dairy gross margin	50
Less fixed costs	-103
Farm net margin	23
Total income	217
Target income	240
Shortfall	23

Making the same requirement for an average annual real income per worker of £20,000, it can be seen that even with a significantly reduced workforce, there is still a shortfall. On average each person working would receive £18,000, and, because of the characteristics of this scenario, a skew in distribution would mean that many would earn below this level. In consequence, although by 2020 the countryside has become very different from that existing at the beginning of the century, the process of dilapidation has still some way further to go.

This scenario might be judged as resulting from *laissez-faire* conditions, although there are several features which distinguish it from a total absence of policy intervention. Firstly, economic conditions include slow domestic growth, with income consequences that reduce demand for quality, place-differentiated products. They also intensify competition in the retail sector, increasing dominated by a few large supermarkets. These limit the returns available from extensive livestock farming. Additionally, sluggish growth in the world economy causes

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commodity trade prices to fall. Despite trade liberalisation, non-tariff barriers are willingly deployed on superficial pretexts, limiting export prospects.

Much of the outflow from farming results from the contraction of opportunities for off-farm work, in tourism-related employment, manufacturing and construction, all of which have been affected by the general downturn in economic activity. Moreover, scope for local value addition to basic products is curbed by lacklustre food market demand. In turn, these economic conditions constrain public resources available for environmental support, and reduced spending on infrastructure affects the quality and availability of services. This leaves communities demoralised, leading to further reductions in retention of young people, and a culture of cynicism among farmers and their families. Scope for collaboration among farms in order to support marketing, and advocate their cause politically, is permanently undermined, since their conservative strategies are mainly focused on individual business survival.

Evaluation

It is necessary to restate the conjectural nature of these very different accounts. They are not claimed to be forecasts of the future, which will in any event be more complex than any summary description of a scenario can be. Rather, they are systematic representations of what currently influences the hill and upland socio-economic system in Wales which attempt to trigger a better understanding of how to deal with whatever future evolves.

It may appear, from the preceding accounts of the two scenarios, that although we prefer the optimistic scenario, we fear that the pessimistic is much more probable. This, however, is entirely irrelevant. The scenarios are presented to help highlight key issues and promote understanding of what can be done in the present to allow the multiple policy objectives to be reconciled, regardless of the state of the various fundamental external driving forces. Exploration of these possibilities allows the scale of potential problems to be visualised, and the scope for remedial action that all of the stakeholders involved will need to consider.

In this context, several themes emerge from the two distinctive scenarios which have been outlined in this chapter. Firstly, and most importantly, it seems that any desire to maintain the *status quo*, much less revert to an idealised former state of the countryside of the hills and uplands, is simply not an option. With inevitable changes in the social, economic and demographic driving forces, the most positive outcome that can be achieved is to evolve a dynamic trajectory militating in favour of the survival of the characteristics most valued by society.

Secondly, continued and even expanded support for the socio-economic system of the uplands will be vital for such conservation. The direction of reform of the CAP is helpful in principle, but there are dangers of perverse outcomes (especially, at present, the prospect of a further decline in the number of hill breeding cattle). These may impede rather than promote viable communities and the farms which contribute to their vitality. Forestry, as an alternative, 'natural' use of surplus land, requires greater state support and is much less fertile as a source of employment.

Considerable care needs to be devoted to the implementation of reforms, their combination with national policies formulated by the Welsh Assembly Government, and their interaction with a wide range of other state interventions that have consequences for rural people. Hence, what evolves in the future probably needs to be radically different in objective and method than policies deployed at present.

Thirdly, returns from the market are critical in assuring the integrity of farming and community structure. Much current effort, co-financed by the European Union's Structural Funds, is

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currently being devoted to improving the quality and image of the livestock produced in the hills and uplands. There is also support for a network of bottom-up support initiatives, which is having varying degrees of success. The extent to which these initiatives can be consolidated to provide long-term security for improved farm returns is arguable, especially given the concentration of power at the top of the supply chain among ever-fewer multiple retailers. Indeed, it may be that the conventional wisdom needs to be questioned and even discarded in favour of a completely fresh approach. This would have ramifications for farming as a whole, but there is a clear need to ensure equity for the upland area.

The final premise to emerge is the need for public confidence in, and affinity with, agriculture. The voluntary efforts of many in the past have helped to identify and promote the national importance of farming. However, in the context of rapid change, old arguments have lost their strength. Tourism and leisure uses of the countryside have considerable contradictory potential to engender conflicts between urban and rural people, but also to inform, educate, and promote understanding. Actions relating to this theme will interact significantly with the others identified. Taken together, these themes have considerable implications for development of a public policy for the hills and uplands capable of a focus on inclusive and equitable economic welfare.

To conclude this monograph, we consolidate the conclusions which can be drawn from analysis of historical trends, case studies of individual Less Favoured Area farms, and speculation about possible futures, into a set of key points. From this, we draw some lessons and provide suggestions for future policy innovation, distinguishing between:

- Actions which are within the (currently limited) powers of the Welsh Assembly Government.
- Those which, requiring changes in the legislative framework, need to be pursued by advocacy and persuasion at higher levels of government administration.

5 Conclusions and Recommendations

Tourism and leisure uses of the hills and uplands will continue to make an important and potentially increasing contribution to livelihoods in the hills and uplands of Wales. Since, however, it draws on a landscape, environmental and cultural base created and sustained by farms, it can never replace agriculture.

Commercial forestry is aesthetically unattractive and although the cost of its support is similar to farming, in its modern form it creates far less employment. Consequently, while the ultimate outputs required from farming may have become more complex, any approach which does not recognise the integral role of food production in the higher areas of Wales is likely either to fail, or to imply far greater costs to society as a whole.

There is still some scope for making even better use of the opportunities for exploiting niche market. Farmers have the chance to improve their returns through local value-addition, and developing information and promotion campaigns to secure a product identity of greater appeal to consumers, whether close to or outside the production area. These are recognisably legitimate areas for government support, and form the so-called 'Axis One' of the new Rural Development Regulations.

Yet, even in the most favourable market conditions, the level of returns required to support a system of farming which produces the public goods desired has been shown to be implausibly high. In less than optimal market conditions, maintaining public financial support will be essential to promote some survival of socially and environmentally valuable characteristics. The decoupling of commodity-linked payments and a progressive reduction in their value implies that agri-environment support needs to be correspondingly augmented, though there is much scope to align more closely the way in which it is provided with the outcomes that are desired. The former European Agriculture Commissioner, Franz Fischler (1995-2004), often argued that there should be an eventual fusion between Less Favoured Areas and agri-environmental supports. This was because of the "high nature value" resulting from more extensive farming methods.

Much of the shared identity and collaborative effort which characterised farming lifestyles in the past has either been lost, or is increasingly difficult to sustain. Families depend on dual incomes. Labour costs dictate reliance on contractors rather than hired labour and changes in technology and farming systems contribute to isolated individual businesses. This loss of networking activity needs to be restored to revive and enrich the sense of purpose for hill and upland farmers. They need the confidence to argue collectively that what they offer to society in general fully justifies the taxpayer costs involved.

These key conclusions, concerning the importance of farming in underpinning the public goods derived from the Welsh hills and uplands, the need for an appropriate level and mix of support, and strengthening of the social and political bonds within the farming community itself, are central to the policy suggestions of this final section. There are some important steps which might be taken independently within the devolved powers of the National Assembly, particularly relating to planning (recently articulated at strategic level in the Assembly Government's Spatial Plan) and the discretion to design and manage the Rural Development Plan measures. Other steps will require changes to primary legislation at national or European levels, and these will test the effectiveness of the Welsh Assembly Government's advocacy and influence.

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With regard to the complex framework of planning, the National Parks' role as controllers of development over a substantial part of the hills and uplands is leading to some inconsistent and even paradoxical policy signals for agriculture and rural economic development in general. This raises passionately controversial issues which unimaginative governments would probably prefer to bury. The latest review of the National Parks in Wales did not generate the kind of widespread engagement in a consideration of this aspect of their function, perhaps because the terms of reference were not sufficiently fundamental. We conclude that the balance of interests is uneven. Moreover, failure to deal with it risks compromising the very activity, farming, which is the chief contributor to their distinctiveness and attraction.

A modernising overhaul of National Parks and other structures which focuses on narrow landscape conservation is required to encourage and support the sustainable development of upland communities. There should be greater emphasis on recreation based on natural amenities, while also improving the livelihoods of those engaged in activities which underpin the amenities themselves. This would require changes in primary legislation which are currently beyond the National Assembly's powers.

Discretion over Rural Development Plan measures offers more scope for immediate change, although again fault lines in the devolution settlement are apparent. For instance, the anticipated sliding scale of payments under *Tir Cynnal* could be fine-tuned to favour extensive farming. Although the total value of payments at the upper limit of this programme is insignificant in terms of the contribution that could currently be made to hill and upland farm viability, Wales (following the example of England) could seek to use a substantially higher rate of voluntary modulation of the Single Farm Payment than the 0.5 per cent proposed for 2006. The funds generated could then be used for a more generous intervention favouring the uplands.

However, in the longer term, as well as uncertainty over the value of the Rural Development Regulation budget allocation, there is a further barrier which could limit the effectiveness of such funding transfers. Currently, the European legislation underlying agri-environmental payments is based on the concept of "profits forgone", farmers being compensated for reducing output from environmentally damaging levels. Our discussion of the reform of the CAP and the introduction of the Single Farm Payment suggests that, in the hills and uplands at least, lower market returns would have the impact of reducing output below the level where environmental quality, broadly defined to include social systems of exploitation, can be maintained.

Consequently, once the impact of the current round of CAP reform begins to settle, increasingly urgent arguments will need to be articulated so that farms can be compensated for the costs of maintaining an environmentally-beneficial level of production. Proposals for such a change need to be taken up at member state level within the European Council of Agriculture Ministers. If this principle could be relaxed (not in itself an easy option, since it provides an effective if crude means of maintaining budgetary discipline), then there is more scope for integrating Less Favoured Area and agri-environment objectives within a single programme.

Additional resources are necessary but not at present sufficient for a successful integrated programme. A genuine improvement in policy would rely on principles of transparency, simplicity, and flexibility to encompass the very wide range of farm situations which can be encountered in the hill and upland areas. From a top-down policy perspective, the trade-offs involved appear irreconcilable, since devising a set of rules which fits all conceivable situations

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becomes excruciatingly complex. Moreover, correcting for some of the unwanted side-effects of reform (such as penalising energetic and innovative younger farmers) involves opaque manipulation of the basis of historic payments used to calculate the Single Farm Payment.

Yet we have been struck, in a wide range of contexts, by the extensive environmental knowledge that farmers are able to deploy in managing their enterprises. This implicit knowledge could be unlocked by handing over responsibility of the design of support programmes to farms themselves. At present, there is a formal consultative mechanism (successor to, and more broadly based, than the former Hill Farming Advisory Sub-committee) which provides advice on hill-related policy matters to the Welsh Assembly Government. While this provides a model, it could be much-improved by making it a more authentic and effective mechanism to secure popular engagement and utilisation of this latent knowledge, at the scale of individual landscapes. Firstly, it would require involvement of farmers at a much more local level. Secondly, farmers, working to administer hill and upland policy, would need effective powers to distribute support to where it would have most effective and legitimate impact. Local self-managed Less Favoured Area farming groups could have oversight of the framework of support for farming to determine most appropriate management prescription on a landscape scale.

These local decision-making forums might consist of elected representatives or they could have rotating memberships based on the jury-selection principle. Alternatively, they could be appointed as executives, filling advertised vacancies. The choice of selection method should, critically, provide for a decision-making mechanism which has the confidence and trust of the entire local farming community. For transparency, such self-governing farmer groups would need appropriate science (and social science) advice, drawing on the extensive body of expertise which exists in Welsh universities and agricultural colleges. They should also be structured to allow for the articulation of wider interests, especially the use of public resources. At a level higher than that of the individual landscape, representatives of these farming groups could be responsible for negotiating a budget for Less Favoured Area policy support, and determining its equitable distribution among local groups.

Any genuinely radical approach to policy reform should provoke a reaction, and it is easy to anticipate the counter-arguments of the political and administrative establishment. These might be concentrated in two areas. The first would involve the difficulty, in a decentralised system, of ensuring that resources are appropriately used to achieve public benefit. The second would emphasise the divisiveness of a scheme that operates in different ways in different areas. Yet, provided that the principles of the scheme are clearly articulated with accountable flexibility (and after all, this is exactly what is set out in the Rural Development Regulations determined by the European Council), more efficient use of taxpayers' money should be the outcome. Conversely, uniform schemes have differential and sometimes unintended consequences from locality to locality. Therefore subsidiarity, in this context, requires extension to a level lower than that of a region.

An earlier policy innovation is instructive. At the time of the introduction of the LEADER programme, in the early 1990s, tremendous anxiety was publicly expressed by officials of the then Welsh Office about the wisdom of allowing local groups to devise and implement their own plans to resolve rural development problems. However, the success of this initiative in unlocking local knowledge and expertise to develop imaginative and effective integrated strategies is now widely recognised. The originally experimental initiative has been significantly expanded, and substantial contributions have been made to the development of mainstream Structural Funds programmes.

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Our scenario evaluation also demonstrates that favourable market conditions and a generous attitude towards policy support would constitute an unusual future. Thus, optimum conditions for self-management of Less Favoured Area policy are unlikely to exist, at least all of the time, and the impetus for social and economic decline will need to be overseen in some way. From both the leisure and the environmental perspective on the state of the uplands, it would be better to promote selective, managed withdrawal from agriculture, and allow nature to take some of its course in specific places, than experience more widespread dereliction of farming and forestry.

Community-managed 'wild' areas, administered by the self-managed farming groups, could be utilised to extract fuel-wood, and also provide some educational and leisure benefits. Clearly, such specific decisions could be extremely contentious, and some mechanism would need to be devised to fund the creation of such community-managed areas. The possibility of utilising some match-funding of the Rural Development Plan could be explored. Over time, a fairly substantial landholding could be acquired, which could also serve as sources of additional grazing on a seasonal let basis, if justified on environmental criteria.

Local self-managed Less Favoured Area farming groups would provide a basis for conserving and strengthening community identity and cohesion in the hills and uplands, and form the basis of a genuinely innovative and integrated approach to resolving their problems. If successful in these areas, the groups might engage with collaborative agricultural and food marketing and promotional activities, together with planning of integrated leisure use developments within their local areas. With such extended roles, the groups could function even more effectively as a tool for the integrated regeneration of the hill and upland areas of Wales.

In summary four major policy recommendations emerge from this study:

- Greater resources are needed to aid the continuation of upland farming for environmental goals. What is required is a higher rate of transfer of funds (modulation) from Single Farm Payments into expanded and retargeted agri-environment schemes. There should also be a change to the basis of compensation whose principle of "profit foregone" currently operates to limit output. In future a minimum level of production will be required for conservation objectives to be met, especially to ensure that an appropriate mix of sheep and cattle stock be maintained on upland farms.
- Latent but valuable knowledge in the farming community should be unlocked to design locally appropriate and efficient channelling of resources into combined *Tir Mynydd* (hill farm), *Tir Gofal* and *Tir Cynnal* (agri-environment) schemes under the control of local groups. These should represent farmers and other key stakeholders, with further future potential to undertake collaborative marketing, promotion and integrated planning of tourism and leisure use developments.
- There should be selective, voluntary withdrawal of agriculture to develop community-managed 'wild' areas for public benefit. Financed by a small proportion of Rural Development Regulation funds this would provide scope for wood extraction, educational and leisure use, and where appropriate some controlled seasonal grazing.
- There should be an honest appraisal of the way in which National Park planning powers limit or obstruct the development of upland farming businesses. There needs to be fundamental reform which recognises the interaction between sustainable development of upland communities and landscape conservation.

The objectives of a fresh policy approach can be stated clearly, even if from the various stakeholder perspectives the methods of achieving them may be in conflict. What we have

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proposed is a number of pathways which could secure the overlapping interests of farming, the environment, other residents, visitors and society as a whole, in a cost-effective manner. Not surprisingly, changes of this nature would take time to implement, although it is important that steps are taken at least to set out in the direction suggested. Our intention is to stimulate discussion.

The Welsh Assembly Government should promote further debate on the purpose and management of upland areas through a major conference bringing together specialist expertise and user and producer interests. At the same time the Environment, Planning and Countryside committee of the National Assembly should launch an inquiry into the future of the hills and uplands.

Such active consideration of the challenges will be far preferable to a future of the hills and uplands which emerges as a result of neglect and distraction.

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