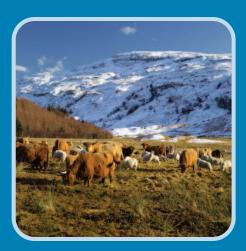
Royal Society of Edinburgh







Committee of Inquiry into the Future of Scotland's Hills and Islands

REPORTSeptember 2008

The Royal Society of Edinburgh, as the National Academy for Scotland, has a Fellowship containing great expertise across all the sciences, technologies, humanities and the arts. The Fellowship is elected from the worlds of academe, public and private service, commerce and industry. As a membership organisation, it has no political allegiance, nor does it represent any sectoral interest. As such, it is uniquely placed to offer informed, independent comment on matters of national interest.

Photograph acknowledgments: Front cover, left and centre; inside back cover: Professor Roger Crofts, CBE, FRSE Front cover, right: Scottish Viewpoint

CONTENTS

PREFACE	5
FINANCIAL SUPPORT	6
COMMITTEE MEMBERSHIP	7
EXECUTIVE SUMMARY	8
CHAPTER 1. INTRODUCTION	11
Remit of Inquiry	11
Choice of Area	13
Approach	13
Layout of Report	14
CHAPTER 2. PRESENT CONDITION OF THE HILLS AND ISLANDS	15
Definition of the Hills and Islands	15
Population Change	16
Employment	19
Gross Value Added	20
Relative Deprivation	22
Agriculture	24
Beef and lamb consumption	28
Structure of forestry; The resource	20
Sporting Estates	30
Natural Resource Base	30
Trends in land cover; Species loss and reintroduction; Intrusive structures in the landscape; The importance of natural heritage designations	
Public Attitudes and Perceptions	34
Area Pen Pictures	35
Key Challenges	35
CHAPTER 3. INTEGRATED APPROACH TO POLICY AND PRACTICE	37
An Overarching Rural Policy	37
Maintaining the Viability of Rural Communities	38
Adopting an Integrated Approach to Land Resource Use	39
Multifunctional use; Land use conflicts; Resolving conflict; Changes in policy required; Land not in receipt of public funds	
The Case for Public Support for Land Management Combating climate change; Maintaining and enhancing biodiversity; Security of food supply; Biosecurity; Social disadvantage	45
Summary	50

CHAPTER 4	6. DEVELOPING LAND-BASED POLICIES AND PRACTICE	51
Agriculture		51
	The structure of farming; Production systems; Forces driving change; Policy changes	
Agriculturo	Agri-environment Agri-environmental objectives: Funding; Deployment of funds; The number of schemes; Continuity and flexibility; Government and agency involvement; Bureaucracy; Environmentally Sensitive Area Schemes; Farmers as stewards of the countryside; Outcomes from agri-environment schemes	56
Financial P	erformance of Farms Sources of income; Income and return on capital; Profitability; Subsidy dependence; Unforeseeable impacts; Decoupling and global grain markets; Doha and EU tariffs; Adjusting to change	62
Future Sup	port for Agriculture	67
The Single	Farm Payment Before 2013; New entrants; After 2013; Modulation; The LFASS payment	69
Pillar 2 Fu	nding	74
Crofting	Its role and future; Issues arising from our Inquiry: New crofts; Absenteeism, neglect and misuse of land; Housing; Public finance to crofting	76
Forestry	Forces driving change: Political issues; Economic issues; Land prices; Social issues; Technical issues; Future of Scottish forestry: Achieving the 25 per cent target; Short rotation forestry and agro-forestry	80
Sporting E	state Management Red Grouse; Deer; Released birds; Fishing; Political issues; Social issues; Economic issues; Technical issues	88
Responding	Predicted climate changes; Implications of climate change for land management: Flood management; Soil management; Hill grazing management; Muirburn management; Permanent and rotational grassland management; Livestock methane production; Tree planting; Forestry biomass and climate change; Development of carbon markets; Policy changes	92
Refocusing	the SRDP The role of the RPACs and the administration of the SRDP; Basis of funding	101
A Radical C	Change to European Funding Post 2013	105
CHAPTER 5	5. STIMULATING ECONOMIC DEVELOPMENT	107
Tourism	The economic importance of tourism; Tourism performance; Experience of comparators; Changes in tourism organisation and funding; Improving visitor services; Outdoor tourism potential; Environmental tourism: National Parks; Geoparks; Biosphere Reserves; World Heritage Sites	107
Energy	RSE Energy Report; Transmission infrastructure and policy; Community benefits; Renewable energy opportunities	116
Food	Developing local food markets	120

LIST OF TABLES

Table 1:	Population Change 1997-2007	16
Table 2:	Employment in Primary Industries and Services in the Hills and Islands by Local Authority Area	20
Table 3:	GVA per Head as a Percentage of the Scottish Average	21
Table 4:	GVA from Primary Industry	21
Table 5:	Livestock Numbers in Scotland and in Hills and Islands	24
Table 6:	Household Consumption of Red Meat 2004-05	26
Table 7:	UK Supplies of Red Meat	26
Table 8:	Area of Woodland by Ownership and Forest Type at 31 March 2007	28
Table 9:	Area of Woodland in Scotland by Ownership Type	28
Table 10:	Natural Heritage Designations by Local Council Area in the Hills & Islands	32
Table 11:	Mechanisms for Conservation of Natural Heritage Diversity	33
Table 12:	Issues Mentioned as Most Important in Consultation Responses	34
Table 13:	Matrix of Notional Impact Analysis of Land Use on Valued Attributes	40
Table 14:	Support Schemes for Scottish Agriculture	56
Table 15:	Net Farm Incomes of all Farm Types 2000–2007	63
Table 16:	Net Farm Incomes and Average Direct Subsidies by Farm Type 2000/01 to 2005/06	65
Table 17:	Comparison of Rural Development Funding between Selected European Union States	74
Table 18:	Woodland Area in Scotland 1905-2007	81
Table 19:	Imports and Exports	83
Table 20:	Economic Returns from Forestry (1997-2006)	84
Table 21:	Scottish Residents' Top Ten Animals, Plants and Habitats	113

PREFACE

In January 2007, the Council of the Royal Society of Edinburgh (RSE) established a Committee of Inquiry into the future of Scotland's hill and island areas. The inquiry was prompted by concern at the consequences of changes to the Common Agricultural Policy on farming, especially sheep farming, and the threat to the future of some communities, but it was also to examine relevant economic, environmental and social matters. I believe that this represents the most comprehensive study of these issues ever undertaken in Scotland.

Conflicts between the uses of the land resource have become a matter of global concern, with choices between energy use, food production, and, increasingly, the importance of carbon sequestration in the light of global climate change. Communities in Scotland's hill and island areas will increasingly have an important role in the appropriate management of Scotland's land resource, and recognition needs to be given to structures needed to ensure they continue to thrive.

It is my hope that this Report will stimulate and inform public debate on the issues and provide an evidential base upon which policy can be based and decisions taken.

Sir Michael Atiyah, OM, FRS, FRSE, HonFREng, HonFMedSci President, The Royal Society of Edinburgh

Inquiry into

the Future of the Hills and Islands of Scotland

FINANCIAL SUPPORT

The Royal Society of Edinburgh is Scotland's National Academy of Science, Arts and Letters. It is a wholly independent body and the funding for the Inquiry therefore had to be raised from a variety of sources. The Society received a ready response from all those listed below. Without their help, this Inquiry could not have been undertaken and to all of them we are most grateful.

- Argyll and Bute Council
- Comhairle nan Eilean Siar
- Highland Council
- Highlands and Islands Enterprise
- Orkney Islands Council
- Perth & Kinross Council
- Scottish Enterprise Rural Group
- Shetland Islands Council
- South of Scotland Alliance
- The Lisbet Rausing Trust
- The MacRobert Trust
- The Robertson Trust
- The Royal Highland and Agricultural Society of Scotland
- The Scottish Estates Business Group
- The Scottish Forestry Trust
- UPM Tilhill

COMMITTEE MEMBERSHIP

Professor Gavin McCrone CB, FRSE, Chairman. Former Vice-President and General Secretary RSE.

Professor Jeff Maxwell OBE, FRSE, Vice-Chairman. Former Director Macaulay Land Use Research Institute.

Professor Roger Crofts CBE, FRSE, Secretary. Former Chief Executive, Scottish Natural Heritage; Chairman, Plantlife International; Non-Executive Director Scottish Agricultural College and The National Trust for Scotland; Honorary Professor, Universities of Aberdeen and Edinburgh.

Dr Andrew Barbour, Forestry manager, Atholl Estates; Member, Forestry Commission's Regional Advisory Committee; Vice-Chairman, Deer Commission for Scotland; Farmer at Glen Fincastle.

Dame Barbara Kelly DBE, DL, partner in a farming enterprise near Dumfries; President, Southern Uplands Partnership; Convener, Millennium Forest for Scotland Trust; Convenor, Crichton Foundation; Trustee, Royal Botanic Garden Edinburgh.

Professor Karl Linklater FRCVS, FRSE, Former Principal and Chief Executive Scottish Agricultural College.

Mr Drew Ratter, HIE Board member; Convenor, Crofters Commission; Member, Scottish Consumers' Council; Crofter in Shetland; former Shetland Islands Councillor.

Mr Derek Reid, Chairman, Harris Tweed Textiles; Visiting Professor of Tourism, University of Abertay; former Chief Executive, Scottish Tourist Board.

Professor Bill Slee, Science Group Leader, Socio-Economics Research Group, Macaulay Land Use Research Institute.

In addition to the above, **Professor James Hunter CBE**, **FRSE**, Director of the University of the Highlands and Islands Centre for History and former Chairman of Highlands and Islands Enterprise, was initially a member of the Committee, but resigned because of other commitments. **Professor Nicholas Hanley**, Professor of Environmental Economics, University of Stirling, was also initially a member of the Committee, but due to sabbatical leave in New Zealand was not able to contribute to the work after the end of 2007. Both remained available for consultation, although it should be recognised that neither had any responsibility for the final Report.

EXECUTIVE SUMMARY

This Report examines current issues concerning Scotland's Hills and Islands and their future potential. We summarise the main social, economic and environmental trends. The starting point is concern about the future viability of agriculture in the light of changes to the European Union (EU) Common Agriculture Policy (CAP). The land resource base is critical to the future of these areas and we consider in depth the various components of land use. We examine the issues and set out our proposals for agriculture and for land resource use. We consider the other ingredients for the future viability of the Hills and Islands economies, infrastructure and services, and public sector delivery and make recommendations.

The Recommendations are in the body of the Report and are also listed in full in Appendix 6.

Key Issues and Outcomes

We identify the following:

A New Approach

- A new approach based on an explicit policy of achieving rural community viability is required that coordinates and integrates social, economic and environmental measures for rural areas; and empowers communities to use their initiatives and deliver outcomes within an overall national strategy.
- 2 The overall objective is a sustainable future for the Hills and Islands with vibrant and viable human communities; an integrated diversity of land uses; well managed natural systems and landscapes that also contribute to amelioration of climate change; development of other economic opportunities such as tourism, renewable energy and food; supported by appropriate financial mechanisms and services.

Need for support

3 The Hills and Islands, like similar areas in other parts of the UK and Europe, are disadvantaged compared to lowland and more densely populated areas. But they provide vital environmental goods and services, and provide the basis for many economic activities. However, without continuing financial and other support from government, particularly for the management of land, their contribution will diminish and could be lost.

The Land

- We propose that a *Strategic Land Use Policy Framework* is developed by the Scottish Government in order to provide a more integrated and coordinated basis for action and to reduce the level of land use conflicts which do and will continue to occur. A *Land Stewardship Proofing Test* should also be developed and applied to ensure that the maximum public benefits are gained from land use decisions.
- Scotland's livestock farming industry in the Hills and Islands is heavily dependent on public support. Without such support the present decline in livestock numbers will accelerate. The UK Government has proposed ending direct support when the CAP is reviewed after 2013. We reject the UK Government's proposals: they would have a very damaging effect on the natural heritage and on human communities in the Hills and Islands.
- Without direct support under Pillar 1¹, the CAP would effectively cease to be a common policy. Pillar 1 needs to deliver explicit public benefit through 'greening' measures and modest re-coupling to allow managed grazing for non-production benefits in target areas (using Article 69 provisions).

- Pillar 2 support from EU funds for Scotland is unacceptably low, and the lowest in the EU. Our farmers are seriously disadvantaged and environmental obligations cannot be met. All farmers should be able to participate in the Scotland Rural Development Programme (SRDP). Increased compulsory modulation should be accepted, provided that there is full retention of these funds in Scotland and a commensurate reduction in voluntary modulation.
- Within the context of a national strategy, delivery of the SRDP will require additional funding if its objectives are to be met and should be delegated to regional bodies representative of all stakeholders, with authority to commit resources and to monitor delivery of targets.
- After 2013 we urge the Scottish and UK Governments to insist that Pillar 2 funding be revised and based on Scotland's needs. Radical change in support policy and instruments for integrated land management post the 2013 CAP review will be needed to deliver the desired range of public goods and benefits, and the need to implement EU environmental directives effectively. We therefore propose an *EU Land, Environmental and Climate Change Policy*.
- 10 Crofting has much to offer in the context of rural development and strengthening of remote communities: we think that utilisation of existing legislation could do much to resolve issues of absenteeism, misuse and neglect of land, and housing need.
- 11 We support the Scottish Government's strategy to increase Scotland's land area in forest to 25 per cent, but see no possibility of achieving it unless measures are introduced to attract land out of other uses, preferably by market-led incentives, such as a carbon-trading scheme.
- 12 Climate change is a central concern: we have identified opportunities both for adapting to, and mitigating, its effects; there are implications for both policy and practice.

Stimulating Economic Development

- 13 We propose radical reform of the support structures for tourism to provide an integrated approach to marketing, development and investment at both national and regional levels through the establishment of new agencies and transfer of powers and resources from existing ones.
- 14 New natural heritage designations are proposed to stimulate tourism based on sustainable use of environmental resources.
- 15 We recommend development of renewable energy facilities and mechanisms to benefit local communities.
- 16 Locally produced food can bring many benefits, but action is needed to provide locally based food processing facilities.

Developing Viable Communities

- 17 An explicit national policy framework for rural areas and communities is needed that embraces healthy demographic structure, economic opportunity and environmentally sustainable improvement, with formulation of new policy instruments and policy proofing of all government activity to ensure this occurs in practice.
- 18 Specific support is required for regional development in communications technologies, education facilities, road, ferry and public transport, and affordable housing to improve demographic structure and stimulate economic growth within an environmentally sustainable context.

Refocusing Institutional Structures

- 19 The transaction costs of doing business with public agencies must be reduced.
- 20 Substantial shifts in decision making and delivery of public resources from centrally based agencies to regionally-based structures is needed in recognition of diversity, and a variety of potential solutions in rural Scotland, building on Community Planning initiatives already underway.
- To implement the changes, a more locally-based approach is necessary. Public bodies that deliver policy seem to have become more rather than less centralised. This needs to change in recognition of the diversity and variety in Scotland's Hills and Islands, with both decision making and delivery devolved as far as possible to regionally-based structures.

CONCLUSION

We believe there is justification for a new approach to the development and delivery of policy and action in the Hills and Islands of Scotland, and in rural areas more generally. In short:

- fragmentation of policy and action needs to change to a coherent and integrated approach;
- the administrative focus needs to change to a consumer focus;
- arguments between public sector organisations need to switch to alliances to benefit the target beneficiaries; and
- top-down approaches need to change to more community-driven approaches within flexible national frameworks.

CHAPTER 1. INTRODUCTION

This Inquiry was commissioned by the Council of the Royal Society of Edinburgh (RSE) in the Spring of 2007. This section explains why the Inquiry was undertaken and sets out its remit. It provides a definition of the area on which the Inquiry focused, sets out the approach adopted and introduces the components of the Report.

Remit of Inquiry

The proposal to the Council of the RSE for the Inquiry arose from concern about the position of agriculture, and in particular livestock farming, in the Hills and Islands of Scotland. It appeared that this type of farming was facing acute difficulty, with falling livestock numbers, some farms being abandoned, and many farmers unable to earn an adequate income even after receipt of subsidies.

In the light of these changes in agriculture, there will be substantial knock-on effects on the management of the environment, on local communities and on economic activity. These are still unfolding from the recent policy changes and more can be expected if there are further changes to the agricultural support system after 2013. Many aspects of the environment, including the population of wild birds, have been deteriorating for some time. Concerns over climate change, and the contribution that land-based activities can make to countering that, are a new but important factor. Any decline in grazing levels will result in a change in the look of the landscape, the maintenance of long-standing managed habitats and the species that depend upon them. The contribution that Scotland makes to the conservation of natural heritage in both a European and international context will also be affected. Recent surveys have demonstrated that the general public do not wish to see the abandonment of land or unkempt landscapes and would wish to see the continuation of viable rural communities; they would therefore support policies for farmers and others involved in land management that avoid such an outcome.

If, therefore, livestock farming is under threat in these areas or has an uncertain future, the implications go well beyond the industry itself. Agriculture in the Hills and Islands is still important and many other forms of economic activity are dependent on it. The tourist industry, in particular, now makes the largest contribution to the economies of these areas and the implications for it of adverse changes to the environment and on landscape could be of major importance to local economic prosperity. VisitScotland has a target for increasing the income from tourism by 50 per cent by 2015². This is a very testing target and there is no indication at present as to how this can be achieved. Since those who come to the hill and island areas of Scotland do so because they are attracted by the landscape and environment, whether as walkers, climbers, birdwatchers or just for the scenery, tourism development should be supported by policies that care for and enhance that environment as well as generate income.

The Scottish Government in its Forestry Strategy has set a target for increasing the woodland cover of Scotland from 17 per cent to 25 per cent by the second half of this century³. This too has major implications for agriculture, for landscape and for the environment. It is also potentially of real importance for the sequestration of carbon.

^{2 &#}x27;Scottish Tourism the Next Decade: A Tourism Framework for Change', Scottish Executive March 2006

^{3 &#}x27;The Scottish Forestry Strategy', Scottish Executive 2006

The Hills and Islands of Scotland do not operate in isolation from wider global effects. The growth in food production from developing nations, such as Brazil, has already had a significant effect on the international pattern of food supply. Increasing demand for food in major industrialising countries, such as China and India with their immense populations, raises questions about the security of food supplies in the future. Already, the switch to biofuels, combined with drought and water shortage in some parts of the world, has caused grain prices to approximately double in the past year.

Climate change will have the most profound effects. Changes in temperature and precipitation patterns, and increased incidence and unpredictability of severe weather will all affect Scotland. Opportunities for the provision of energy from renewable resources, carbon capture and storage in trees and soils, and development of locally-based recreation activities all call for changes in the use and management of the natural resources of the hill and island areas of Scotland.

All of these issues show that the Inquiry should not limit itself to agriculture, but should concern itself with land management more generally and with the future of the communities in these areas, their livelihoods, and the provision of services to the environment. These issues are of concern not only in the Highlands and Islands, but also in the whole of the Scottish uplands and islands, including the Grampians and the Southern Uplands.

It was therefore decided to work to the following remit:

- (1) To identify the main drivers of change in hill and island areas of Scotland, including changes to European agricultural and regional development funding; European and international instruments on biodiversity; trends in tourism, forestry and recreational pursuits; demography; and Scottish and UK Government legislation and policy.
- (2) To identify the attributes of social, cultural, environmental and economic value in Scotland's hill and island areas.
- (3) To consider how a change in agriculture may affect the economies of these areas and what scope there is for alternative sources of income and employment.
- (4) To consider the impact of changes of land use on the landscape, environment, housing and communities of these areas.
- (5) To review some of the implications of climate change for Scotland's hill and island areas.
- (6) To recommend policies, financial instruments and institutional arrangements to encourage new patterns of enterprise, and to facilitate community initiatives in these areas.

This Report of the Inquiry is targeted at decision makers and advisers in the public sector: the Scottish Government, the Government of the UK, members of the Scottish, UK and European Parliaments, the European Commission, Local Councils, the Enterprise Agencies, companies and land owners in the private sector, and other public and private bodies engaged in any aspect of policy and action for the Hills and Islands of Scotland.

Choice of Area

Our focus of attention is deliberately the Hills and Islands, as these are the areas that we consider face the greatest challenges as a result of current and potential future changes in agricultural policy. This area forms the greater part of Scotland designated under EU policy as Less Favoured Area (LFA) and its farmers therefore receive, in addition to the Single Farm Payment, support from the Less Favoured Area Support Scheme (LFASS). These are the two main support systems in the present agricultural policy and account for the bulk of the expenditure. But, the LFA comprises 85 per cent of Scotland's agricultural land area and includes many lowland areas.

We have based our Inquiry therefore on the 'Hills and Islands of Scotland'. The latter is easily defined as all of those land areas surrounded by sea and not naturally connected to the Scottish mainland. Our definition of the 'Hills of Scotland' is determined largely by the availability of statistical material. We do not consider that a strict altitude limit is valid as there are great differences in natural attributes and weather situations around the country at different altitudes. Some statistics are only available for the LFA as a whole and, where this is so, we have used them. But, it is important to bear in mind that the area with which we are concerned is not the whole of the LFA. A more detailed boundary is given in Chapter 2 on the basis of agricultural census data.

Approach

The Committee sought written evidence from all those individuals, estates companies and bodies that wished to comment (see Appendix 1 for questions and for the list of respondents). We are grateful for the 80 submissions that we received. The Committee also took oral evidence from the major organisations in the government and voluntary sectors that have responsibilities for the Hills and Islands. In addition, members of the Committee visited many parts of Scotland to assess the situation on the ground and discuss the issues with those who live and work there. Visits were undertaken to Argyll, the Scottish Borders, Dumfries and Galloway, the Highlands, Islay, Mull, north-east Scotland, Orkney, Shetland, Skye, and the Western Isles. In addition, members of the Committee visited Dublin and Brussels for discussions with officials in the Irish Government and the European Commission respectively (see Appendix 2 for details of the Committee's visits). To all those who participated in our discussions and who helped to organise our visits, we are most grateful.

The visits undertaken by the Committee have reinforced our original concern about the future viability of agriculture, particularly livestock farming. On the other hand, the visits and evidence submitted highlighted the opportunities for other uses of the land and the benefits that can be gained. In addition, we consider that the Hills and Islands have a valuable contribution to make to the amelioration of global climate change. It is for these reasons that this Report focuses primarily on the stewardship of the natural resource from the perspective of the multiple functions it performs on behalf of society.

We recognise that the land resource cannot be viewed in isolation from the human communities that own and manage it; from those others who live in rural Scotland and depend upon it for their livelihoods; and from the wider communities in urban Scotland and in other countries who value these areas for rest and relaxation and in so doing contribute to its economic activity. We therefore regard the land as a natural resource for the benefit of human

communities now and in the future. How it is used underpins the socio-economic well-being of the population in the hill and island areas. Critical to this approach, is the need to retain the capacity for managing land for a variety of purposes. Since agricultural land use, sporting estates and forestry together represent around 60-70 per cent of the land in these areas, the future of these activities and the potential for change are central issues for this Inquiry. Moreover, since land management is dependent upon people, their retention in these remoter areas of Scotland is highly dependent upon the availability of key services: affordable housing; efficient and integrated transport systems; modern accessible health care services; and the availability of high-quality education.

Layout of Report

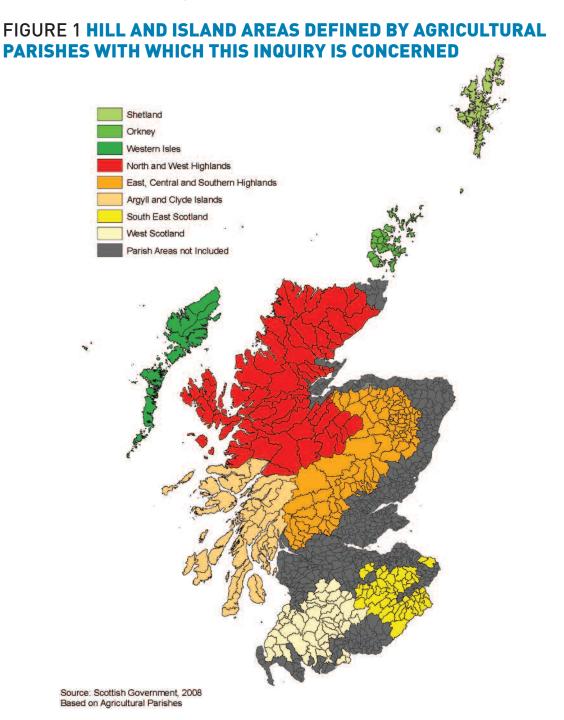
The Report has the following layout:

- Chapter 2 analyses the condition of the hill and island areas using available statistical material;
- **Chapter 3** sets out a new policy approach to the Hills and Islands as a whole and for the land resource in particular;
- Chapter 4 discusses the main land use activities and our proposals for the future;
- **Chapter 5** discusses the scope for growth in related economic activity, particularly tourism, energy and food;
- **Chapter 6** discusses the key ingredients for viable communities, especially the provision of adequate and affordable housing and transport; and
- **Chapter 7** examines the institutions that support the areas and identifies the need for change.
- Detailed information is provided in the Appendices.

There are serious difficulties in attempting to assess the present condition of Scotland's Hills and Islands as we have defined them in Chapter 1. In some cases, statistics are only available for local authority areas, which, of course, include some lowland areas that are not the concern of this Inquiry. Much of the information that is available on agriculture is for the LFA, which covers 85 per cent of Scotland's land area, and all of the Hills and Islands, but it too includes some fertile low ground that is not properly the concern of the Inquiry. Nevertheless, it is possible to draw some useful conclusions about the wellbeing of those who live in the area, the structure of the economy, including its dependence on primary industries, and the state of the environment. This provides a basis for our assessment in the remainder of this Report.

Definition of the Hills and Islands

The map shown in Figure 1 is drawn from agricultural statistics. It shows the hill and island areas with which the Inquiry is concerned.



Population Change

As Table 1 shows, the population of Scotland as a whole grew slightly between 1997 and 2007. Despite a very low birth rate by historical standards, this was largely due to a positive inward migration of 92,781 people. Scotland's previously declining population, however, was not unique in Europe and, although there had been a significant rise in England's population, several other European countries have been experiencing population decline, sometimes at a much faster rate than Scotland.

TABLE 1: POPULATION CHANGE 1997-2007

	Population at 30 June 2007	Natural change ¹	Migration	% Population change
Highlands and Islands	376,900	-6,934	13,044	1.0
Highland	217,440	-1,883	10,763	4.3
Argyll & Bute	91,350	-3,694	3,324	-0.4
The Western Isles	26,300	-1,368	-242	-5.8
Orkney	19,860	-369	459	0.5
Shetland	21,950	380	-1,260	-3.9
Grampian Highlands	468,170	190	20,820	1.0
Aberdeenshire	239,160	3,319	9,821	5.8
Angus	109,870	-2301	2171	-0.1
Moray	86,870	-310	20	-0.3
Perth & Kinross	142,140	-2,819	10,979	6.1
Southern Uplands	680,920	-11,819	20,199	1.0
Dumfries and Galloway	148,300	-4,267	4,047	-0.1
Scottish Borders	111,430	-2,624	8,094	5.2
South Ayrshire	111,690	-4,092	2,162	-1.7
South Lanarkshire	309,500	-836	5,896	1.7
Scotland	5,144,200	-31,921	92,781	1.2

Source: General Register Office for Scotland, Mid-2007 Population Estimates Scotland

Within this area, however, there were considerable variations between Council areas. In the Highland Council area, inward migration more than compensated for the difference between the birth rate and the death rate, so that there was a net increase of 4.3 per cent. Much of this increase, however, is likely to have been in the Inner Moray Firth, focused on Inverness (which is outside the hill and island area as we have defined it). Inverness has been growing very rapidly and this has compensated for decline in more remote areas, such as the north and west.

¹ Natural change = births-deaths

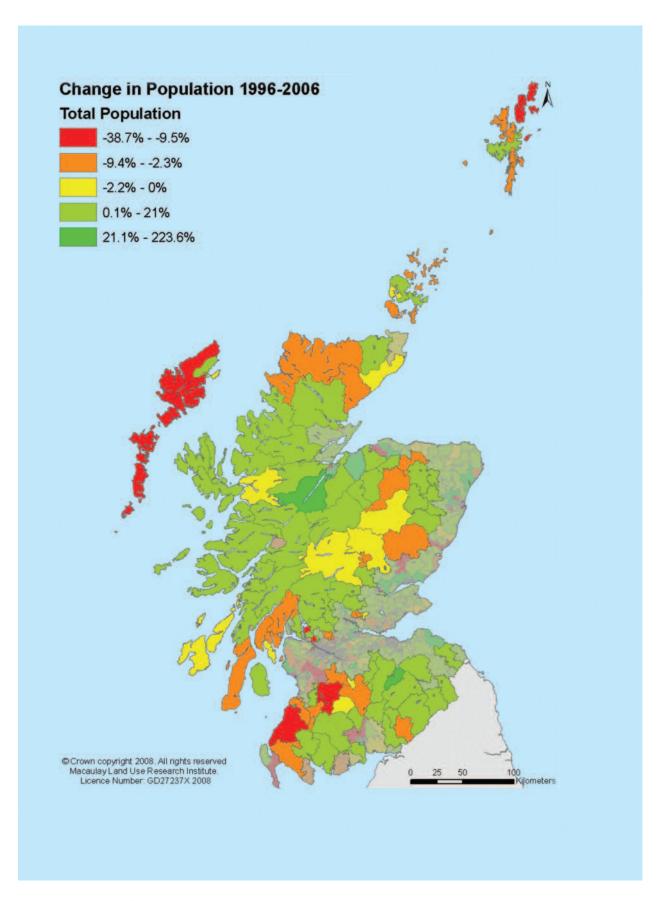
The biggest loser by far was the Western Isles, where there was not only an insufficient natural increase to maintain the population but also a net loss from migration. This resulted in a loss of 5.8 per cent overall. In Shetland, there was a smaller loss, resulting both from net emigration and a low rate of natural increase. Part of this is likely to reflect problems in the fishing industry, on which Shetland is highly dependent, but was mainly from a decline in oil-related employment. The population of Shetland grew quite substantially in the 1970s and early 1980s as the oil industry gathered momentum, and subsequent decline was to be expected as the industry moved on from the development phase. In Argyll and Bute, although there was positive net migration, it was insufficient to compensate for the low rate of natural increase.

In the other Council areas, the population either increased, as in Borders, Perth and Kinross, and Aberdeenshire, or was virtually unchanged as in Dumfries and Galloway, and Moray. Within these Council areas, however, there are some quite large towns and large areas that are not hill areas. In all of the areas, there has been a movement of population towards larger settlements and the rural areas close to them. If this were taken into account, much of the landward part of the rest of these Council areas is likely to have experienced some population decline.

Among the larger islands, the populations of Skye and Mull have grown substantially, while on Islay and Jura there has been a small decline. In both Orkney and Shetland, there has been a movement from the outlying Islands to the Island mainland and especially into the towns.

The detailed changes by sub area over the period 1996-2006 are shown in Figure 2. The Western Isles, with the exception of the area around Stornoway, the northernmost islands of Shetland, and south and south-west Ayrshire stand out as the areas with greatest population loss. There has been more modest loss of population from the hill areas of Perthshire and Angus, western Aberdeenshire, and upper Banffshire, north-west Sutherland and west Caithness, and parts of the Argyll Islands. In contrast, much of the west, northern, southern and central Highlands, and the Borders and parts of Dumfries and Galloway have gained population.

FIGURE 2 CHANGES IN POPULATION 1996-2006



 $Source: Peter\ Shannon,\ The\ Macaulay\ Institute$

The migration figures have some important implications for population structure. Unsurprisingly, outward migration is generally most significant among young people⁴. Young people left rural areas to obtain higher education and to improve employment prospects but among other reasons cited were a lack of affordable housing, including lack of rentable housing. In the remoter rural areas, the population is ageing at a greater rate than elsewhere; and this results in a population of pensionable age, which is significantly above the Scottish average, and a lower proportion of working age.

Summary

The picture is therefore mixed. Much of the population decline in more rural areas reflects an ageing population, natural decrease, out migration of young people in search of higher education and improved employment opportunities, and a continued reduction in agricultural employment. This is a process that has been going on throughout Scotland and most other countries for a very long time. Where population has grown, as in Skye and Mull, this is generally because of a high rate of inward migration. Taking the Highlands and Islands as a whole, the increase in population is a welcome change from the decline that was a feature of the area over much of the preceding century. In the Southern Uplands, the same processes have been at work: there has been an increase in the Borders and to a much lesser extent in South Lanarkshire; very little change has taken place in Dumfries and Galloway; but a larger decline has occurred in South Ayrshire. Taking the hill and island populations as a whole, those leaving tend to be young, while return migrants and new residents are commonly in the older age groups. This has implications for the provision of medical and other services needed to cater for older people, often with reduced mobility.

Employment

The hill and island areas have a higher proportion of their population between the ages of 16 and 74 economically active than Scotland as a whole, 67.2 per cent as compared with 65 per cent. They also have a much higher proportion of self-employed, 18.8 per cent compared with 10.2 per cent. Unemployment is therefore lower. Of those who are classified as economically inactive between these ages, a higher proportion in the Hills and Islands are retired and a lower proportion are students5.

Over the period 1998 to 2007, employment in agriculture, both of self-employed and employees, has declined both in the Hills and Islands and in Scotland as a whole, whereas the number of spouses listed as working in agriculture has increased. Employed staff (full-time and part-time) decreased by 15 per cent. These changes are part of a longer-term trend of reduction in employment in agriculture, reflecting increased labour productivity, greater mechanisation and more shared roles between the farmer and his/her spouse.

The share of the working population in the primary sector (agriculture, hunting, forestry and fishing) in the Hills and Islands is shown in Table 2 by local authority area. The average for all the hill and island areas of Scotland is just under 9 per cent, compared with 2.4 per cent in Scotland as a whole; but Dumfries and Galloway, Orkney, South Ayrshire and Argyll and Bute stand out as having the highest percentages. The counterpart of this in many cases is employment in services, especially public services. In all cases, this is a much higher percentage than in the primary industries. The average employment in health, education and public

⁴ L. Jamieson and L. Groves, A review of the research literature to explore the key drivers of youth out migration from rural Scotland, web publication ISBN 978 07559 6938

⁵ Figures taken from Census data 2001

administration and defence in Scotland is 27 per cent, with 25 per cent in the hill and island areas. Of the local authority areas, the Western Isles is the highest with 32 per cent and the share in most of the other areas is between 23 and 27 per cent. One would perhaps expect this share to be largest in the Island Council areas because of their size, but Shetland at 27 per cent and Orkney at 25 per cent are some way behind the Western Isles.

TABLE 2: EMPLOYMENT IN PRIMARY INDUSTRIES AND SERVICES IN THE HILLS AND ISLANDS BY LOCAL AUTHORITY AREA (PERCENTAGE SHARE)

	Primary Industries	Public Services
Aberdeenshire	9.2	23.3
Argyll and Bute	10.8	25.5
Dumfries and Galloway	13.4	23.5
East Ayrshire	7.5	24.4
Western Isles	7.3	31.7
Highland	8.5	24.1
Moray	8.7	31.9*
North Ayrshire**	4.5	24.3
Orkney	13.8	25.2
Perth and Kinross	9.2	19.9
Borders	9.1	25.1
Shetland	8.2	26.9
South Ayrshire	13.3	27.8
South Lanarkshire	6.7	25.5
Stirling	6.9	28.4
Scotland's Hills and Islands	8.7	25.3
All Scotland	2.4	26.7

^{*} Includes substantial employment in defence ** Includes the island of Arran

Note: Hill and island parts of Council areas only included.

Source: Scottish Government 2008

Summary

These figures show very clearly that the primary sector is more important in the hill and island areas than in Scotland as a whole. But, of course, this is not an indicator of its full significance, as many other activities depend upon agriculture, forestry and fishing for their existence.

Gross Value Added

Gross Value Added (GVA) measures the output of an economy (similar to Gross Domestic Product or GDP). When expressed per head of the population, it measures the population's productivity and gives a guide to standard of living, but is no more than a guide unless it is also adjusted for differences in prices. Prices vary quite considerably in the Hills and Islands because of the cost of transport, and in some areas both food and fuel are noticeably more expensive than in mainland cities. Table 3 shows the variation in GVA per head of population between Scotland and the local authority areas that include the Hills and Islands in 1995 and 2004. The Highlands and Islands as a whole have a GVA per head of 74 per cent of the Scottish average; Dumfries and Galloway 78 per cent and Borders 71 per cent. All these areas of course include the towns and the GVA per head for the hill and island parts of these areas is likely to be

significantly lower. Of the main island groups, the Western Isles has a GVA per head of 71 per cent of the Scottish average, Orkney 77 per cent and Shetland 82 per cent. There have been some changes during this period, with some areas improving their position relative to Scotland, and others losing ground slightly. In 2004, the areas with the lowest GVA per head were Caithness, Sutherland, Ross and Cromarty, Lochaber, Skye and Lochalsh and Argyll. At the other extreme, GVA per head in north east Scotland was 31 per cent above the Scottish average, 68 per cent above that of Edinburgh and 43 per cent above that of Glasgow.

TABLE 3: GVA PER HEAD AS A PERCENTAGE OF THE SCOTTISH AVERAGE

	1995	2004
Borders	85	71
Perth Kinross and Stirling	95	87
Dumfries and Galloway	84	78
South Ayrshire	92	90
South Lanarkshire	79	83
Caithness, Sutherland, Ross and Cromarty	63	64
Inverness, Nairn, Moray, Badenoch and Strathspey	79	84
Lochaber, Skye and Lochalsh, Argyll	74	68
Western Isles	65	71
Orkney	95	77
Shetland	99	82
Highlands & Islands	75	74
SCOTLAND	100	100

Source: Scottish Economic Statistics 2007

The contribution of the primary industries of agriculture, forestry and fishing to GVA likewise varies as shown in Table 4. For Scotland as a whole, the contribution of these industries to GVA has been falling over the years. The figure for Scotland is now only 1.6 per cent. The areas with the highest contribution to GVA from these industries are Borders 9.5 per cent (presumably a combination of agriculture and forestry), Orkney 12.8 per cent (presumably largely livestock farming) and Shetland 12.1 per cent (where fishing and fish farming are particularly important).

TABLE 4: GVA FROM PRIMARY INDUSTRY

	% share 1995	% share 2004
Borders	13.1	9.5
Perth, Kinross, Stirling	6.3	3.8
Dumfries and Galloway	13.9	8.1
Caithness, Sutherland, Ross & Cromarty	12.6	7.0
Inverness, Nairn, Moray, Badenoch & Strathspey	5.6	2.6
Lochaber, Skye & Lochalsh, Argyll	11.9	7.7
Western Isles	11.0	7.6
Orkney	16.1	12.8
Shetland	13.8	12.1
SCOTLAND	2.8	1.8

Source: Scottish Economic Statistics 2007

To a significant extent, these figures reflect the same pattern as employment, although the percentages are lower because productivity in the primary industries is below the average for the economy. As with employment, however, it would be a mistake to infer from these figures that, if agriculture were to decline, the loss would be limited to the agricultural sector. Many services - haulage, markets, veterinary services and important parts of the food industry - depend on the existence of agriculture. Already, with the reduction in livestock numbers that has taken place over the last 15 years, there have been knock-on effects on both employment and output in these sectors. Many of those who work in agriculture now do so on a part-time basis, depending on other activities to provide them with a sufficient income. This is especially so in the crofting areas, where running a croft is recognised as a part-time activity and will commonly be combined with other work, usually in the service sector. Of particular importance is the linkage with tourism. Many tourist businesses are also part-time and seasonal, with farmers/crofters or other members of their families working partly on the land and partly in some kind of business related to tourism. Without agriculture, the incomes generated from their other activities would be insufficient to retain the population in the area.

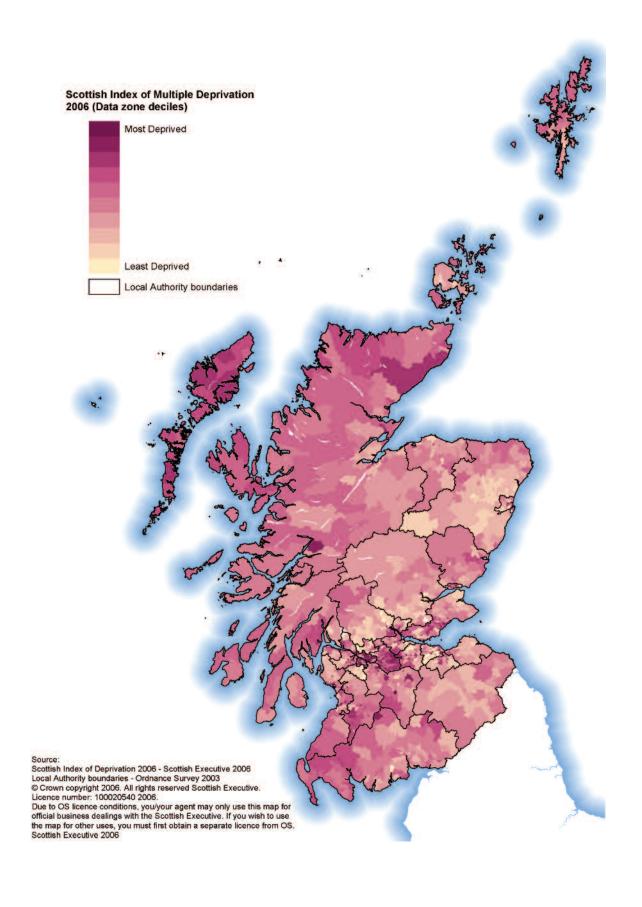
Summary

All the hill and island areas have a GVA per head below the Scottish average, though with considerable differences between them. The contribution of primary industry to GVA in all areas is well above the Scottish average, but with considerable variation, with the highest figures being in Orkney, Shetland and Borders.

Relative Deprivation

Indexes of deprivation have been developed by the Scottish Executive⁶. These provide the most accurate relative position of the Hills and Islands compared to other parts of Scotland on a range of social and economic indicators. The overall position is summarised in Figure 3. It shows that the Western Isles, parts of Caithness and Sutherland, the Fort William area, and the higher parts of Galloway are the most deprived areas of the Hills and Islands. Maps showing the variation in education, skills and training, in employment, in housing, and in current income are in Appendix 3. Educational attainment is highly variable, with pockets of 'most deprived' in east Sutherland, the Trossachs, and south Ayrshire. However, much of the Hills and Islands is in the upper half, i.e. the less deprived part of the distribution. For employment, the position is somewhat worse, with substantial areas in the 'most deprived' category in the Western Isles, north Caithness and north Sutherland, Cowal, and Galloway. For housing the picture is much worse, with a substantial part of the Hills and Islands defined as 'most deprived'. The worst incidence is in the west Highlands, Inner Hebrides, the Uists and Argyll. Finally, current income shows a similar pattern, albeit the level of deprivation is not as high as for housing, with the exception of much of the Western Isles, and parts of Caithness and Sutherland.

FIGURE 3 RELATIVE DEPRIVATION: OVERVIEW



Summary

These variations in deprivation are important for developing policies and action to target disadvantage, rather than the broad-brush approaches that central government departments have a tendency to deliver. We return to this point in Chapter 7.

Agriculture

Table 5 shows that beef cattle numbers have declined both in Scotland and in the Hills and Islands by about 6 per cent and all cattle numbers have declined rather more, by about 9 per cent. But sheep numbers have had a much bigger fall, declining by about a quarter over the same period. Indeed, since the introduction of the Single Farm Payment (SFP) in 2005, the breeding sheep flock in Scotland has declined from 3.27 million to 3.10 million ewes in 2007, a fall of just over 5 per cent⁷. In Orkney, cattle numbers have declined by 11 per cent and sheep by 23 per cent. In Shetland, which has more than twice as many sheep as Orkney, the decline has been 29 per cent, in the Western Isles 35 per cent, in Argyll and the Clyde Islands 14 per cent, and in the north and west Highlands 34 per cent. A recently published analysis shows the geographical distribution of the decline in sheep numbers over the past decade⁸ (Figure 4). The largest declines are in the west and northern Highlands, the Western Isles and the south west.

TABLE 5: LIVESTOCK NUMBERS IN SCOTLAND AND IN HILLS AND ISLANDS

SCOTLAND (Thousands)

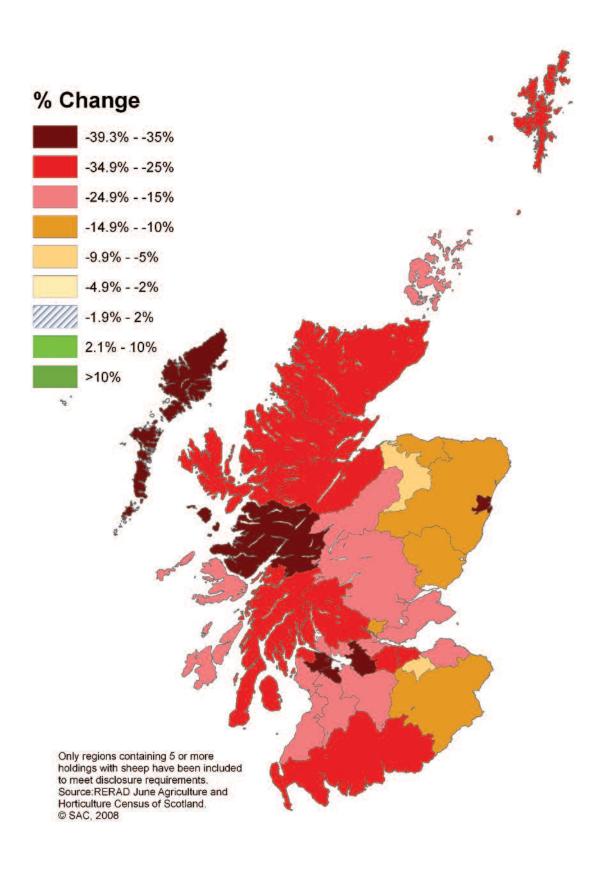
	Beef Cattle	All Cattle	Sheep
1998	1,106	2,078	9,803
2003	1,052	1,939	8,006
2007	1,039	1,898	7,498
2007 % of 1998	94	91	77
HILL AND ISLAND AREAS (Thousa	ands)		
1998	492	874	6,601
2003	457	801	5,569
2007	443	769	5,029
2007 % of 1998	90	88	76

Source: The Scottish Government 2008

⁷ Scottish Government (2008) Final results of the December 2007 census. Scottish Rural and Environment Research and Analysis Directorate – Rural and Environment Analytical Services

⁸ Scottish Agricultural College (2008) Farming's retreat from the hills

FIGURE 4 DECLINE IN SHEEP NUMBERS FROM 1999 to 2007



Beef and lamb consumption

Table 6 below illustrates the differences in red meat consumption between Scotland, England and Wales. The differences are remarkable. Scotland apparently has the highest beef consumption of the three countries, but by far the lowest consumption of lamb and mutton, whereas Wales has twice the lamb and mutton consumption of England and a far higher consumption than Scotland.

TABLE 6: HOUSEHOLD CONSUMPTION OF RED MEAT 2004-05

Grams per person per week.ScotlandEnglandWalesBeef and veal134121117Lamb and mutton1851103

39

57

57

Source: Department for Environment Food and Rural Affairs (DEFRA) (2006)

Table 7 shows the changes in the supply of beef and veal and of lamb and mutton over a period of years for the whole of the UK. Home production of lamb and mutton has fallen over the twenty-year period, though with considerable variations, and imports have risen. Exports have fallen sharply and stopped altogether after 1997 for live animals. The percentage of self-sufficiency has fallen from over 90 per cent to 82 per cent; but it reached over 100 per cent in 1995 and fell to a low of 70 per cent in 2003 and 2004. Home production of beef in 2007 was actually higher than in the mid 1980s, but has fallen from a peak since 2000. Exports were also higher than in the mid 1980s but in 2007 were less than half the level of the mid 1990s. Self-sufficiency was over 100 per cent in the mid 1990s, having risen substantially since the mid 1980s, but had fallen back to 84 per cent by 2007.

TABLE 7: UK SUPPLIES OF RED MEAT 000 tonnes Dressed Carcass Weight

Lamb and Mutton

Pork

	Home Produced	Imported	Exported	Self-Sufficiency
1987	308	154	88	82
1992	390	127	140	104
1997	342	152	132	95
2002	307	123	70	85
2003	310	136	84	86
2004	319	142	86	85
2005	337	133	94	90
2006	334	140	95	88
2007	330	137	76	84
Beef and Veal				
1987	1,125	259	230	94
1992	973	206	165	90
1997	698	216	13	77
2002	694	299	10	71
2003	703	307	11	70
2004	724	324	13	70
2005	765	287	14	74
2006	852	270	53	80
2007	888	273	76	82

Source: Quality Meat Scotland

Separate figures for Scotland are not available. Despite the decline in the sheep flock in Scotland in recent years, it still has 22 per cent9 of the UK sheep flock and as much as half the total number in England and yet UK 'home' lamb and mutton supplies have increased since 200310. If this is combined with a population ratio of 8.5 per cent of the UK population and a level of consumption per head only half that of England, it is clear that Scottish sheep farmers are very heavily dependent on the English market. Wales, remarkably, has more sheep than Scotland – 9.3 million compared with 7.2 – and a much higher consumption per head but, even with only about half of Scotland's population, it too is heavily dependent on the English market. The low level of Scottish lamb consumption, especially for a country that is a major producer of this product, is remarkable and suggests that much needs to be done to promote its sale to Scottish consumers.

Whereas imports of UK lamb and mutton come mainly from outside Europe, principally New Zealand, exports to other parts of the EU are substantial. The largest export market for UK lamb is France¹¹, accounting for 72 per cent in 2005, followed by Belgium/Luxembourg 10 per cent, Italy 6 per cent and Germany 5 per cent. With Scotland's domestic consumption so low, exports to Europe are of major importance to Scottish sheep farming, and it is no surprise therefore that the sector was so badly hit by the two epidemics of foot and mouth disease.

For beef cattle, Scotland has 28 per cent of the UK herd and 64 per cent of the number in England. Even with consumption per head above the levels in England and in Wales, with only 8.5 per cent of the UK population, Scotland is clearly also dependent on the English market. Exports of beef were very badly affected by Bovine Spongiform Encephalopathy (BSE) in the 1990s and by the two outbreaks of foot and mouth disease. The volume of exports has remained low since 1997, but so long as the UK remains disease free, there are hopes of recovery. Imports of beef are substantial at around 200 thousand tonnes, with 78 per cent coming from Ireland¹².

Summary

Livestock numbers in the Hills and Islands have fallen, but at a slightly higher rate than in Scotland as a whole. The fall is greatest for sheep, where it amounts to almost a quarter between 1998 and 2007. Scottish consumption per head of beef is higher than for England or Wales, but lamb and mutton consumption is far lower than in either of the other two countries, with the difference compared with Wales being particularly large. Since Scotland is a major producer of red meat, this shows that Scottish producers, especially sheep farmers, are heavily dependent on sales to England and exports to other parts of the EU.

⁹ The figures in this paragraph are taken from the Scottish Government's Economic Report on Scottish Agriculture 2007

¹⁰ This may be a combination of improved productivity and greater levels of mutton production as the ewe flock has declined.

¹¹ Source: Quality Meat Scotland

¹² DEFRA, Agriculture in the United Kingdom 2006, TSO.

Forestry

Structure of forestry

Forestry in Scotland covers a wide range of forest types, silvicultural systems and management objectives. Forestry covers 17.1 per cent of the land, which, apart from England, Wales and Ireland, is amongst the lowest in Europe. Table 8 indicates the forest type and ownership of forestry in Scotland in 2007¹³.

TABLE 8 AREA OF WOODLAND BY OWNERSHIP AND FOREST TYPE AT 31 MARCH 2007 (THOUSAND HA)

FOREST TYPE AND OWNERSHIP	SCOTLAND
Conifers	
Forestry Commission Woodland	430
Non-Forestry Commission Woodland	618
Total	1048
Broadleaves	
Forestry Commission Woodland	27
Non-Forestry Commission Woodland	266
Total	293
Total	
Forestry Commission Woodland	457
Non Forestry Commission Woodland	884
TOTAL	1341

The private sector, at 66 per cent of the national forest area, has the majority of the broadleaved and semi-natural woodland in its ownership. Table 9 shows the type of ownership in Scotland. The private sector has been primarily responsible for delivering the new planting programme over the last twenty years. The state sector has just recently reviewed its holding and has now embarked on a limited disposal programme, with the proceeds helping to fund new land purchases, mostly of farms adjacent to towns. There is currently no strong political debate over whether the state forest holding is the right size or delivers the right mix of objectives, even though the recent Scottish Forest Strategy (2006)¹⁴ has set a target of 25 per cent of the land being in forest by the second half of this century.

TABLE 9 AREA OF WOODLAND IN SCOTLAND BY OWNERSHIP TYPE (1999) (THOUSAND HA)

Ownership Type	Scotland
Forestry Commission	539
Other Public Body	13
Local Authority	11
Private Forestry or Timber Business	28
Other Private Business	101
Personal	533
Charity	14
Community Ownership or Common Land	0
Unclassified	13
TOTAL	1253

Note: Last surveyed in 1999

Source: Forestry Statistics 2007 - Woodland Areas & Planting

¹³ http://www.forestry.gov.uk/website/forstats2007.nsf/LUContents/061E41873F94CC788025735D0034F33B

¹⁴ Scottish Executive (2006) Scottish Forestry Strategy

Forestry enjoys significant support by the public, as it promotes itself as a provider of public benefits in terms of general access and recreation and biodiversity. Private foresters, nevertheless, claim that their forest management costs are generally less than those in the public sector, while at the same time providing similar public benefits15. Scotland sits on the European average in relation to the current proportion of state to private owned land, and it is noteworthy that most European countries maintain state-owned forest land holdings, with broadly similar ratios of state to private ownership. The effect of the state sector in Scotland on the direction and shape of the forest sector should not be under-estimated. It represents a major point of difference compared to the other major Scottish land uses of agriculture and field sports, which are made up of many private businesses of variable sizes.

The resource

The vast majority of Scotland's 1,314,000 hectares of woodland is located in the LFA: 78 per cent is conifer plantation, mostly established in the period 1950 to 1990, when plantings averaged between 15,000 and 25,000 hectares per year, much of it on poor quality land with poor access potential. The resource is dominated by Sitka spruce, on which the industrial sector is heavily dependent. The balance is native woodland, largely located in the hills and dominated by birch. There is currently an extensive survey being undertaken by the Forestry Commission to ascertain the state of this part of the resource. Current focus is on the state of habitat and the restoration of ancient woodland (native woodland recorded as having been present in the mid eighteenth century and considered to have the highest biodiversity values). This latter issue involves the conversion of plantation on ancient woodland sites back to native woodland. Scotland is estimated to have 148,000 hectares of ancient woodland and some 37,000 hectares of this are designated as Sites of Special Scientific Interest (SSSIs) with a smaller area within this of some 22,000 hectares designated as Natura 2000 sites.

The industrial sector currently generates some 5.6 million cubic metres of softwood annually, and this is forecast to rise to just over 7 million in the next ten years. Some 5,200 jobs are involved in the growing part of the sector, with another 5,500 involved in the downstream activities. The woodland resource in Scotland has a clear role in off-setting the country's carbon emissions¹⁶. Land use, land use change and forestry are together estimated to provide a net sink for greenhouse gases equivalent to 8 per cent of Scotland's total emissions¹⁷, which with the shadow price of carbon valued at £26/tonne¹⁸, provide £112 million of value. In addition, the social and environmental value of Scotland's forests is estimated to be worth over a further £100 million per year¹⁹. These statistics for the country's woodlands demonstrate the multi-functionality of this land use sector, although there is clear evidence that different types of woodland contribute in markedly different ways, and that defining their respective value to the public is a subject of some controversy.

Summary

The vast majority of the 17 per cent of land in forest and woodlands is located in the Hills and Islands, more than half being in the ownership of the private sector and with the state Forestry Commission being the single largest owner. More than 75 per cent are conifer plantations. Forestry is supported by the general public for the diversity of benefits it provides. It produces 5.6 m cubic meters of softwood annually. Forestry and woodland management has become a multifunctional activity contributing to timber production, recreation and access, and biodiversity and is now seen as having a major role in offsetting the country's carbon emissions. The Forest Strategy for Scotland has set a target of 25 per cent of the land being in forestry by the second half of the century.

- 15 Scottish Field (2008) Should Forestry Stay in Commission Hands?
- 16 Scotland's net emissions of CO2e greenhouse gases in 2005 were over 54 million tonnes. Greenhouse Gas Inventories for England, Scotland, Wales and Northern Ireland: 1990 - 2005, http://www.airquality.co.uk/archive/reports/cat07/0709180907DAGHGIreport2005.pdf
- 17 Greenhouse gas emissions from land use, land use change and forestry, SPICe briefing, 1 July 2008
- 18 http://www.defra.gov.uk/environment/climatechange/research/carboncost/step2.htm. The shadow price of carbon refers to the carbon dioxide equivalent
- 19 The reference is 'The Social and Environmental Benefits of Forests in Great Britain, a report to the FC by Mills K, Garrod G, Scarpa R, Powe N, Lovett A, Bateman I, Hanley N & Macmillan D; 2003 Centre for Environmental Appraisal and Management, University of Newcastle

Sporting Estates

The main source of information on the economic benefits of sporting estates comes from a study by independent consultants (Public and Corporate Economic Consultants (PACEC)) which was sponsored by a collection of advocacy bodies for sporting land use²⁰. The report covered the whole of Scotland and its analysis therefore does not match the more limited area of interest for our Inquiry. The PACEC study found that:

- 1 Nearly half of Britain's 480,000 sport shooters do some shooting in Scotland;
- 2 This shooting is worth £240 million to the Scottish economy;
- 3 This shooting activity generates an estimated 1.75 million visitor nights, much of which is in the 'low season';
- 4 There are 11,000 full time equivalent jobs associated with this activity; and
- 5 4.4 million hectares in Scotland are influenced by shooting (56 per cent of Scotland's land area) and 0.7 million are managed directly for shooting.

The field sports practised in the area of interest covered by this Inquiry can be split into grouse shooting, deer stalking, pheasant/partridge shooting and fishing.

Summary

Sporting estates contribute significantly to the Scottish rural economy, in terms of revenue and employment, and the management of its natural heritage and associated landscape, especially so in the Hills and Islands. They receive little public funding.

Natural Resource Base

The natural resource base of the Hills and Islands of Scotland is rich and diverse but most of the land is of low productivity because the soils are acidic and the predominantly temperate, maritime climate results in the leaching of nutrients. Grazing, burning and tree removal have inhibited natural processes of soil formation, and increased both loss of fertility and bulk loss of soil, but the acidic grasslands, wet heaths and peatlands of the Hills and Islands are of global significance. They store more carbon than other terrestrial sources, they provide substantial water reservoirs, they comprise plant communities of European importance, and they provide the habitats for internationally significant numbers of many breeding birds. The diversity of rocks and the study of their formation give the Hills and Islands an international significance to the earth history of Scotland.

Trends in land cover

The National Countryside Monitoring Survey and the Countryside Survey²¹ have recorded significant changes in vegetation and land cover over the last half century. The most significant of these have affected public attitudes towards landscape and have implications for the future management of the land and the support needed to undertake it.

²⁰ PACEC. Economic and Environmental Impacts of Sport Shooting in the UK, a report prepared on behalf of British Association for Shooting and Conservation, The Countryside Alliance and Countryside and Land Business Association and in consultation with the Game Conservancy, 2004.

²¹ Mackey E.C., Shewry M.C. and Tudor G.J. (1998): Land Cover Change: Scotland from the 1940s to the 1980s. The Stationery Office, Edinburgh; Countryside Survey 2000. Accounting for Nature: assessing habitats in the UK countryside. DETR 2000 [http://www.countrysidesurvey.org.uk/archiveCS2000/ReportHTML/index.htm]; MLURI (1993). "The Land Cover of Scotland 1988". Aberdeen, MLURI; The National Countryside Monitoring Scheme (NCMS), Scottish Natural Heritag. (www.snh.org.uk/strategy/landcover/home.asp)

The planting of commercial forests of non-native species brought about the largest change in the landscape of the hill areas on mainland Scotland in the second half of the twentieth century. The greatest changes have been in Dumfries and Galloway, with substantial increases in the Borders, the north east, Argyll, and parts of the Highlands. The uniformity of species used, predominantly Sitka spruce, has changed the character of the landscape, caused further acidification of soils and, where the percentage of the catchment afforested has been too high on highly acidic and poorly buffered soils, it has also increased the acidity of the water. More recent restructuring of forests during thinning and felling operations, and the requirements of the Forestry Commission grant schemes for broadleaf species, have lessened the effects. Nevertheless, Sitka spruce monocultures still dominate many hill areas of Scotland, especially in the south and west.

Over-grazing by sheep encouraged by headage payments under the CAP in the Less Favoured Areas (all of the Hills and Islands of Scotland) has been a most significant factor. High sheep numbers are no longer supported under the reformed CAP, although the effects may continue for a long time. On the other hand, removal of grazing in its entirety or at least substantially will result in more trees and shrubs, spread of bracken, and loss of open moorland and peatland. Opinion surveys suggest that more unkempt landscapes are the opposite of what society appears to value. Upland drainage schemes and reclamation of peatlands for sheep grazing have caused substantial losses of water holding capacity, carbon storage capacity, native species and natural landscape features.

Together, afforestation, overgrazing by sheep (and deer), and loss of drainage and soil productive capacity have brought about a substantial decline in heather moorland, a colourful feature of our hills that public attitude surveys have identified as of high landscape value. The highest losses in the north east and the Southern Uplands have been economically significant, as the area available for sport shooting has reduced. Most of the uplands that were covered with native woodland are now open moorland or peatland. Remnants of trees and shrubs seen in gullies, ravines and cleughs attest to the former more extensive coverage. Grazing by sheep and deer, and a wetter climate, have been the main causes of the changes.

Species loss and reintroduction

Over recent centuries, because of deliberate persecution, a number of animals native to the Hills and Islands have become extinct, notably wolf, beaver, sea eagle and osprey. Other species are also threatened due to competition, such as the red squirrel being out competed by the grey squirrel. However, there have been successful and welcomed re-introductions of the sea eagle, the red kite and the osprey. There are also formal proposals to re-introduce the European beaver (there are two private release sites already). Suggestions for the re-introduction of the wolf, lynx and other mammals have not been supported by ecological study or public opinion. On the other hand, the eradication of species accidentally introduced or unwittingly released into the natural environment has been successful. The most significant are rats from Ailsa Craig and Canna, mink from Barra and the Uists, and hedgehogs from the Uists. Invasive plants species, such as rhododendron, have proved more difficult to remove. Others, such as the natural regeneration of non-native trees species, particularly Sitka spruce, are likely to create problems in the future as a competitor to native species.

Intrusive structures in the landscape

A large number of man-made structures have been developed, such as tracks for land management, including sport shooting, hydro-electric schemes, and more recently, the development of wind turbine installations and their associated infrastructure. Opinion surveys have shown that these intrusive features can impact on the public enjoyment of the landscape²². Such findings are significant as there has been a consistent view by visitors that the landscape and scenery of Scotland is one of its greatest assets.

The importance of natural heritage designations

It is generally considered important that key areas and features of Scotland's natural heritage should have proper protection to safeguard them against activities which would undermine their contribution to the quality of nature and quality of life of people in Scotland and those who visit. Table 10 shows the areas under natural heritage designation by local council area in the Hills and Islands. Brief descriptions of the key designations are given in Appendix 4.

TABLE 10: NATURAL HERITAGE DESIGNATIONS BY LOCAL COUNCIL AREA IN THE HILLS & ISLANDS

AUTHORITY	Local Authority Area (ha)	National Parks	National Scenic Areas	Ramsar Sites	Sites of Special Scientific Interest	Special Areas of Conservation	Special Protection Areas
Aberdeenshire	633,881	22.8%	8.1%	0.2%	6.3%	5.6%	4.7%
Argyll & Bute	716,279	8.2%	14.0%	1.8%	9.2%	6.2%	7.3%
Dumfries & Galloway	667,297	-	4.2%	5.1%	11.3%	13.8%	7.3%
Highland	2,648,392	6.3%	20.4%	6.2%	20.3%	15.5%	10.4%
Moray	225,673	17.0%	4.8%	0.9%	8.6%	6.8%	5.1%
North Ayrshire	90,384	-	25.9%	-	29.3%	0.2%	11.9%
Orkney Islands	108,618	-	15.2%	1.4%	22.6%	21.0%	16.0%
Perth & Kinross	541,890	0.8%	13.0%	1.3%	12.8%	7.2%	5.7%
Scottish Borders	474,263	-	3.5%	0.1%	6.0%	2.8%	0.9%
Shetland Islands	165,629	-	9.3%	3.3%	12.2%	9.3%	9.2%
Western Isles	326,839	-	36.5%	21.8%	11.7%	18.5%	22.7%

Source: Scottish Natural Heritage

Note the coverage is greater than the area defined as the Hills and Islands in this report.

Table 11 provides an assessment of the key issues, including the relative strength and coverage of each designation, and whether there are likely to be more sites and areas designated. The only really strong and restrictive designations are the two EU Directives and accompanying Statutory Regulations as implemented through the EU's Natura 2000 programme. The areas designated and the strength of the regime is not for negotiation and this regime is expected to continue.

²² Three quarters of tourists surveyed for the study into the Economic Impacts of Wind Farms on Scottish Tourism felt wind farms had a positive or neutral effect on the landscape. 97 per cent of tourists in the sample said wind farms would have no impact on their decision to visit Scotland again. Source: The Economic Impacts of Wind Farms on Scottish Tourism. 2008. Scottish Government. http://www.scotland.gov.uk/Publications/2008/03/07113554/22.

IADIEII	. MECHANISMS	FUR CUNSERVALIUM UF	NATURAL HERITAGE DIVERSITY

	Statutory	Designating authority	Relative strength	Coverage	Designation Complete
SSSI Species & habit	ats Yes	SNH	Moderate	Widespread	Yes
NNR	Yes	SNH	Strong	Limited	Almost
SPA	Yes	Government/EC	Very strong	Widespread	No more expected
SAC	Yes	Government/EC	Very Strong	Widespread	Complete
Ramsar	Yes	Government	Limited	Small	Yes
Biosphere Reserve	No	Government	Permissive	Very limited	No
SSSI geodiversity	Yes	SNH	Moderate	Widespread	No
Geopark	No	UNESCO*	Permissive	One	Possibilities
NSA	No. Needed	Government	Permissive	38 of 40 in Hills & Islands	Yes but depends on new legislation
National Parks	Yes	Government	Moderate	Two both in hills	No. Terrestrial, Coastal & Marine potential
World Heritage Sites	y es	UNESCO*	Considerable	One natural St Kilda	Potential Cairngorms, Flow Country

^{*} United Nations Educational, Scientific and Cultural Organization

There is a great deal of misunderstanding about natural heritage designations. Previous attempts to simplify the system through radical surgery have proved impossible. Many of the designations are the result of European and international agreements to which the UK Government is signatory and over which Scotland's devolved administration has no discretion. To increase understanding requires clear articulation of the purposes of each designation, and the opportunities available for public interaction and direct public benefit.

Most natural heritage designations have been completed, but some new areas may be needed to respond to new scientific knowledge: most likely in the marine environment. Proposals to protect key coastal and marine species and habitats, for example, were made to us in written evidence. A new system is needed for National Scenic Areas, with a modern statutory basis and a review of their number and distribution. Some new areas may also be needed to cope with the effects of climate change on species migration. Current thinking is that sites and areas would be more effectively protected if they were linked through ecological corridors, so that the management of non-designated land supported the protection of the features within the designated sites and areas.

Resources for ensuring land is properly managed within designated areas are a major issue for the future. These are inadequately dealt with under current agri-environmental schemes under Pillar 2 of the CAP and by the resources available to government agencies. This issue and solutions to it are dealt with in Chapter 4.

Governance and land ownership of designated areas will become increasingly important, and the extent to which local communities and local councils are represented on governing bodies, or are given the responsibility to manage, will change if trends in other parts of the world are followed. This will have implications for environmental charities, such as The National Trust for Scotland, the John Muir Trust, the Scottish Wildlife Trust and the Royal Society for the Protection of Birds (RSPB), who own large areas of land in the hills and on the islands. The Community Right to Buy provisions of the Land Reform (Scotland) Act 2003 will also potentially extend the involvement and responsibilities of local people in natural heritage management.

For a long time there have been tensions between the different interests over the protection and management of natural heritage: between environmental interests and local communities, renewable energy developers, and urban and rural communities. This is exacerbated in some parts of Scotland by the large areas covered by designations as shown in Table 10. A better means of negotiating solutions that resolve these issues is badly needed in the interests of all concerned.

Summary

There have been significant changes to the land cover of the Hills and Islands since the middle of the last century. Most significant is the afforestation of large areas of moorland that have reduced the area of natural and semi-natural habitats and changed the landscape. Species numbers have fluctuated widely: some species have been persecuted out of existence; others re-introduced. Non-native species have created problems, and there have been a few successful eradication programmes. The changes have resulted from different and uncoordinated policies by the public sector and changes in policy which have not been assessed for their overall public benefit.

Public Attitudes and Perceptions

The Hills and Islands of Scotland constitute a large area of the land surface and display great diversity in natural attributes, in human history, current economic activity, and the human communities which reside there. They are valued by the communities that live there and those who visit these areas for a variety of reasons. The responses to our consultation question on the attributes of social, cultural and economic value in Scotland's Hills and Islands demonstrated the importance of the following key values:

- Environmental value: wildlife and iconic landscapes
- Economic value: landscape for tourism and landscape for recreation
- Social value: strong sense of community
- Cultural value: cultural identity traditions and distinctiveness.

The importance of both the landscape and cultural identity are the key features. By contrast, farming, sporting management, and food production received relatively few mentions. This could suggest that respondents consider that the future lies more with maintaining cultural traditions and developing environmental tourism rather than on agriculture, but it is dangerous to draw too firm a conclusion as the responses were informal.

The written responses to the consultation exercise have been analysed to identify the key issues. These are summarised in Table 12 in terms of the number of mentions of an issue in submissions (only those with ten or more mentions are listed).

TABLE 12: ISSUES MENTIONED AS MOST IMPORTANT IN CONSULTATION RESPONSES

No. of mentions	Issue	
24	need for affordable housing	
20	need to develop tourism	
17	grazing animals needed for habitat and landscape conservation	
16	importance of local food markets	
14	use the countryside for carbon storage	
13	need for improved transport	
10	opportunities for fishing and aquaculture	

Surveys undertaken on behalf of the Scottish Executive have identified somewhat different aspects²³. General public concern for the management of the environment is shifting towards the larger global issues: damage to the ozone layer of the atmosphere, and climate change. But there is still concern about pollution of rivers and coastal areas, and the need for wildlife protection. The rural population rates the protection of wildlife and habitats higher than urban dwellers (75 per cent of rural respondents compared with 66 per cent of urban dwellers). More than half of respondents consider that wildlife and habitats are quite well protected, and 40 per cent consider that habitats should be restored. Those living in rural areas consider that landscape quality, quietness, safety and friendliness are key attributes. There is general support for more national parks.

The most significant public response for this Report is the desire for the countryside to be managed²⁴. People prefer a managed, compared with an unmanaged, countryside. They consider that if farming ceased, the landscape would become derelict and less attractive. Survey responses state that there should be support for management paid through general taxation rather than through increased food prices. They also support farmers being subsidised to retain employment, to focus on disadvantaged areas, and to undertake environmental improvement work.

Area Pen Pictures

During the visits by members of the Committee to different parts of Scotland as part of our evidence gathering, we noted key issues which were relevant to the particular area. These are summarised in Appendix 5. They are not a comprehensive or objective treatment as they are reliant on the Committee's views on the information provided and the discussion undertaken during our visits. Suffice to say that there is a great diversity of issues, and many different perspectives around Scotland. This highlights the need for flexibility in policy and action, and the need for greater delegation in decision making. We address these points in the succeeding chapters. The overriding point of variation in opportunity and need throughout the Hills and Islands is discussed further in Chapter 7.

Key Challenges

The above review of information belies the complex interaction between social, economic and environmental factors affecting the Hills and Islands of Scotland.

The Hills and Islands of Scotland are in a state of flux. The decline of population that lasted from mid-19th to mid-20th century has been reversed in many places, but masks much variety, with some areas experiencing rapid growth and others significant decline. Natural resources are still the base on which the area's prosperity rests. The traditional primary industries are now economically less important, but the value of the land and water resources remain the foundation of many economic activities. They also provide a setting for new activities and for those people who have moved into these areas to enjoy the quality of life it offers.

This social and economic transition has not taken place painlessly. Market forces, changes in human behaviour and values, public policy and charitable intervention have shaped the way social, economic and environmental factors have affected the areas; sometimes consensually, sometimes in conflict. Significant changes in recent years have forced a need to rethink the future for these areas. Climate change now casts its shadow over policy and practice. At the same time, major changes in the CAP have been implemented and others can be expected. The old model of forestry and its policy support system has been overhauled. Factors, such as the strength of the pound, the price of oil and the 'credit crunch', impact in particular ways on different sectors of the Hills and Islands' economy.

²³ Public Attitudes to the Environment in Scotland, Scottish Executive, 2005; Beauty, beast and biodiversity, SEERAD, 2004; Public perceptions of food and farming, SEERAD, 2003

²⁴ Ibid ref 23 Public perceptions of food and farming.

On the land resource side, the data presented earlier in this chapter indicates a substantial reduction in livestock numbers due to changes in the EU CAP regime, and continuing decline in farm incomes. Changes in land use practice have resulted in substantial detrimental changes to landscapes and natural habitats and a continuing loss of biodiversity. Resources to support the management of land resources are declining, but still substantial, and profitability of farm enterprises remains very low and is in many areas uneconomic without financial support. The future use and management of the land will be substantially affected by further changes in the CAP, by the outcome of negotiations on world trade, by concerns on food security, by the demand for non-agricultural uses of the land especially for energy and for forestry, by the continuing demands for maintaining landscape and biodiversity quality, and by the challenge of coping with the effects of climate change.

From the social and community perspective, rural areas have generally poor demographic structures with high out-migration of younger ages for higher education and improved employment prospects, and the return in later life of former residents and the retirement of older people to rural areas. There is a concern that the remoter areas, in particular, lack entrepreneurship and have a relatively higher dependency on outside support. Services are being lost due to economies of scale, which is a major driving force in the service sector by both the public and private providers, with greater centralisation in key settlements, threatening the maintenance of locally-based services. These trends raise significant issues for the viability of many communities. In addition, there is a lack of integration and coordination between public service providers, and a lack of rigour and transparency in the allocation of public resources.

The uncertainties of the present provide an opportune time to take stock. There can be little doubt that the natural resource base that has underpinned past changes will also influence future opportunities; but the productive uses of land now compete with environmental demands to shape final outcomes. Perhaps more than with any other resource, rural land can provide public benefits for which the farmer, crofter or forester may be inadequately rewarded. This ensures a role for policy to steer these changes.

What do these changes mean for the future of the Hills and Islands of Scotland? What will be the consequences of recent economic shocks? Is the blend of current and emergent policies appropriate to address present and future needs? There are implications for the use and management of the land, for the value which society places on its future, and for the economic opportunities arising. These changes also provide a basis for challenging present policy and the financial and other support structures that have been used. All of these issues are addressed in the rest of this Report.

CHAPTER 3. INTEGRATED APPROACH TO POLICY AND PRACTICE

In this chapter, we argue the case and set out our proposals for an integrated approach to policy and for achieving rural community viability in the Hills and Islands and for rural Scotland more generally. We also present the case for a *Strategic Land Use Policy Framework* to cater for the many and often competing demands for the use of the land resource and, in particular, to meet the challenge provided by climate change. We argue for a more integrated approach to land use policy and practice and reiterate the justification for public funding for the management of land as a multifunctional activity.

An Overarching Rural Policy

We propose an overarching policy framework for the Hills and Islands, and for rural areas more generally. This comprises identifying aims and agreeing a series of policy objectives to achieve them.

Our proposed **aims** are as follows:

- the **socio-economic well-being of people**, those who live there, those who have kinship and other connections to these areas, and those who visit them but live in other parts of Scotland and further afield;
- the **sustainable and productive use of the land** and the maintenance of its intrinsic values for conservation of biodiversity and landscape;
- the amelioration of global climate change made through the sequestration and long-term storage of carbon and other greenhouse gases, and the potential to achieve carbon neutrality from land uses;
- the sustained evolution of the cultural heritage, a part of which is the outcome of the interaction between land and people and the maintenance of a diversity of lifestyles; and
- improved access to the land by the wider public and its use for recreation, and improvement in health and quality of life for all.

The overall aim must be a sustainable future for our Hills and Islands with vibrant and viable human communities; a fully integrated diversity of land uses; and stewarded by owners and tenants with responsibility for delivering well managed natural systems and landscapes. It must also contribute to the amelioration of climate change; development of other economic opportunities such as tourism, renewable energy and food; and must be supported by appropriate financial mechanisms and services, with a diversity of people and places providing a rich inheritance and a dynamic future.

We hope that such a vision can be widely supported by all of the communities of interest and be adopted by the Scottish Government and the Scottish Parliament as a basis for decision making and resource allocation for the Hills and Islands.

In order to chart progress on achieving the vision, we have identified a series of outcomes as follows:

- Vibrant human communities: good quality of life, sustaining and developing cultural heritage, affordable living costs, access to service centres, access to affordable homes for all generations, range of employment, education and other income generation activities.
- Diversity of land uses: adopt a multifunctional approach to land use recognising the importance of species, habitats and landscape, access, tourism and energy opportunities alongside traditional food and fibre production activities.

- **Diversity of roles for custodians of the land**: recognition of a range of disadvantages of the area through new integrated incentive mechanisms supporting the farmer and land manager for appropriate food production and realising new food production opportunities (high quality locally branded products), energy production from a variety of non-renewable resources with minimal environmental impact, and the management of species, habitats, landscapes and access.
- **Well managed natural systems**: recognition of the environmental goods and services derived from well managed hills and glens and islands, in terms of plentiful supply of high quality water, opportunities for sequestering and storing carbon and other greenhouse gases, and restoring soil to its productive capacity.
- Well cared for natural communities: maintaining the current level of species and habitats to meet international and domestic targets and obligations, and for the well-being and quality of life that they bring to local communities and wider society through environmentally-sensitive tourism.
- Well maintained landscapes: create opportunities for securing the diversity and quality of Hills and Islands landscapes in the longer term. Recognition in all decision making of the perceived quality of the landscape as a critical visitor resource.
- People and places that provide a rich inheritance and dynamic future: work to support and strengthen diversity throughout the Hills and Islands in policies and support mechanisms at national and local levels in relation to education, culture, economy and infrastructure.

We consider that these objectives and outcomes could be used to evaluate all current and new policies and incentives applied to the Hills and Islands.

Recommendation 1: The Scottish Government, its agencies and local councils should use our proposed objectives and outcomes as a basis for developing new policies and incentives for rural Scotland and in particular for the Hills and Islands.

Maintaining the Viability of Rural Communities

For many years, there has been an implicit desire on behalf of successive governments to retain population in the remoter areas of the mainland and the islands and to maintain the viability of their communities through a mixture of incentives and support. We now consider that this aim should be made explicit to guide both policy and action, as it does in some Scandinavian countries. There will be cases where this aim can only be achieved at disproportionate cost. Nevertheless, it should be the objective of policy to stimulate investment in communities to make them as self-sustaining as possible, recognising that allowing communities to decline may only increase the degree to which they will require support in the future. We consider that market forces on their own have not in the past, and will not in the future, result in the achievement of vibrant rural communities.

We are surprised that there has never been an explicit policy of developing vibrant rural communities, although the activities successively of Highlands and Islands Development Board (HIDB) and Highlands and Islands Enterprise (HIE) for the Highlands and Islands have focused substantially on this objective. It is notable that similar policies have not applied to the rest of rural Scotland, and indeed successive governments have failed to encourage any integration of social and economic development through the enterprise network. We consider that this displays a lack of understanding of what is needed to make rural communities viable entities. Other bodies have social and community responsibilities, but these are not clear, particularly in the light of the abolition of Communities Scotland in April 2008. We consider that a more integrated approach to rural areas, beyond the periodic statements of what government is doing, is essential and urgent.

Our report considers in more detail the requirements to meet this objective in relation to land use policies and practices, associated economic development opportunities, housing, transport, telecommunications, education and culture, and institutional structures.

Recommendation 2: The Scottish Government, its agencies, and local councils should have an explicit policy to achieve and maintain community viability in the remoter areas of the mainland and on the islands.

Adopting an Integrated Approach to Land Resource Use

Within this broader policy framework, we consider that a fresh approach is also needed for land resource use, a view that arises implicitly from an acknowledgement that future land use will be multifunctional.

Multifunctional use

Land in the Hills and Islands has a number of potential uses. Food production, particularly through livestock production, is important in much of the area. Biodiversity conservation, particularly in specially protected areas, is a significant activity and will remain so due to international and EU obligations. Managed grazing by sheep and cattle are an important component in maintaining the quality of species and habitats, and landscape diversity. Landscape is a key resource for the visitor industry, for lifestyle migrants and for those already living there. Management of land for landscape and other environmental benefits will become increasingly important, as will the management of water supply and water quality in view of new EU obligations. Sporting management and recreational management are significant activities in many parts of the Hills and Islands, bringing in substantial income and jobs, but they also impact on the natural heritage. Forestry has been a major use of land, especially on the mainland, for some decades. The proposed increase in woodland cover from 17 per cent to 25 per cent under the Scottish Government's Forestry Strategy will mean conversion of land from other uses, changing the landscape and associated habitats. Management of land for renewable energy production is a growing component and is likely to grow further to meet Scottish Government and EU targets, but also impacts on both the environment and social dimensions of communities. In addition, climate change raises critical issues for land management, both to mitigate the effects of change and to adapt to those changes that are inevitable.

Table 13 seeks to summarise all of these uses and their interaction in a qualitative manner. The key point is that the use of the land is no longer entirely about production as the only outcome, but about the delivery of a wide range of other public and private benefits. It is in this context that we present our case for the development of a **Strategic Land Use Policy Framework** to address the resolution of conflict and facilitate the development of multifunctional use.

TABLE 13 MATRIX OF NOTIONAL IMPACT ANALYSIS OF LAND USE ON VALUED ATTRIBUTES (TAKING INTO ACCOUNT AREA UNDER EACH OF THE LAND USES)

	Carbon Balance	Landscape/ natural heritage	Cultural Heritage	Socio- Economic Well-being	Health & Quality of Life for All	Recreational Access	Tourism
Agriculture	++/	+++/	++	++++	+++	++	+++
Forestry/woodland	+++	+++/-	+	+++	++	++++	++
Water Gathering	+	+/-		+	+	+	+/-
Heritage Management	++	++	+	++	++	++	++
Renewable Energy Production	+			++	+		-
Sporting Estates	++	++/	++	+		++	+

⁺ Indirect impacts through tourism and recreational access

Note: the number of + indicate the size of the positive attributes, and the number of - indicate the size of the negative attributes

Land use conflicts

There have been a number of conflicts between different land uses over recent decades. The principal ones have been between biodiversity conservation and afforestation, between landscape diversity protection and afforestation, between food production in the uplands and afforestation, and between food production and biodiversity. Some of these conflicts have been resolved through the development of semi-formal strategies, for forestry in the form of Indicative Forestry Strategies, and by the negotiation of Management Agreements between owners of land and the state conservation service, formerly the Nature Conservancy Council and now Scottish Natural Heritage. The indicative strategies are no longer used and those still extant are out of date. However, they did provide a valid mechanism for resolving conflict between different land uses. The Management Agreements are still used under revised procedures set out in the Nature Conservation (Scotland) Act 2003.

More recently, a number of other land conflicts have arisen. Most significant has been and continues to be the conflict between development of onshore wind turbines, as a contribution to renewable electricity generation, and its impact on the landscape, and on biodiversity. These conflicts have been dealt with through the Town and Country Planning system development control mechanism, either by decisions by local councils as planning authorities, or by the Scottish Government following a Public Local Inquiry. This approach and the ongoing failure of the Scottish Government to develop a national locational strategy for renewable energy as a whole (see Chapter 5), has resulted in slow processing of cases, and a great deal of expenditure by both proponents and opponents and public authorities. We consider that this mechanism is quite inadequate to use to safeguard Scotland's biodiversity and landscape diversity, and to help the achievement of Scotland's ambitious targets for electricity generation from renewable sources.

We consider that these conflicts will be less two-dimensional than in the past and more multidimensional and hence more difficult to resolve through reliance on existing mechanisms. For the future, we envisage a continuation of existing conflicts and the development of others as a result of a series of new policy imperatives. The most likely areas of conflict are expected to arise from the following demands:

- land for renewable energy production (wind turbines, energy crops etc) to meet new and testing Scottish and EU targets;
- land for afforestation to meet the target of 25 per cent cover in the recently approved Scottish Forestry Strategy;
- land for food production to meet domestic demand and the development of local food niches for local and wider markets;
- land for safeguarding areas for potential food production in response to increases in world demand for meat products;
- land for maintaining and, where appropriate, enhancing landscape quality given the importance this has for the tourism industry and for local residents;
- land for biodiversity conservation to meet international, EU, UK and Scottish targets on reducing the loss of biodiversity, and
- land to make a full contribution both to the mitigation of climate change and for adaptation to the changes that will continue to occur.

The most immediate and evident example of this competition for land is between forestry expansion to meet the Scottish Government's long-term planting targets and other uses. It is not clear where this land will be found without impacting on either agricultural production on the lower and intermediate ground, or on biodiversity and landscape conservation on the middle and higher ground. We note that the Macaulay Institute has undertaken analyses on behalf of the Forestry Commission Scotland²⁵ to identify potential areas for new planting where there is likely to be little conflict, but this does not take full account all of the other potential uses of this land. We deal with this further in Chapter 4. In the past, these conflicts have been largely left to the operation of the market, but we are not convinced that with the competition for the same land for different uses, a market solution alone is likely to achieve all of the public benefits sought. Without an effective framework for making decisions to resolve conflict, and identify where there is potential synergy of use, important decisions will be delayed, or reached on an ad hoc basis.

Resolving conflict

We consider that there are ways of achieving targets for each of the activities if land use is regarded as being multifunctional rather than single purpose and sectoral. For example, there are a number of synergies patently evident as follows:

- Linkage between amelioration of climate change and land management;
- Linkage between land management and maintenance of healthy populations of species and habitats;
- Linkage between renewable energy policy and development of energy crops; and
- Linkage between landscape protection and development of the tourist industry.

Integrated land use planning – Cairngorms National Park

The Cairngorms National Park was set up in 2003 and is Britain's largest national park. Scottish National Parks differ from many other national parks around the world in that they have a social and economic development aim alongside the aims of conservation, understanding and enjoyment of the countryside. The National Park Plan brings together all those involved in managing the area to set out a shared vision, including local authorities, public agencies, land managers, businesses, communities and other interested groups.

The market itself will not produce optimum solutions that include public benefit provision. More critically, existing policies of government are predominantly sector-based with little or no integration. It is essential that the Scottish Government takes a more active role in developing approaches to resolve conflicts in land resource use through the development of integrated policies, new guidelines and, where possible, devolution of decision making to the local level. There are many exemplars of good practice in integrated planning and delivery, such as the river catchments plans for the Dee and Tweed and the Cairngorms National Park.

Our firm conclusion is that there is an urgent

need for land use strategies that balance demands for landscape and biodiversity protection with taking renewable energy to markets, and allowing food and forestry operations to continue in the most effective way. This suggests that a national overview of opportunities and constraints for all activities rather than a sectoral approach is essential. We term this a **Strategic Land Use Policy Framework**. The draft National Planning Framework goes part way to achieving this but it can only prescribe strategies for those activities that are within the Town and Country Planning system. Without an integrated, national strategic approach, there will continue to be a waste of public, private and charitable resources through continuing use of the Public Inquiry process under Town and Country Planning legislation for resolving competing uses of the land. Alternatively, there will be use of *ad boc* arrangements using procedures, such as management agreements, to resolve two-dimensional conflicts.

At present, the lack of any overarching strategy linking the government's policies and actions on the use and management of land means that the delivery of public policy and its funding is less efficient than it should be. This is a source of considerable frustration for those directly engaged in land-based activities. We consider there is ample justification for a coherent and integrated approach by the Scottish Government and all relevant public bodies to the use and management of the land resources of Scotland, and in particular the large proportion of the land area within the Hills and Islands. The resolution of many of these issues also has a direct bearing on the design and implementation of the Scotland Rural Development Programme and on the way funds should be used after the 2013 review of the CAP.

Integrated land management – Tweed Forum

The Tweed Forum began in 2001 and is an umbrella organisation that brings together bodies, on both sides of the border, with an interest in the management and welfare of the river and its environment. The Forum provides an open arena for dialogue between these different parties with the aim of identifying common, agreed objectives and exploring the most appropriate means of achieving/delivering them. The Forum produced a Tweed Catchment Management Plan in 2003 and covered a broad range of issues from tourism and recreation to flood management, water resources and habitats and species.

Recommendation 3: The Scottish Government, working with all relevant parts of government and key stakeholders, should develop a Strategic Land Use Policy Framework: an overarching integrated policy framework for the use and management of the land resources of Scotland to deliver a range of products and non-market public benefits, a policy that facilitates the resolution of conflicts in the use of land, and flexible enough to deal with the considerable volatility in prices of primary commodities such as energy and food.

Subsidiary Recommendation 3a: The Scottish Government should review all relevant legislation and propose modifications to conform with the new policy framework.

Subsidiary Recommendation 3b: Once the strategy is complete, all relevant parts of government, central and local, should review and align their relevant plans to the new strategy.

We advocate a more explicit recognition of the multiple benefits that can arise from land use and the adoption of some broad principles that reflect the importance of sustainable land use, minimising its impact on climate change, and securing the maximum benefit to the nation.

It will be essential to ensure that current and potential new policies are founded on these principles. To achieve this in practice, we propose a Land Stewardship Proofing Test in relation to the integrated delivery of food, biosecurity, biodiversity and landscape conservation, climate change adaptation and mitigation, water management and recreational access. This should be devised to be a simple, qualitative measure of whether existing and new policies and programmes address all of the key components. The aim is to develop a set of principles that will reduce competition and conflict, achieve greater synergies, and maximise the benefits on a number of policy fronts at the same time.

These could be defined as follows:

- Land use should be sustainable, multifunctional, and benefit present and future generations;
- All land use decisions should be based on a systematic approach to an evaluation of its sustainability based on thorough knowledge and understanding, and, wherever possible, contribute to the mitigation of, and/or adaptation to climate change; and
- Where conflicts of land use arise, the land use that best meets agreed sustainability criteria and delivers most public benefit should prevail.

In this context, we define sustainable as delivering economic viability and employment opportunities, social benefits and the care and enhancement of the natural resource in the full meaning of the Brundtland definition²⁶.

Recommendation 4: All government bodies in Scotland, central and local, before determining policies, actions and financial allocations, should use a Land Stewardship Proofing Test and associated criteria to assess their efficacy to deliver the widest range of public benefits.

The major question remains: how should our proposals on a *Strategic Land Use Policy Framework* and a *Land Stewardship Proofing Test* be implemented? We do not advocate that there should be a rigid blueprint for the use of the land, nor do we imply that there should be a national plan for the land. And we are firmly against all land use decisions being brought within the Town and Country Planning system. There is no simple prescriptive solution. Once the principles of the strategic framework and the allied proofing test are agreed by the Scottish Government, it will be necessary to develop proposals for their implementation. Key components of the strategic framework should be to set out principles for achieving maximum public benefit from land use, define synergies between different land uses, identify policy imperatives, and develop a new approach for dealing with conflict based on existing best practice in conflict resolution. In addition, we urge the Scottish Government to develop a transparent mechanism for decision making, especially in those contentious circumstances where land use conflicts exist or where they are inevitable.

Changes in policy required

A necessary corollary to adopting these principles is the need to review existing sectoral policies to identify where they result in conflict with others and where there is the potential to achieve multiple public benefits. We recognise that there will have to be trade-offs between different demands to secure agreement, and we consider that this is best achieved by identifying the maximum public benefits. It is clear from the advice from experts on climate change who informally advised us, and reports on climate change commissioned by the Scottish and UK Governments, that there will need to be revisions in land use policies to secure contributions to both climate change adaptation and mitigation. Changes in policies and approach in relation to livestock are likely to be required for a number of reasons, not least for the management of the natural heritage. The retention of a strategic land reserve (a component of agricultural policy in the past), or whether or not high quality farmland requires greater protection, to contribute to food security also needs to be reconsidered. This could be achieved through applying the land classification system, which is based on the identification of relative land productivity; this was a method used until the late 1980s to safeguard the best agricultural land from building development.

Land not in receipt of public funds

There is a great deal of land that is not in receipt of government support, where the market may not always provide the public benefits sought. In order to achieve these benefits and to ensure that owners of all land resources are encouraged to play their part, over and above the regulations that apply to designations, there should be codes of land use practice in relation to biodiversity and landscape conservation, climate change adaptation and mitigation, and biosecurity. All land holdings should apply irrespective of whether they are in receipt of public resources. This will require bringing together and rationalising existing codes of practice that provide a set of standards for managing all of Scotland's land resource. All land holdings should be encouraged to produce a plan to meet these standards and receive formal accreditation for doing so. The aim would be to make monitoring of compliance with these standards both simpler and more effective. We develop these points further in the section on sporting estate management in Chapter 4.

Recommendation 5: The regulations and codes of practice for the use of land resources should be reviewed and rationalised to provide a single set of standards for environmentally sustainable management of Scotland's land resources.

The Case for Public Support for Land Management

In developing a strategic framework for land use, we have assumed that many of the public benefits to be delivered will depend on public funding. We now examine the justification for that assumption as it specifically applies to combating climate change, maintaining and enhancing biodiversity, addressing food security and biosecurity, and alleviating rural social disadvantage. Since 2005 when support for agriculture was decoupled from production, the above public benefits have been delivered primarily through the Single Farm Payment (SFP), Less Favoured Area Support Scheme (LFASS) and the Scotland Rural Development Programme.

The House of Commons Environment, Food and Rural Affairs Committee in reviewing *The UK Government's Vision for the Common Agricultural Policy*, make the point that: "the only long-term justification for future expenditure of tax-payers' money in the agricultural sector is the provision of public benefits. Payments should represent the most efficient means by which society can purchase the public 'goods' – environmental, rural, social – it wishes to enjoy"²⁷. We support this view.

Public goods from land management are benefits that the public receive but for which land managers may not receive any or adequate payment. They include: environmental benefits such as biodiversity; maintained or enhanced landscape; the sequestration of carbon; management of water supply and water quality; the security of a continuing and adequate food supply at reasonable prices; and maintaining the viability of rural communities. Because such benefits are not reflected, or are inadequately reflected, in the prices that farmers, foresters or other land managers receive, they are in economists' terms 'externalities' or comprise examples of 'market failure'. How much land managers should be supported to provide them is a difficult question, depending on how much they are valued or the opportunity cost of their provision. They cannot and should not be funded regardless of cost, and people will have differing views on their value. It is therefore for government to decide the amount of support that is justified.

In reviewing the case for support, however, it is necessary also to distinguish between those activities where incentives are justified, because of such externalities, and those where regulation may be more appropriate. The latter is justified where activities are in clear breach of the law, such as animal welfare, persecution of protected species, maintenance of standards for land that has been given a specific environmental designation, or where there is an unacceptable environmental practice, such as pollution from single or diffuse sources.

Combating climate change

Lord Stern, in his report for the UK Government has described global warming as the biggest ever market failure²⁸. Actions by the human population that produce greenhouse gases impose a cost in global warming that is not borne by those responsible for the emissions. This is therefore a clear example of a major negative externality. This cannot be tackled without worldwide action. But there are implications for Scotland. Action needs to be taken in the hill and island areas both to reduce and neutralise emissions and possibly sequester carbon or offset carbon use elsewhere, and to deal with the consequences of a warmer climate, higher rainfall in many areas and more volatile weather. Land management practices therefore need to change but there are also substantial opportunities.

Using the land of the Hills and Islands for adapting to and reducing the effects of climate change is a major strategic issue. Making the water cycle in river basins operate more naturally through closing drains to reinstate some previously drained land, restoration of floodplains and floodplain woodlands, and removing canalisation of rivers are all practical measures that are known to work. Such measures would provide public benefits that will also help to avert flooding in settlements lower down the rivers.

Of even greater importance is the use of the soil and of vegetation growth of all types to sequester and store carbon. There are many possibilities through practical measures such as low tillage systems, non-disturbance of peat and other organic soils, which have the highest natural carbon storage capabilities, increased woodland cover with achievement of planting targets to sequester carbon and more judicious forest and woodland management to minimise disturbance and reduce carbon loss. It is unlikely that landowners will provide these services without incentives and regulatory requirements that make it in their interest to do so. We address these issues more fully in Chapter 4 – Developing Land-Based Policies and Practice – *Responding to Climate Change*.

There are also the issues of 'food miles' and greenhouse gas (GHG) emissions of different food supply chains. Reduction in GHG emissions to the atmosphere through reducing the distance between food producer and consumer, and the reduction of GHG emissions throughout the food supply chain should be important components of any strategy to reduce the impact of climate change. At present, a considerable amount of the food produced in the Hills and Islands is exported to markets outside Scotland with little or no value added through processing. A major reason for this is the location and cost structures of abattoirs (this is also considered in more detail in Chapter 5: Food)²⁹.

Maintaining and enhancing biodiversity

There are many requirements placed by government on the way that land is used and managed to comply with international conventions, EU Directives and domestic legislation. Some of these can be achieved by regulation to constrain the way that owners use the land and also by placing requirements on them to achieve a certain level of environmental outcome. This may require active management to maintain or restore features. The two most significant examples for the Hills and Islands are: management of water catchments and achievement of 'good ecological quality of water' under the EU Water Framework Directive; and the protection and achievement of 'favourable conservation status' of the species and habitats listed in the EU Directives on the Protection of Wild Birds and of Wild Flora and Fauna. Substantial economic benefits from implementation of the latter two Directives under the Natura 2000 programme have also been calculated³⁰.

The Scottish Government has set targets for 'achieving favourable condition for the special features of designated sites'. These targets were set so that 80 per cent of sites achieved favourable status by 2008 and 95 per cent by 2010. As the current levels are 63 per cent favourable, or unfavourable but recovering in the hill areas, a great deal of effort is required. Even in the Islands, where the current level is better, with 80 per cent achieving favourable status or unfavourable and recovering, more effort is needed to fully secure the target. These targets cannot be achieved without support from public funds and this will need to continue in the future to ensure ongoing management and maintenance, if the condition of these sites is not to go into reverse.

There are also wider public benefits to be gained from the care for the landscape and the maintenance of scenic quality. The quality of the landscape and the provision of access for recreation are of importance in providing a major attraction to visitors. The wider public benefit of recreation was one of the underlying principles for the access provisions in the Land Reform

²⁹ On our visit to Islay we saw lambs at the market being sold at very low prices and to be taken for slaughter either to Carlisle or to Anglesey. We were told that these would probably be sold either as 'Welsh lamb' if they went to Anglesey or even as 'French lamb' if the carcasses went on to France.

³⁰ Scottish Government Environment Group 2004/5 economic assessment of costs and benefits of Natura sites in Scotland

(Scotland) Act 2003. The major benefits to health from exercise are now almost universally acknowledged and the Hills and Islands constitute an important component of Scotland's 'green gym'. It is unlikely that these benefits would be achieved if reliance was placed solely on altruistic management of land resources by private and non-government organisations (NGO) owners.

This argument is reinforced by the expectations of the public as summarised earlier in Chapter 2 from opinion surveys. These show concern for the loss and attrition of land of 'wild character'; they favour protection of wildlife and habitats, management of the land rather than neglect and abandonment; and the use of taxpayers' money to pay for necessary activities³¹. For example, continued grazing by animals is an essential part of keeping and preserving both biodiversity and landscape in many areas. What is required is a policy that takes all these matters properly into account and can provide a convincing defence to the taxpayer of the value delivered for the money spent.

Security of food supply

After many decades in which there has been ample cheap food and indeed surpluses in Europe, there is growing concern about the outlook for world food supplies. This becomes an issue of market failure if market prices do not properly reflect future risk. There will be differing views on the scale of that risk and how much it is worth paying to insure against it, just as there will be differing views on the value of other public goods. But a secure food supply must be one of the most important requirements of any policy for land management. Recently, the British Government's new Chief Scientific Adviser, in his first public speech, has highlighted the threat to world food supplies, which he considers to be as serious an issue as global warming³².

Several important changes are now taking place that are affecting international markets and which could herald an end to the years of plenty and low market prices for food. The economies of China and India are now developing at an astonishing rate, with annual growth of 10 per cent in China's GDP in successive years. Both have huge populations. Rapid growth is also taking place in South America and the world population is forecast to grow from six billion to nine billion by mid century. In the past, there have been many in the poorer countries, especially in Africa, who needed more food but did not have the means to pay for it; but now, with their rapidly increasing exports of manufactured goods, many Asian countries, and especially China, have a large surplus of foreign earnings. As the population becomes wealthier it will outstrip the ability of domestic agriculture to supply its needs, imports of food will increase and diet will also change with an increasing emphasis on meat products. A report from the United Nations Food and Agriculture Organisation has noted that between 1964-66 and 1997-99, per capita meat consumption in developing countries rose by 150 per cent; and by 2030, per capita consumption of livestock products could rise by a further 44 per cent. Demand for cereals is also predicted to grow by 1.2 per cent a year over the period 2015 to 2030³³.

With the growth in population and industrialisation, there is pressure on water supplies in many parts of the world, with water tables falling and aquifers being depleted. This is exacerbated by climate change effects and is already affecting harvests in some countries³⁴. The needs of irrigation are often likely to take second or third place to the requirements of industry and domestic consumers. Indeed, some people regard water shortage as potentially so serious that it is of equal importance to shortage of energy supplies. It certainly makes increasing food supplies to match demand in a country such as China even more problematic. Furthermore, in some parts of the world, southern Europe and Australia in particular, there have been serious droughts, which may have been caused by climate change and may therefore be repeated. These have resulted in very poor harvests in some major grain growing areas. The Chief Scientific Adviser to the UK Government, John Beddington, argues that with climate change, food shortage caused by drought will only get worse.

³¹ SNH Commissioned Report 194

³² Sustainability in a Changing World' by Professor John Beddington, 6 March 2008

³³ World agriculture: towards 2015/2030 Summary report. Food and Agriculture Organisation of the United Nations, Rome 2002

At the same time, concern over the security of oil supplies, coupled with anxiety about the effect of carbon emissions on the climate, has resulted in a major switch during 2007/8 from food crops to biofuels, especially in the United States but also in Europe. The UK now has a statutory requirement for petrol to be sold with two per cent bioethanol. There are signs that these targets may be rescinded in the light of a growing critique of the effects of biofuel production on food production.

These factors combined have caused world grain stocks to fall to levels not seen for 60 years and prices of wheat and barley in the UK to more than double over the last two years. But a threat to food security and higher grain prices do not necessarily mean that continued support for hill livestock is justified. Livestock prices have been recovering from a very low level in 2007 and it could be argued that low livestock prices have been a consequence of too much supply and/or falling demand.

Initially the effect of high prices for grain and for oil is to aggravate the problems for hill livestock. Animal feed and fertiliser are both more expensive. Left to themselves these forces would eventually drive more livestock producers out of business until a shortage drove up meat prices. In the process, however, agricultural potential could be lost, and once lost could be very difficult to recover.

The free market is a good way of ensuring an efficient use of resources in the absence of external effects and other forms of market failure, but does not have foresight and is likely to under-rate risk. Accordingly, with something as important as a secure food supply, additional measures to provide that assurance as a public good may be necessary. What seems likely is that grain and biofuel crops will take up an increasing part of farming on low, more fertile areas, displacing livestock production and driving up meat prices. The rush for biofuel production is now being questioned. But if, as seems most likely, land continues to be used for biofuel production, this could roll the livestock farming back into the hill and island areas that cannot be used for such crops.

At the present time, Scotland's LFA produces 58 per cent of total beef output and 76 per cent of sheep output, but only does so as a result of public support through the CAP³⁵. If support is reduced, therefore, production will continue to decline. But if the trends outlined above prove valid and, in particular, if growing population and rising income cause an increase in meat prices, as has already happened with grain and milk, these areas may well be needed for future production. The scale of this risk to food supply is impossible to assess, but the risk is sufficiently great to provide a case for continuing support to maintain potential in the hill and island areas. In any case, if world food supply is a major issue for the future, removing support so that European and Scottish livestock agriculture declines, would do nothing to help solve it and could expose Scottish consumers to serious risks.

Biosecurity

Related to the issue of food security is the need for the biosecurity of livestock on farms. This takes several forms: from preventing serious exotic diseases affecting our animals to the control and prevention of endemic diseases, which may also have important public health implications. For an industry that depends to a considerable extent on exports to other EU countries, anything that disrupts this trade has a severely damaging effect on farmer's incomes, quite apart from the loss of stock that may be involved. The ban on exports in 2007, because of the outbreak of foot and mouth disease (FMD) in the south of England, was therefore largely responsible for the particularly low prices of livestock in 2007.

Disease is an ever-present worry. Although there was a long period of no outbreaks of FMD from 1967 to 2001, apart from a very limited one on the Isle of Wight in 1981, they were very common before that and, if biosecurity is not kept at a high level, they could easily become common again. It was as a result of pressure from the Irish Government on these grounds, that the EU banned imports from Brazil last year.

The control of exotic diseases is rightly the responsibility of the Government Veterinary Service operating along with veterinary surgeons in private practice. In 2001, Great Britain (GB) suffered a catastrophic epidemic of FMD with the southwest of Scotland being particularly badly affected. At that time, the familiarity of local services with one another and their ability to work together proved to be particularly helpful and it was considered that the authorities in Scotland handled the crisis much better than some other parts of GB. Following that experience, one of the main recommendations of the RSE Committee which reviewed the outbreak³⁶ was that Scotland should have its own Chief Veterinary Officer (CVO). This post is now in place and Animal Health and Welfare matters are fully devolved to the Scottish Government from Westminster. However, the Scottish CVO has still to operate within the EU regulations for Animal Health and Welfare and to liaise closely with his counterparts in England, Wales and Northern Ireland. This can lead to certain frustrations, exemplified when Scotland again got caught up in the 2007 FMD outbreak with restrictions on movements of animals in Scotland, and trade in animals and animal products being disrupted like the rest of GB. This had serious financial implications and was implemented despite the fact that Scotland was far from the focus of the infection.

Nevertheless, it is important to remember that Scotland is part of the GB epidemiological zone especially with the current threat of Bluetongue, which has already caused considerable losses in livestock in England. Scotland has again got caught up in restrictions imposed by EU regulations. The best way to protect the ruminant animals which are at risk from this disease is by vaccination, but the decision to do this would result in Scotland losing its disease-free status and becoming a Protection Zone, allowing free and unmonitored movement of susceptible animals from other Protection Zones within and between EU Member States. Nevertheless, we welcome the Scottish Government's decision to implement a compulsory vaccination programme during the next vector-free period and to subsidise the cost of the vaccine. This is in contrast to the situation in England where DEFRA have decided to have a voluntary vaccination programme funded totally by the farmers. Likewise, we urge the Scottish Government to take steps to restrict the importations of susceptible and potentially infected animals from infected areas during the immediate risk period, and certainly until the majority of susceptible stock in Scotland are fully vaccinated.

Scottish farmers, especially those in the Hills and Islands, have shown the way in controlling many endemic diseases in their livestock. This initiative was started by farmers in the Highlands and Islands in collaboration with the Scottish Agricultural College (SAC) Veterinary Services who set up the Highlands and Islands Sheep Health Association in 1988 with financial aid from the HIDB. Recognising the relative freedom of their sheep from a devastating infection known as enzootic abortion of ewes (EAE), they initiated a testing programme to accredit their flocks as free of the infection. As well as protecting their own flocks, they saw the opportunity to increase the value of breeding stock they had for sale. This was rolled out over the rest of the country by SAC through the Premium Health Scheme for Sheep, which eventually absorbed the UK Sheep and Goat Health Scheme to become the Premium Sheep and Goat Health Scheme (PSGHS).

Subsequent initiatives included the Shetland Sheep Health Association, set up by producers in Shetland to eradicate and control scrapie in their flocks following the incentive to eradicate that disease because of its relationship to BSE in cattle. This was absorbed into the National Scrapie Programme (NSP) in 2001. Cattle breeders followed suit with their own schemes.

The scene was set by the Hi-Health initiative in the HIE area and taken forward by the Orkney Livestock Association who now operate the scheme nationwide so that it now extends beyond the HIE area. Other initiatives include the SAC Premium Cattle Health Scheme (PCHS) which now covers all of the UK. The diseases covered in these schemes for cattle include bovine virus diarrhoea (BVD), infectious bovine rhinotracheitis (IBR), johnes disease and leptospirosis. As well as controlling these diseases in their own herds, accredited status of freedom from these infections can be used to add value to breeding stock when they go to market.

Continued public support by the Scottish Government is essential to enhance the disease free status of Scottish livestock and protect them from exotic diseases such as foot and mouth, and bluetongue.

Social disadvantage

People living in the Hills and Islands of Scotland suffer a variety of disadvantages, even if, as opinion surveys demonstrate, the majority considers that the advantages outweigh the disadvantages. There are also specific disadvantages that are dealt with later in this Report, such as the lack of affordable housing. This affects key workers and makes it more difficult to retain younger people of working age to achieve a more demographically balanced structure of the population.

Incomers or returning population can stimulate community revival, and this is a benefit in some areas where population has increased. But market forces work against achieving a balanced demographic structure in many of the hill and island areas, especially as the opportunity for employment is greater nearer to urban centres of population. Loss of young people, combined with the trend of retirement to rural areas by people who can afford to buy property, has been shown by the Registrar General to produce a demographic structure heavily weighted to elderly age groups³⁷. This may in time become a major burden to public services.

The issue, therefore, is whether society regards it as acceptable for there to be a continuing drift of young people from the more sparsely populated areas. There has been an implicit acceptance by society in Scotland, and indeed throughout the UK, since the middle of the twentieth century, that maintaining viable populations in rural areas, including the 90 inhabited Islands, is an important aspect of social policy. This cannot be done without support from the taxpayer.

We hope that the Scottish Government in its discussions with the UK Government and the EU will take into account our arguments in favour of continuing public support for land management in view of the many public benefits that can be achieved.

Summary

This Chapter has explained our rationale for an integrated approach to policy. It has set out policy aims and objectives for Scotland's Hills and Islands, and provided a justification for the public funding of land management in these areas. It provides the essential background to our more detailed analyses and recommendations for developing land-based policies (Chapter 4), other rural economic opportunities including tourism, renewable energy production and locally produced food (Chapter 5), developing viable communities (Chapter 6), and refocusing institutional structures and approaches (Chapter 7).

CHAPTER 4. DEVELOPING LAND-BASED POLICIES AND PRACTICE

Agriculture

Agriculture is the dominant land use in the Scottish Hills and Islands, even if it is no longer the most important economic activity in many of these areas. It contributes to food and fibre production, employment, social well-being, provision of environmental goods and services, and maintenance of the cultural heritage. It is an activity that underpins social cohesion and sense of place in many parts of these remoter areas of Scotland.

The structure of farming

The agriculture of Scotland's hill and island areas, as we have described, is dominated by livestock production. Nevertheless, the agricultural land use of the area is extraordinarily diverse, as a result of major physical differences of geology, soils, topography and climate. There are also important differences in landownership and tenure in the area. Crofting tenure creates a distinctive structure of land use in the north and west, while to the east and in Orkney, Argyll, and on the better quality soils of Islay and Mull, farming predominates. In Highland Perthshire and in the Southern Uplands, there are no crofts and farms are generally quite large. The central areas of the highlands and parts of some of the Hebridean islands are dominated by sporting estates, which are based more on deer in the west and a mixture of deer forest and grouse moor in the east; game fishing can be important in both areas. In addition to areas that comprise Hills and Islands as defined in Chapter 2, there are other parts of the LFA where the land is of better quality and the options for farmers are greater.

Production systems

Livestock are predominantly sheep for store lamb production on the higher and poorer quality ground, where there is less capacity to produce winter keep, and cattle in larger numbers on lower ground, where that capacity is greater. In Orkney and Caithness, parts of Easter Ross, the Moray Firth and the Grampian Highland fringe, there is a significant amount of better quality land that can be ploughed, and there is scope for more intensive production systems. There is a second area of such land in the fringe areas of the Southern Uplands, and also in Islay and Bute, where there is a strong tradition of dairying. In such areas, better soils provide some opportunities to grow root crops and cereals that allow greater numbers of stock to be overwintered and cattle and sheep to be finished for market.

Crofts are found in the six former counties, known as the Crofting Counties, and are a form of tenure rather than a type of farming system³⁸. Formerly predominantly subsistence holdings, with typically a house cow for milk production and small areas of arable land for potatoes or cereals, crofted areas are now dominated by extensive sheep production, with some isolated examples of niche production. There are around 17,700 registered crofts comprising 17 per cent of the land in the Crofting Counties. Circumstances vary widely, as does the size of crofts, but it is claimed by the Committee of Inquiry on Crofting, on the basis of its survey, that on average, crofters derive about 20 per cent of their income from agriculture³⁹. This compares to 4 per cent from a survey undertaken by Kinloch and Dalton in 1990⁴⁰ and 9 per cent in a report produced by the SAC for the Scottish Executive Environment and Rural Affairs Department (SEERAD) in 2001⁴¹. Clearly there is some disparity in the information that we have been able to examine, but those on the Inquiry that are close to crofting would advise that from their experience the median figure is likely to be closest to the average income derived from agriculture by crofters. In any event, it is clear that agriculture provides a relatively low contribution to the household income of crofters.

- 38 Shetland, Orkney, Caithness, Sutherland, Ross and Cromarty, Inverness and Argyll
- 39 Committee of Inquiry on Crofting Final Report (2008) www.croftinginquiry.org
- 40 Kinloch M, and Dalton G, 1990, Scottish Crofters Union, A Survey of Crofting Incomes 1989. Scottish Agricultural College Economic Report No. 23
- 41 Information supplied to the Committee by the Environment and Rural Affairs Department, the Scottish Government

The basic geography of these farming systems has been largely unchanged over the last fifty years, except where there has been land taken from farming for forestry. However, the intensity of land use has changed, with a tendency for a marked decline in stock numbers in recent years, especially in more remote areas and poorer quality land areas, as was shown in Chapter 2.

The predominant farming system produces store animals in hill and upland areas that move down the slope for fattening on lower ground for meat, or into low-ground breeding flocks that retain the hardiness of the hill breeds. In the past, almost all sheep would have been consumed within the UK, although quality beef had long been exported further afield. Over the last 20 years a significant trade has built up with France and southern European countries based on the export (live or dead) of light lambs⁴² which meet the demands of consumers in Mediterranean regions.

The greater the difficulties posed by the physical environment, the greater the costs of overcoming the physical constraints of the short growing season, poor quality land, and wetness. These impose major limitations on the farming system and limit its flexibility and adaptability. To some extent these constraints have been overcome by land reclamation from open hill to enclosed pasture, by land drainage, by improved access, shelter belt planting or by winter housing. But the limitations remain and the capital costs of such actions are high, and returns on capital invested often modest.

The Committee was told by members of UHI's Agronomy Institute that they are experimenting with a Finnish variety of wheat in Orkney. There is also interest in bog myrtle (sweet gale) from the pharmaceutical industry, which holds out promise for the future. Energy crops such as *Miscanthus* and switch grass are the subject of research in Ireland, though the most promising energy crop is likely to remain the growing of various forms of timber. Despite these possibilities, agriculture in the Hills and Islands is even more dominated by livestock production than in former times, as indicated above, and is likely to remain so, as this is the most practical way of using the resources of these areas for food production.

Forces driving change

There are several factors causing change in hill and island agriculture. These include: social drivers, such as a greater appreciation on the part of the public of the value of the countryside, both for recreation and for the quality of the environment; and economic factors such as demand for organic and other quality produce. However, the prevailing concern has been low returns from mainstream, store livestock production, being insufficient to attract young people into the industry or to reward existing farmers adequately. There is also concern about some negative aspects of modern intensive farming systems. Among farmers especially, there is much concern about the monopolistic power of supermarkets in driving down prices, but these concerns must be set alongside declining consumption trends for sheepmeat. Advances in technology have affected lowland agriculture more than in the hill and island areas. But there have been advances in genetics with potential for improvement in the quality of livestock and in plant breeding that could affect the range of crops grown in disadvantaged areas.

By far the most important impact on farmer well-being, however, has been from changes in agricultural policy on which hill and island agriculture remains heavily dependent for its viability. Since the late 1950s, when the Treaty of Rome established the founding principles of

the CAP, it has undergone many changes, of which the MacSharry reforms of 1990s, the Agenda 2000 reforms and the more recent changes of the Mid-Term Review implemented in 2005, are the most important. The founding principles of the CAP were not dissimilar to those laid down in the Agriculture Act of 1947 in the UK. At that time, increased production of food to meet food security needs was the priority⁴³.

The principal policy instruments to increase EU production were originally variable import levies. These increased the cost of imported food and resulted in higher prices for domestic producers. In addition, intervention buying was used to take surplus production out of the market in order to maintain prices, with the aim of releasing it onto the market later. The policy was so successful in stimulating production that it resulted in surpluses of many products. These had to be sold on world markets below the cost of production, leading to escalating budgetary costs and accusations of 'dumping' from food exporting countries. In addition, the encouragement of intensive farming was shown to have adverse environmental effects.

The purpose of the 1992 MacSharry reforms, the reforms of Agenda 2000, and subsequent reforms since 2000, has been to tackle these problems and to make the CAP more acceptable to other countries in successive World Trade Organisation (WTO) trading rounds. Price support has been increasingly decoupled from production, but in the livestock sector the early reforms resulted in greater headage payments. Other provisions included the introduction of compulsory set-aside to control arable output increases. Agenda 2000 also gave a modest degree of discretion to Member States to support some types of production through the so-called 'national envelope'. The concept of 'modulation' was introduced, which gave member states the opportunity to reduce subsidies to particular types of farm and reallocate the monies elsewhere. Additionally, the range of rural development and agri-environmental schemes were brought together in a single Rural Development Regulation, with an obligation to co-ordinate delivery of these through a rural development plan. The two elements of policy - one dealing with production and the other dealing with the range of environmental and rural development measures - were described as Pillar 1 and Pillar 2 of the reformed CAP. Pillar 1 was funded directly by the EU, but Pillar 2 required at least matching funding from national governments.

- 43 Article 39.1. The objectives of the common agricultural policy shall be:
 - (a) to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilisation of the factors of production, in particular labour;
 - (b) thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture;
 - (c) to stabilise markets:
 - (d) to assure the availability of supplies; and
 - (e) to ensure that supplies reach consumers at reasonable prices.

Even at the inception of the policy in 1957, regional differences were acknowledged in Article 39.2

In working out the common agricultural policy and the special methods for its application, account shall be taken of:

- (a) the particular nature of agricultural activity, which results from the social structure of agriculture and from structural and natural disparities between the various agricultural regions;
- (b) the need to effect the appropriate adjustments by degrees; and
- (c) the fact that in the Member States agriculture constitutes a sector closely linked with the economy as a whole.

44 The changes are explained by the European Commission:

On 26 June 2003, EU farm ministers adopted a fundamental reform of the Common Agricultural Policy (CAP). The reform will completely change the way the EU supports its farm sector. The new CAP will be geared towards consumers and taxpayers, while giving EU farmers the freedom to produce what the market wants. In future, the vast majority of subsidies will be paid independently from the volume of production. To avoid abandonment of production, Member States may choose to maintain a limited link between subsidy and production under well defined conditions and within clear limits. These new "single farm payments" will be linked to the respect of environmental, food safety and animal welfare standards. Severing the link between subsidies and production will make EU farmers more competitive and market orientated, while providing the necessary income stability. More money will be available to . farmers for environmental, quality or animal welfare programmes by reducing direct payments for bigger farms. http://ec.europa.eu/agriculture/capreform/indexen.htm

Finally, in 2003, the Mid Term Review (MTR) introduced the most significant changes since the inception of the CAP. It established firmly the principle of decoupling as a cornerstone of revised policy by making payments independent from the amount of commodities actually produced⁴⁴. It also strengthened the idea of environmental cross-compliance by introducing the Good Agricultural and Environmental Condition (GAEC) requirement. With very minor exceptions, the reforms arising from the MTR of 2003 removed almost all of the residual commodity support schemes⁴⁵.

The reforms are summarised by the Commission as follows:

- A single farm payment for EU farmers, independent from production; limited coupled elements may be maintained to avoid abandonment of production;
- this payment will be linked to the respect of environmental, food safety, animal and plant health and animal welfare standards, as well as the requirement to keep all farmland in good agricultural and environmental condition ("cross-compliance");
- a strengthened rural development policy with more EU money, new measures to promote the environment, quality and animal welfare and to help farmers to meet EU production standards starting in 2005;
- a reduction in direct payments ("modulation") for bigger farms to finance the new rural development policy;
- a mechanism for financial discipline to ensure that the farm budget fixed until 2013 is not overshot.

The farming community was therefore confronted with the decoupling of support payments and the introduction of the annual SFP, which was initiated on 1st January 2005. In Scotland, the SFP is based on historic subsidy payments over the period 2000-2002. In contrast, the English system, based on more complex criteria, was mired in controversy and delay, and was area-based within regions.

While Pillar 1 measures replaced the old production support measures, the section of the European Agricultural Guarantee and Guidance Fund (EAGGF) which had previously dealt with investment, the so called 'Guidance' section, had been transformed into Pillar 2. This dealt with the part of the Agenda 2000 reforms aimed at rural development and required each member state to submit proposals. The range of rural development measures was widened and both modulation and cross compliance became compulsory. An optional National Envelope was also introduced, whereby, under Article 69⁴⁶, decoupled payments could be top-sliced and used to fund specific types of farming which are important for the protection or enhancement of the environment or for improving the quality and marketing of agricultural products. At present, this can only be used for the sector from which the money is saved, but the current 'health check' proposals would make this more flexible. Within Scotland, the Scottish Beef Calf Scheme was established under Article 69 and is funded through retaining 10 per cent of the decoupled beef payments⁴⁷.

45 The SFP replaces the following support schemes:

- Arable Area Payments Scheme
- Beef Special Premium Scheme
- Dried Fodder
- Extensification Payment Scheme
- Seed Production Aid
- Sheep Annual Premium Scheme (including the Less Favoured Area supplement)
- Slaughter Premium Scheme (including the Veal Calf Slaughter Premium Scheme)
- Suckler Cow Premium Scheme

The Single Farm Payment is contingent on the achievement of GAEC. The objectives of GAEC in hill and island areas, their interpretation and their effectiveness is debatable. In extreme cases, it seems to result in SFP payments being made even where livestock have been removed altogether and may be used as a de facto pension for the farmer. A further point of criticism is that payments attach to an individual rather than to the land and may therefore be retained even if the farmer moves to a hill farm where the cross compliance conditions may be less difficult to achieve. We make a recommendation on this point later in this chapter. It may also inhibit new entrants since, without the SFP attaching to the land, they may be unable to obtain the SFP support to enhance prospects of business viability.

Policy changes for Hill and Island farmers

Farming in Scotland's Hills and Islands suffers from several disadvantages: lower productive potential than on better land, higher costs and lower market prices. For these reasons hill, upland and island livestock production has been receiving special support since the late 1940s. Eighty five per cent of Scotland's land area is designated as Less Favoured Area (LFA). This is defined as:

- the presence of land of poor productivity, which is difficult to cultivate and with a limited potential which cannot be increased except at excessive cost, and which is mainly suitable for extensive livestock farming;
- lower than average production, compared to the main indices of economic performance in agriculture;
- a low or dwindling population predominantly dependent on agricultural activity, the accelerated decline of which could cause rural depopulation.

In the late 1990s, as part of the movement towards decoupled farm support systems, support given in the LFA was reviewed. The former Hill Livestock Compensatory Allowances, which had been paid on a headage basis, were replaced by an area-based payments scheme, the Less Favoured Areas Support Scheme (LFASS). The earlier headage-based scheme was subjected to severe criticism, because it encouraged farmers to overstock hill areas in ways that were potentially damaging to their environmental quality. The new system required the UK to adopt an area-based scheme, which recognised differences in natural handicap but removed any incentive to overstocking, and thereby reduced the environmental problems caused by overgrazing which had existed in some areas.

The LFASS is additional to the SFP, but unlike Pillar 1 aid, is paid under Pillar 2 which requires matching funding from the Government. It provides funding to aid in the continuation of agricultural activities, maintain a sustainable farming system and thereby contribute to supporting rural communities. Although it is an area-based scheme, it relied on livestock numbers to aid in establishing entitlements and therefore payments broadly correlate with stocking density48. The LFASS is by far the most significant scheme in Scotland's Rural Development Programme, accounting for over 50 per cent of the Pillar 2 funding in support of agriculture (see Table 14).

The Scottish Executive has altered its LFA scheme criteria in recent years to better meet the CAP's objective of multifunctional farming. It has removed the previous requirement for a minimum stocking density, replacing it with a requirement for the land to be actively farmed. There are new environmental controls, including those relating to landscape, biodiversity and habitats, and expanded good farming practice guidelines. However, it remains a scheme to support farming in remote and disadvantaged areas, where conditions are often challenging, rather than an explicitly environmental scheme. It sits uneasily in Axis 2⁴⁹ of Pillar 2, as the rest of the scheme is explicitly about environmental enhancement and LFASS is about compensation for biophysical disadvantage.

Pillar 1 support in the form of the Single Farm Payment is of much greater importance than Pillar 2 as a contribution to hill and island farm incomes. The support given to Scottish agriculture in the latest year is given in Table 14. It will be seen that the total is substantial. It is difficult to estimate precisely how much of the SFP is paid to LFA farms, because it is paid at 'farm business' level and some farm businesses are partially in the LFA and partially outside. Nevertheless, figures supplied by the Scottish Government for 2005 show that 47.5 per cent is paid to wholly LFA farms, 29.4 per cent to farm businesses partially in LFA and 23.1 per cent to non-LFA farms. It seems reasonable therefore to assume that some £220-£250 million of the SFP is directed at the LFA as well as the £60 million of LFASS. Of the remainder, comprising some £49 million in various agri-environment schemes, a substantial part also goes to the LFA, but it is not possible to divide it accurately. As explained in Chapter 1, the LFA covers parts of Scotland which are not strictly hill or island areas, so that these areas will receive less than the LFA as a whole. Nevertheless, the amount going to these areas must be substantial.

TABLE 14 SUPPORT SCHEMES FOR SCOTTISH AGRICULTURE

£ million	2005	2006	2007	
Single Farm Payment	387.3	388.4	393.7	
Less Favoured Area Support Scheme	61.0	100.3*	61.0	_
Land Management Contracts	14.5	21.8	19.8	
Environmentally Sensitive Areas	8.2	6.3	4.8	
Other Agri-Environment Schemes	25.2	25.1	25.0	_
Other	-	0.1	-	
Total	496.2	527.4	524.8	

Source: Scottish Agricultural Output, Input and Income Statistics. 2007 figures are provisional. Note * The 2006 LFASS payment was exceptional and reflected a rescheduling of payments. The figures exclude market support.

Agriculture and the Environment

European agricultural policy has increasingly recognised the wider multifunctional character of farming, in particular in relation to the care of the environment, and the growing emphasis given to Pillar 2 is based on this. To many farmers and other observers, the high quality scenery of rural Scotland has long been regarded as a by-product of the type of farming practiced. Low-intensity farmed landscapes have become important for public recreation and this is implicitly recognised in Section 1 of the Land Reform (Scotland) Act 2003 which gives a right to roam.

Low-intensity farming can also provide benefits to the semi-natural ecosystem that may not be achieved with more intensive farming practices, which may lead to overgrazing, biodiversity loss and water pollution.

There are implications here for the balance of livestock types. The dominance of sheep in many areas may not be optimal for the delivery of environmental benefit. Cattle and sheep graze differently and it is generally accepted that more cattle and less sheep would be a source of environmental enhancement to many areas of the Hills and Islands. This is recognised in the existing policy, which gives a higher level of support in LFASS⁵⁰ to farms with breeding cattle, where cattle amount to more than half the standard livestock units. Further, other agricultural practices, such as haymaking, contribute to the maintenance of habitat for a number of important species, such as the corncrake.

The stewardship provided in farmed (or crofted) landscape is also a contributor to the type of scenery that sustains the important tourist industry. Where farming has changed substantially, as in some crofting areas, there is undoubtedly a negative effect on the landscape. Members of the Committee saw this for themselves in Lewis, where they were told that only half the crofts are now worked and those that are neglected have become invaded with rushes. How important this is for the tourist industry is difficult to determine, but it is certainly different when compared with former times, as a result of the disappearance of small plots of arable cultivation and the house cow. Elsewhere crofts are more actively farmed and it is probably unrealistic to think that in Lewis, where the crofts are very small, the situation can be reversed; but it does give an indication of what other areas might be like if large areas of farmed land were abandoned.

Agri-environmental objectives

Until recently there were over 40 schemes relating to the achievement of agri-environmental objectives. They have played a major role in fostering the care and enhancement of the countryside and its landscapes. Most of these have been closed to new entrants following the introduction of the most recent Scotland Rural Development Programme (SRDP). Though now closed, those farmers who still hold contracts under what are called 'legacy schemes', i.e. the Environmentally Sensitive Area Schemes, the Habitats Scheme, the Organic Farming Scheme, and the Rural Stewardship Scheme will continue to receive payment until the termination date. Thereafter, farmers will have to reapply to the Regional Proposal Assessment Committees (RPACs) to receive Rural Development Contracts (RDCs), and their success will depend on the funds available and the rural priority at the time of application. The measures that were supported within these schemes have now largely been incorporated as options within the 37 packages of the SRDP. We comment and make recommendations regarding the design, and future development of the SRDP later in this chapter. Here we comment on what we have learnt from the operation of previous schemes and on the potential that remains for agriculture to contribute specifically to both the protection and enhancement of our environment.

Funding

Under-funding has undoubtedly been a major constraint on what could potentially have been achieved if the majority of farmers could have been funded. We have discovered that in some parts of Scotland in some years all applications for entry to an environmental scheme have been refused despite the applicants fulfilling the requirements. This has caused frustration among farmers, high costs in obtaining specialist support for drawing up the application, and has resulted in no enhanced benefits to the environment over large areas of Scotland.

Until recently, after satisfying the funds for LFASS, the Organic Aid Scheme has been the first call on agri-environment funds. We are not against organic means of production but consider that, with the limited resources available, there should have been a more balanced distribution of the funds. We consider that the new arrangements within the SRDP have the potential to release the latent demand from and willingness of farmers to participate in environmental schemes on farms to meet a range of public benefits, but only if funding is increased. There is also the specific issue of resources needed to achieve the *Favourable Conservation Status* requirements of the Natura 2000 programme. Additional resources from the EU are unlikely, given the largely negative response to the study of funding of Natura 2000, completed in 2003⁵¹.

Recommendation 6: In the forthcoming EU negotiations the Scottish Government should, as a priority, press for the resources available for agri-environment programmes to be substantially increased post 2013 to a level that allows <u>all</u> farmers the opportunity to participate in achieving enhanced levels of biodiversity, climate change mitigation, improved water management and flood mitigation.

Deployment of funds

The Single Farm Payment, which supports the basic elements of environmental management, has resulted in high levels of payment to lowland farmers and relatively low levels to farmers in the Hills and Islands. This appears to favour the most intensively farmed areas in the lowlands where potential market opportunities and profitability are greater than in the Hills and Islands. In the Hills and Islands we consider that one of the primary mechanisms for achieving environmental benefits (for species, habitats, ecosystems and landscape) is through an appropriately managed level of grazing by sheep and cattle. The most frequent reference to the environment in response to our consultation was that continuation of grazing was required for habitat and landscape conservation in the Hills and Islands. It is essential that adequate funding is available to sustain the presence of sheep and cattle on much of the land in the Hills and Islands. We believe this will require a redeployment of existing funding and therefore support the EU proposals for some flattening of the SFP. Considered alongside the need to redefine rules determining the LFASS payments, this provides the opportunity to ensure that the hill and island sectors are adequately funded to deliver the environmental benefits required.

The number of schemes

There have been too many schemes and they have not always provided a coherent package. It is claimed that the Scotland Rural Development Programme and the Rural Development Contracts will overcome this. Analysis of the draft Programme indicates that there are so many options under the four axes that the targeting of resources to achieve specific environmental outcomes is likely to be very difficult. One approach that needs to be considered is that of using High Nature Value Systems developed by the EU and agreed by EU Environment Ministers Resolution on Biodiversity at Kiev in 2003. This is proposed as one of the options in relation to revising the rules determining payment of the LFASS: we welcome this approach but point to the need to specify carefully the environmental outputs required in different places and to limit the transaction costs of such an approach.

Continuity and flexibility

There has been no continuity in schemes over time periods that are relevant to achieving long-term environmental benefits. Although those signed up to earlier schemes still obtained the agreed financial support over a period of twenty years, there have been significant changes in the schemes over those years. The approach taken by Scottish Natural Heritage (SNH) and its predecessor to Management Agreements with owners and occupiers over periods of up to 25 years is a good model to follow. It has 500 Management Agreements in the Hills and Islands covering over 280,000 hectares (ha)⁵².

We consider that the inflexibility of the schemes was a major impediment to their success. We met farmers who had undertaken prescriptions to deliver certain environmental outputs that were demonstrably failing, but where no adjustment of the prescription to deliver the desired effect was possible. This position must be rectified. We believe it is essential that the new SRDP operates with greater foresight, more longer-term planning and greater flexibility.

Subsidiary Recommendation 6b: Agri-environmental schemes should have a substantially longer lifespan, so that the benefits to the environment can be realised in perpetuity, and changes of practice detrimental to the environment after cessation of grants should result in repayment of support.

Government and agency involvement

There have been too many different government organisations engaged in the administration of the schemes. As a result, we have been told, farms receive visits from different organisations in an uncoordinated manner. We note that in Wales the agri-environment scheme Tir Gofal, has always been administered by a single agency, the Countryside Council for Wales (equivalent to SNH) and now the National Assembly Government. In England, the administration of the agri-environment programme has just been transferred to the newly established agency Natural England (broadly equivalent to SNH). This emphasises the need for a more integrated approach, with a single organisation responsible for delivery. We develop this point further in relation to giving more authority and responsibility to the RPACs. We note that the recently announced Scotland's Environmental and Rural Services (SEARS)⁵³ initiative is an attempt to overcome this problem.

Bureaucracy

A point made to us on many occasions was that the bureaucracy of the schemes at both application and assistance stages has been extremely burdensome and discouraging to potential applicants. In short, the transaction costs have been far too high. Given decades of seeking to remove red tape from government assistance schemes, and given the administrative burden of the Integrated Administration and Control System (IACS) traceability of livestock, much greater effort is required to reduce the paperwork to the minimum necessary to protect the public interest. Also, the prescriptions are far too rigid to meet the diversity of farming and environmental circumstances in the hill and island areas. There are opportunities as the new SRDP is developed to respond to these criticisms, although from what we have learnt so far we are not sanguine that this will be the case.

Environmentally Sensitive Area Schemes (ESAs)

During our visits, we have heard strong support for the Environmentally Sensitive Area scheme which was available in some parts of Scotland in recent decades. Evidence suggests that the scheme was easy to access, benefited from the defined area basis, and had a menu that was not too prescriptive. Also, the schemes had no cash limit. On the other hand, ESAs were not available everywhere, had low barriers to entry and had limited time spans. There remains a debate about the environmental benefits achieved, but, on balance, we consider these to have delivered benefits that are likely to increase over the remaining years of their existence. We consider that there are important lessons to be learned from the ESA model: area-based schemes are likely to deliver greater benefits than all-Scotland schemes; less prescriptive schemes are just as likely to deliver as many benefits as highly prescriptive ones with less administrative burden on all involved; and greater availability of funds means that more farmers can participate and give proportionately greater public benefits.

Farmers as stewards of the countryside

The activities that farmers are expected to undertake to support, maintain, and enhance the environment are highly variable. A commonly held view is that farmers do not wish to be 'park managers'. Equally, there is a view that farmers have always been 'the stewards of the land'. We strongly support this latter approach. This does not mean providing public money for doing nothing: an issue which neither farmers nor the public consider to be acceptable. The type of activities required in the Hills and Islands are: management of grazing by sheep and cattle; removal of visual eyesores; reduction in bracken and other invasive species, restoration and management of native woodland, and development of specific habitats for individual species. We do not consider that grazing is required everywhere. There are some habitats and landscapes where the interruption of the natural succession by a combination of managed and unmanaged grazing has left the landscape degraded, and there is a strong public desire for it to be more natural, as is already occurring in the pine forests and in the Atlantic oak woodlands.

These kinds of grazing requirements are not new to many hill and island farmers, and we recognise that many farmers, particularly of younger generations, are already adept at undertaking these tasks. However, re-skilling farmers to change from being predominantly food producers to land managers means that the agricultural colleges (SAC, Oatridge, Barony and Elmwood), and the Further Education colleges that provide agriculture and related training, and the SAC Farm Advisors, have key roles to play. We consider that an integrated delivery service of adviser, training and knowledge transfer based on an evolution of the SAC model is justified. We develop this point further in Chapter 6.

The delivery of environmental care and enhancement is an essential component of agricultural management that will require continuing public support. Should this support not be forthcoming or is inadequate, there is a significant risk of reduced environmental care and possibly environmental damage. This could be further exacerbated if product prices and agricultural profitability led to the more active pursuit of more intensive agricultural production practices.

Outcomes from agri-environment schemes

We consider that the major outcomes from the use of environmental measures on land should be in the form of public benefits. In practice, this means achieving international Convention, EU and Scottish Government obligations and targets, and recognising through financial incentives, alongside regulation, the role of owners and managers of land. The key elements of agri-environment schemes should be as follows:

- Implementation of EU obligations on environment, specifically water quality and catchment management, diffuse and point-source pollution, and species and habitats;
- Implementation of Scottish Government environmental targets: halt loss of biodiversity by 2010 (part of wider global scheme), 95 per cent of protected nature sites (i.e. SSSIs) in favourable condition by 2010, and increase the index of abundance of terrestrial breeding birds;
- Maintenance of environmental services, especially in relation to water quality and soil management;
- Climate change amelioration, including provision of renewable sources of energy and especially carbon sequestration and storage in trees and other plants and vegetation, and in the soil;
- Aiding adaptation to climate change, especially in relation to water and catchment management to reduce flooding and extreme water discharges;
- Improving soil management, especially through improvements in the GAEC to ensure no bulk loss of soil, maintain soil biodiversity and natural soil productivity, and improve the storage capacity for GHGs and other nutrients and minerals. Although the EU Framework Directive for Soil Protection has not been approved by the Council of Ministers (it was rejected in its present form in December 2007), the EU Thematic Strategy for Soil Protection provides the basis for developing management requirements to achieve its objectives in terms of both provisioning services (food, fibre, clean water and biodiversity), and regulating services (water storage, carbon sequestration and storage, filtering and buffering of contaminants, and absorbing organic waste);
- Provision and management of access to implement the access provisions of the Land Reform (Scotland) Act 2004 and to achieve the Scottish Government target of increasing the proportion of the population accessing the countryside (one or more visits to the countryside per week)54;
- Maintenance and restoration of landscape quality through improved management of felling and restocking of forests, grazing and burning practices, removal of eyesores, maintenance and restoration of ancient and semi-natural trees and native woodlands.

To achieve all of these goals requires active management of the land. Increasing the carbon sequestration potential of land requires careful site selection and management, and avoiding the disturbance to peat soils where possible. For biodiversity and landscape management in particular, experience and scientific analysis demonstrate that a level of managed grazing by herbivores is often required. A combination of sheep and cattle is normally preferred. This will be difficult to achieve if there continues to be a decline in the number of cattle and sheep. We consider that the best way to reverse this situation is through support for grazing management. This is more effectively funded under Pillar 1 than under Pillar 2, but will mean 'greening' Pillar I so that it has explicit environment conditions, in addition to GAEC requirements. There is now sufficient knowledge about the appropriate grazing levels for different habitats, from the work under taken jointly by SAC, SNH and the Macaulay Institute on modelling and on land measurements, to provide management guidance on appropriate levels of stocking density. **Subsidiary Recommendation 6C:** The Scottish Government's environmental agencies should identify those areas of the Hills and Islands requiring grazing and determine practical means of its implementation by land managers.

Financial performance of farms

Sources of income

Any appraisal of the financial performance of hill and upland farms needs to recognise that many farm households have more than one source of income. Sometimes this may be income from outside the farm, but related to agriculture; sometimes it may be derived from completely different types of economic activity. In the crofting areas, farming has always been a part-time activity, but increasingly this is also the case elsewhere. The European Commissioner, Mrs Fischer Boel, has recognised that part-time farming will become more common in European agriculture, and figures show that 83 per cent of farms in Scotland have more than one source of income⁵⁵. In the following paragraphs, the focus is income from farming, but this alone cannot therefore be taken as indicating the average household income.

Income and return on capital

Farming as an economic activity is typically asset-rich and income-poor. This applies to farming in the LFA as much as to farming in low-ground areas. In very few cases can the potential income provide a return on the capital needed to buy the farm which stands comparison with other forms of investment. This is one of the more peculiar but important aspects of agriculture, especially in hill and island areas, and it is not easy to explain. Factors which contribute to this, however, include the amenity value of farms as living space, particularly areas with high quality scenery or areas relatively accessible to the larger urban settlements where commuters may wish to live, and the scope for reducing inheritance tax liability so long as active farming takes place. The support given to agriculture is also a factor in the price of land but, even with such support, land does not normally yield a commercial return. It may simply be that, because land has always significantly increased in value, people assume that, since supply is finite, it will continue to do so.

Profitability

Hill and upland farming has often been considered as a sector of farming that has been particularly unprofitable. But as Table 15 shows, this has not always been true, although sheep farming in the LFA has tended in most years to have a very low income. It is not easy for resources to move to more profitable sectors, as might be expected to occur in mixed farming systems or manufacturing industry. The hill farmer may not have the skills for alternative employment, nor can he easily change to an alternative farming enterprise. In addition, the cost structures of hill and upland farming are such that there is less scope for use of modern technology to reduce costs and labour represents a higher proportion of the costs than in most farming systems. Consequently, there have been significant periods when subsidy to hill and upland farmers has exceeded their net farm income, implying that without subsidy the activity would be loss-making. Incomes have not only been low but also volatile as a result of cyclical and other variations in demand for store livestock, and the impact of disease outbreaks on trade.

TABLE 15: NET FARM INCOMES (NFI) OF ALL FARM TYPES 2000-2007

AVERAGE NFI £/FARM

Farm Type	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06*	2006/07*
LFA Sheep	2,900	100	8,900	9,800	8,600	4,800	1,500
LFA Beef	6,600	13,400	20,700	20,800	18,400	12,600	14,400
LFA Mixed Cattle & Sheep	6,000	11,900	14,000	21,600	17,800	11,700	11,300
Cereals	4,000	100	500	17,000	1,500	3,100	22,300
General Cropping	5,100	6,700	-1,400	25,300	6,900	8,200	36,500
Dairy	13,900	32,600	8,800	22,700	26,400	21,300	33,500
Low ground Cattle and Sheep	1,900	n/a	19,400	20,100	13,600	9,800	21,200
Mixed	6,600	10,700	9,100	22,400	14,600	14,400	20,500

(Source: Scottish Government: Farm Incomes in Scotland Publications 2001/02 to 2006/07

Subsidy dependence

It has sometimes been claimed that hill and upland farmers' incomes have been more highly dependent on subsidy than other farm sectors. The direct subsidies paid to LFA farmers have only fluctuated slightly between the years 2000 and 2005 with the exception of 2002/03, when they increased for beef and mixed farms (Table 16)56. As a proportion of income, support was especially high for sheep farms in 2001/02 but has since been broadly constant. Nevertheless, subsidies remain at between two to three times Net Farm Income (NFI). The conclusion that has to be drawn is that, despite fluctuations, for many farmers LFA farming requires subsidy if it is to yield a positive income at all, and without such support it could not continue to operate as it does now or provide wider public benefits.

Unforeseeable impacts

Over the last decade, hill and upland livestock farmers' incomes have also been adversely affected by a number of factors, some of which have affected British agriculture as a whole and some of which were specific to livestock farming.

First, the recognition of the link between BSE in cattle and the connection to variant Creutzfeldt Jacob Disease (vCJD) in humans closed off red meat exports, leading to oversupplied UK markets at a time when demand was stagnant or declining. Subsequent livestock disease outbreaks, in particular two outbreaks of FMD, had similarly disruptive effects by interrupting trade with European and other trading partners and increasing the supply on domestic markets (although the second outbreak was very much smaller and well contained).

^{*} Estimates

⁵⁶ Estimates of Net Farm Income (NFI) come from the Farm Accounts Survey for Scotland, (which was based on a sample of 458 farms in 2006/07 and 485 farms in 2005/06). The survey only includes full-time farms above a certain size (over and above 0.5 Standard Labour Requirements) and covers most main farm types in Scotland, excluding horticulture, specialist pig and specialist poultry producers. Estimates of NFI, in particular trends by farm type, should be treated with some caution as they are based on a relatively small sample size and are subject to annual sample variations.

Secondly, just as the strength of the UK pound from the mid 1990s up until 2007, when it started to fall, had serious effects on manufacturing industry, it also made UK farm products much less competitive in continental European markets and made imports from all the main supplying countries cheap. The fact that European support payments were made in Euros exacerbated the problem. The recent rapid slide of the pound sterling against the Euro has been beneficial for livestock product exporters.

Thirdly, the rise in energy costs was reflected both in transport costs (many remote areas have higher costs of transport of both inputs and outputs) and has affected input costs such as fertiliser.

Fourthly, the rapid rise in cereals prices from 2007 created knock-on effects on animal feed costs and deepened an already considerable crisis in the sector.

It is extremely difficult to separate out the short- and medium-term factors which have impacted so adversely on hill and upland farmers' incomes from the longer-term factors. If the pound had been weaker against the European currencies, and had the UK not suffered from the market disruptions caused by BSE and FMD, would hill and upland farmers' incomes have held up? Incomes were obviously badly affected by these factors. But the per capita demand for sheepmeat is static or declining slightly in much of Europe, with purchases higher among more elderly people. Despite this, the price of sheepmeat held up reasonably well until the disastrous market conditions of the autumn of 2007, when export market closure due to a limited outbreak of FMD in southern England completely disrupted the export trade in light lambs. Market prices for livestock have improved considerably in 2008, but still by not enough to enable the industry to operate without support; and at the same time transport costs, feed costs and fertiliser cost have risen substantially as a consequence of increased oil prices and the world shortage of grain. These increased costs in large part negate the benefit of increased prices for livestock, but net margins to farmers have improved; for some farmers substantially in recent months.

Decoupling and global grain markets

The decoupling of CAP support from production has meant that, even if support is not reduced, farmers are much more exposed to the volatility of market prices for agricultural commodities. This is a departure from one of the original aims of both post-war British agricultural policy and the original CAP, which was to protect farmers from fluctuating markets. It so happened that in 2007, especially, prices fell to very low levels for livestock products. Although farmers got some support from the Scottish Government for unexportable light lambs that had to be slaughtered, and a £6 headage payment for breeding ewes, the effect on the incomes of livestock farmers was very severe. The result has been to lead many farmers to reduce stocking levels or remove stock altogether.

The most recent cropping year (2006-7) has seen one of the most significant turnarounds in the performance of the arable farm sector in recent decades. For three main reasons arable farming products have experienced a rapid increase in price, with the price of grains, especially wheat and barley, doubling since the summer of 2007. First, various countries, especially the United States of America, are now pursuing a strategy of bio-energy production from arable crops. Secondly, drought in many areas, especially Australia and southern Europe, possibly as a consequence of climate change, has resulted in poor harvests so that global grain reserves are very low. Thirdly, buoyant demand from Asian economies is impacting on global prices. However, rapidly escalating energy costs have eaten into the improved margins and their effect is embodied in much higher fertiliser and other input costs.

TABLE 16: NET FARM INCOMES AND AVERAGE DIRECT SUBSIDIES BY FARM TYPE 2000/01 TO 2005/06

2000/01			2001/02			2002/03			2003/04			2004/05			2005/6		
3	lies	Subsidies as % of NFI	Net Farm Income	Direct Subsidies ¹	Subsidies as % of NFI	Net Farm Income	Direct Subsidies ¹	Subsidies as % of NFI	Net Farm Income	Direct Subsidies ¹	Subsidies as % of NFI	Net Farm Income	Direct Subsidies ¹	Subsidies as % of NFI	Net Farm Income	Single Farm Payment and Other Payments ¹	Subsidies as % of NFI
£/Farm	£/Farm	%	£/Farm	£/Farm	%	£/Farm	£/Farm	%	£/Farm	£/Farm	%	£/Farm	£/Farm	%	£/Farm	£/Farm	%
		798	100	20,300	18,500	8,900	24,100	270	9,900	24,300	250	8,600	25,400	294	4,800	24,400	513
6,600	27,400	414	13,400	30,000	220	20,700	43,000	210	20,800	42,300	200	18,400	46,800	254	12,600	44,900	357
		542	11,900	34,900	290	14,000	43,100	310	21,600	46,600	210	17,800	50,700	285	11,700	51,600	442
4,000	24,000	599	100	21,600	21,600	500	32,300	6700	17,000	38,200	220	1,500	34,500	2,326	3,100	33,500	1098
		661	6,700	26,100	390	-1,400	31,300	-2300	25,300	33,600	130	6,900	32,700	478	8,200	33,700	412
13,900	9,700	70	32,600	10,100	30	8,800	14,700	170	22,700	13,600	60	26,400	18,600	71	21,300	24,600	115
2,000	17,300	899	n/a	n/a	n/a	19,400	29,800	150	20,100	32,600	160	13,600	30,800	226	9,800	32,400	331
		511	10,700	35,100	330	9,100	43,000	470	22,400	48,000	210	14,600	47,800	328	14,400	46,500	323
		Direct e Subsidies 23,000 27,400 24,000 33,700 33,700 33,700 33,700 33,700	m E/Farm 23,000 27,400 27,400 32,500 32,500 33,700 33,700 33,700 33,700	### Direct Subsidies as % of NFI	### Direct Subsidies Net Farm Income of NFI 27,400 414 13,400 27,400 542 11,900 24,000 599 100 33,700 661 6,700 0 9,700 70 32,600 17,300 899 n/a 33,900 511 10,700	Jon Subsidies as % of NFI Net Farm lncome subsidies lncome Direct Subsidies of NFI 23,000 798 100 20,300 27,400 414 13,400 30,000 32,500 542 11,900 34,900 24,000 599 100 21,600 33,700 661 6,700 26,100 9,700 70 32,600 10,100 17,300 899 n/a n/a 33,900 511 10,700 35,100	Direct Subsidies Net Farm Direct Subsidies as % of NFI	/O1 Z001/02 Z002/03 rrm Direct e Subsidies e Subsidies as % of NFI Net Farm Income Subsidies Income Subsidies Income Subsidies Income Subsidies Income Subsidies Income Of NFI Subsidies Income Subsidies Income Of NFI Net Farm Subsidies Income Of NFI Net Farm Income Subsidies Income Of NFI Net Farm Income I	Immobile of Net Farm e Subsidies as % of NFI Subsidies of NFI Net Farm Subsidies Income of NFI Subsidies Subsidies of NFI Net Farm Subsidies Income of NFI NFI Net Farm Subsidies Income of NFI NET Subsidies Income of NFI NET Subsidies Income of NFI Net Farm Subsidies Inc					Direct Subsidies Anterior Subsidies Subsidie	Direct Subsidies Ask S		

1 Includes Less Favoured Areas Support Schemes (LFASS).

(Source: Scottish Executive 2003, 2005c, 2006, 2007)

The net effect of this renewal of relative prosperity in the arable sector has been to greatly increase pressure on the livestock sector. At a time when returns are already low, all of the livestock sectors are experiencing rapidly rising costs and declining profitability. The key uncertainty is what will happen to farm-gate prices when the short-term factors relating to disease-induced disruptions to trade and the medium-term factor of high exchange rates of the pound to Euro have changed. The improvements in fat and store livestock prices have eased the problem, but the long-run prospect for remotely located hill and island farms remains uncertain because of high transport and other input costs.

Doha and EU tariffs

The reduction of protection as part of the Doha Round has caused concern among the farming community in Ireland, where it is said to have been a factor in the Irish rejection of the Lisbon Treaty in the recent referendum. The anxiety is caused by a possible large increase in imported beef from South America, particularly from Brazil. Similar concern has been voiced in strong terms by the President of France and by the farming community in Scotland.

The economy of Brazil is rapidly developing, exports of meat have been growing and there is scope for this growth to increase. The EU Commissioner for Agriculture made it very clear in her evidence to the House of Lords Committee, that European livestock agriculture could not compete on price with imports from South America and that, in the absence of direct support, it would be forced to contract sharply⁵⁷. The same point was made to us by officials of the EU, when we visited Brussels. Such contraction, were it to occur, would be likely to be most severe in areas that are disadvantaged by soil or climate, such as the Hills and Islands of Scotland.

At present, the EU levies a tariff of 12.8 per cent on both beef and sheepmeat, but with the addition of a fixed sum depending on the cut⁵⁸. This varies between 1.41 and 3.03 Euros per kilogram for beef and between 1.19 and 3.11 Euros for sheepmeat; in both cases the higher rate being for boneless meat.

It is not yet clear how these tariffs might be affected by the Doha Round negotiations, but the position of both Mr Mandelson, the EU Trade Commissioner, and the British Government, seems to be that they want these tariffs reduced or removed in favour of freeing agricultural trade. Obviously, this could have an effect on the prices of meat products in the EU and in Britain, since it would affect imports of beef and sheepmeat from South America and from Australia and New Zealand. How significant this effect would be is impossible to judge at this stage. It would depend on whether the tariffs were wholly or only partly reduced and on the response from supplying countries.

As far as South America is concerned, biosecurity measures might well be of greater importance than a tariff reduction; and the restriction of Brazil's beef exports to Europe on biosecurity grounds may be an important factor in the increased prices for these products in Europe this year. Unless Europe keeps up its guard against FMD and other diseases, the European livestock industry will be at serious risk. Exports of meat from South America to China are growing fast and it is understood that during the period that the EU banned imports from Brazil, much of this supply was diverted to China.

What seems clear is that it would be a dangerous strategy to allow European livestock farming, including that in Scotland, to decline and for future supplies to depend heavily on imports from South America, if there are doubts about biosecurity or supply being maintained at present prices

⁵⁷ See Mrs Mariann Fischer Boel's answers to Q688 and Q690. Evidence session Thursday 6 December 2007 to the House of Lords European Union Committee, Session 2007-08.

in the face of growing demand from Asia. If livestock farming in Europe, and especially in Scotland, were allowed to go into sharp decline, the process could not easily or quickly be reversed. Nor if cutting down Brazilian rainforest were the consequence of expanding Brazil's meat exports, would that make sense in the interests of trying to halt climate change.

Adjusting to change

The low returns and generally isolated lifestyles associated with livestock farming have led many to give up farming, or at least lower their farming intensity, especially when alternative local income generating possibilities exist. But this process is slow. Unlike many manufacturing industries, farmers are not able to adjust supply rapidly in the face of low demand and thereby to maintain price. Adjustment takes years and may well go too far so that a period of market abundance is succeeded by one of shortage. Meantime, the average age of farmers is increasing and there are signs that many in the next generation are unprepared to accept the hard work and low rewards that hill and island livestock farming entails. The ability of farmers to reduce their output in response to low returns but to continue to get the Single Farm Payment discourages retirement but, equally, fails to facilitate entry for younger farmers to the industry.

For the future, in spite of the adverse market for livestock production, there have been a number of developments that have led to growth in certain food markets. First, demand for organic food has expanded substantially from a low base. Secondly, the market for quality local food has grown, again from a small base. Both of these are driven by a demand for authenticity, for healthy food and for traceability. We see a connection here with the demand from the tourist industry and believe that much could be done to encourage further growth in this market.

There is, however, a serious income crisis in hill and island farming and, despite recently improved market conditions, a more favourable exchange rate and the development of organic and local food, the overall financial situation is bleak. There are some opportunities to diversify, but these are limited and not available to everyone. The survival of this sector of farming thus depends both on a sustained upturn in prices and the continued provision of public support.

Future Support for Agriculture

Any proposals for the future of agricultural policy therefore need to take into account that the UK is a member state of the EU and be compatible with the CAP. Although there is scope for some purely national, or Scottish measures, these need to conform to the general principles of the CAP. Any proposed changes from a Scottish perspective would therefore require to be negotiated alongside the other 26 member states and, equally importantly, with the other countries and regions of the UK. It is therefore important to be aware of the European and UK contexts in which change can be envisaged, while at the same time achieving the most appropriate outcome for Scotland.

Currently, the measures already described that apply to hill and island agriculture are subject to review as part of the European Commission's 'health check' of measures introduced under the 2003 Mid-Term Review. This is not intended to introduce major changes, but only to make necessary adjustments in the period up to 2013. We note that the Scottish Government is undertaking a consultation on the EU CAP health check. A more fundamental review to decide on policy after 2013 will follow and this could result in substantial change. It is vitally important to prepare for this; the Scottish Government needs to form its own view of the type

of policy and changes it should press for both now and post-2013. We note that the Scottish Government has initiated debate on this through a consultation on the future implementation of the CAP in Scotland, published in June 2008.

The Treasury/DEFRA paper A Vision for the Common Agricultural Policy was intended as preparation for this and is a statement of UK Government policy⁵⁹. It proposes the ending of all direct support for agriculture (Pillar I) and payment only for public goods. No attempt was made, however, to assess the effect that such a change would have on agriculture in the constituent countries and regions of the UK. By failing to do this, the paper was severely criticised by a House of Commons Committee⁶⁰. No agreement was sought from the devolved administrations in Scotland, Wales or Northern Ireland. We regard that as not only surprising but totally unacceptable. Nor was any indication given of how much might be paid for such public benefits, a matter on which there could be widely differing views. Reducing the cost of the CAP seemed to be the primary aim, and to meet a need for the UK Government to be more explicit about its own longer-term aims during a period when it held the Presidency of the EU. Not surprisingly the paper's proposals were treated with deep scepticism by the majority of the Member States.

From all the evidence we have received and from our visits, we have concluded that farming in the Hills and Islands simply could not continue in anything like its present form, if direct support under Pillar I were to be ended. We believe that the same would be true in much of the livestock farming areas of Wales and the North of England. The European Commissioner has herself said that much of livestock farming in Europe would be unable to compete with imports from South America and that a system of direct support is necessary⁶¹. We agree with that view and therefore reject the UK Government's policy as set out in the Treasury/DEFRA paper.

The recent House of Lords Inquiry also recommended the ending of direct support and is subject to the same criticisms⁶². An Organisation for Economic Co-operation and Development (OECD) study proposed that greater emphasis should be given to rural development policy, rather than focus on agriculture. It was less explicit about the redeployment of funds that this might imply and how such policy development would relate to the roles of HIE and Scottish Enterprise⁶³.

There is, of course, a theoretical case for the Treasury's approach. It is argued that policy should be based essentially on free and unrestricted trade, and if agriculture is not economically viable as a food, fibre and fuel producing industry without support, but provides environmental and other public benefits, it should be paid from the 'public purse' only for the public benefits it delivers. This raises questions about how such benefits are to be assessed, on which there could be wide differences of view, how much should be paid for them and how it should be administered efficiently. It appears to us that if Pillar 2 alone were to be used to support agriculture, the system would become very bureaucratic, that there would no longer be a common European policy, if Pillar 2 payments were to vary as much between countries as they do now, and that the increase in such payments would have to be very large indeed if hill and island livestock farming were to be maintained in anything like its present form with the public benefits that are associated with it.

We do agree that, if the continuation of direct support under Pillar 1 is to be acceptable to the European taxpayer, there has to be greater clarity in what it is delivering. We regard the management of Scotland's rural landscape and biodiversity, issues relating to climate change, maintenance of food security and the preservation of viable rural communities as providing a

 $[\]mathbf{59} \hspace{0.1cm} \mathsf{H} \hspace{0.1cm} \mathsf{M} \hspace{0.1cm} \mathsf{Treasury/DEFRA}, \hspace{0.1cm} \mathsf{A} \hspace{0.1cm} \mathsf{Vision} \hspace{0.1cm} \mathsf{for} \hspace{0.1cm} \mathsf{the} \hspace{0.1cm} \mathsf{Common} \hspace{0.1cm} \mathsf{Agricultural} \hspace{0.1cm} \mathsf{Policy}, \hspace{0.1cm} \mathsf{December} \hspace{0.1cm} \mathsf{2005} \hspace{0.1cm} \mathsf{M} \hspace{0.1cm}$

⁶⁰ House of Commons Environment, Food and Rural Affairs Committee, Fourth Report of Session 2006-07, The UK Government's "Vision for the Common Agricultural Policy". HC 546-1, 23 May 2007.

⁶¹ Mrs Marian Fischer Boel's evidence to the House of Lords European Committee, 6 December 2007

⁶² House of Lords European Union Committee, The Future of the Common Agricultural Policy, HL Paper 54-1, The Stationery Office, March 2008.

⁶³ OECD Rural Policy Reviews, Scotland, UK - Assessment and Recommendations, OECD, 2008

strong case for maintaining livestock-based agriculture in the Hills and Islands. There may not be agreement on the relative importance of these various factors, but taken together we think that they justify a general scheme of direct support.

Whatever support is given may not be sufficient to ensure that livestock agriculture is viable in every part of the Hills and Islands. There are huge differences; for example, some areas such as the north and west mainland and some of the islands are more severely disadvantaged than others such as the Southern Uplands, Highland Perthshire, Orkney and rural Aberdeenshire. There are also big differences in the quality of product. Technical progress, changing markets, and the relationship between input costs and product prices will also inevitably bring about change in the relative viability of businesses, depending upon the nature of the resources that are farmed. This will lead, as it does now, to a differential regional impact in the contribution that agriculture will make to the rural economy and the environment in future.

Nevertheless, assuming that some form of direct support (Pillar 1) will continue and that there will also be support for a variety of specific 'rural development' purposes (Pillar 2), what form, in the interests of Scotland, should this support take, both in the short term up to 2013, and in the longer term?

For the period after 2013, there will have been a major review of EU aims and policies, with consequent impacts on the EU budget allocations. With the enlargement of the EU and continuing pressure from the net contributor countries, not least from the UK, the only sensible assumption is that resources for the CAP will be severely stretched. On the basis of this assumption being correct, it is important to prepare for such circumstances as soon as possible, so that following the reforms that will come into place after 2013, the rural economy, environment and communities of Scotland have an assured future.

At present, as the previous section has shown, support for Scottish agriculture is in excess of £500 million (see Table 14) and of this some £280-£300 million is spent on the LFA, not all of which goes to the hill and island areas as we have defined them⁶⁴. This is a substantial amount, far more than the support given to other sections of the rural economy. If livestock agriculture in the hill and island areas is struggling, one has to start by asking if this money is being used as effectively as it should. Against this background, we consider the proposals for change both in the health check and as outlined to us by officials of the European Commission.

The Single Farm Payment

Over the last nine years, livestock numbers have declined substantially in the hill and island areas (see Chapter 2). Some of this decline was to be expected and even welcomed, because the former headage payments tended to result in overstocking, with adverse effects on product quality, efficiency and the environment. The Single Farm Payment and the LFASS payment no longer require specific numbers of animals to be kept to qualify for the payment, and there has been a continuing lack of profitability of sheep and cattle production in these areas. These facts have inevitably led farmers to reduce and in some cases remove stock altogether from their farms. They remain eligible for the SFP provided they manage their farms to standards of Good Agriculture and Environmental Condition (GAEC), and meet their Statutory Management Requirements. The consequent reduction in livestock, which is likely to continue, could have a potentially adverse environmental impact as a result of under-grazing. This is a matter of concern in relation to both biodiversity and the integrity of wildlife patterns across Scotland.

In Scotland, the historically-based Single Farm Payment has become increasingly irrelevant and anomalous in the circumstances under which most farmers operate their businesses and the public benefits that the payment is supposed to deliver. Even though the minimal criteria for meeting GAEC may be achieved by other artificial means, the removal of livestock from hill areas runs counter to the natural maintenance of good environmental condition for our hill and island habitats. In other cases, farmers who wish to 'retire' use the SFP as a pension, stay on their farm and do the minimum to satisfy GAEC. In yet further cases we are told it is possible for a lowland farmer to retain his historically-based SFP but to move to a farm in a hill area where GAEC is less exacting. In the light of these anomalies, we make a recommendation below on the need to transfer SFP from the owner, or tenant, to the land. A new farmer coming into a farm would require to purchase SFP for it, but on the other hand if he did not wish to do so would not require to meet the conditions of GAEC. These cases may not be very numerous but, in our view, do not meet the original rationale for such support to continue after decoupling.

Before 2013

At present, Member States can choose whether to pay SFP on a basis of historical income received or on an area basis. The historical basis was easier to apply, since it involved less change, but the Commission considers that it will no longer be defensible after 2013; it therefore proposes in the CAP Health Check that changes might be made before then. We agree that a move to an area-based system of payment for the period after 2013 will be inevitable and desirable, but not a flat-based system, which would be illogical and inappropriate.

Recommendation 7: The Scottish Government should begin to plan for a change to make the Single Farm Payment on an area basis as soon as possible and consider doing so in phased steps before 2013, to ease what is likely to be a difficult change and recognising that a simple shift to a flat rate area-based payment would be illogical and inappropriate.

Subsidiary Recommendation 7a: It is essential that the Single Farm Payment is attached to the land and reflects the cost to the land manager of the public services that will be expected to be delivered from it.

There are, however, several important questions arising from such proposals.

- On what basis should the payment be calculated? The implications of the Scottish Government's consultation document on CAP reform are that payment might be related to the Macaulay Land Capability Classification for Agriculture. Following the intimation of the European Commission that the SFP should relate to the delivery of environmental services, we propose that the payment should relate specifically to the cost of the public services that farmers will be expected to deliver from a specific parcel of land in the course of being in active agriculture. This will result inevitably in a redistribution of the SFP fund and any change should be implemented in a degressive fashion. It is a reason for starting the process before 2013.
- How will active agriculture be defined? There are several ways in which this could be approached, but it should be defined sufficiently rigorously to ensure that agricultural outputs remain a significant component of the land management activity relative to what might be reasonably expected from the specific parcel of land for which payment is being received.

- To whom should the payment be made in the future? There are at least two options. The first would be the existing recipient; the second, (since they may not be the same) would be the individual(s) who through whatever arrangement (partnership, tenant, contractor) have the day to day responsibility for managing the land throughout the year for agriculture and would be responsible, therefore, for the delivery of the public goods for which the SFP was being paid. The latter has the merit of ensuring that those responsible for land management are also unequivocally responsible for delivering the public goods; no intermediary would be involved.
- Who would in effect 'own' the SFP? Again there are several ways of approaching this but since the payment is conditional on the delivery of specific public goods from a specific piece of land it must be questionable as to whether it can any longer be regarded as a capital asset: in the context of the area based proposal, is it not simply an income stream arising from work undertaken to meet specific agreed public good obligations?

All of these questions and the implications arising from them could have far reaching consequences for those who currently own the SFP and who might at some point have expected to realise capital from it. There are many practical and legal issues that will also require resolution. We make, therefore the following recommendation.

Recommendation 8: We urge the Scottish Government to commission research to inform decision making and assist in the resolution of the difficult issues arising from the conversion of the SFP to an area based payment so that an effective and transparent scheme can be put in place to deliver the public goods required.

Officials of the Commission told us that they were aware of the viability problems of sheep farming in our hill and island areas and suggested that an element of support might be undertaken using Article 69 in a way similar to that used for the beef calf scheme. They are proposing in the CAP Health Check that Article 69 be made more flexible, so that funds to support a particular scheme need no longer be taken by top-slicing payments for that sector. A recent report from the European Parliament expresses concern for sheep farming throughout Europe and supports this approach⁶⁵. This would enable a scheme for sheep to be funded by taking SFP from other sectors.

Recommendation 9: The Scottish Government should support the proposed greater flexibility under Article 69 and consider applying it to provide an element of managed grazing by sheep and cattle to achieve a range of public goods.

New entrants

It is also important to provide greater encouragement to new entrants into agriculture: they will be the life blood of the industry, and provide the innovative flair that will be needed for the future. Since the SFP is currently not tied to the land, new entrants either buying or taking the tenancy of a holding have no automatic access to the SFP since there is no national reserve. This is inequitable and puts new entrants at a serious financial disadvantage in acquiring working capital and constructing a viable business plan. The SFP also delivers a set of goods and services through cross compliance that have environmental and welfare benefits. Holdings that do not receive the SFP are not obliged to meet these obligations. In addition to achieving equality of opportunity, we conclude that it is in the public interest that any new system that determines the basis of the Single Farm Payment should enable new entrants to have ready access to it.

After 2013

To provide a clearer and more defensible justification for the continuation of Pillar 1, the Commission is presently considering the replacement of GAEC after 2013 with a clear definition of the public benefit outcomes that the SFP is meant to provide. This would probably link the SFP more closely to environmental benefit. But a clear definition of benefit is not the only issue here; it is also necessary to ensure that it is properly monitored and enforced. The existing GAEC rule has quite stringent conditions, but these are not always adequately enforced, and the Commission told us that in some countries, where the enforcement is lax, they were likely to start infringement proceedings.

Recommendation 10: A clearer definition of the public benefits paid for by the SFP is required for the period after 2013: the Scottish Government should take steps to ensure that these benefits are fully understood by land managers and by the public, and that they are properly enforced.

Recommendation 11: There should be a requirement for a whole farm plan for each unit in receipt of public funds to define the public good outcomes and the management protocols to achieve them.

We consider that more fundamental change is required to the CAP if the integration of land management is to achieve food, environment and climate change objectives. We outline our proposals for a new *EU Land*, *Environment and Climate Change Policy* in the last section of this chapter.

Modulation

The health check proposes raising the rate of modulation from the present five per cent to eight per cent from 2009 to 2012⁶⁶. In the two countries where there is at present voluntary modulation – the UK and Portugal – the EU Commission would wish the rate of voluntary modulation to be reduced to offset this higher rate of compulsory modulation. This proposal would therefore imply that the total rate of modulation would rise in all countries except the UK and Portugal, where the total rate would not change.

It is further proposed that funds from this higher rate of modulation should be retained by the member state from which they are raised rather than suffer the 20 per cent deduction that presently applies, and may be used to fund other member states. The 20 per cent deduction would therefore still apply to the existing five per cent rate but not to the additional three per cent. Unlike voluntary modulation, which applies to all land holdings, compulsory modulation applies only to agricultural holdings with income above 5,000 Euros. Many croft holdings will therefore be excluded by what is termed "the franchise". We consider this helpful, although SFP payments to crofts are generally very small. The reduction in voluntary modulation will therefore not be an exact offset for the increased compulsory modulation. We consider this proposal acceptable and of benefit in so far as it would treat farming equally throughout the EU and help to ensure that it has a fair competitive basis.

Recommendation 12: The Scottish Government should accept the proposed increased rate of compulsory modulation provided that it is compensated for by a reduction in voluntary modulation and that the funds raised in Scotland are entirely retained within Scotland.

Officials of the Commission propose to use the increased funding from the higher rate of modulation for four major challenges partly to mitigate and partly to adapt to climate change:

- Better management of soil, including care and retention of peat land;
- Improved storage and use of slurry;
- Water management; and
- Biodiversity promotion.

There is also recognition of the importance of forestry in sequestering carbon and of the need to assist and promote biomass heating systems. The expectation would be that there would be additional funding as part of the SRDP to facilitate the latter.

Recommendation 13: The Scottish Government should support the European Commission's proposals to focus additional funding arising from increased compulsory modulation on climate change mitigation and adaptation.

The LFASS payment

The largest part of Pillar 2 funding for agriculture in Scotland (over 50 per cent) is taken up by LFASS. Officials of the Commission have told us that they see a case for moving this to Pillar 1 after 2013, on the grounds that it is essentially an agricultural support measure, similar to SFP but for disadvantaged areas. There is force in this argument, especially after SFP is moved to an area basis for payment. LFASS could then be seen simply as an enhanced rate of SFP for disadvantaged areas. This would also be achieved by flattening of the SFP along the lines proposed in the recent Health Check.

There are, however, a number of problems. LFASS is not at present well-directed towards fully compensating for degrees of disadvantage. The additional costs of remoteness, for example, do not alter the rate at which it is paid. The Macaulay Institute undertook a major study of LFASS on behalf of the previous Scottish Executive. This showed that livestock farming throughout the LFA was heavily dependent on LFASS. Where farming is a full time occupation, any diminution in LFASS will have a greater consequence than where farming is part time⁶⁷. This matter therefore has to be approached with care. Officials of the Commission have told us that they see a case for making LFASS linked more to the environment and gearing it to soil type, yield and climate.

The recent EC discussion paper on the future of LFASS illustrates the current thinking and provides options as to how the basis of LFASS might be changed68. We think the options based on biophysical criteria to be applied across Europe (Options 2 and 3) are inappropriate for Scotland, particularly those related to climate. We are attracted to the idea of High Nature Value (HNV) farming (Option 4) but recognise the problems of classification and the delineation of HNV areas as well as the administrative burden of such a scheme in the short term. While we recognise that any change in the current basis of funding could involve significant redistribution, we believe this to be necessary to enable the appropriate public benefits to be secured and, if LFASS is to remain within Pillar 2, to reflect the purpose for which Pillar 2 payments are made.

⁶⁷ Gerald Schwarz et al. Less Favoured Area Support Scheme in Scotland: Review of the Evidence and Appraisal of Options for the Scheme Post 2010, A Report for the Scottish Executive, December 2006

⁶⁸ Review of the 'Less Favoured Areas' Scheme. European Commission, 30 June 2008 (http://ec.europa.eu/agriculture/consultations/lfa/consultationdocen.pdf)

Recommendation 14: The criteria for support for land defined as Less Favoured Area should be changed to give greater emphasis to the delivery of environmental and climate change public benefits rather than solely agricultural production.

Pillar 2 Funding

A major complication of moving LFASS to Pillar 1 after 2013 is that Pillar 2 is at present funded to the extent of 70 per cent by the Scottish Government. The Commission's allocation for Pillar 2 has to be matched by funding from national governments. But in Scotland's case this is topped up so that the Scottish Government provides 70 per cent and the EU only 30 per cent of the total. This would make for a complication if LFASS, at present funded under Pillar 2, were moved to Pillar 1, particularly in terms of state aid support. This is not insurmountable but it relates to the woefully inadequate funding of Pillar 2 both in the UK generally and especially in Scotland.

Table 17 gives the EU funding per hectare per year of utilised agricultural area in selected EU member states and the total funding for Rural Development (Pillar 2) 2000-2006⁶⁹. Of all the 25 member states, the highest figures are for Malta and the lowest are for the UK, with Denmark the second lowest. As will be seen, the differences between Member States are very large indeed. The per hectare funding for Scotland is even lower than that for the UK as a whole, but it is possible that some of this difference may be accounted for by the definition of utilised agricultural area, which probably includes some much less intensively farmed hectares in Scotland than in the other constituent countries of the UK.

TABLE 17 **COMPARISON OF RURAL DEVELOPMENT FUNDING BETWEEN SELECTED EUROPEAN UNION STATES (£ PER HECTARE OF UTILISED AGRICULTURAL AREA PER YEAR)**

Country	National and EU funding 2000-06	EU funding only 2000-06	EU allocation only 2007-2013
Austria	206.1	99.9	121.8
Sweden	82.8	36.7	59.2
Finland	248.2	99.4	94.0
Ireland	85.3	54.3	54.3
Luxembourg	295.7	72.0	71.3
Germany	57.0	31.7	48.5
France	44.4	21.0	23.5
Spain	23.4	14.0	29.1
Italy	68.2	34.9	64.1
Denmark	31.7	13.3	17.0
UK	27.9	11.1	12.0
England	26.2	11.6	12.7
Wales	50.7	15.3	20.8
Northern Ireland	38.5	17.0	16.4
Scotland	22.2	7.6	7.4

Note: Utilised Agricultural Area of farmed land (Eurostats 2003)

Source: Rural Development Programmes 2000-2006 Country Profiles. European Commission Fact Sheet, The EU Rural Development Policy 2007-2013

The significance of this was brought home to the Committee when they visited Ireland. The total area of the Irish Republic is smaller than Scotland and 70 per cent is classified as LFA, compared with 85 per cent in Scotland, yet the Irish scheme for their LFA provides 250m Euros (about £178m) in support, compared with £61m spent on LFASS in Scotland. Irish agri-

environment schemes provided a further 350m Euros (£250m), compared with some £52m in Scotland. In addition, they provide 50m Euros to assist early retirement. Even so, Irish support arrangements are not particularly generous judging by what is spent in other countries. It is clear from these figures that Scottish farmers are not competing on equal terms with their counterparts in other countries and we consider this to be a matter of serious concern.

We understand that the EU's Pillar 2 funding was originally decided on the basis of what national governments had been spending before on similar schemes. As the UK was spending relatively little in the 1990s, it was given a small allocation. When the UK Government had the opportunity in the mid 1990s to increase support and gain matching funding from the EU, it declined to do so; whereas other countries, such as Ireland and Austria, did so. There was no doubt a variety of EU related policy reasons for this decision by the UK Government; nevertheless, it resulted in the low level of funding for agri-environment programmes compared with other EU Member States. As a result, the Scottish Government is now funding 70 per cent of the schemes, whereas the rules would allow the EU to fund 55 per cent. The under-funding is therefore coupled with a lower proportion of resources from the EU than in other Member States. This was probably in default of any better arrangement. But, the result is not just unsatisfactory and inequitable: it is a scandal. By putting UK and Scottish farmers at such a disadvantage compared with others in Europe, it destroys any pretence that the CAP can claim to be a common policy, at least with regard to Pillar 2. It also undermines the capacity of UK farmers to deliver improved outcomes in the public good activities funded by Pillar 2, which the UK Government has asserted is the underlying rationale for future CAP support. Yet, it was the need for a common policy to put European farmers on broadly equal terms that was one of the original reasons for having a CAP.

It is not clear whether the then UK Government or Scottish Executive attempted to get a fairer allocation of Pillar 2 funds in the negotiations for the Mid-Term Review to rectify this. The UK's chances of a more equitable distribution were not helped by the UK Government's attempt to restrain the size of the EU's budget both during the 1990s and in 2003. We have been told that in 2005, when the EU published its Financial Perspective for the years to 2013, the UK Government was prominent amongst the net contributor countries in arguing for a smaller level of spending on rural development. In consequence, the funding was cut by more than 20 per cent from that proposed by the Commission. In these circumstances it is easy to see that the EU would not be keen to raise its allocation to the UK.

Any attempt to reopen the issue of financing for agriculture would appear to be bound up with the UK's general position in relation to the EU budget and in particular the rebate⁷⁰. The House of Commons Food, Environment and Rural Affairs Committee has concluded that to achieve CAP reform, and in particular a strengthened rural policy, the UK may have to be prepared to sacrifice at least part of the rebate71. We do not expect the UK Government to welcome such a suggestion, but we believe that over time the rebate will become increasingly difficult to defend and that, rather than see it simply eroded, it would be important to ensure that some benefit is obtained.

There is the more general point that the EU allocation for Pillar 2 among Member States continues to be made on a historical basis. This has become increasingly less relevant as new Member States have joined the EU and new challenges continue to arise. It would be reasonable to readjust the Pillar 2 payments to achieve a direct relationship between meeting the new challenges that face Member States, particularly those arising from climate change and the

management of the environment, and the cost of doing so.

Present funding plans for agriculture and environmental measures are set out in the Scottish Government: Scottish Budget Spending Review 2007; they refer to the whole of Scotland or the Less Favourable Areas, in both cases an area greater the Hills and Islands. It is planned that the Single Farm Payment will have a flat cash line for the 2008-2011 period. Less Favoured Areas payments will have a flat cash line of £61.0m for the 2008-2011 period. Rural Development Contracts will rise from £74.7m in the current financial year to £108.2m in 2010-2011. We welcome these planned increases, but consider that Scotland will still be under-funded compared to other Member States and, as a result, the public benefits which can be derived from additional resources will not be achieved.

We regard an appropriate level of funding based on need and comparable with other Member States as one of the most essential issues for the Scottish Government to resolve.

Recommendation 15: The Scottish Government should make it clear that it does not accept the present inadequate EU funding of Pillar 2, which puts Scottish farmers at a serious disadvantage compared with their counterparts in other Member States, and press the UK Government in the forthcoming negotiations on the EU budget to get it increased, even if some erosion of the UK's rebate is necessary to achieve this.

Crofting

Crofting exists as a system of land tenure. A croft is a small land holding, regulated through the Crofting Acts, (the first of these dated 1886), situated within one of the former Crofting Counties – Argyll, Inverness-shire, Ross and Cromarty, Sutherland, Caithness, Orkney and Shetland. Crofters constitute around 11 per cent of the population, and 10 per cent of households, in remote rural areas.

Its role and future

As a system of land tenure, crofting provides a unique, multi-faceted contribution to a large part of the Hills and Islands through the use and management of the land, through its contribution to biodiversity and landscape diversity conservation, through opportunities for combining a variety of occupations, and through its social structure and its culture. Crofting is regulated by the Crofters Commission, and is also subject to the Scottish Land Court. The Commission exercises wide powers and discretion, but for the purposes of this Inquiry's Report, these contribute to three main outcomes: physical occupation of the land; positive use of the land; and shared management of a resource held in common.

The recent Inquiry on Crofting⁷², as well as the Crofting Reform etc. Act 2007, demonstrate the Scottish Government's support for crofting, which we welcome. We share the same vision for crofting as that contained in the recently published Final Report of the Committee of Inquiry on Crofting – 'growing, prosperous, inclusive and sustainable crofting communities which enjoy the capacity and the power to develop their own strategic plans and to pursue those with vigour subject to legitimate national interests...'⁷³ We agree that a crofting system, adapted to modern circumstances, has much to offer in the context of rural development and the part it can play in strengthening and maintaining rural communities. We are less persuaded by the Inquiry's suggestions as to how this might be achieved.

There are arguments in favour of both maintaining and expanding the area under crofting agriculture. Crofting agriculture has the potential to contribute significantly to environmental care and the production of food products for local markets, as well as branded products marketed elsewhere. The conservation benefits from crofting, especially for protected birds, such as the corncrake, and the maintenance of landscape diversity, are well documented. We discuss the potential for the supply of food for local markets, for visitors and for export into niche markets in Chapter 5.

Without action, however, to ensure long term public support as discussed earlier for agriculture, crofting agriculture will decline and the benefits arising from active agriculture will be lost. For instance, across the Crofting Counties, there is now a residue of previously reseeded and improved pasture that is under threat. This has been a valuable habitat as well as a source of improved feed for sheep and cattle, but will only remain so if appropriately grazed. To maintain and enhance these beneficial effects will require incentives for cultivation for specific purposes, retention of sheep and cattle, and effective common management of common grazings. Our recommendation on limited re-coupling, if approved, would provide the potential for this to occur.

Issues arising from our Inquiry

We believe crofting can potentially contribute to an even greater extent to land and environmental management than it does at present, and to economic and community development. To capture this potential requires a number of ingredients: the creation of new crofts; overcoming absenteeism and the neglect and misuse of the land; ensuring that the arrangements for croft housing are compatible with those for affordable housing elsewhere; and sustained public funding to support the sustainable management of land in the remoter parts of Scotland.

New crofts

Prior to 2007, crofting was completely confined to the former Crofting Counties. New crofts can now be created, at Ministers' behest, in the remainder of Scotland under the Crofting Reform etc Act 2007. The advantage in being a croft tenant resides in the enhanced rights that crofters enjoy as against agricultural tenants, for example, the tenancy is for life and may be bequeathed to a family member. We see potential benefits in this approach, as the powers to operate a regulated system of land tenure do not exist anywhere else. Both these developments might well mean that the amount of croft land will increase, should applications come forward.

The Crofters Commission has recently been actively engaged in the process of examining this new possibility, has received inquiries from several locations within the Crofting Counties, some of which are quite advanced, and has so far created seven new crofts, with several more at a late stage of consideration. Extending crofting outside the original Crofting Counties, with the approval of Ministers, is now under consultation for two areas. If crofts are created in these areas, the rights of the new tenants can be constrained, to exclude the right to buy, or assign without the landlord's consent. This applies likewise to crofts created within the Crofting Counties, and indeed any new lets of existing crofts which are declared vacant for any reason.

However, a simple injunction to act could be counter productive, as local authorities in particular might perceive, on the one hand, a usurping of their powers as a planning authority and on the other, a potential open-ended burden on their costs of providing services. A clear framework for selecting areas will be necessary to achieve maximum public benefit.

Recommendation 16: The Crofters Commission should, through appropriate procedures, and with the support of Scottish Ministers, select areas, and use their powers under legislation, in partnership with others, to pursue change within the areas selected, through the creation of crofts and other measures.

Absenteeism, neglect and misuse of land

Within the Crofting Counties, around 25 per cent of the total agricultural land is believed to be in crofting tenure. There are 17,700 crofts on the register, and around 7,500 crofters, which suggests that a high proportion of crofters occupy more than one croft and, supported by evidence from the high number of IACS applications from crofters, that a high proportion are also in some form of agricultural use. There are no figures available on crofts being worked, as much depends on the definition of 'actively worked'. It is likely, however, that the great majority of crofts are being used, if not by the crofter, then by others in the township under informal arrangements, most usually as additional grazing.

Nevertheless, there is widespread absenteeism as a result of crofters retaining the house and land, but working and living away from the area for long periods of time. This has the effect of making communities dormant and also means that the land, if not sublet, is not given the attention it needs and stock are not kept, which leads to the neglect and misuse of the land. This is exacerbated also by occupying crofters choosing to gain greater income from other pursuits, leaving less time to tend the land.

The Crofters Commission regulates and can enforce occupation and, to a certain extent, address the misuse and neglect of the land. The Commission's powers regarding occupation, if implemented, are strong, but those on use and common management are less well defined. Given the concerns about neglect, and the implications that this has for loss of biodiversity and landscape diversity, and opportunities for developing local foods, we consider that this trend could be reversed by the use of two policy instruments.

First, the revised Crofting Reform etc. Act 2007 allows for action where crofts are misused or neglected, so that a crofter whose croft is derelict could lose his or her right of tenancy if the Crofters Commission decided to act. In terms of the public interest, we certainly support the view that action is required, but recognise the potential conflicts within a community that may arise from such action. To ensure that all crofts are occupied by an active, resident crofter, the Crofting Inquiry proposes a strengthening of the legislation further by imposing housing burdens (i.e. a residency burden). We take the view that action should be driven primarily by crofting communities themselves based on their aspirations for local crofting development, recognising, for example, the community benefits associated with the shared management of natural assets and the regulation of common grazings by Grazings Committees.

Secondly, we would support some form of incentive, which would make working with livestock, or some other land-based activity, worthwhile. Some limited re-coupling of Pillar I support to encourage the keeping of livestock for non-production benefits would be helpful (although the use of Article 69 is also a possible means). In addition, a more flexible use of SRDP management options would be required, along the lines we suggest more generally in relation to delivering agri-environment outcomes.

Recommendation 17: The Scottish Government, as part of its revised approach to crofting, should ensure that powers to overcome neglect and misuse of crofting land are fully utilised, particularly where crofting communities have agreed local community development plans.

Housing

As elsewhere in the Hills and Islands, evidence to our Inquiry within the Crofting Counties brought to our attention a lack of affordable housing; it was suggested that this was a result of market pressures from other sources, such as for retirement houses and as second homes. We deal with affordable housing and the contribution that the Croft House Grant Scheme has made to improving the housing stock in crofting areas in Chapter 6.

Over the years, improved housing and additional croft housing has been stimulated by the Croft House Grant Scheme. To build new houses, crofters can de-croft small parcels of land on their holding for such a purpose. On average, between 100 and 200 hectares of land across the Crofting Counties is removed annually by de-crofting. An unknown amount is also lost by the process of resumption, where a landlord applies to the Scottish Land Court for permission to remove land from crofting tenure for a given purpose.

What is known as the statutory house site, the actual croft house, carries an absolute right of de-crofting. Other de-croftings are discretionary, and are almost always carried out to produce an asset which can bear a mortgage. Once built, the crofter is ultimately free under present legislation to sell the house, taking it beyond the reach of crofting legislation. This practice has been criticised as having the potential to undermine the concept of crofting, and crofting community culture. The Crofting Inquiry has suggested resolving these issues by removing the absolute right to de-croft. While on the one hand, the supply of good quality housing in these areas is clearly a public good, on the other, it is recognised that good quality ground in the crofting counties is scarce. Current policy, which we support, is to try to explore with Grazings Committees, local authorities and others how housing need might be met, while trying to preserve good quality land and community unity.

Public finance to crofting

Currently crofting benefits from considerable public expenditure. Over and above the normal SFP and LFASS payments, total public spend on crofting at present, in grants or other public support which is specific to crofting in any one year, amounts to some £6.8m. This is allocated as follows in 2008-09:

Crofting Counties Agricultural Grants Scheme	£3.0m
Croft House Grant Scheme	£3.1m
Cattle Improvement Scheme (Bull Hire)	£0.5m
Highlands and Islands Croft Entrant Scheme	£0.2m

Crofters can also apply for support through the SRDP. But, there are quite a large number, unquantified, who do not submit an annual IACS form, and hence rule themselves out of these payments. However, in addition HIE also provides funding to crofting communities to support community and business development.

Since 1955, the most significant of the crofter-specific payments have been the Crofting Counties Agricultural Grants Scheme (CCAGS) and Crofting Building Grant and Loan Scheme (CBGLS), (the predecessor of the Croft House Grant Scheme (CHGS). Both of these were deemed important in addressing a situation where there was a great deal of stress on agriculture, and a very poor quality housing stock. Both had huge and measurable success. Today, CHGS is probably the most important of the support schemes, though it should be noted that CCAGS shows consistent and quite high uptake and is paid exclusively on agriculture-related activity.

Entry into the SRDP in the past has proved difficult for crofters because their holdings are small and the range of options that they could deliver limited. They were unable to compete with larger holdings with their greater opportunity to meet the requirements of a wider range of options. There is no certainty that the situation will be improved within the new SRDP programme, given the limited measures for which crofters find they can apply.

There is a potential issue about the minimum size of crofts in relation to future CAP funding. The EU CAP Health Check consultation paper refers to a minimum of 3ha as a bottom limit for the receipt of CAP support. There are many crofts less than 3ha. Setting any minimum size to attract support could be damaging, and would inhibit small crofts from undertaking agricultural use of their crofts, in particular for intensive local food production, e.g. poultry, eggs and horticultural crops.

Recommendation 18: The Scottish Government should ensure that the revisions to the CAP arising from the Health Check permit crofts of any size to be recipients of SFP support, and that any future review of SRDP is used to increase opportunity for crofters.

Forestry

Forestry and woodland in the Hills and Islands contribute to several important objectives that are the concern of this Inquiry: economic well-being (timber production and increasingly, provision of non-timber activities); social targets (health and well being); and environmental goals (landscape, biodiversity, carbon management). The multi-functionality of forestry has been recognised by successive governments which have sought to maintain a certain level of activity, both in the state owned and private sectors.

Forces driving change

Political issues

Forestry in Scotland has been driven largely by political imperatives over the last century. The need to establish a strategic reserve of timber was clearly identified at the end of the First World War. This resulted in the establishment of the Forestry Commission in 1919 and a progressive increase in the area under forestry (see Table 18). This strategy was followed right through into the 1980s and was achieved both by the State's forest service acting as a grower in its own right and by encouraging planting by private land owners through a mixture of grants and fiscal measures. However, through the late 1970s and 1980s there was criticism of the environmental impact of upland afforestation, especially where there was a monoculture of exotic conifers, particularly in the Flow Country of Caithness and Sutherland; and this led to a review of the fiscal arrangements that had increasingly driven the afforestation programme.

TABLE 18 WOODLAND AREA IN SCOTLAND 1905-2007

Year	Scotland Area(000 ha)	%
1905	351	4.5
1924	435	5.6
1947	513	6.6
1965	656	8.4
1980	920	11.8
1995-99	1,281	16.4
2007	1,341	17.2

Source: Forestry Commission

It is now 20 years since the Lawson Budget of 1988 ended the most important tax allowances and triggered the shift from commercial coniferous woodland establishment to native woodland and amenity planting. The harsh press criticisms of the commercial afforestation programmes led Scottish forestry to refocus and brand itself as a provider of public goods. State aid to woodlands has since been targeted at the delivery of the many non-market benefits that woodlands can provide, although significant support has still been linked to commercial production of timber. Another effect of the Lawson Budget was a rough halving in the rate of new planting due to the withdrawal of the ability to offset losses in forestry against profits made in other ventures. It was this tax treatment that had attracted such criticism in the press. Support for forestry was subsequently delivered through direct grant aid and, recognising the long term nature of investment in forestry, all income from UK timber sales is free from income tax. Recently, the rate of new planting has dropped further to between 4,000 and 6,500 ha per year, at least partly as a result of rising land prices and uncertainty over CAP reform.

In 2006, the political direction given to the forest sector to increase the area of forest cover to 25 per cent of Scotland's land area was justified by the contribution that forests can make to carbon management and the mitigation of climate change if sited on suitable soils. Forestry is seen as contributing to both economic development and environmental goals within this context. The justification for support has seen a shift over the last thirty years from the creation of a strategic timber reserve through environmental and amenity goals to one of combating climate change. It is a measure of the multi-functionality of this land use that the sector has been able successfully to accommodate these wide changes in political direction.

However, the political weight given to forestry has always been less than that accorded to agriculture, which is regarded as the dominant rural land use in Scotland. This has been demonstrated in various ways across the years, from the protection of certain grades of agricultural land from afforestation in the years after the Second World War to the major support at a European level given to agriculture through the CAP.

The availability of public support for forestry will continue to drive change in the sector. The Scottish Government's Spending Review (2007)⁷⁴ allocated an increased amount of funding to the Forestry Commission from £90m in 2008/9 to £96m in 2010/11, the major part of this increase being allocated to administration and a smaller part to the forestry development programme. This programme funds partnerships with the private sector, other public sector

bodies and NGOs, and enables the Forestry Commission to continue to support key projects helping to deliver maximum economic, environmental and social benefits from forestry. The overall allocation includes grants for new planting co-funded from Europe. This is a relatively small allocation compared to the public funds currently supporting agriculture. Forest Enterprise receives an allocation of £29.3m from the Scottish Government as part of its budget agreement⁷⁵, but is expected also to invest £15m in forest development derived from the sale of existing land holdings and forests. This resource is being used to acquire land suited to delivering climate change, recreation, and environmental benefits located close to urban locations. (This allocation compares with current €140m (£111.6m) in Ireland.)

Arguably, one effect of the Lawson budget has been to push the private sector into a subsidy-dependency frame of mind. Thus the sector is sensitive to changes in the ways that public cash is apportioned and, as this is largely controlled through the Rural Development Programmes or through State Aids, the sector will be sensitive to changes in forest policy set at a European Union level. Although there is no 'common forest policy', the channelling of funding through the rural development planning process effectively puts a great deal of control in the hands of European Commission policy makers. This is a major issue for Scotland as, along with Ireland, it is currently the only EU country keen to see its forest cover increase and, as such, it is at odds with those more forested states that may be keen to protect their own forest sectors. One result is that grant support for woodland establishment is limited to 70 per cent of establishment costs and this appears to act as one disincentive for the private sector in converting bare land to woodland.

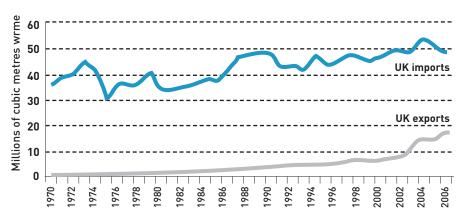
Forestry will be supported through the Scotland Rural Development Programme (SRDP). According to EU rules, the support is apportioned between Axis 1 (£254 million to increase competitiveness of the agricultural and forestry sectors); Axis 2 (£1,124 million to improve the environment and countryside through land management); Axis 3 (£180 million to improve the quality of life through diversification of economic activity); and finally, Axis 4 (£37 million for the LEADER programme). Existing commitments reduce the amounts available for new work to £254 million, £408 million, £134 million and £37 million in the four axes respectively⁷⁶.

Under Axis 1, forestry-specific measures include improving the economic value of forests (£3 million allocated) and managing trees for seed production (£0.3 million allocated). Forestryspecific measures under Axis 2 are peri-urban woodland management (£10.5 million allocated), woodland creation (£175 million allocated), forest environment payments (£14 million allocated) and support for non-productive forestry capital investments (£62.5 million allocated). Axis 3 includes The Forests for People Challenge Fund (£3.5 million allocated). Thus £269 million is earmarked for forestry at a Scotland level over the SRDP period 2007-2013, i.e. potentially £38.4 million per annum. Generic measures across the Programme as a whole raise the amount of funds available to the forest sector, and should have the effect of increasing the available pot of money on which the sector can draw. The amount will not be known for sometime, as it depends on the allocation decisions of the Regional Proposal Assessment Committees (RPACs). Grant aid for the sector has typically varied between £20 million and £30 million pounds per year and so the predicted allocation over the planned period shows around a 20 per cent increase in grant availability for the sector. The SRDP is funded mainly by the Scottish Government, but includes additional cash from the European Agricultural Fund for Rural Development (EAFRD) and from voluntary modulation of the Single Farm Payment (£9 million per annum).

Economic issues

Timber is a major commodity traded internationally and largely without any protectionist measures imposed by the State. The UK market is a major target for importers from the major exporting nations around the Baltic, Canada and to some degree, central European nations (Figure 5 and Table 19)77.

FIGURE 5 UK TIMBER IMPORTS AND EXPORTS



Source: UK overseas trade statistics (HM Revenue & Customs) and conversion factors

TABLE 19 IMPORTS AND EXPORTS

Year	Imports			Exports	Exports		
	Round Wood		Wood-based Panels		Wood (Round & Sawn)	Wood-based Panels	Pulp & Paper
	'000 m3			'000 t	'000 m3		'000 t
2002	1,020	8,201	3,782	8,771	491	424	2,794
2003	1,253	8,714	3,492	9,112	987	531	3,713
2004	1,235	8,653	3,813	9,251	1,369	519	4,714
2005	1,539	8,223	3,552	9,434	1,451	520	4,518
2006	1,329	7,748	3,384	9,347	1,337	539	5,021

Source: UK overseas trade statistics. HM Revenue & Customs

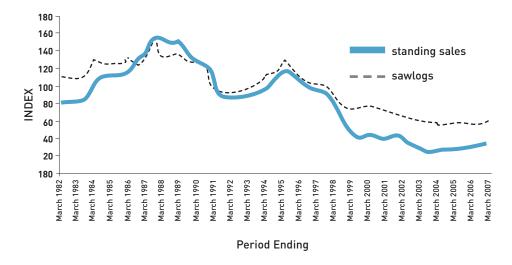
Notes:

- 1. Roundwood exports are based on processing industries' estimates
- 2. Woodbased panels = particleboard, fibreboard, plywood and veneers
- 3. Pulp & paper includes paperboard and recovered waste paper: figures are reported in thousands of tonnes

The opening up of the eastern European countries with large forest areas following the collapse of the Soviet Union has had a major impact on prices in the UK market; market share was pursued almost irrespective of price by some of the Baltic States, while the demand for timber in the UK has remained high for all wood products.

The strength of sterling has also had a major impact on the fortunes of home grown timber over the last twelve years. The result has been a savage drop in prices from highs reached in the mid 1980's and 1990s, as can be seen in Figure 6, with a drop in forest gate values of over 50 per cent in this period. The last two years have seen a rise in timber values, although prices are still far short of those achieved at the height of the market in the mid 1990s. This has been largely due to the very significant pull effect from the Chinese economy, leading to an increase in global demand.

FIGURE 6 INDICES OF CONIFEROUS STANDING SALES AND SAWLOG PRICE IN REAL TERMS (PERIOD SEPTEMBER 1996 = 100)



Source: Timber Price Indices

Demand for timber products from Scottish forests has stayed reasonably strong through this price slump and recent rise, reflecting the fact that prices are set by international factors, rather than the balance of supply and demand for UK-sourced products. The Scottish forest sector contributes £760 million to the Scottish economy and has attracted substantial wood processing investment in recent years. Its economic performance in terms of return has improved (Table 20)78. In 2006, the south of Scotland was the top-performing region in the UK with a total return of 24.2 per cent⁷⁹.

TABLE 20 ECONOMIC RETURNS FROM FORESTRY (1997-2006)

Period Ending	Annual Return	3-year return (annual average) Per cent per annum
1997	4.0	7.9
1998	-1.4	4.4
1999	-11.1	-3.0
2000	-2.9	-5.2
2001	-1.1	-5.1
2002	-4.7	-2.9
2003	1.3	-1.5
2004	9.2	1.8
2005	14.4	8.2
2006	20.6	14.6

Source: Forestry Commission, Forestry Facts & Figures 2007. Note Annual Return is IRR.

⁷⁹ Investment Property Databank (IPD) UK Forestry Index (2007) http://www.forestry.gov.uk/pdf/IPDUKForestryIndex2007.pdf/\$FILE/IPDUKForestryIndex2007.pdf

Land prices

Land prices over the last twenty years or more have had a significant impact on forestry. In the case of afforested land, amenity and lifestyle buyers have supported a strong demand for woodland properties, at the smaller end of the market. At the larger end, there has also been strong interest from investment buyers in commercial forest estates. The tax treatment of woodland is attractive to some individual buyers, whereas the commercial buyers are maintaining diverse portfolios and anticipate rises in the value of timber products. However, forestry investment buyers are currently finding that bare land of the right type in Scotland is too expensive to justify their investment on the basis of future anticipated timber receipts. The forces driving high land prices are thus of some importance when considering the desire to increase forest cover in Scotland.

Likely future economic drivers affecting forestry will be the development of carbon markets and carbon offsetting. The Forestry Commission is currently looking at developing a regulatory framework for carbon offsetting and this could bring in substantial new monies into the sector. We deal with these points in the climate change section below.

Social Issues

The social importance of Scottish forestry has increasingly been recognised over the last decade and does not have a real parallel in Scottish agriculture, although 'community supported agriculture' might present a model. It has been driven by the desire of the state sector to remain relevant to urban political interests and emphasis is therefore placed on the contribution it can make to the health and well being of Scotland's largely urban population. Woodlands right across rural Scotland provide important access for recreation and tourism opportunities. This not only contributes to economic activity in these areas but has potential also to improve quality of life.

A notable feature of the 'social' dimension to forestry has been the rise in the number of community woodland groups⁸⁰ as local communities either buy woodlands adjacent to them or seek management agreements with Forest Enterprise. In the wake of land reform legislation, a community purchase option has been developed by Forestry Commission Scotland to allow acquisition of assets. A reconnection with the land resources around discrete communities is one of the noteworthy benefits. In this respect, the development of local wood fuel markets also has great potential for such a reconnection.

In some instances, community groups have become established with the primary aim of securing house plots, although securing service agreements with Scottish Environment Protection Agency (SEPA) and Scottish Water can present major difficulties. But there is an understandable reluctance by Forestry Enterprise to release land for private house plots that would satisfy a private interest but not necessarily a public interest. Current rules are designed to protect against this situation. However, forest crofts as a form of tenancy, or the use of rural burdens, may help to ensure affordable housing provision in the long term in these circumstances. Such issues relate directly to affordable housing provision (see Chapter 6 for more detail), and the need to involve the private sector to a greater degree in this provision. In instances where housing plots are secured, maintaining woodland management may be of less interest to the groups and would need some form of intervention aid to ensure that woodlands are not abandoned. The SRDP offers such opportunities and it should be possible to cover such eventualities, possibly, where state land is involved, by maintaining Forest Enterprise input to the woodland management.

Technical issues

Mechanisation of harvesting, coupled to falling timber prices, has been a major feature of the forest sector over the last twenty years. Efficiency gains can undoubtedly be achieved, but the huge gains in worker productivity seen in recent decades are unlikely to be maintained in the coming years.

Selective breeding of the most important forest tree for commercial purposes, the Sitka spruce, has offered large gains in productivity (measured through vigour and timber quality). Funded largely through the State, the roll-out of the results of this breeding work has been widespread and has been supported through differential rates of grant. The challenges of a changing climate add importance to this area as one for future research and development, focusing on a wider spread of species than has been the case in the recent past.

Technical improvements in wood processing and engineering have been a key feature of recent years. Undoubtedly one of the major areas for future technical advances, the processing of wood fibre offers many new opportunities, not least in the field of energy where second generation biofuel extraction from cellulose holds out great promise. The Scottish Enterprise initiative in developing the Scottish Forest Industries Cluster has acted as an effective promoter and broker of different industry interests.

Future of Scottish forestry

Expansion of forestry has provided multiple benefits, especially economic and recreational benefits and more recently biomass production and carbon sequestration. Improved practices are rectifying the environmental mistakes of the past: poor species choice, poor plantation design and excessive ground preparation that had detrimental effects on landscape, water quality and biodiversity. There are strong arguments for increasing the rates of planting to maintain the supplies of timber in future decades. We recognise the potential for increasing the multiple benefits of forestry. But to achieve this will require more attention to the mix of species, the type of soils on which they are planted, the proximity to water courses, and the proportion of water catchments afforested.

The industrial sector has showed increased confidence, with the improvements in timber prices and the clear political support for increased rates of afforestation through the recognition of the role the sector can play in combating climate change. However, the returns are declining again as a result of fuel price rises and declines in orders from the construction industry. There is increasingly a feeling of frustration at the lack of land that is coming forward for planting and there is a strong feeling in some quarters that some land occupied by the low-intensity livestock sector would better meet society's needs by being converted to woodland. Past afforestation practices, such as Sitka spruce monocultures and rectangular plantations, have created a negative reaction from some members of the public, and current approaches to woodland management in some parts of the sector, such as larger scale clear felling, continue to present an ongoing challenge to Scottish forestry. In addition, it is not clear at this stage how much of our native woodland resource is being managed on any basis that could be described as 'sustainable' with considerable areas subject to high grazing pressures from domestic and wild herbivores, and a high degree of fragmentation. These issues will have to be addressed, especially in relation to climate change.

There are a range of issues facing forestry in the Hills and Islands, many of them global and some more local. The impact of climate change on global demand for timber products and the resultant changing international policies on forest utilisation and function, and the requirement to develop robust adaptation policies, will provide a major challenge. Increasing costs of fuel and the distance from markets, both for processing and for finished product, will reduce competitiveness compared with other parts of the world.

Achieving the 25 per cent target

A major challenge for the Forestry Commission and the forestry industry in Scotland is the achievement of the longer-term planting targets to achieve 25 per cent forest cover by the second half of the century. Land availability will be a major factor, especially as biodiversity, carbon management, and social and economic considerations suggest that the middle grade land (i.e. the permanent improved grassland, and the semi-natural grassland/bracken vegetation types on mineral soils) should be targeted for woodland establishment. Inevitably, this means afforestation on current agricultural land, but even this land could potentially conflict with food security objectives. Also, given the relative lack of interest in and support for farm forestry, then without new forms of incentive and stimulation of new ways of working by farmers, it is difficult to see how this issue can be readily resolved to provide maximum public benefits. Hence the balance between agricultural support and support for woodland establishment and on-going maintenance needs to be examined. In particular, the gap in funding between the ending of farmland premium payments (currently set at 15 years) and the start of income generation from timber receipts is a particularly critical issue.

A Forestry Commission-sponsored study⁸¹ on the types of land required for increasing the forest cover to 25 per cent, shows that of the 650,000 hectares needed, 388,000 hectares of grassland and 252,000 hectares of shrub heath could be converted to woodland without affecting land designated for biodiversity and landscape conservation, deep peats, or the better quality land. These issues lie at the heart of the need for an integrated approach to land use, set at a national level, refined and delivered at a regional level as we recommend in Chapter 3. In order to resolve these current issues and to ensure a full public acceptance of any future afforestation programme, it is essential that there is a full and open debate on the mix of woodland types.

Recommendation 19: The Scottish Government and the Forestry Commission should develop detailed proposals for implementing the 25 per cent target, including the necessary incentive regime, the type of woodland and means of identifying land for planting, and conduct an open consultation on its proposals.

The justification for increasing the area under woodland is partly driven by climate change considerations. We deal with the implications of this in the climate change section later in this chapter.

Short rotation forestry and agro-forestry

Conventional plantation forestry can clearly contribute biomass in the shape of conventionally harvested wood, often as thinnings, as well as brash. Current interest in stump removal needs to be closely examined in relation to impact on soil carbon and other environmental parameters. To date, emphasis has been on short-rotation coppice (SRC) as the source of dedicated woody biomass aimed exclusively at the energy market. The requirement of SRC to be grown on the better land of Scotland currently used for cereal production means that it is questionable whether this product should or will ever become a major land use in the Scottish context. Greater emphasis perhaps should be placed on the role that short-rotation forestry (SRF) may play in producing dedicated biomass, as it involves species that should perform on the more marginal land (grades 3.2 and 4) that is more commonly found throughout the LFA. The strength of SRF is that it may be more attractive to the agricultural sector as a land use option than conventional forestry, as the rotation lengths are shorter than conventional forestry. It also offers the potential for agro-forestry and thus maintenance of some conventional agricultural activity on the same parcel of land.

The analysis of the land availability and suitability undertaken for the Forestry Commission by the Macaulay Institute⁸² showed that, although "the greatest potential land bank for future woodland expansion is currently under agricultural land management", the largely negative attitude of farmers to woodland means that "there is little short term potential" for woodland expansion on this type of land. Although it is difficult to argue with the general assumption about negative attitudes of farmers to woodland, the assumption that therefore there is no point in targeting agricultural land for woodland expansion is questionable. As the Macaulay Institute report states, the way to interest the farming community in woodland expansion is to ensure that woodland establishment intersects with existing interests. Climate change mitigation policies should become relevant here. With farms coming under pressure to mitigate their greenhouse gas emissions, on-farm tree planting may hold some promise as an off-setting operation alongside other reduction strategies. In particular, there is potential for short-rotation forestry to fit into an agro-forestry model, with grazing taking place during part of the rotation. The Forestry Commission are trialling short-rotation forestry on some of their new land purchases, but there is no current plan to integrate this with existing farming operations. Although there has been some interest in agro-forestry trials in Scotland in past decades, the changing policy context brought on by climate change brings new relevance to this approach to close integration of the two land uses.

Given our concern about achieving the 25 per cent planting target and the inevitable need for some of this to be achieved on agricultural land, we consider that more effort will be required to bring forestry and agricultural activities together on the same farm unit. The development of an agro-forestry approach should bring benefits to farmers provided that the market potential is attractive. Short-rotation forestry might be attractive given its potential as a biomass fuel.

Recommendation 20: The Forestry Commission should initiate a joint study with relevant interests to examine the potential of short-rotation forestry as an integral part of farming and to recommend measures for improving integration of agriculture and forestry on working farms.

Sporting Estate Management

Sporting land use and the sporting estate have been major influences in the Scottish uplands and on some Islands for nearly two centuries. It is, therefore, of importance for any consideration of the future for Scotland's hill and island areas and it is a subject on which the Committee has received written submissions. However, it is not an activity which has ever received support from public funds and it has not attracted much attention from the policy makers within government until recently.

Red Grouse

An economic study by the Fraser of Allander Institute on Scottish grouse moors found that the 459 grouse moor properties generated £17 million worth of GDP and involved 4.6 million acres⁸³. Driven red grouse is a unique field sport when viewed from an international perspective and, if the grouse numbers are present on the moors, can guarantee sales of around £120/brace. The unique nature of this sport and the high prices mean that demand exceeds supply. But productivity on grouse moors has been declining for many years and this has raised questions about the sustainability of this field sport.

⁸² Possible Opportunities for Future Forest Development in Scotland: a scoping study, Macaulay Institute 2006, for the Forestry Commission Scotland

⁸³ J. MacGillivray, An Economic Study of Grouse Moors, Strathclyde University for the Game Conservancy Scottish Research Trust, 1996; An Economic Study of Scottish Grouse Moores: An Update (2001), Fraser of Allender Institute for the Game Conservancy Scottish Research Trust.

One of the issues that is detrimental to grouse productivity is the rise in the number of ticks, a parasite that is implicated in high chick-mortality rates. For the last decade or so, some managers have followed a very focused effort to minimise the risk of ticks by the removal of all mammalian hosts, notably deer and hares. This type of management also uses sheep flocks to act as 'tick mops', with the frequent use of acaracides to kill the ticks. About 10 per cent of moors are following this very focused model of production, which is highly intolerant of tick host mammals and all predators, particularly birds of prey. This is very different from the traditional model of grouse moor management, which was multi-functional, with deer stalking and sheep production featuring strongly in the mix of objectives. The intensive grouse production model of management is highly capital- and labour-intensive and has attracted significant inward investment onto the east coast moors of the Grampians in recent years. But it is also controversial, is occasionally associated with illegal persecution of raptors, and has other negative effects on some of our flagship species such as red deer and golden eagles.

Another change in recent years on some grouse moors has been the rise in the use of released red legged partridges. This has chiefly happened on those moors where there has been a decline in the numbers of red grouse and where funds have not been available to follow the intensive grouse management model. Features of this model of moor management are the often very high numbers of birds released, their impact on the moorland biodiversity and the decline in traditional heather management (it is not relevant to partridge shooting). This trend started in the 1980s in Scotland and has been increasing since then.

Deer

Deer management for sport in Scotland is estimated to support nearly 1000 full time equivalent (FTE) personnel and to contribute £70 million GVA to the economy84. However, some commentators think that this latter figure is rather inflated. It is the prime management objective on large areas of the uplands and is run normally at a cost to the deer forest owners. The business model is one where substantial private benefit is taken and this justifies the continued support and investment from the private sector. This contrasts with the agricultural sector which requires substantial public cash support to maintain the activity. The challenge for sporting deer management is to turn the sector from a single management objective to one closer to the multi-functional model that occurs in, and is most developed in, the forestry sector. This is desirable to ensure delivery of various public policy objectives relating to a variety of issues: access, natural heritage objectives, local food and rural development objectives. The absence of natural predators and the concentration of sportsmen only on stag shooting have contributed to the very high present numbers of deer - now at an all-time high in parts of Scotland. From the points of view of biodiversity and achievement of the Scottish Forestry Strategy, this raises serious issues, as it is a major inhibitor of natural vegetation regeneration. The importance of this sector is under-estimated by policy-makers and governments, in general, largely because it is an unsupported sector.

Released birds

Pheasant and partridge shooting occurs mainly on the eastern and central part of the country. Seventy-seven per cent of estates reared and released pheasants/partridges for shooting85 and the sector as a whole provides £240 Million GVA and 11,000 full time equivalent paid jobs. The pheasant sector is located more on the lower ground whereas, as noted above, the partridge business is often run on the grouse moors, and especially on those that have performed poorly as grouse moors.

Fishing

Angling is worth a gross revenue of £113 million to the Scottish economy and supports 2800 FTEs⁸⁶. The freshwater sector is often split into three categories: coarse fisheries, brown trout fisheries and migratory salmonid fisheries. The latter attracts most attention and recent years have seen significant developments in the professional management of this resource, with the setting up of Trusts to manage rivers on a regional basis. This was triggered by the removal of sporting rates in the late 1980s; revenues released were then used to support the employment of professional biologists to manage the freshwater environment. Starting in Galloway, this development offers an interesting model for the collective management of a common resource organised on a regional basis.

The future of sporting land use and sporting estate management will be influenced by a range of political, social, economic and technical factors. We discuss each of these.

Political issues

The welfare of target species is of increasing concern and has been the justification for various pieces of legislation in the Scottish Parliament (fox hunting, tail docking, snaring). This driver of change is important, is likely to continue and may affect some sectors, e.g. shooting of released birds (concern about wounding rates etc). The political support for field sports in rural areas is currently strong because of its contribution to economic activity and lack of dependency on the public purse.

Another factor is the Government's commitment to deliver 'favourable condition' status on 95 per cent of SSSIs by 2010. This impacts mainly on the hill red deer sector and has had a major effect on certain areas, e.g. Caenlochan, and Glen Feshie, where high deer numbers have been or still are in direct conflict with the international obligation to avoid damage to the biodiversity of these areas.

Other factors driving change within the red deer sector will be the political response to climate change, the need to conserve carbon in peatlands, which may be damaged by an excessive number of animals, and the improvement of the quality and robustness of some of our upland habitats. This will require the development of more inclusive deer management and is a major challenge to those responsible. We deal in greater detail with climate change and land use later in this chapter.

Social issues

Over the last twenty years, there have been significant changes in landownership, with the increase in ownership by NGOs and community groups. There has also been a recent increase in Eastern European owners, with significant wealth buying into the 'sporting dream' based on a Victorian model. These changes are potentially very significant, as the community groups and NGO owners have very different objectives from the sporting estate owner with whom they share management of a common resource in the case of hill red deer. These changes are unquantified, as there is no organised central collection of data on who owns land. Few countries have a land market as free and open as Scotland's and this helps to attract overseas buyers. This adds strength to the sporting market and helps to maintain high land prices in these remoter areas away from centres of population.

The driven grouse sector is over-subscribed, but there are serious questions about the sustainability of certain practices from a social perspective. In particular, a strong association between land managed for driven grouse and the illegal persecution of protected birds of prey, such as hen harriers, peregrine falcons and golden eagles, has been demonstrated⁸⁷(as well as the impact on mammal species such as blue hare and deer).

Economic issues

The deer stalking market is changing from weekly lets for large parties of people to one of shorter lets. Clients seek good access to communication links and high accommodation standards. If a high level of service is provided, doubling of chargeable fees for stags is possible from the £270 average figure to £500 per stag shot, as there is a strong demand for good quality sport, backed up with good service arranged for shorter periods than the traditional week let.

Biological responses to climate change, e.g. increases in pests, are almost certainly altering the economics of certain sectors, particularly the traditional grouse moor. Ticks are active in more months of the year now than they were twenty years ago, and this factor is commonly blamed for the collapse in grouse stocks on many moors. Other diseases are likely to appear, particularly where animals are kept at high densities.

The impact of climate change on the biology of red deer may also dramatically alter the economics of western deer forests, where increasing levels of winter rainfall are being anecdotally linked to increases in winter mortality. Without more shelter being provided for hill red deer in these ranges through increases in woodland habitat, certain populations may drop below viable exploitable levels.

The major influence on salmon management (which accounts for 65 per cent of freshwater fisheries expenditure) is the increased mortality rates at sea, which is linked to changing patterns of ocean productivity - itself linked to changing climate88. This factor could radically alter the population levels to a degree greater than has been seen to date and could thus impact on this regionally very important activity. A further issue is the loss of headwater streams to salmon populations due to rising temperatures, again something that is likely to be happening already. An upper lethal temperature of 25°C for salmonids in unshaded burns can now easily be found in some of our key spawning habitats for the early spring fish and the climate change adaptation measure is to develop riparian vegetation/woodland which requires control of grazing in these upland areas.

Another major change affecting migratory salmonids on the west coast of Scotland has been the rise of salmon farming over the last thirty years. This has been blamed for the collapse of many fisheries through the effects of sea lice released from captive populations. Latterly, this problem has been reduced to some degree through regional co-ordination of treatments (Area Management Agreements), the different interests working together (the Tripartite Working Group (Government, wild fisheries and fish farming interests)) and the availability of in-feed lice treatments.

Technical issues

The other driver of change is the use of web based marketing to target customers and to organise sales. Salmon fisheries have been the first to use this, for example on the Tweed, but now this has spread to other sectors and includes the stag market where around £1 million worth of unlet stalking opportunities exists annually.

Recommendation 21: The sporting estate management sector should work with the Scottish Government to ensure that the sector is fully integrated into a Strategic Land Use Policy Framework proposed in Recommendation 3.

We are aware of the benefits to landowners of recognition of their stewardship. Accreditation schemes have begun to prove popular in the farming sector. A good example is the Linking Environment and Farming (LEAF) approach. It may be difficult to define precisely the market and business benefits of such schemes to landowners and therefore to make such an approach work in practice. It might be necessary to look at a range of mechanisms, including for example the re-introduction of sporting rates and associated relief.

Recommendation 22: Landowners' associations should explore mechanisms to give recognition to exemplary stewardship of land.

Responding to Climate Change

Climate change provides an important, if not the most important, rationale for the development of an integrated approach to land use requiring new policies, incentives and regulation in the multifunctional use and management of land, which we proposed in Chapter 3.

There are many opportunities both for mitigating the effects and adapting to climate change. We welcome the recent report and recommendations of the Agriculture and Climate Change Stakeholder Group⁸⁹. In the EU, climate change has become a major issue and one which has been identified as requiring additional action and funding arising from increased compulsory modulation. In this section, we explore the many possibilities for reducing the level of emissions of and increasing the storage capacity for GHGs through improved management of soil, grazing, woodland, and forestry and burning. We make recommendations for further assessments, propose modifications to the various codes of practice, and suggest a range of measures for achieving improvements. We deal specifically with renewable energy in the context of climate change in Chapter 5.

Predicted climate changes

A brief description of the main recent and expected future changes in climate has been drawn from recent research⁹⁰ and our expert witnesses as a basis for identifying mitigation and adaptation opportunities in the Hills and Islands.

There has been an overall trend of *rising temperatures* since the 1960s, with seasonal and geographical variations. The largest increases have been in winter and spring, and the smallest in autumn. In the future, temperatures are expected to rise over the whole of Scotland, irrespective of which scenario of future emissions is used. Increases are expected to be greatest in the summer and autumn. Southern Scotland is expected to warm at a faster rate than the north. The *growing season* has extended since the early 1960s and is predicted to extend further by between 20 and 60 days by the 2080s; greater in the east than in the west of Scotland. The largest changes in *precipitation* have taken place in winter months across all but the most eastern areas of Scotland. For the future, relatively little change to annual precipitation is predicted; winter months may become wetter and summer months may be drier than at present. The pattern of change may not be the same across Scotland: the east of Scotland may experience the most extreme changes in precipitation. There is likely to be an increase in storms and flash floods and an increase in late summer droughts. *Snow cover* has declined since 1961 and future predictions of winter snowfall estimate a reduction of 50 per cent or more across Scotland by the 2080s. Eastern Scotland may experience a reduction of over 90 per cent.

The Tyndall Centre and the Scotland and Northern Ireland Forum for Environmental Research (SNIFFER) have identified the implications of the above predictions: they are substantial for the Hills and Islands as well as for the rest of Scotland. The predicted effects on soils are increasing damage to soil structure, increased soil erosion, phosphorous and nitrate leaching, greater mobility of pesticides and increased seasonality of river flows. Increases in pests and diseases are also expected, affecting both commercial crops, and natural vegetation. The northwards movement of the climate belts is likely to result in a northerly migration of species, but whether there will be more losses than gains is not clear. Losses are most likely for species at the extreme ends of their natural ranges. There is also an expectation that flooding will become more frequent.

Flood management

It is predicted that there will be increased run-off and flash flooding due to higher seasonal precipitation and increased frequency of storm events. As a consequence of recent experience, there is great public pressure for flood control schemes on rivers in and around major settlements. In the past many of these have been engineered without any consideration of making the whole river catchment operate more naturally. A number of measures can be taken and these should be included as part of the minimum standards to be achieved in a revised GAEC.

First, structures and operations that increase the speed of runoff from slopes should be removed and stopped. Drains should be blocked where possible, disturbance through tree planting and emplacement of new structures, such as telecom masts and wind turbines, more carefully undertaken, and canalised sections of water courses should be restored to natural forms. Grazing should be restricted and better managed where it is causing removal of the vegetation cover and the loss of soil, and causing compression of the soil resulting in lower water infiltration capacity. Secondly, the water storage and holding capacity within the catchment should be increased through restoring natural features. A key measure is to consider the removal of flood banks that stop rivers flooding onto natural floodplains. Such a measure would allow floodplain woodlands to develop: they could capture and store carbon, and act as contaminant sinks and increase biodiversity and landscape diversity. This action would also slow the flow of water, especially at peak flows. Thirdly, woodland management and restocking operations to minimise the loss of carbon through soil disturbance and reduce water run-off must be adopted.

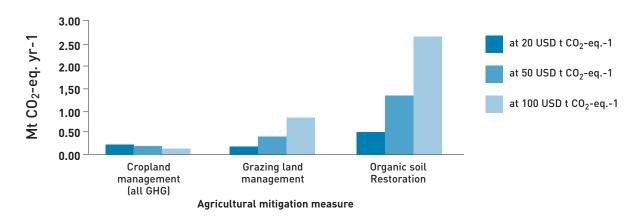
Soil management

Soils are natural carbon and other GHG stores, especially those of high organic content that mainly occur in the Hills and Islands: peat, peaty podsols and peaty gleys. Scotland's soils contain nearly 2000 Mt Co₂ equivalent. This is the majority of the UK's soil carbon and is orders of magnitude greater than that contained in terrestrial plants⁹¹. It is desirable to manage these soils so that loss of GHGs, especially from land operations, is minimal. The most important measures are: reduce the area of organic soil under cultivation and restore its natural functions through removing drainage, rewetting, and halting burning. In Chapter 2 we identified changes in land cover from heather moorland and natural grassland to managed grassland and forestry plantations. Such land cover changes have a direct bearing on carbon storage in soils and GHG emissions, as well as biodiversity. It is estimated that organic soils converted to managed grassland lose carbon rapidly, typically at rates of around 3–5 + C per ha per year (see footnote 93). Expert witnesses recommend that further conversion of heathland by draining, fertilising and liming should be strongly discouraged. Evidence provided by Smith and collaborators⁹² has provided detailed protocols for GHG mitigation in land use for organic soils.

⁹² Smith P., Smith J.U., Flynn H., Killham K., Rangel-Castro I., Foereid B., Aitkenhead M., Chapman S., Towers W., Bell J., Lumsdon D., Milne R., Thomson A., Simmons I., Skiba U., Reynolds B., Evans C., Frogbrook Z., Bradley I., Whitmore A., Falloon P. 2007. ECOSSE: Estimating Carbon in Organic Soils – Sequestration and Emissions. Final Report. SEERAD Report. ISBN 978 0 7559 1498 2. 166pp.

Figure 7 shows that restoration of organic soil generates greater CO₂ reduction benefits than improved management of croplands or grazing land irrespective of the price of carbon, which puts greater focus on the management of land in the Hills and Islands.

FIGURE 7 MITIGATION POTENTIAL OF CROPLAND MANAGEMENT, GRAZING LAND MANAGEMENT AND RESTORATION OF CULTIVATED ORGANIC SOILS IN SCOTLAND BY 2030 AT DIFFERENT CARBON PRICES.



Source: Smith et al, see footnote 91. Note: USD = United States Dollar

Several specific management actions are suggested to improve the retention and capture of GHGs in soils and to minimise other effects of climate change: a minimum tillage regime, cessation of deep ploughing on high-carbon-content soils, and cessation of winter ploughing to minimise soil exposure and reduce erosion risk. Heavy machinery should not be used since it can have adverse effects on the structure and natural functioning of the soil. Greater efforts should be made through incentives to switch to less environmentally-damaging machinery and fuels.

The area covered by peatlands has declined and their effectiveness as biodiversity hotspots and carbon stores reduced due to a combination of ditching, large-scale drainage, and peat extraction for commercial and domestic uses, burning, grazing and conifer planting in the mires and at their edges. Available evidence estimates that all Scottish peatlands, most in the Hills and Islands, capture about 4.8 million tonnes carbon per annum at a rate of 0.24 tonnes carbon per ha per annum (see footnote 94). Blanket bogs are estimated to store in total around 1 billion tonnes of carbon. It is estimated that there is more carbon in British peat bogs (most of which are in Scotland) than in the whole of French and British forests. The most appropriate restoration management is to re-wet drained areas by blocking drains.

Hill grazing management

Evidence suggests that high levels of grazing intensity, that cause loss of vegetation, suppression of tree and shrub development, and exposure of soils to erosion, lead to significant release of GHG emissions from the land. As a result, stocking densities of mainly sheep and deer need to be carefully managed to minimise overgrazing. The sheep population is currently declining due to the introduction of the SFP, the new rules for LFASS payments, and lack of profitability. Previously over-grazed areas will benefit from these reductions and there will be a direct impact on reducing GHGs from livestock. Although disputed, due to difficulties of counting, the deer population has increased. More specifically, there are locations that are over-grazed by deer. Further managed reductions of both sheep and deer are desirable and the means of achieving this have to be found in these areas. Reductions would have the double benefit of reducing emissions and capturing greater amounts of GHGs through the development of vegetation succession into woodland and shrub.

The type of grazing and the overall levels of grazing are important. Cattle should only be used where this will meet the management objectives of the site. Generally speaking, they should be used in very limited numbers and at low densities, where their less selective feeding will aid vegetation management, and, for the most part, not on wetter sites where they are more likely to cause significant damage. A reduced number of domestic livestock should be used on sites where deer are numerous and control measures are ineffective or not practicable. Deer control measures should be concentrated in areas with organic soils which are at risk of over-grazing. Overall, the level of grazing should also take into account the need for grazing to achieve biodiversity and landscape diversity objectives. A delicate balance will need to be drawn. We make a recommendation on how this might be achieved earlier in this chapter (Subsidiary Recommendation 6c).

Recommendation 23: The Scottish Government should, as part of its revised climate change policy, institute greater regulation of the intensity of herbivore grazing on carbon-rich soils. In particular, the Government should facilitate the development of sustainable deer management within a revised regulatory and incentive-based framework so that this sector contributes to the integrated land use policy proposed in this report.

Muirburn management

Burning of rank vegetation has been a longstanding practice on many moorland areas to improve feed for grazing animals and birds, and for increasing cover for sporting management of game. Given the GHG, and especially carbon emissions from this activity, serious consideration must be given to halting the practice on soils with significant stores of carbon and on areas with high erosion risk. There are some uncertainties as to whether carefully managed burning of heather poses a lesser threat to soil carbon than the risk of unintended forest fires, should moorland be transformed into forest as a result of the unprofitability of sporting enterprises. Alternative measures to secure the benefits are needed, such as grazing and mowing/brashing. Where there is no alternative, the current codes of practice, e.g. the Scottish Executive Muirburn Code, should be strictly applied. This is currently not always the case.

Permanent and rotational grassland management

Permanent and rotational grassland are important components of hill livestock production. Additional care is needed to maintain vegetative cover on permanent improved grassland to ensure carbon retention and provide for the possibility for increasing carbon storage. Expert evidence (see footnote 92) suggests that permanent grassland is preferable to rotational grassland to minimise soil disturbance; a shallow water table should be maintained; fertiliser and lime applications should be minimised and applied at the time of maximum grass growth; stocking densities should be kept low; and smaller animals, such as sheep, are preferable to larger animals, such as cattle.

Livestock methane production

Livestock are the greatest source of methane emissions, but the potential to reduce these emissions by changes in grazing practice are minimal. Changes in diet through development of different winter feedstocks (silage and hay) and improvement in the way these feedstocks are grown to reduce GHG emissions, are, therefore, potentially the best way forward. Also, the development of technology to use waste animal products for energy through bio-digesters is possible and should be seriously considered in those parts of the Hills and especially on the Islands where there is intensive beef and dairy farming.

Tree planting

The contribution that tree planting can make to removing carbon dioxide from the atmosphere is becoming increasingly clear. There are also clear benefits for climate change moderation by increasing the use of wood and wood products as biofuels if they substitute for fossil fuels; and in the use of timber in construction as a substitute for more carbon intensive materials, such as steel and concrete.

Trees capture and store carbon, but species choice, type of soil and silvicultural regime all affect the climate change mitigation benefits. Studies show that woodland could absorb up to five tonnes of carbon per ha a year⁹³ and it is estimated that over a full commercial rotation, new forests in Scotland over recent decades can on average accumulate net carbon of three tonnes per hectare per year⁹⁴ although during a tree's fast growing phase, the annual accumulation of carbon can be much higher than this⁹⁵. To achieve the greatest carbon sequestration benefit, planting should be on mineral soils and with minimal disturbance throughout the rotational life cycle from planting to harvesting. We note, however, that according to Forestry Commission research⁹⁶, the east of Scotland will become less favourable for spruce, but many species will be difficult to establish at these sites due to changes in thermal and hydrological regimes. Broadleaf species will be preferred on deep fertile soils.

Although evidence suggests that conifers have a better carbon capture rate than broadleaves, the position is very dependent on time scales adopted, as well as subsequent intervention through management and felling. The rate of carbon capture in the early years of growth from fast growing conifers means that they often out-perform broadleaves in this context. But, broadleaves on suitable sites will hold broadly similar tonnages of carbon per hectare once mature. Therefore the choice of time scale and what happens to the tree as it matures affects the carbon values. The variability in Life Cycle Assessment in timber products makes calculating forestry carbon sequestration values especially difficult as for example, we do not know whether a tree will be used for paper making (and hence its carbon returned to the atmosphere on a very short time scale) or used in a long-life product.

The key issue is to ensure that the carbon stored in the soil stays there and is not released through aggressive management activities. Commercial plantations maintain the levels of carbon, as long as the felled areas are restocked and minimal disturbance techniques are used in the extraction and replanting of stock. However, although conifer species have a greater carbon sequestration benefit, they do have a negative effect on the acidity of watercourses, especially if a large area of the catchment is planted and the soil has a low buffer capacity.

There is no clarity on whether the extension of native woodlands, such as the Atlantic oak woods, is likely to be more beneficial for carbon storage than non-native species. The current advice is that a mix of species, both native and non-native, in mixed stands is likely to be more resilient to the effects of climate change. So there is a continuing need to consider the mix of woodland types to be used in new programmes of afforestation to avoid over-reliance on any one species. This will help to avoid habitat fragmentation, and increased risks from pests and disease as a consequence of climate change or other causes. The need for a robust adaptation strategy to manage risk is also of supreme importance. We consider also that better management of existing forests is needed to maintain carbon storage and to increase further the potential for carbon sequestration. Continuing research to optimise the achievement of these objectives is required. However, in a changing climate, non-native tree species may pose a different threat to our natural heritage. We must be aware of the possibility that non-native species with a wide distribution, such as Sitka spruce, may pose an increased risk. The ECOSSE report (footnote 91) provided evidence that expansion of birch onto peat and peaty soils may release more carbon from soil than that sequestered by the trees. This needs further investigation to see if it is an effect common to other similar sites across Scotland.

⁹³ Hargreaves K J, Milne R and Cannell M G R (2003) Carbon balance of afforested peatland in Scotland. Forestry, Vol. 76, No. 3, p. 299-317

⁹⁴ Broadmeadow, M and Matthews, R (2003): Forests, Carbon and Climate Change: The UK Contribution; FC Information Note 48 (p4). http://www.forestry.gov.uk/fr/INFD-62HENF

⁹⁵ Magnani, F et al. The human footprint in the carbon cycle of temperate and boreal forests. Nature 447: 848-850, 2007; Clement R. et al. Net Carbon Productivity of Sitka Spruce Forest in Scotland. Scotlish Forestry, Vol 57, No 1, p. 5-10

^{96 (}See summary report (FCRN101) and full report for impacts on species choice and suitability of predicted future climate change scenarios http://www.forestresearch.gov.uk/climatechangescotland)

There is a paucity of information on the effects of many forest practices on carbon fluxes and there is a clear research need to ensure that the sector delivers the optimum carbon management in Scotland's modern, multi-objective woodlands. There is already data in the scientific literature which suggests that current forest practice can be improved to maximise the carbon management benefits. Mention is already made in this report to the need to minimise soil disturbance and it is noteworthy that ploughing, for instance, is still practiced in grant-aided upland afforestation projects, despite the negative effects on soil carbon fluxes that this brings. In general, there is a clear need for the Forestry Commission to ensure that their grant schemes and the in-house operations of Forest Enterprise are fully aligned with the advice being given by Forest Research and the wider research community on carbon management in forest operations. It is also a subject which requires that the UKWAS standard (UK Woodland Assurance Scheme) should be updated frequently as new data is generated.

Recommendation 24: The Scottish Government should provide targeted incentives and appropriate regulation to encourage the management of existing forest and woodland to maintain carbon storage and increase further the potential for carbon sequestration, and support the necessary research to achieve these objectives.

Forestry biomass and climate change

A major new market for wood is emerging in the shape of biomass. The value of biomass as a contributor to our renewable obligations through the production of heat is slowly being recognised by government, although much more needs to be done to support this fledgling industry. The recent report from The Woodfuel Task Force (Jan 2008)97 highlights the increased competition for woody material for this sector and identifies numerous actions for government and private sector bodies to undertake. The key recommendations are as follows. There is a need to develop a new branch wood and brash recovery grant to help to encourage growers to bring this material to market, and to do more thinning in their forests and woodlands. A commitment to sustaining a range of supply-chain capital grants, and access and timber transport grants for the next three to five years is required from the Scottish Government; this would include the continuation of the Scottish Timber Transport Fund and a variety of biomass support mechanisms, in conjunction with rural development contracts. Further, the commercial and industrial waste-producing sector should be encouraged to improve source segregation to maximise the availability of clean wood and increase awareness of opportunities to avoid landfill tax. The Task Force has identified some seven million dry tonnes of new material suitable for use by the bioenergy sector, from established forests and woodlands; short-rotation coppice and short-rotation forestry; and recycled arboriculture arisings and waste wood.

Analysis of those European countries, such as Austria, that have successfully adopted biomass from forestry shows the need for long-term government support, particularly in developing heating and supply distribution networks. The rise of community heating schemes in Europe presents a model that will be of increasing relevance to rural Scotland and which would bring forestry as a land use much closer to the local population. The use of biomass in heating municipal buildings, as has started in parts of Scotland, will also contribute to this. However, funding to support this new sector has been small in scale and has suffered from a stop/start approach. It is a matter of some urgency that the Biomass Support Scheme98 is renewed and longterm funding packages put in place to encourage this market to develop and provide greater security for those taking part. To encourage development of this activity, local government could be given targets for biomass use in municipal buildings.

Recommendation 25: The Scottish Government should support the wood fuel industry development with long-term measures, such as a renewable heat target, rather than the current, stop/go, single-year funding regime.

As it becomes clearer that the best use of biomass is in heating schemes, or combined heat and power, rather than in only generating electricity (claims of 90 per cent efficiency in the former are approximately three times higher than for electricity-only plants such as the Eon plant at Lockerbie), it is important that the Renewable Heat Strategy currently being developed by the Scottish Government for the Biomass sector is implemented as quickly as possible (see Chapter 5 energy section). Clear long-term goals should be set up alongside support mechanisms. This needs to be combined with the development of better supply calculations based on regional analysis, both for wood fibre and for other sources of biomass. The high cost of transporting biomass products means that local production will dominate supplies and will provide strong arguments for increasing biomass availability in parts of the country with low levels of forest cover. Biomass is of particular relevance to communities remote from major gas distribution networks and, as the Committee saw on its visits to Mull and Islay, could be of increasing importance on certain Islands and remote rural areas. Thus a major driving force in afforestation, in at least some parts of the country, will be the need to increase biomass availability at a local level. A major issue for land use in Scotland over the next decade and more will be both the geographic location and type of land that will be afforested for biomass production

There are also clear benefits for climate change moderation by the use of timber in construction as a substitute for more carbon intensive materials, such as steel and concrete.

More generally, on forestry practice in relation to climate change, we consider that the Forestry Commission should be an exemplar through its incentive schemes and its action in the state forests.

Recommendation 26: The Forestry Commission should ensure that its grant schemes and its own practice in the state forests are fully aligned with the developing advice from Forest Research on climate change issues.

Development of carbon markets

We welcome the Scottish Forest Strategy target to increase Scotland's land area in forest to 25 per cent by 2050 as a means of offsetting the emissions arising from agriculture though, as we have said, to achieve this target will require a more integrated approach to land use. For example, farmers could offset livestock emissions against woodland plantation. This could best be done if there were a carbon-trading scheme giving land managers clear financial benefit for carbon offsetting. The development of a carbon market that allowed forestry to receive financial credit for the carbon sequestration that it achieves could be of even greater importance as it could change fundamentally the economics of forestry investment.

Some commentators consider that development of transparent carbon markets, with a realistic and stable price for carbon and ethically sound carbon offsetting mechanisms, are the real key to ameliorating the effects of climate change. Setting a price for carbon is very important but very difficult to achieve. Assumptions can be made about the price and the type of management needed to illustrate shadow benefits to land owners.

Clearly there are a number of challenges to be met in developing a carbon-trading solution, but most of all there is a need to ensure that transparent measurement methods are available and can be independently verified. Measurement of existing and additional levels of GHGs stored in soil is intrinsically difficult and, although higher levels of sophistication give more accurate and verifiable results, they are extremely expensive and simpler solutions will need to be found. The Scottish Government is currently funding a pilot project with the British National Space Centre to evaluate the potential of satellite images to detect and monitor GHG emissions from land use sector in Scotland. Nevertheless, we are convinced that a carbon-trading scheme is the most realistic and cost effective way to achieve the most practical land use mitigation and adaptation practices. We refer to other activities in the energy section in Chapter 5.

Recommendation 27: The Scottish Government should urge the adoption of a rigorous, market-based carbon-trading scheme that gives land managers financial benefit to encourage low-impact forest management, tree planting and other appropriate activities.

Subsidiary Recommendation 27a: Research is required to develop effective and efficient methods for calculating and verifying the retention and sequestration of GHGs in soils and vegetation.

In the short term, it would be possible to use Pillar 1 of the CAP for rewarding new sequestration and adopting mitigation measures using cross-compliance measures for protecting existing carbon stores. Broadening of the land uses that can access Pillar I funding, if linked to carbon management, could be a powerful force to deliver better land use outcomes in a carbon-conscious world. Consumer concerns and the reaction of key retailers, such as the food supermarkets, with their quest for carbon neutrality within the next few years, are likely to be important drivers.

We are surprised and disappointed that forestry is not included in carbon-trading schemes and is currently excluded from credit in achieving the EU target for reducing GHG emissions. The Committee found on its visit to Dublin that this was of major concern to Irish forestry. It is clearly of importance in Scotland too and we would therefore like to see the Scottish Government press for this to be changed. We recognise the need for greater ability to measure and verify carbon sequestered and stored, but market-based incentives would drive forward the chances of this occurring. The EU is only now incorporating climate change into the mix of issues to be addressed through the Rural Development Programmes; we consider that this should be given even greater priority.

Recommendation 28: The Scottish Government should press the EU to change its policy on exclusion of forestry in helping to achieve its emission reduction targets and to place greater emphasis on climate change action in the Rural Development Programme.

Policy changes

There are many opportunities for adapting to and mitigating the effects of climate change through the use and management of land resources in the Hills and Islands and, most especially, on the higher ground compared with the lower ground. The brief analysis above emphasises the need to minimise disturbance through land management and land use if GHG emissions are to be reduced and storage capacity increased. Improved management of organic soils is likely to achieve the greatest benefits for carbon storage, certainly more than planting trees, or changing the habits of ruminants, or changing the management of arable land, or through grazing management.

Action by government should focus on a mix of regulatory and incentive measures:

- voluntary codes that are based on the best available evidence of the link between climate change and land management;
- cross-compliance, particularly through the reformed CAP and the associated codes of practice which need to be revised to take into account best practice;
- policy adjustment to ensure that agricultural policies favour environmental protection over production through the Single Farm Payment;
- develop market-type mechanisms, such as carbon-trading, to encourage protection and enhancement of carbon stocks; and
- commission further research to address these issues and the options for meeting the various EU, UK and Scottish Government targets.

Recommendation 29: Investigations to set out the implications of and options for achieving the 80 per cent reduction in GHG emissions, and to define the GHG impacts of different land use activities, should be undertaken urgently on behalf of the Scottish Government.

Crichton Carbon Centre

The Crichton Carbon Centre was established in 2007 to find sustainable solutions to global warming, as well as to communicate advances in energy efficiency and alternative energy sources to businesses and the wider public. The Centre offers a postgraduate MSc in Carbon Management in collaboration with the University of Glasgow. Through a European-funded Carbon Opportunities project, they have linked with SMEs across Dumfries and Galloway to offer energy efficiency advice and assist new business in the environmental sector.

(For more information – www.carboncentre.org)

Overall, the various codes of good practice for soils, tree planting and management, and agricultural activity need to be reviewed and updated to take into account the emerging evidence for the link between land management and climate change. Specifically, we recommend action in relation to the management of organic soils, as these are the most critical component in GHG storage and sequestration, in relation to water catchment management, and woodlands and forestry operations.

Recommendation 30: New mandatory codes of practice for the use and management of carbon-rich soils, for the management of water in upper and middle areas of catchments, and for planting, managing and restocking of forests and woodlands, should be implemented within two years as an essential component of climate change mitigation.

Refocusing the SRDP

The development of an overarching policy framework for the use and management of land has implications for the principles of funding, and the increased funding we believe is needed.

The great diversity of farming operations in the Hills and Islands, allied to the diversity of the natural heritage and the way it has been managed for centuries, requires variations in approach across Scotland rather than adopting a 'one size fits all' approach.

The SRDP is currently designed nationally to deliver five key outcomes:

- Business viability and competitiveness
- Water quality
- Adaptations to mitigating climate change
- Biodiversity and landscapes
- Thriving communities.

We support these national priorities, but believe that in the light of recent evidence provided to the Scottish Government and our own analysis (see the preceding section on Responding to Climate Change), greater emphasis needs to be placed on achieving adaptations to and mitigation of climate change.

Recommendation 31: The SRDP should be revised to make greater provision for adaptation to and mitigation of the effects of climate change, especially in the light of the recent scientific evidence provided to the Scottish Government.

The role of the RPACs and the administration of the SRDP

The outcomes of the SRDP are intended to be delivered through the setting of Regional Priorities⁹⁹ by the RPACs agreed with stakeholders for each of the 11 regions. The structure, role and membership of the RPACs was decided following a consultation by the Scottish Executive¹⁰⁰ in 2006. Comments were broad-ranging; there were those who welcomed a regional input, particularly at the priority setting level, but there was no unanimity of view about local stakeholder representation at the decision-making level. There was overall concern about the additional level of bureaucracy introduced and the potential for slowing down the decision-making process. In addition, there was concern about how impartiality would be maintained in judging applications and whether local community interests would be truly represented.

There was also the view that the Scottish Government's Rural Directorate should make the final decisions on all applications delivered through the following:

- Crofting Counties Agricultural Grant Scheme
- Food Processing, Marketing and Co-operation Grant Scheme
- Forestry Commission Challenge Funds
- The LEADER initiative
- Less Favoured Area Support Scheme
- Rural Development Contracts
- Skills Development Scheme

Following this consultation, it was decided that stakeholders would be invited to be involved in setting regional priorities but not in the decision-making process, and the Cabinet Secretary for Rural Affairs and the Environment would be responsible for making final decisions on recommendations submitted from RPACs. Thus, priority setting should have had the benefit of inputs from regional businesses, land managers and community groups but with no input to decision making.

During the course of our Inquiry, concern was expressed about the inclusiveness of stakeholders in priority setting by RPACs. We understand that this was by invitation rather than on the basis of wider consultation. We regard local involvement as crucial in priority setting. We are concerned, therefore, that this was not a genuinely participatory exercise and that, rather than responding to local demand for particular environmental and other features, the regional elements of the plan have been over-dependent on the views of expert groups and statutory consultees, and over focused on regulatory compliance. Moreover, it is not clear to us how local involvement will be maintained during the regional development of SRDP by the RPACs. RPACs have responsibility to change priorities as needs arise, and on the basis of the results of the CAP Health Check will be expected to review their priorities in response to the EU's requirements for the deployment of funds arising from increased compulsory modulation (if it occurs), particularly in relation to climate change. Another key issue, given that funding is competitive, is the basis of how the allocation of funds to different regions will be decided: will this be open to political influence or guidance and how will stakeholders be involved in this key aspect of grant delivery?

Despite an improvement in the way that the SRDP has been developed to deliver outcomes rather than outputs, it seems to us to remain complex in terms of its administration, particularly at the stages where applicants have to complete the necessary forms to submit to the RPAC. While it is right to place the onus on the applicant to demonstrate clearly how he/she will deliver the necessary priority outcomes on the ground, we are concerned that in the bedding-in process of the new scheme, the SRDP appears administratively burdensome to many land managers.

The requirement to complete separate forms for each of the environmental, business, and woodland outcomes, as well as for landlord notification and consent, seems overly bureaucratic. There is the prospect of attracting high transaction costs for advice, consultancy, and decision making, noting that outcomes are derived from 37 different packages, and within packages from a total of over 90 options. Furthermore, a clear focus for achieving the other national outcomes of water quality, adaptations to mitigate climate change, and thriving rural communities is not self evident. We are sceptical, therefore, about the extent to which the current SRDP will effectively deliver the outcomes specified. The high costs involved in preparing proposals may well lead to only larger holdings being able to justify the effort and expenditure. A further constraint is that the application procedure is dependent primarily on having access to broadband technology.

We would have preferred an initiative which rewarded genuine landscape-scale engagement between many land managers and the local resident population. Such accountability would enhance the public standing of land managers as guardians of environmental quality and help the public to justify the exchequer costs of supporting the rural land-based industries. We do not consider that the RPACs are sufficiently locally accountable to achieve these broader-based outcomes.

We consider that the complexity of the schemes could be reduced substantially by using a more user-friendly approach that requires only one composite form to be completed, based on a selection of the options that together meet one or more of the specific regional outcomes. This would properly reflect the integrative nature of land management and business development as well as demonstrating how the proposal meets the specific priorities of the region.

Recommendation 32: The Scottish Government should redesign and implement the SRDP within the context of our proposed *Strategic Land Use Policy Framework*.

Regionally-based approaches to deliver regional outcomes that are fully inclusive of stakeholder involvement and community representation should be developed. We recognise that this would be a major change of approach by vesting authority for decisions in local bodies rather than in the Accountable Officers of the relevant parts of Government. However, we consider that it would ensure more effectively than the present centralised arrangements that the outcome on the ground meets the wide range of circumstances around Scotland, makes access to schemes easier for applicants, and gives greater ownership of decisions and outcomes to locally, formally constituted groups. The RPACs could be reconstituted to perform these tasks. Their role would be to make decisions and monitor outcomes on behalf of the Scottish Government.

Recommendation 33: The RPACs should have their membership broadened to include local and regional representatives of the land using sectors, working alongside officials of the relevant government agencies. In particular, the revised and expanded RPACs should be given full delegation for the implementation of the SRDP.

We note that the SRDP is to be delivered through 11 Regions: Argyll, Ayrshire, Borders, Clyde Valley, Dumfries & Galloway, Forth, Grampian & Moray, Highlands, Northern Isles, Tayside, and Western Isles. We consider that the regionalisation of delivery is an appropriate approach given the diversity of rural situations in Scotland. We do not consider that the sub-division is the most appropriate. Our preference is for a biogeographical basis for the sub-division of Scotland, as this provides a more objective approach for the delivery of environmental outcomes. SNH's Natural Areas¹⁰¹ are the most appropriate development of biogeographic regions, and we recommend that it is used as the basis for sub-dividing Scotland. On the other hand, we recognise in relation to delivering outcomes within Axes 2, 3 and 4 that a regional administrative context is also relevant.

We have been told also during our visits that the areas of the RPACs are not appropriate to reflect the diversity of farming and environmental management in Scotland. We agree with this view. In terms of the current subdivision, we have two specific observations. We heard criticisms that the Highland Region was too large to provide meaningful priorities for the distribution of funds under the Scotland Rural Development Programme for the diversity of the area. We support this argument and note that there is great diversity within the area between the south-west, north-west, north-east and east Highlands, and suggest that the area is separated into smaller units of similar characteristics relevant to the SRDP. Equally, there is a great difference in the agriculture and the land support needed for Shetland compared to Orkney, and we consider that this region should be split into two separate ones for each of the island groups.

Recommendation 34: The boundaries of the RPACs should be redrawn to better reflect the diversity of land in Scotland using a biogeographic approach, such as SNH's Natural Areas, within an appropriate administrative context.

Basis of funding

The context of funding for the SRDP arises from the rules governing European rural development policy for the period 2007 to 2013, as well as the policy measures available to Member States and regions, as set out in Council Regulation (EC) No. 1698/2005.

Under this Regulation, rural development policy for 2007 to 2013 is focused on four Axes:

- **Axis 1** improving the competitiveness of the agricultural and forestry sector (14.27%);
- **Axis 2** improving the environment and the countryside (includes LFASS) (68.49%);
- **Axis 3** improving the quality of life in rural areas and encouraging diversification of the rural economy (11.55%); and
- **Axis 4** LEADER (5.57%).

To help ensure a balanced approach to policy, Member States and regions are obliged to spread their rural development funding between all four of these thematic axes, with the last Axis pertaining to LEADER given a cross-cutting role to engender locally based and innovative solutions. The percentage of funding allocated to each Axis is given in parentheses.

Under Axis 1, a range of measures will target human and physical capital in the agriculture, food and forestry sectors (promoting knowledge transfer and innovation) and quality production. Axis 2 provides measures to protect and enhance natural resources, as well as preserving high nature value farming and forestry systems and cultural landscapes in Europe's rural areas. Axis 3 helps to develop local infrastructure and human capital in rural areas to improve the conditions for growth and job creation in all sectors and the diversification of economic activities. Axis 4, based on the LEADER experience, introduces possibilities for innovative governance through locally based, bottom-up approaches to rural development¹⁰².

Before 2007, every Member State (or region, in cases where powers are delegated to regional level) was required to set out a rural development programme, which specifies what funding will be spent on which measures in the period 2007 to 2013.

The SRDP embodies all of the above Axes. We do not disagree in principle with the approach that the Scottish Government has chosen to take in implementing this Regulation in Scotland. However, the fact that it has to spread a very limited resource across all of these themes following European guidance results in some of the Axes receiving only very limited funding. We have already drawn attention to the woefully inadequate funding of Axis 2 in relation to agri-environment measures. Evidence received during the course of the Inquiry also suggests that the allocation of the rather meagre funds available through Axes 3 and 4, even with the addition of enterprise funding, does not provide an adequate basis for rural development across Scotland, and certainly not in the context of the integrated rural policy approaches that we advocate in this report. For example, there is a great deal of support for the LEADER programme and its ability to build capacity within rural communities. We see the LEADER programme as being crucial in enabling communities to develop their own initiatives and drive local policy in directions that will yield long-term social and economic benefits.

Without question, additional funding is essential if the Scottish Government is serious about fulfilling its targets for the Rural Development Programme in which the majority of farmers can participate. There are a number of possible sources for additional funding: transfer through modulation and transfer of additional funds from the Scottish Government. But, we recognise that the Scottish Government is already funding 70 per cent of the Pillar 2 costs and its ability to increase this must be limited, especially in the current financial climate. The major issue is the level of EU funding, which is based on historical payments rather than need. As we have already said, this is a major issue and we would urge the Scottish Government to press for a radical change after 2013 when the CAP is reviewed (see our Recommendation 15).

Recommendation 35: The funds available under the Scotland Rural Development Programme need to be substantially increased if its objectives are to be achieved and should include relevant expenditure by all government agencies.

Another aspect of SRDP funding that is of concern to us is the principle on which the public funding of environmental goods and services within the SRDP is based. This is either to support the cost of species or habitat enhancement, or to compensate for opportunity (income) foregone. This latter approach is questionable on economic grounds, even if expedient in the use of public monies. The other side of the polluter-pays principle in economics is the provider-paid principle. The basis of these principles is that the polluter should pay the costs he/she imposes on society for pollution and the provider of positive environmental gain should be rewarded by the value of the 'ecosystem services' that he/she provides to society. We conclude that the partial use of economic principles to manage so called external effects is unacceptable, especially where such an approach systematically under-rewards many land managers for the ecosystem services that they provide for society.

A Radical Change to European Funding post 2013

We have argued for a more integrated approach to rural policy and to land use recognising the multifunctional use of land and the public benefits which accrue from it. A similar approach seems to have become increasingly explicit in European policy during the course of CAP reforms over the last decade and, in particular, in the more recent proposals arising from the CAP Health Check. It also arises in the recent Review of Rural Policy in Scotland by the OECD¹⁰³ and has been argued by environmental NGOs in England in the form of a single *European Sustainable Land Management Policy*¹⁰⁴. We have already commented and made a specific recommendation concerning a clearer definition of the public benefits paid for by the SFP (Recommendation 10). Here, we make the case in support of the Commission's thinking in relation to replacing GAEC after 2013.

In the light of our arguments in favour of greater integration of land use policy and practice, and the need for support for those operations that result in the delivery of public goods, especially those practices responding to climate change, we support a more coherent approach to funding the whole of land management as part of European agricultural, forestry, and environmental policies. We prefer an approach based on achieving as wide a range of public benefits as possible and delivering the obligations under international and EU agreements, including climate change, biodiversity, landscape diversity, recreation and access, and water management.

We consider that post 2013 there would be advantage in a new, more integrated and wide ranging EU policy instrument: a *Land*, *Environmental and Climate Change Policy*. This could be developed from the current elements of Pillar 1 and Pillar 2. It clearly must also be linked to the more focussed approach to other aspects of rural development that is being developed by the EU and which will also be important to Scotland. With an inevitable diminution of funding within Europe as a whole, however, it becomes clear that the UK Government must be prepared to renegotiate the basis of Pillar 2 funding post 2013. We believe that this would serve the best long-term interests of Scotland's rural areas and communities, as well as safeguarding its natural and cultural heritage, and contributing significantly to climate change mitigation and adaptation. We also believe that it would fulfil the broader aspirations of European policy initiatives across the domains of agriculture, environment and rural development.

Recommendation 36: The Scottish and UK Governments and the EC should consider a new instrument for funding the delivery of public benefits from land management for introduction in 2013 in the form of a *Land, Environmental and Climate Change Policy* when the next review of the CAP is due to be implemented.

CHAPTER 5. STIMULATING ECONOMIC DEVELOPMENT

There are many economic opportunities for stimulating economic development in the Hills and Islands of Scotland. We are concerned that too often a single solution is identified. Tourism, and more recently renewable energy, are often mentioned in this context. There is little doubt that the attractiveness of many hill and island areas as a place to live for in-migrants has also created new economic opportunities and regional wealth creation through the multiplier effect.

We recognise the major contribution made already to local economies and to the viability of rural communities by the sporting estates through rod and line fishing, grouse shooting and deer stalking. We note also the contribution that both marine and freshwater aquaculture make to rural areas, and the major contribution that commercial sea fishing makes to island economies, particularly in Shetland, and to parts of the mainland. However, we focus on those sectors that have significant potential for growth and have a direct or indirect relationship to land use: tourism, energy and food. We reiterate our view that an integrated approach is essential if the full potential of the individual sectors is to be realised. We return to this point in Chapter 7.

Tourism

The economic importance of tourism

In Scotland, tourism is one of the largest and most important industries. It employs in excess of 200,000 people, generates around £4 billion per annum to the economy, and accounts for 5 per cent of GDP¹⁰⁵. In the Hills and Islands, its importance is even greater. It is the major industry accounting for 8 per cent of the GDP of the Highlands and 13.4 per cent of its employment, and in Dumfries and Galloway 7.2 per cent of its GDP¹⁰⁶, and 11.4 per cent of its employment.

Despite its size, its potential and its role in underpinning the economy of the Hills and Islands, tourism is an industry which is currently static and may well regress unless decisive and fundamental action is taken. Such a regression, were it to occur, would have an extremely detrimental effect on the long-term viability and economic prosperity of these areas.

Global competition in tourism is increasing and considerable resources in marketing, branding, training and development, and capital projects are being expended by nations with similar natural assets to Scotland. The result is growth in world tourism of about 5 per cent per annum and it is forecast to remain at that level¹⁰⁷. In Europe, and particularly in the more "mature" countries, the growth is around 3 per cent per annum¹⁰⁸, with Ireland breaking the trend with growth over the past 10 years in excess of 5 per cent per annum. Scottish tourism as a whole has shown very little revenue change over the same period, although some growth has occurred since 2002. Within the Hills and Islands the performance and trends are similar. (It is impossible to make direct comparison between 1997 and 2007 because of changes in the methodology of data capture.)

Tourism performance

The inability to achieve growth in line with our competitors is a multifaceted problem which we cover in our analysis of the situation and in our recommendations for rectification. But two consistent criticisms emerged at the numerous meetings we held and from the submissions we received. These were standards of service and the role of VisitScotland.

There are many excellent tourism businesses in the Hills and Islands, providing amenities and levels of service which match the very best international standards. But there are also too many businesses where standards of service are variable and this position threatens, through word of mouth and media publicity, the reputation of 'Brand Scotland', repeat visitation, revenues, growth and jobs. Improvement in service standards is therefore a key priority.

¹⁰⁵ Tourism in Scotland 2006. VisitScotland. (http://www.visitscotland.org/tourisminscotland2006national.pdf); The Tourism Prospectus: Investing for Growth. 2007, VisitScotland (http://www.visitscotland.org/tourismprospectus.pdf)

¹⁰⁶ Scottish Enterprise Dumfries and Galloway 5-Year Strategy 2003-2008

¹⁰⁷ Scottish Tourism: The Next Decade. The Scottish Executive, 2006

¹⁰⁸ Progress and Priorities 2008/09. World Travel & Tourism Council (http://www.wttc.org/bin/pdf/originalpdffile/progressandpriorities2008.pdf)

VisitScotland attracted strong and universal criticism. Recurring themes were the poor performance, leadership and direction of the industry and a combination of the centralisation of decision making by VisitScotland, with the demise of regional and community influence and involvement. These factors were epitomised by one of the written submissions:

"Scottish tourism is a disaster. VisitScotland is not working, other than as a bed bureau... In turnover and employment terms, it is a far more serious problem for the new rural economy than the problems facing agriculture."

However, in making these criticisms, it should be noted that VisitScotland as the national tourism agency currently only has responsibility for marketing, research, strategy and grading and classification. It has no direct remit for financial investment in existing projects or in new developments. This role is undertaken by Scottish Enterprise and Highlands and Islands Enterprise.

The performance of the industry has also to be set alongside the Scottish Government's objective of increasing tourism revenues by 50% between 2005 and 2015. This aspiration needs to take account of the global credit crunch; the escalation in the price of oil and other forms of energy; the weakness of the US dollar; the threat of world-wide recession; the slow-down of the UK economy; and the impact these factors will have on discretionary spending, such as on holidays.

Tourism in New Zealand

New Zealand, through its "100% Pure" marketing campaign and with substantial investments in leisure facilities and infrastructure, has become the outdoor adventure capital of the world. It attracts tourists who wish to participate in "active" adrenaline sports, such as white water rafting and bungee jumping, and those seeking more "passive" pursuits suitable for all ages, such as golf, walking and fishing. As a result, tourism has grown in excess of 5 per cent a year over the past 10 years.

It also offers a wide range of accommodation and restaurants, featuring local cuisine and wine. These establishments are graded and classified by the A.A. acting for Tourism New Zealand, with service a key component in the grade achieved.

More recently, it has begun to use the "100% Pure" brand across food, wine and natural cosmetics to convey to consumers that New Zealand and its products are clean and green, and support an enviable and desirable lifestyle.

(For more information – www.tourismresearch.govt.nz)

We are not convinced that the current strategy, funding and organisation of tourism in the public sector will result in growth in either Scotland or specifically in the Hills and Islands anywhere near the level set by Government. But we consider that growth, as a minimum requirement, in line with our European competitors, is both essential and necessary.

Scotland's Hills and Islands are an area of outstanding beauty, with a landscape which is home to many different varieties of terrestrial and marine fauna, flora, and habitats, along with spectacular mountains, hills, rivers, lochs, coastlines and sea lochs. However, these assets are not unique to Scotland; several other countries can make similar claims. What will differentiate the area from competitors and allow the tourism industry to grow and prosper is developing the potential of those resources and others, such as the region's culture and heritage, whilst ensuring that short-term exploitation and environmental damage is minimised.

For those goals to be realised, we believe radical and imaginative changes in existing organisational structures, policies and incentives will be required, along with substantially enhanced and sustained revenue and capital expenditure. It will also necessitate integration

Tourism in Ireland

The National Tourism Development Authority Failte Ireland is responsible for: developing product offerings and domestic tourism, promoting best practice in quality and standards, facilitating investment in infrastructure, and building human resource capability through training provision and standards setting. Tourism Ireland has responsibility for the marketing of Ireland (North and South) in overseas destinations. It is also responsible for producing the National Tourism Development Plan. Six Regional Tourism Development Boards have similar functions and produce Regional Tourism Strategies.

The tourism strategy focuses on: competitiveness, productivity and skills; product development and innovation; access and marketing; sustainability and regional spread; and the strategy implementation process.

Despite the recent good performance, all parts of the industry recognise that global, competitive factors will intensify. Hence planned outputs are: joined-up thinking and creativity; and contribution to achieving national and regional, social and economic objectives, and projecting how the global world sees Ireland and the values it stands for.

The Irish Government recognises that tourism is one of the most important drivers of the economy, and has established an independent Tourism Policy Review Group reporting directly to the Tourism Minister.

(For more information - www.failteireland.ie; www.tourismireland.com)

between all parts of the public sector and the creation of appropriate linkages at national, regional and community levels with the private sector. The Scottish Government must also show leadership and vision, and have the courage and commitment to set the framework and provide the necessary financial tools. Failure to do so will result in the industry continuing to muddle along and under perform.

Experience of comparators

It is or course very easy to be critical. To inform our thinking, we have examined the tourism strategies, organisation and funding of two competitor nations: Ireland and New Zealand (see boxes) These are the most appropriate benchmarks for direct comparison, given their similarity to Scotland and their outstanding record of performance over recent years. We have embraced many of their ideas, including the requirement for substantial organisational change, in our specific recommendations. We have also looked at various case studies (see boxes on 'City of Wine' and on Cornwall), and the catalytic effect tourism investment can have on other economic enterprises, such as local food and crafts, and the sense of confidence it can bring to local people in their decision-making activities.

Changes in tourism organisation and funding

Having examined the performances of New Zealand and Ireland and the two case studies, three key issues emerge. First, there is the fundamental importance of closely integrating strategy, investment, marketing and research in formulating and driving policy. Secondly, decision making needs to be decentralised to regional and community levels. Finally, the role of Government and its agencies has to be clearly specified in not only setting realistic objectives, but in ensuring that the tools and structures exist, or are created, to allow those goals to be achieved.

Given the criticism of the role and performance of VisitScotland, and because of the economic and social importance of tourism to both Scotland and the Hills and Islands, we believe far greater priority from the Scottish Government needs to be given to facilitate development and investment and improve marketing performance in the industry. It is, therefore recommended that a new national body for all tourism activities, i.e. marketing, development, investment and training is created (*Tourism Scotland* is a possible name). It would replace VisitScotland. The new body should be responsible for the marketing of Scotland as a whole in domestic and overseas markets, and focus on marketing those areas where there is significant potential that

City of Wine

The "City of Wine" complex has been developed at the Marquis de Riscal winery in the village of Elciego in the Basque region of Spain. The complex consists of a new winery, luxury hotel and conference facilities, vino-therapy spa and swimming pool, wine research laboratories, and a wine museum. Investment is around £66 million. This rural area of Spain has been transformed and many new businesses are being developed around the village. Visitor numbers to the area have also substantially increased.

(For more information – www.moraytourism.org/wmslib/PDFs/CaseStudyTheCityofW.pdf)

has not been fully developed. In addition, it would also be responsible for stimulating enterprise, business and product development, visitor servicing and training, by incorporating the expertise currently in VisitScotland, Highlands and Islands Enterprise and Scottish Enterprise. This proposal means that HIE and SE would no longer have a specific tourism development and investment remit and the new body, through grant aid, would provide financial support to the tourism industry.

Many of the communities and regions of Scotland, including the Hills and Islands, have underperformed their tourism potential in recent years. We recommend that *Regional Tourism Boards* (RTBs) are established to stimulate tourism development around Scotland. They would mirror, at regional level, the national strategy of the new body by

creating a regional strategy, regional and community investment priorities, and regional and community marketing, and buy into national marketing programmes (if they individually or collectively desire to do so) which are aimed at enhancing or featuring their regions or localities. These regional bodies would also have grant aid powers. They would be funded by both the new national body and Local Councils, and report organisationally to the former.

Recommendation 37: Given the levels of criticism of VisitScotland, the Scottish Government should radically change the institutional structure for tourism by establishing a new national tourism organisation, with combined responsibility for development, investment, marketing and training, and *Regional Tourism Boards*.

The level of funding for tourism in Scotland from the Scottish Government is significantly less than in competitor countries such as Ireland. We consider that additional investment would yield substantial additional benefits and more than justify the additional costs. Specifically, the new national body will need marketing funds in line with Tourism Ireland (in 2007, VisitScotland's marketing expenditure was £28 million compared with Ireland's All Island Marketing Budget of £50 million).

Subsidiary Recommendation 37a: The level of funding for tourism from the Scottish Government should be increased: a higher level of investment would yield economic and employment benefits far outweighing the additional investment.

To improve the position, it is essential that all the public agencies involved in the re-energising of the industry have an overarching objective of resolving seasonality. National marketing funds and public sector fixed investment funds should give greater priority to extending the season, particularly targeting the domestic market given its importance to Scotland. (The economic conditions identified earlier will prevail over the next few years and this presents considerable opportunities for short breaks and main holidays in this market.) Markets in Western Europe should also be targeted to align with the budget airlines operating services to Scotland. This emphasis also recognises the economic conditions likely to prevail over the next few years and

the fact that many people will, for financial reasons, no longer be able or willing to take their main and short break holidays in locations which are perceived as being expensive or deliver poor value. Regional and community marketing initiatives should focus on walking, bird-life, animal life, and the 'great outdoors', together with 'packaging' of transport and accommodation to make access easier. Consideration should also be given to providing financial incentives for businesses (including visitor attractions) to extend the season. For example, as a tax incentive, business rates could be reduced or eliminated for a period with additional 'carrots' provided for retaining and training staff throughout the off-season.

Subsidiary Recommendation 37b: Reducing seasonality should be a high priority as it will help to expand tourism businesses and exploit opportunities in the market place which are currently underdeveloped.

Subsidiary Recommendation 37c: Marketing resources should be used to develop long-term campaigns similar to New Zealand's '100% Pure' and Ireland's 'Your Very Own Ireland'.

In seeking to achieve this, the new national body should re-examine the work of "Scotland the Brand" and also consider, in depth, what really differentiates Scotland from other countries, such as 'Great Scots', Scottish culture, the natural and built heritage, and other appropriate themes.

Improving visitor services

Tourism is a very competitive market. Given the reliance for volume on Scottish and British markets, value for money and quality of provision are essential. We have heard from those involved, too many instances where tourists and visitors were offered poor quality of service, especially in accommodation and eating establishments which let down an otherwise good visitor experience. We recognise that this is not necessarily just unique to the Hills and Islands, but given the relatively higher dependence on tourism in these areas, it is essential that the tourism bodies in Government and industry take steps to bring standards of service to a higher

Cornwall

Fifteen years ago, the economy of Cornwall was in severe decline due to the downturn in tourism, fishing and agriculture. Today, tourism now accounts for about 24 per cent of the region's GDP Major investments in infrastructure have been a driving force: especially Newquay airport, the Lost Gardens of Heligan, the Tate at St. Ives, the Eden Project, and gastronomy experiences at Padstow and Newquay with Rick Stein's and Jamie Oliver's restaurants respectively.

(For more information www.moraytourism.org/wmslib/PDFs/ Cornwall.pdf)

level. The new national and regional tourism bodies we recommend should have responsibility for training and career development in tourism. This should be pursued with vigour and determination, particularly given the priority of 'All Year Tourism' and the drive to lessen the affects of seasonality. Further and Higher Education providers in the Hills and Islands all have a role to play. A coordinated approach to provision is needed to ensure that there is access to training and development facilities throughout the Hills and Islands and that people keen to work in the industry see tourism as capable of providing meaningful and worthwhile employment with genuine prospects for current advancement.

Subsidiary recommendation 37d: Tourism business leaders and tertiary level education and training providers in the Hills and Islands should work together to ensure that appropriate training and development opportunities are available throughout the area in order to improve the career prospects of people who wish to work in the industry and by doing so improve the quality of services offered to visitors.

Grading and classification and the overall standards of service in the Hills and Islands are very important. In general, facilities have improved, but the present grading system does not rate standards of service which are highly variable. This is exacerbated by the lack of full-time work due to the seasonality of the businesses. We suggest that the Grading and Classification of accommodation, using an agency, such as the AA or RAC, should be seriously explored, and that additionally, the pros and cons of compulsory registration to use the term 'Hotel', or 'Guest House', or 'B&B' should be examined.

Subsidiary Recommendation 37e: Compulsory registration of tourism establishments should be examined and independent assessments should be undertaken to improve visitor service standards by an agency such as the AA or RAC.

We have also heard that it is less easy for visitors to arrange a comprehensive trip to Scotland than it is to other destinations. There are many packages available, usually through the bus tour companies, or for a particular activity. It is less easy to obtain a tailor-made package of accommodation, food, transport, and a variety of activities. We have even been told that government bodies refuse to make a link between their web sites and private sector web sites. This approach lacks business acumen and professionalism. There are companies in the area that are excellent at providing tailor-made packages to other parts of the world, but a similar level of service is rarely available to potential visitors to Scotland. The easier it is made for potential visitors to discover options and to make bookings, the greater the chances of conversion from an aspiration to a visit. Good practice in the private sector is not hard to find, with examples like *Tourism Doctor* in Galloway linking potential visitors with accommodation, food, transport and activities possibilities, including those managed by the public sector such as the *Southern Upland Way* and the *7stanes* mountain bike trails.

Subsidiary Recommendation 37f: Public and business interests in the tourism sector should work more effectively together to ensure that information for potential visitors is readily available on the web on a par with competitor destinations.

Outdoor tourism potential

We consider that the Hills and Islands have the potential to develop tourism in the outdoors to the same level as New Zealand and could become one of the major 'outdoor activity centres of Europe', to rival Switzerland and Austria. This will require financial investment by the new national tourism body and the *Regional Tourism Boards* in establishing Outdoor Activity Centres and marinas throughout the hill and island areas and we propose that this should be examined as a matter of urgency. The activities should include walking, yachting and boating, cycling, nature watching, as well as the more extreme outdoor activities, such as white water rafting and rock climbing. An excellent example of the type of investment needed is the *7stanes* mountain bike trails. The *7stanes project* was initiated in 2001 as part of Forestry Commission Scotland's

on-going commitment to the provision of mountain bike trails, and as a stimulant to the recovery of the economy of the South of Scotland as a top class mountain biking destination and thereby help rebuild local tourism. The project is based around mountain bike trails at seven sites: Glentrool, Kirroughtree, Dalbeattie, Mabie, Ae, Glentress, and Newcastleton. There were 394,000 visitors in 2006/7, creating a Gross Value Added amount of £3.72 m to the South of Scotland, and creating an estimated 211 full-time-equivalent jobs in the area.

Subsidiary Recommendation 37g: Land and water based leisure activities and facilities should be developed by the new *Regional Tourism Boards* working with other public bodies and the private sector to meet consumer demand for visitor use provided that they do not reduce the quality of the environment.

Environmental tourism

There are many opportunities for the further development of tourism based on the natural environment. Visitors wish to have unique wildlife experiences. They also wish to see plants and animals that are relatively commonplace, but which they have not seen before, for example red deer and otters, as well as rarer species, such as the golden eagle and the sea eagle, and the Scottish primrose (see Table 21). Some of these species may be used as tourism marketing icons without undermining their survival. Visitors may also wish to have a greater understanding of the earth's evolution and to hear of the scientific efforts to improve our understanding of the earth that abound in the Hills and Islands of Scotland. Visitors are also looking for activity-based holidays on land and at sea.

TABLE 21 SCOTTISH RESIDENTS TOP TEN ANIMALS, PLANTS AND HABITATS

	Top ten animals	Top ten plants	Top ten habitats
1	Red and roe deer	Heather	Hills & mountains
2	Red squirrel	Scots pine	Lochs
3	Golden eagle	Harebell	Woodland
4	Dolphin, porpoise, whale	Oak	Beaches
5	Wild salmon	Thistle	Rivers & streams
6	Badger	Rowan	Parks & playing fields
7	Osprey	Scottish primrose	Coast
8	Otter	Рорру	Gardens
9	Butterfly	Ferns	Farmland
10	Robin	Orchid	Open sea

Source: Scottish Executive Environment Group Research Findings 26/2006: Scottish Biodiversity List Social Criterion: results of a survey of the Scottish population

Sea eagles on Mull

Nature tourism - Sea eagle public viewing partnership: Since 2000, the Sea Eagle Viewing Partnership, established by the Forestry Commission Scotland, the Mull and Iona Community Trust, RSPB Scotland and SNH has allowed around 300 visitors a month to see sea eagles at a nest in the wild. The Forestry Commission Scotland land at Loch Frisa is believed to be the only place in the world where direct and organised public viewing of a sea eagle nest occurs. Seventeen per cent of visitors to Mull were interested in sea eagles, bringing in an estimated £1.4-£1.6 million of tourism income to the island.

(Ref: Watched Live Never Before: the local economic benefits of spectacular bird species (2006) RSPB.)

The Sustainable Tourism Unit¹⁰⁹ and the Sustainable Tourism Partnership¹¹⁰ have been successful in raising the profile of environmentally sensitive tourism. Many initiatives in the Hills and Islands have been highlighted in case studies. These demonstrate that there is ample opportunity for successful businesses to introduce visitors to natural and cultural heritage. Nevertheless, we consider that there are more opportunities which are not being grasped by the sector. There are a number of examples that can be further exploited without damaging the species: over-wintering geese on the Islands, such as Islay, and on the Solway coast; and seasonal migrations especially of birds at key points along the coasts of the mainland and the Islands. There are also other seasonal opportunities, for example with flowering plants, especially on the base rich rocks in the uplands, such as Ben Lawers, on the machair plains of the Hebrides and the display of the arctic/alpine plants along the north

coast of the mainland; and, the extensive oak woods of the Atlantic coast stretching as far north as north west Sutherland.

National Parks

The greatest opportunities for public benefit from areas protected for their high natural heritage quality are those not tied to the more stringent EU and international designations (see discussion in Chapter 2). Terrestrial National Parks, and Coastal and Marine National Parks are examples. The intention of these designations is to put an area on the visitor's map, bring benefits to local people and local economies, as well as provide an integrated approach to the use and management of the natural resources. It has been suggested that it is too early to make judgements on the success of the first two national parks. We see specific potential for the development of further terrestrial, and new coastal and marine national parks. There are many areas that fulfil the requirements of the National Parks (Scotland) Act 2000 in the Hills and Islands of Scotland, and a process to stimulate debate should be initiated to identify possibilities and test community support. We received a number of representations in favour of Coastal and Marine National Parks designation. We are disappointed that the proposals for them by the previous Scottish Executive administration have been set aside by the Scottish Government. We recognise that there is significant opposition from some interests, especially those related to fishing. The processes which were used to identify and prepare for the first two national parks were successful in bringing together the communities of interest to support designation. We advocate that these are used again.

Recommendation 38: The Scottish Government, other relevant bodies and local communities should seriously consider the establishment of further National Parks in the terrestrial, coastal and marine environments.

¹⁰⁹ http://www.greentourism.org.uk (formerly the Tourism and the Environment Forum)

¹¹⁰ The Sustainable Tourism Partnership includes private industry partners, the Government, and other public sector bodies such as VisitScotland, the enterprise networks, local authorities, Scottish Natural Heritage, Historic Scotland and the national parks.

www.greentourism.org.uk/whosdoingwhat.html

Geoparks

Visitors are increasingly appreciating access to the stories of Scotland's earth heritage. There is a large diversity of globally unique features. Good progress has been made through modest interpretation (explanatory boards in lay-bys), simple guidebooks (the *Landscape Fashioned By*

North West Highland Geopark

Benefits of environmental designations -North West Highlands Geopark: A UNESCO Geopark is based on distinct territories with outstanding geology. It provides a strong management structure to promote the sustainable development of the geodiversity, including promoting the tourist product; informing and stimulating local people, visitors and academics; supporting local businesses to maximise opportunities presented by the Geopark, and fully involve local communities. This has resulted in investment in the development of the knowledge-based economy in key remote rural areas and the creation of graduate and skilled jobs in key remote rural locations.

(For more information – www.northwest-highlands-geopark.org.uk)

Geology series published by SNH) and specialised commercial guides, in making this seemingly complex history available to visitors. Initiatives such as the North West Highlands Geopark bring opportunities for visitors and benefits to local communities. We consider that there are other parts of Scotland which would benefit from the Geoparks approach: Arran, Skye, and Shetland, for example. We hope that the local communities and relevant agencies see the benefits of this approach and develop proposals for UNESCO approval.

Biosphere Reserves

The development of Biosphere Reserves under the UNESCO Man and the Biosphere initiative has been very ineffective in Scotland. This is unfortunate, given the unique opportunity to

provide the double benefit of protecting nature and stimulating local economic and social development based on the natural resources of the area. We understand that there are some initiatives under consideration, for example, in Galloway based on the Cairnsmore of Fleet National Nature Reserve and surrounding area. We commend this initiative and hope that the public authorities will work with local communities to develop other similar initiatives under the Biosphere Reserve model.

World Heritage Sites

There is only one World Heritage Site (WHS) based on natural heritage in Scotland: the archipelago of St Kilda, covering both terrestrial and marine, and natural and cultural elements. The UK Government's Tentative List of WHSs also includes the Cairngorms and the Flow Country of Caithness and Sutherland. We recommend that the Scottish Government and its agencies work together with national and local interests to develop the formal case for these sites, with the Flow Country as the priority, given its international importance for carbon storage and sequestration, breeding birds and mire systems.

Recommendation 39: Public authorities and local communities around the Hills and

Development of local tourism - Discover Islay

Under the name "Discover Islay" a group of diverse tourism-related businesses, together with all the Distilleries based on Islay, aim to increase Islay's international reputation as a quality holiday destination with particular emphasis on developing the winter months when there is a greater capacity in the island's accommodation. The project includes the development of a high quality "Discover Islay" brand logo, a new website, promotional print material and a programme of press trips and media activity.

(For more information – www.discoverislay.com)

Islands should work together to prepare proposals for the designation by UNESCO of Geoparks, Biosphere Reserves and World Heritage Sites in the Hills and Islands.

A good deal been achieved on developing and promoting environmentally based tourism by the industry and with the help of the Sustainable Tourism Unit¹¹¹ and the Sustainable Tourism Partnership. If these opportunities are developed further, they will stimulate local businesses to provide facilities for visitor education and enjoyment, such as guides, guide books, trails, and interpretation centres.

Energy

The previous RSE Inquiry into Energy Issues for Scotland set out the case for an energy strategy for Scotland comprising clear policy objectives. These included embracing energy efficiency and energy savings, a switch from fossil fuels to environmentally benign sources for heating, transport and electricity, and stimulation of new technological development. We strongly support these recommendations and consider that they are even more necessary than two years ago when they were first made.

Scotland's hill and island areas are well placed for the development of renewable energy initiatives using wind, water, tide and wave power. There are, of course, sometimes good reasons relating to biodiversity and landscape conservation why some sites with high physical potential for renewables production should remain undeveloped.

RSE Energy Report

We do not intend to provide a detailed analysis, as many of the energy issues were covered in the RSE's Report on Inquiry into Energy Issues for Scotland, published in 2006 and the update Energy for Scotland: A Call for Action, published in 2007. We highlight those that are critical to the future of the Hills and Islands. There is scope for the development of renewable sources of electricity, particularly from onshore sources at present (smaller scale wind and biomass from forest waste), from offshore wind in the near future, and for wave and tidal power in the medium term, and the use of renewable sources for the production of hydrogen as an energy vector in the longer term. There is also scope for the better use of surplus energy and waste heat from industrial processes, such as distilleries. This is particularly relevant for Speyside and for Islay, given the concentration of distilleries in these two areas, and at those locations where there are large-scale industrial plants. In addition, there is scope for local supply of energy for local use through distributed networks. There are a number of good examples in the Hills and Islands of these practices, such as the district heating scheme in Lerwick and that being developed in Wick using surplus energy, and the innovative PURE project on Unst in the Shetland Islands to produce hydrogen from wind energy to fuel vehicles. In addition, there are many examples of renewables projects which have reduced the reliance of remoter communities on the national electricity grid and in a few cases, such as Eigg, have brought a reliable source of electricity to households for the first time.

The RSE Energy Report also pointed out a number of obstacles to the development of the energy sector in the areas remote from the main consumption areas, most especially in the hills of northern mainland and on the islands. These remain relevant and need action by government at Scottish and UK levels and by the regulatory bodies for the industry. The locations of renewable energy devices, and in particular onshore wind turbine installations, are controversial because of their impact on internationally significant species and habitats, their effect on landscape quality, and their effect on the release of carbon during the construction

phase. This situation has not been helped by the lack of a national locational strategy for renewable energy, and especially for onshore wind. We are particularly concerned that decisions on the location of renewable energy facilities are taken on an ad boc basis using the town and country planning system which was not designed for this purpose. In view of the importance placed on the quality of the landscape for local communities and for visitors, the continued failure of the Scottish Government to address this issue is disappointing. We strongly support the recommendation of the previous Inquiry on the need for a locational strategy for renewable energy. There are signs that this position may change, but many applications have been through Town and Country Planning system which was not designed to cope with the volume for applications and has not been up-dated to allow effective representation by objectors or speedier decision making which is in the interests of all parties. A strategy for the location of renewable energy installations is still urgently needed within the framework of a comprehensive energy strategy for Scotland as recommended in the RSE's Energy Report and within the National Land Use Policy Framework recommended in Chapter 3 if the quality of the natural environment is to be protected and maximum public benefit from the use of natural resources is to be achieved.

Transmission infrastructure and policy

Transmission of electricity produced in the area to relatively remote markets has a number of significant obstacles. The current grid is inadequate to transmit the output from the approved renewables facilities, and could not cope with the supplies from potential future developments, particularly in the Highlands and on the Islands. Planning of enhanced transmission facilities is piecemeal and there is no overall plan for new facilities to connect larger-scale renewable energy installations to the national grid from remote locations. This *ad boc* approach is demonstrated by the ongoing debate about the development of a new transmission line from Beauly near Inverness to Denny near Stirling covering only 137 miles, and the absence of strategic plans to connect renewable energy potential from the Northern or the Western Isles to the grid, for instance by major undersea cables. Any solution must fully take into account the impact of transmission lines on the quality of the landscape, bearing in mind the importance that visitors and local residents place on this quality, but also the potential benefits of renewables for climate change.

In addition, Scotland as a whole, and the remoter areas in particular, are additionally disadvantaged by the locational charging scheme operated by the National Grid Company with the agreement of Office of Gas & Electricity Markets (OFGEM). Previous attempts to have this modified to equalise costs have failed and it is essential that this situation is reconsidered. We support, therefore, the Scottish Government in formally raising this important issue with the transmission authorities to achieve a more equalised solution for remoter locations.

It is clear that the current mechanism for charging for access to the national grid for electricity generated in locations remote from the consumer, where many of the best resources are to be found, presents a major difficulty for renewable energy development. In particular, the lack of a strategic approach to linking the islands to a substantially upgraded electricity grid is a major deterrent to development of renewable energy sources on the islands for use on the mainland.

Recommendation 40: The 'locational charging scheme' for entry to the national grid should be urgently reviewed. The Scottish Government should press the Department for Business Enterprise and Regulatory Reform and the National Grid Company to reduce the disadvantage of remoter locations to supply electricity from renewable sources to UK consumers.

Recommendation 41: The Government and National Grid Company should develop a strategy for the connection of island-based renewable energy sources to the mainland electricity grid.

Community benefits

The prospects for economic benefits to local communities from energy technology and energy production from renewable sources are substantial. The current concentration on onshore wind technology can bring community benefits, provided that the scale and location of the development is in keeping with the local environment. But it is of the greatest importance that local communities receive real financial benefits in the longer term. This has seldom been the case with such developments in the past.

Recommendation 42: The Scottish Government should develop a scheme for ensuring that local communities receive financial benefits from renewable energy developments.

There are emerging technologies, which are expected to come into productive use in future decades, that can provide energy to local communities to reduce the reliance on imported sources, provide financial benefits, and not detract from the local environment. Smaller scale wind, micro hydro-electric, the use of forest waste or low grade wood for biomass, the use of waste from industrial processes, as well as tidal and wave sources along the coast, are the ones

Cream o' Galloway energy arrangement with local community

The Cream o'Galloway ice cream producers and organic farm in Dumfries and Galloway established the Gatehouse of Fleet's community wind turbine on the Cream o' Galloway farm. The 32m turbine generates electricity to provide roughly a third of all the farm's electricity requirements. The turbine is owned by the local community, with the farm purchasing the electricity from them, with the proceeds going to community projects such as the upkeep of the town hall.

(For further information – www.creamogalloway.co.uk)

most likely to emerge in the next decade. Communities should be supported in making the best of these opportunities.

We applaud the activities of the Highlands and Islands Community Energy Company and welcome the extension of its activities to central Scotland. It can help to build community capacity to negotiate successfully with large energy companies. However, we would like to see more communities actively taking control over their energy production. Rather than being seen as an exportable asset, energy should be seen as a potential contributor to community empowerment. The development of local electricity grids, and the development of renewable energy sources for local use, are all part of reducing the carbon footprint of rural areas. We consider that there is a gap in technical support between that at community level and those of the multinational companies. There are high barriers to entry and we consider that support mechanisms should be put in place to assist in bringing new schemes of medium size and complexity to fruition.

Community ownership – Community-owned Isle of Gigha

The Isle of Gigha Heritage Trust manages the Isle and aims to regenerate the island through a number of enterprise, employment and housing initiatives. These include a housing improvement programme, a renewable energy project and the operation of a quarry. The Trust has purchased three Vestas V27 wind turbines, each with an installed capacity of 225 kilowatts. This is Scotland's first community owned, grid connected, windfarm, resulting in an estimated £75,000 per annum for the Trust. Community members were consulted at each stage through a series of meetings held throughout the development of the project.

Recommendation 43: Community-based sustainable energy projects should be encouraged and communities' ability to get the best deal from major energy companies, land owners and other development interests should be increased by expanding the Highlands and Islands Community Energy Company to cover the whole of rural Scotland.

Renewable energy opportunities

Energy supply and managing energy demand are key issues for the future development and prosperity of the Hills and Islands. The type and location of energy development is also critical to the maintenance of the quality of the environment and landscapes. We consider that the area has considerable potential for producing a greater proportion of its own energy than previously. It has also the potential to supply energy for markets in the more populated parts of Scotland and England. We consider that expansion of energy production in the area must be done in a way that does not impair the

environmental systems that are the key resource for combating climate change and for maintaining biodiversity, nor impairing the quality of land and landscapes which visitors and residents rate so highly. In addition, the area has the potential to make a significant contribution to the reduction of GHG emissions. Proposals were made in Chapter 4 for carbon sequestration through improved land management practices and tree planting. We also consider that the implementation of a feed-in tariff would encourage the wider and more rapid adoption of renewables.

One opportunity which has emerged during this Inquiry is the potential for biomass. The forest waste arising from thinning and felling has very considerable potential as a heating source. The best opportunities are in public utilities, such as schools and hospitals (as practised for example in Aberdeenshire, Perth and Kinross and in Dumfries and Galloway), and close to the sources of the raw material, given their high volume and low value, and where there is no other market opportunity, such as on those islands with biomass resources, for example on Mull.. There are also opportunities for the development of further plants for the production of pellets from biomass, such as the plant at Invergordon. We consider that forest waste biomass is a better option than the development of energy crops on existing agricultural land where it would displace feed crops for livestock which are needed to maintain the level of grazing in the area, as we argued in Chapter 4.

Renewable energy development – Highlands & Islands Community Energy Company

Established in December 2004, the Company provides free advice, grant funding and finance for renewable energy projects developed by community groups to benefit their community.

They are currently based in the Highland region, but are working with the Big Lottery Fund to deliver advice on sustainable energy to applicants under the Growing Community Assets programme across the whole of Scotland.

(For more information – www.hie.co.uk/community-energy.html)

Wood fuel - Crannich Woodfuel

Crannich Woodfuel provides woodchips for automated wood fuel systems, sourced from local woodlands, extracted during normal harvesting and forest management activities. The thinning of forests for woodchip production also opens up otherwise dense woodlands for recreation, wildlife – such as red grouse and blue hare – and agricultural uses, such as highland cattle grazing.

(For more information – Robin Sedgwick, Crannich Farm, Aros, Isle of Mull PA72 6JP) Recommendation 44: The proposed Renewable Heat Strategy should be implemented as soon as possible to enable biomass to contribute as fully as possible to our renewable energy commitments. Funding packages should be introduced to encourage long-term planning and development in the installation and distribution sectors.

There are also further opportunities for the Hills and Islands in the research and development field. Already there are important facilities in Orkney and fabrication facilities on Lewis and in Kintyre. The production market is very competitive, but the islands have a particular advantage in developing further the links with the internationally important centres of energy technology expertise in Glasgow and Edinburgh. There is also an opportunity for the nuclear decommissioning expertise at Dounreay to provide a world-wide service.

In conclusion, on energy we reiterate the recommendations in the RSE Energy report on

- the need for a Scotland-wide locational strategy for renewable energy;
- greater incentives to support the development of newer renewables technologies;
- the removal of all incentives for onshore wind installations;
- provision of incentives and regulations to support the use of waste energy in district heating schemes; and
- gathering and dissemination of information on energy saving and on renewables energy solutions.

Food

The relatively poor quality land, and its focus on unfinished livestock production, means that the hill and island areas have had a limited capacity to produce food. There are, however, important exceptions: meat and fish processing, distilling, as well as fruit and vegetables. Alongside this, a new artisanal food sector has emerged, sometimes operating free-standing from the traditional sector. It often has a strong lifestyle component, and may not generate large amounts of employment. Companies such as Baxters of Fochabers and Walkers of Aberlour in the traditional food sector, have shown remarkable growth.

Scotch whisky, however, stands out as a world-famous alcoholic beverage. Together with various bottled waters and food products, it exploits its highland or islands setting as an attribute that aids marketing.

Scotch Whisky is one of the top five UK manufactured exports. The industry employs nearly 9,000 people directly, many more indirectly, and generates government revenues in excess of £800 million annually. According to the SCDI (2008) sales amount to £2.5 billion annually, a figure also identified elsewhere as an accurate estimate of industry size¹¹². In 2005, the industry used some 442,000 tonnes of barley and around 545,000 tonnes of other grains (largely wheat and maize) in Scotch Whisky production¹¹³. Most of the barley and much of the wheat is sourced in Scotland. The memorandum notes that "The Scotch Whisky industry is experiencing growing international demand, with global exports in 2006 rising by 4% in value and 6% in volume compared to 2005. New investment in distilling, warehousing and bottling capacity is being made across Scotland to meet that demand. Supported by growth in traditionally important markets, such as the USA, but also in significant emerging markets in Asia and South America, it is anticipated that Scotch Whisky production will continue to increase in the coming years, with a greater demand for barley and wheat as its essential raw materials."

The whisky market is sharply segmented between malt whisky, which is made in small distilleries exclusively from malted barley, and blended whisky which contains both grain whisky derived from distilled wheat and maize and malt whisky. The malt whisky market has seen a dramatic expansion in recent years, but, as a luxury product, it is vulnerable to the impact of a recession. The marketing of malt whisky plays heavily on the purity of its ingredients and the qualities of the different environments in which it is produced. The whisky industry is intimately associated with the hills and islands and creates global identity for the area as a place of premium quality food and drink production. Production is heavily concentrated in Speyside and on Islay, with distilleries also on other islands. Income generation, employment and visitor attractions are major benefits to local economies from whisky distilling.

We recognise the economic benefit that all of these sectors of the food and drink industry contribute to the Hills and Islands. Given our concentration on the land resource base and in particular on the future of agriculture, in this section we focus on the opportunities and obstacles to the development of the red meat sector, specifically on the issues of abattoirs and associated aspects of food processing and marketing.

Developing local food markets

Attempts to develop local food markets and branding schemes have had a number of successes and many failures. We applied the successful attempts by marketing groups and individuals to create local brands with labelled food products that sell successfully into local and wider markets. The ingredients of success are the availability of local raw material of high quality, local food processing facilities, and information and marketing in both local and more distant markets.

It has been brought to our notice throughout this Inquiry that the provision of abattoirs and related local meat processing facilities are key ingredients to secure local value added to livestock production and distinctive local brands, alongside development of effective marketing of meat products.

We recognise that the successful operation of abattoirs depends on large scale and continuous throughput, which prevents many parts of the Hills and Islands having access to these facilities. As a result, livestock from many parts of the Hills and Islands is transported unacceptable distances far from its area of origin, and loses its local identity in subsequent marketing. We do not consider that the present position is acceptable. We have, therefore, undertaken a thorough review of the many reports on this subject¹¹⁴, and consulted with experts in the business.

Farmers wish to add value to their products in order to increase the revenue from livestock enterprises which are currently experiencing financial difficulty, especially in the Hills and Islands. One of the ways to do this is to cut out the middle men and sell directly to the consumer. There is also a demand for locally-produced food to be available for local consumption by local people and by tourists. To fulfil these aspirations, local facilities for processing meat are necessary including reasonable access to slaughterhouses, and this must be supported by strong, new marketing initiatives.

The main areas of Scotland which are poorly served by facilities for slaughtering locally reared animals are Skye and Lochalsh, Argyll and the South West of Scotland, south of a line from Ayr to Lockerbie. There are a number of obstacles to creating further provision of abattoirs in the Hills

Shetland lamb processing and marketing

Where local abattoirs have been developed it has been possible to develop domestic markets successfully. For example, under the 'Taste Shetland Brand', the Shetland Livestock Marketing Group (SLMG) markets a unique range of high quality, premium meat products. The brand was developed from specially commissioned market research and has won critical acclaim from producers and customers alike including numerous national awards and short listings¹¹⁵. SLMG sources from member farmers and crofters and actively encourage these producers to finish stock in accordance with stringent customer requirements. The abattoir employs an entire suite of innovative pre and post slaughter techniques to ensure the outstanding quality of the raw material is maintained and actually improved upon as it moves through the slaughter line and on to the end customer.

(For more information – www.shetlandagriculture.com)

and Islands. In general, there is over-capacity in the abattoir sector in the whole country. Slaughter facilities are not always in the most convenient sites to service the outlying areas. This means it is a highly competitive business requiring large throughput to be financially viable. The existing food processing industry has also a vested interest in retaining high throughput capacity within its existing plants. Obtaining the various permissions is cumbersome, given the number of public bodies involved: planning authority, building warrant authority, Food Standards Agency, the Scottish Government Veterinary Service and SEPA. Disposing of the offal is a major problem, especially for island locations. At present, the smaller islands have a dispensation to bury it, but larger ones, such as Orkney, have to transport large quantities of material to Aberdeenshire for official disposal at considerable cost. There is also supervision of the day-to-day running of the abattoir. Running an abattoir is a costly exercise as it is a labour-intensive activity, especially if slaughter men have to be employed full-time. Grants are available to aid construction, but support from public funds is not allowed for annual running costs. The Dunlossit Estate on Islay intends getting round this problem by using Estate workers who can be deployed to

114 Lamb Marketing Project initiated by the Highland Council under the auspices of Lochaber Agricultural Group in 1999

- Red Meat Processing & Marketing in the Highlands and Islands by Prospect Management Services for HIE and the Highland Council, May, 2002.
- Establishment of a Local Meat Supply Chain in Skye & Lochalsh by SAC for Skye & Lochalsh Meat Supply Group, 2006.
- West Coast Highlands & Islands Community Meat Initiative by Balblair Management Ltd for HIE, 2006.
- Evaluation of a Meat processing opportunity in the Scottish Borders compiled by SAOS in 2001.
- Feasibility Study for Lamb Processing Plant Situated in the Scottish Borders prepared by Kinnaird Business & Consultancy Services in 2006.

other tasks when not needed in the abattoir. Most of the larger plants run at a 2 per cent margin. The costs to implement the EU Meat Hygiene Regulations 1995, as revised in 2006, have escalated overall costs, especially the requirement to have a veterinary surgeon present before and during the slaughtering process. The costs associated with the implementation of these EU Regulations have led to the demise of many of the smaller abattoirs. For example, in 1985 there were around 70 abattoirs in Scotland, but this had decreased to 34 by 2006. This position was exacerbated by the BSE problem in cattle which increased the amount of offal that had to be removed from bovine carcasses (Specified Risk Material). Some operators accept the costs of running an abattoir as an overhead for the meat processing on which the profits are made. The key is then the marketing of the products.

To be viable, an abattoir requires all-the-year-round supply of animals. In many of the outlying areas this creates a problem, as many of the farmers in these areas are geared to selling on their stock as store animals for finishing by low ground farmers on mainland Scotland. It may therefore require a change in management by farmers in the Hills and Islands by making a commitment to produce a regular supply of animals for an abattoir to be viable in these areas. This also requires a discipline which is not always present in these groups: that they must support the local facility, even at times when they could get a higher price for their stock elsewhere. However, there are examples, like that seen on Mull, where the abattoir is run as a farmers' cooperative and enough locals have committed themselves to the initiative to make it viable. Therefore, a sizeable number of the local farmers must buy into an initiative for it to be successful.

Promoting local food -**Grampian Food Forum**

The Grampian Food Forum is a partnership comprising senior members of the food and drink industry in the North East of Scotland and the main development agencies in the area. The Forum advises the public sector organisations on the needs of the food and drink industry, so that programmes and projects can be put in place which are focused on the needs of the industry. The Forum provides an opportunity for companies from different sectors to learn from each other and to exchange ideas. The activities of the Food Forum include trade missions, awareness visits, in-store promotions, dining clubs and skills workshops, and the Grampian Food Forum Innovation Awards, where local food and drink companies have the chance to present their newly developed products to a panel of judges.

(For more information www.aberdeenshire.gov.uk/support/food/forum.asp) In general, the provision of slaughter facilities in remote areas is fraught with problems. It is a high-cost, labour-intensive activity which is burdened with legislative and bureaucratic conditions. It is clear that the processing of local meat and the development of markets both locally and further afield must be the priorities before any new slaughter facilities are constructed, unless there is a local benefactor on hand, as in Islay. What most of the outlying areas want is a subsidised facility. Current interpretation of EU Regulations in the UK appears to forbid this. But, it is known that facilities in other EU member States operate with financial support from EU sources. We note that all of the studies reviewed indicated that the financial projections were universally pessimistic. We note, however, that all of these studies focused on the financial projections for abattoirs and did not take into account the many other factors that are legitimate for developments in the

remoter areas of Scotland, such as the social and environmental benefits, and the wider economic benefits. We consider that provision of facilities is such an important ingredient in the successful development of locally-branded food marketing, and in achieving other non-market benefits,

Local food - Dunlossit Estate

With funding from the Scottish Executive, the estate is constructing a micro-abattoir to support Islay, Jura, Colonsay, and possibly Kintyre. The abattoir will be very low throughput, but is being scoped to cover the slaughter of cattle, sheep and pigs of all ages and breeds. This will extend the possibilities for island farmers to move downstream in the meat industry to retain a greater share of the retail value of their livestock. In support of this, the estate is developing the "Islay Real Meat Co" to brand and market the meat. Before the abattoir is built, the estate is developing its potential market, through the brand Dunlossit Meat.

(For more information – www.dunlossit.co.uk/index.asp?pageid=74613)

such as biosecurity, animal welfare and a food's green credentials, that solutions need to be found. We were particularly interested in the proposal made by Balblair Management Ltd116. They point out that it is unlikely that local facilities will emerge without a great deal of support from public funds. Therefore, they suggested a funding package could be put together to support the setting up and running of an abattoir from a combination of the public and private sectors with respective contributions of 65 per cent and 35 per cent. Local livestock producers could show their commitment to the initiative by buying into it through a levy based on the number of livestock units on a holding. Once the entire meat chain project achieved a sustainable level, it could be sold back into community ownership.

It has been pointed out to us that if local councils attempt to assist local abattoirs, for example, this can be challenged under the EU State Aids rules. We consider that a twin-track approach is needed: to develop markets for food under a generic Scottish brand image and to provide a spread of meat processing facilities around Scotland. What is needed is a solution that looks beyond the economics of abattoirs and other processing facilities, and seeks to maximise the opportunities for local processing of meat to provide the greatest local benefits. We note that this has been achieved in other EU Member States.

Recommendation 45: The provision of local abattoirs and meat processing facilities in the Hills and Islands of Scotland should be investigated by the Scottish Government in relation to EU State Aids, the economics of operation, and the wider benefits to local businesses and the community. A geographical spread of facilities needs to be provided to improve the prospects of adding value locally to livestock products.

Recommendation 46: Farmers' organisations and marketing cooperatives should make

Local food branding – Orkney Meat

Established in 1982, the company uses local livestock to supply quality beef and lamb in carcass, primal cuts or vacuum-pack to retailers, caters and wholesalers throughout the UK, under the "Scottish Beef" banner. Its premium brand, *Orkney Island Gold*, is produced with complete traceability from farm to customer guaranteed, along with strict qualification requirements in terms of breed, conformation, fat covering and weight. *Orkney Island Gold* is only available from independent butchers, and cannot be purchased from the multiples.

(For more information – www.orkneymeat.co.uk)

greater efforts to produce locally distinctive livestock and other food produce for local consumption by residents and visitors, and for direct sale into more distant markets.

We recognise the importance of locally-produced food from marine and freshwater fish, from animal products and from fruit and vegetables, especially for incoming population and for visitors. Tourism businesses need to be encouraged to use local produce as their dominant offering. Tourists want to sample the indigenous food of an area; they do not want sameness and ubiquity. This approach also offers potential to farmers/fishermen in higher prices and in gaining future customers, who may order produce when, post-holiday, they are back in their homes.

Subsidiary Recommendation 46a: Tourism businesses should be encouraged to use regional and local food as their dominant offering.

CHAPTER 6. DEVELOPING VIABLE COMMUNITIES

Economic activity cannot be seen in isolation from the provision of essential infrastructure. Without this, it is not possible for communities to maintain or regain their social viability or for businesses to operate. Some additional investment may be needed, for example in housing, throughout the area, but there are obviously variations in need depending on the current provision, relative costs and affordability, and the relative isolation of communities. We are not in a position to make a comprehensive assessment of these needs, but there are several key issues: the supply of affordable housing, transport (especially connections by ferries), the provision of high-speed telecommunication systems, the availability of locally-based schools, further and higher education facilities, and key services such as shops, garages and post offices.

We feel strongly that investment to improve the viability of communities can in the long run reduce their dependence on support and that this should be the aim of policy. We are aware that no two communities are the same: this variety was especially apparent when we visited the islands. There is a strong argument therefore, for an approach by local and national government that embraces greater community participation and cooperation in the provision of essential infrastructure such as housing, education and transport facilities.

The Need for Affordable Housing

Everywhere the Committee visited in the hill and island areas, we were told there was a need for affordable housing. In many areas, this need seemed to be acute. There are special issues affecting these areas and it was clear to us that shortage of housing, especially affordable housing, could be a major constraint on economic growth. It was pointed out to us that there were some people who would like to remain in the areas that they regard as home but, even if they had work, the absence of housing they could afford drove them to leave.

Lack of affordable housing is, of course, not confined to these areas and is recognised now as an urgent priority by both the UK and Scottish Governments. The Scottish Government's recent discussion paper signals a major shift in housing policy and aims for a substantial increase in housing supply together with a fairer system and an emphasis on raising environmental standards¹¹⁷. Throughout the UK, there has been a very substantial increase in the prices for owner-occupied housing in recent years. This applies to Scotland as much as the rest of the UK, and we found that it also applied across the hill and island areas. For example, average house prices in the Highland Council area rose by 134 per cent between 2000 and 2005, from £59,796 to £140,041. At this level, the cost of housing is 5.4 times average earnings of people in these areas¹¹⁸. There are several reasons for this. Mortgage finance has been much more readily available than was the case in the past, especially since deregulation; and with historically low interest rates over the last ten years, house owners have generally been able to service a much larger amount of debt than would have been the case earlier. This is evident in the substantially increased ratio of house prices to the household income of those who purchase¹¹⁹.

Demand for owner-occupied housing has also been increased by the lack of available housing in the rented sector. Private renting declined in Britain as a result of the long period of rent control, which started in the First World War but did not end until the reforms introduced in the 1980s. Since then, there has been a growing market in rented accommodation, but its share in the total housing stock is still low by comparison with most other countries.

The social rented sector (local authority and housing association housing) has been reduced in size from over 50 per cent to less than 30 per cent of total stock since the early 1980s. This is predominantly due to the 'right to buy' legislation, together with a strong preference on the part of householders for owner occupation. The result is that owner-occupied stock has risen from less than 40 per cent to 67 per cent of the total housing stock in Scotland. Although this policy has been welcomed, there has now been a major reduction in the amount of housing that may be classified as 'affordable', if one takes that to mean housing available at either below free market rents or for sale at less than the full free market price.

All of these factors affect the hill and island areas, in the same way as they apply to Scotland as a whole. However, there are aspects of the housing situation in the hill and island areas that are distinctive. In general, the private rented sector remains more important there than in Scotland as a whole and the social rented sector less important. Figures supplied to the Committee show that in 'truly rural' areas (areas with communities below 1,000 people) the private rented sector exceeded the social rented sector, taking local authority and housing association housing together¹²⁰. Both were however very small compared with the owner-occupied sector, which accounted for approximately 70 per cent of the stock.

The significant feature of housing in many of the hill and island areas, however, is the amount of stock being acquired by incomers, whether in retirement, as second homes, or by those who want to come and work there. Incomers are attracted by the quality of life and in some cases want to set up their own businesses. All of this increases the pressure of demand and results in prices rising. Since the level of income of many local people in these areas is below the Scottish average, this can often result in housing becoming unaffordable for local people who wish to remain, including those who are able to get employment. This situation requires action if it is not to constrain economic growth.

Incomers can be of real benefit to the local economy and community. Obviously, this is so with those who have jobs or create businesses, but those who are retired also boost the local economy with their spending. They may also contribute to the local community in other ways. Second homes are more controversial and can have a negative effect if they are seldom occupied and form a large part of the housing stock in an area. But they too can have a beneficial effect if they are occupied or let to tenants for a substantial part of the year. Users will spend money locally and the owners will give employment to local tradesmen.

We do not think that trying to segregate the housing market in some way to make it difficult for incomers or second home owners to buy property would be the right course to follow. It would be difficult to operate and would risk deterring potential purchasers who might make a useful contribution to the local economy. It is, therefore, necessary to look elsewhere for solutions. The approach outlined in the Scottish Government's discussion paper seems to us to be the right one, so long as it is appropriately tailored to the diversity of needs of rural, including the hill and island, areas.

Social rented housing

The present credit crisis, is already leading to a downturn in the market throughout the UK, and seems set to continue for some time. This can be expected to reduce the demand for housing to buy in hill and island areas as it is doing elsewhere, though excessive borrowing at high risk may be less a feature of these areas than it is elsewhere. This process is obviously painful but if it results in housing becoming more affordable in the long run

to those who wish to live there, the process would be welcome. More housing is clearly needed if the existing shortages are to be overcome, and this is a prime objective of the Scottish Government discussion paper. In particular, after the long period of right to buy, there is a need for more social rented or affordable housing. We welcome, therefore, the Government's proposal to end right to buy on new social housing, as we consider that the owner-occupied sector is large enough and is in danger of including people who are overstretched by mortgage costs. At the level of incomes that many of those in the hill and island areas have, a sector of housing that provides good standard accommodation at less than full market prices is needed. That may be either rented housing or some form of low cost home ownership.

Recommendation 47: We support the Scottish Government's intention to increase the supply of social rented housing and its intention to end 'right to buy' on new social housing. We recommend that new build should be undertaken, for preference, by housing associations.

This, of course, requires public expenditure in the form of subsidy to the housing providers. Traditionally in Scotland, this was done by local authorities, and the Scottish Government's discussion paper wishes to see local authorities taking a larger role again in future. Over the last twenty years, housing associations have been the main and growing providers of new social housing, though their share of the stock is still much smaller than that of local authorities in rural areas and less than in Scotland as a whole. Some local authorities in hill and island areas have passed all their council house stock to housing associations, Comhairle nan Eilean Siar being an example, but Highland Council has not. In general, although there is some very good local authority housing, we consider that housing associations are more appropriate as landlords because their stock has often been better designed and better managed. Partly, this may be because, with a generally smaller scale of operation, their management can be closer to the needs of their tenants. The example of other European countries where housing associations are the dominant providers of social housing would seem to support this¹²¹. However, if the role of housing associations in these areas is to be increased, as we would wish, the Scottish Government will have to be prepared to increase the amount of Housing Association Grant (HAG) made available to them.

The private rented sector

The private rented sector also has a role to play. Already many landowners provide housing at less than full market rents, either to people who work for them, or because they have a sense of commitment to their local community. Some landowners accept tenants from the local authority list for their housing, in which case they would receive rents below market rents. From evidence submitted to us, they could play a larger part in providing affordable housing¹²². It is welcome that this is recognised in the Scottish Government's discussion paper. In other cases, houses that become vacant are simply sold off or let at full market rent, sometimes to help cover the cost of those that are let on affordable terms. For this to change and the sector to play a larger role in the supply of affordable housing, there needs to be some sort of financial assistance rather than relying on landowners to accept below market rents mainly out of a sense of altruism.

The Rural Empty Properties Grant (REPG), though important as a means of bringing empty property into use at affordable rents, is inadequate on its own, since it requires property to be either empty or derelict before it is available. We would see advantage in something equivalent to HAGs being made available in the private rented sector. A condition of receiving such grant would be that the housing was available at affordable rents, as is presently the case with REPG. If such a grant was available to private landowners, it would make it worthwhile for them to provide such housing and the supply could be increased considerably.

We were, therefore, pleased to hear of a pilot £5 million scheme announced by the Communities Minister in February 2008¹²³. It is not yet clear how this will operate, but once it is assessed, we would like to see it extended. Often private landowners will be able to provide housing more cheaply, even than housing associations, either because they have lower overheads or because they are prepared to make the land available at low cost. There would need to be arrangements in place to ensure that such housing, which would often be in converted buildings, was of good standard and affordable rents would need to be properly defined, probably to be in line with housing association rents. This sector could make a major contribution to meeting a genuine need and it would seem right to make full use of it.

Recommendation 48: Grant arrangements, equivalent to Housing Association Grant for housing associations and linked to affordable rents, should be made available to implement the Scottish Government's wish to work with the private sector in providing affordable housing to rent.

Another issue related to the private rented sector is the impact of inheritance tax (IHT) and capital gains tax (CGT) on landowners. We recognise that this is not a matter for the Scottish Government. The impact of these taxes means that up to 40 per cent tax may be payable on the market value of the rented property when the landlord dies. The recent reduction in CGT may assist transfer to the next generation during the lifetime of the previous owner but it is still a significant tax. These tax payments may require property to be sold off to pay the tax, with its possible loss as affordable housing. There would seem to be a case for introducing a deferment of the IHT liability for as long as the housing is let on affordable terms.

Subsidiary Recommendation 48a: Inheritance Tax liability on property let at affordable rents should be reviewed to enable the former to be deferred so long as it is let on affordable terms.

Affordable housing - Dumfries & Galloway Small Communities Housing Trust

The Trust is a registered charity with the objective of increasing the amount of affordable housing within small rural communities in Dumfries and Galloway. The trust's legal status allows it to impose a Rural Housing Burden on title deeds purchased through the Communities Scotland Rural Housing Ownership Grant Scheme, to ensure the long term affordability of sites by requiring purchasers sell the site and buildings back to the Trust so that the property can be resold at an affordable price.

Shared equity schemes

For those who want to buy rather than rent, Rural Home Ownership Grants may be available. These grants aim to help sustain rural communities by making it easier for people on low incomes to buy their own home. The grant is means-tested and can help a purchaser to acquire a site and meet building costs. In some circumstances, grant may also be available to acquire or improve an existing property. Shared equity schemes can play a useful part in making housing affordable. These can be provided by those housing associations that offer housing to buy or by housing trusts set up specially for this purpose¹²⁴.

The Committee were impressed by the evidence

received from the Highlands Small Communities Housing Trust, and the Dumfries and Galloway Small Communities Housing Trust (see box). Both of these trusts have introduced shared equity schemes with pre-emption right conditions known as Rural Housing Burden. Such schemes work on the basis that the purchaser funds a proportion, say 75 per cent, of the

value of a house including the plot on which it is built and the trust the remaining 25 per cent. When the house comes to be sold, the trust has an option to buy it at the District Valuer's price or, if sold to a third party, it remains a 25 per cent owner until it is sold again, when the same situation applies. This again is a form of subvention, since the housing trust gets no return on its investment, apart from an appreciation in house value if house prices rise. Apart from the initial injection of funds, the aim of these trusts is to build up revolving capital, which will enable further housing to be built. We believe that the example set by these two Small Communities Trusts could have wider application and we would like to see it extended to other rural areas.

Subsidiary Recommendation 48b: We support shared equity schemes and recommend that their role should be further developed for those unable to fund the whole cost of home ownership. In particular, we would like to see Small Communities Housing Trusts in operation throughout rural areas.

Planning

The need for housing in the hill and island areas is not, however, only a matter of devising better provision for those who are less well off. House prices rise out of the reach of many local people because supply is constrained. This appears not to be due to a lack of willingness on the part of builders to build more houses but to the way various parts of the public sector operate. Planning rules with respect to development in the countryside are now outmoded and need to be radically updated, with concentration on the site and design of the property, rather than its location. There needs to be more freedom to build in Local Plans.

Many local authorities have imposed very tight planning constraints on new building in rural areas. This is understandable, because a countryside with indiscriminate and unplanned housing could be damaging to its appearance, and would be opposed by many people, especially by amenity groups. The restriction has gone too far, has been applied in an *ad boc* fashion, and is a major factor in driving up prices. In some areas, it is possible to get permission to build a house where it replaces an empty farm building or derelict cottage, but not otherwise, on grounds that it will tidy up what might otherwise become an eyesore. Building where there has at sometime been a building before is not necessarily the best place for new housing from any point of view. The design of new development is more important than a mechanical rule such as this 125.

What is needed, therefore, is a much more flexible policy, with more areas zoned in local housing plans as suitable for new housing and with the emphasis on design that is appropriate for the landscape and compatible with any surrounding buildings. Landscape, and the ability of development to blend with it, is important to the success of the tourism industry and, though there are many attractive villages in the hill and island areas, there are also many that illustrate what should not be done. We, therefore, wish to see a more flexible planning policy offering much more scope for new housing throughout the area, but where the emphasis is on quality of design and an ability to blend with the landscape.

Recommendation 49: The Scottish Government and Local Councils should urgently review their planning policies to make them less restrictive on the building of new housing in rural areas, with emphasis instead on design, environmental footprint and landscape compatibility.

In the course of our visits, Scottish Water has sometimes been blamed for being unwilling to meet the needs of proposed new housing. We appreciate that resources are as much a constraint for Scottish Water as for other infrastructure providers. But we do not think it right for this to be allowed to prevent a local need for housing being met and for economic development to be constrained in consequence. Local authorities also need to fund the infrastructure development necessary for housing development. There needs to be greater incentives for owners to release land for housing, but we think that a more flexible planning policy might be sufficient to achieve this.

Crofting and housing

In the Crofting Counties, crofting tenure is a special form of tenancy, providing complete security of tenure for the crofter and his/her successors. This results in a larger private rented sector in such areas. Croft housing grant has played an important part in enabling croft housing to be improved and older buildings replaced with new ones. In our view, the crofting legislation and the existence of crofting tenure has been instrumental in enabling significant population to remain in these areas, which might otherwise have become much more depopulated.

The approach to affordable housing provision in the Crofting Counties provides an interesting model. It could be argued that the former Croft Building Grant and Loan Scheme (CBGLS), and the now Croft House Grant Scheme (CHGS), are the most effective tools for getting good quality housing in remote rural areas. The grant varies from £1lk to £23k per house, on the basis of the assessed priority of the area. The crofter has a free house site, since he is already in occupation, so that the requirement for mortgage borrowing becomes only the gap between the grant and the cost of building. This is generally affordable by people on modest incomes. With a croft and CHGS, a quality house is built, for a purpose, in the right place. This contrasts with rural council housing, or housing association housing, where grant support can be as high as 70 per cent.

It is probable that the site and the entitlement to build on it (even if not entirely legally supportable) are considerably more important than the grant, since it is something which could change. In fact, Rural Housing Grant, paid to rural residents who are not eligible for CHGS can bring a higher sum. However, for those who need to acquire a site, land that once was very cheap in rural areas is now expensive, due to a rigid regulatory framework and planning policies.

None of the above recommendations are without their cost in public expenditure. Even a more liberal planning policy will involve the additional provision of services, such as water. However, it is wrong that economic development in the hill and island areas should be constrained by lack of a sufficient supply of affordable housing; and wrong also that house prices should be driven beyond the reach of local people, forcing some of them to leave, even if they can find employment. We urge therefore that government should give priority to the measures outlined above.

Improved Transport Provision

The transport system in the hill and island areas has undergone many improvements, compared with the situation a generation ago. In this Report it is not proposed to offer any kind of comprehensive appraisal of what is a major and complex subject. We limit our comments therefore to issues that were raised with us in the course of our visits. But in an area that is sparsely populated, mountainous and with many islands, the efficiency and costs to the user of the transport system is a major factor in assisting economic growth and maintaining community viability. It is not only important for those living in the areas and for their businesses but in enabling tourists to visit the areas at what they consider to be affordable cost.

Major improvements have been made to the road system in the Highlands and Islands. The roads to the ferry terminals for the Western Isles at Ullapool, Uig on Skye and Mallaig have undergone major rebuilding and improvement. The bridge at Kyle of Lochalsh is not only important in

giving better access to Skye but also to the Western Isles via Uig. We recognise that there have been major improvements on parts of the major service routes, for example, from Perth to the north, from Inverness to Wester Ross, the A82 up Loch Lomondside to Tarbet, and causeways in the Western Isles. There has been major road building of the main road in Shetland from Sumburgh to Lerwick and Sullom Voe and also between Lewis and Harris. All of this has brought major economic and social benefit to the communities these routes serve.

But, in the course of the Inquiry, the Committee had its attention drawn to a number of remaining inadequacies. The A82 north of Tarbet, Loch Lomond remains very inadequate and has not been improved. On Mull, although the main island road from Craignure to Tobermory was mostly rebuilt to modern double track standard some decades ago, there remains a short stretch of poor quality single track. In Dumfries and Galloway, there is still dissatisfaction with the main A75 route to Stranraer which, although a trunk road, is widely considered inadequate and even dangerous with inadequate passing lanes. We consider that a planned programme of up-grading the inadequate stretches of the principal service routes to modern standard is required as soon as funds can be made available.

The major increase in fuel costs over the last year, caused by the escalating world price of oil, is a major issue for the more remote communities. It not only increases the cost of living for those who live there, but also threatens the viability of their businesses. We recognise the difficulty of tackling what is a world problem but, given the large amount of tax revenue raised from fuel, we think that some action is necessary to offset these costs for remote communities at least as a transitional measure.

Recommendation 50: The Scottish Government should consider appropriate measures for alleviating the high fuel costs for those living and working in the remoter areas of Scotland.

Recommendation 51: Transport Scotland should undertake a review of modernisation of the main trunk routes servicing key settlements and ferry terminals in rural Scotland to ensure that they do not constrain economic development and that they provide the life-line services required by communities.

As we were completing our report the Scottish Parliament's Transport, Infrastructure and Climate Change Committee published its report on ferry services¹²⁶. As the Committee says, these services provide a lifeline link to our island communities and play a vital role in the economic and social fabric of island life. The services are essential for the wellbeing of those who live on the Islands, to their businesses, in particular agriculture and fishing, and are also of major importance for the development of the tourist industry. The Committee pointed out that the Scottish Government is about to undertake its own review of these services and we welcome that, especially as some of the services have seen little change over a long period. The Parliamentary Committee made a number of helpful recommendations but did not feel equipped to make recommendations on specific routes. But the issues did feature strongly during our visits to the Islands and we therefore draw attention to the points that were made.

On Mull there were many criticisms about the ending of a direct ferry connection between Mull and Coll and Tiree. The result is to make it virtually impossible for a Mull tradesman to take on work in Coll or Tiree or for tourists to go on to Coll or Tiree after seeing Mull and Iona, without returning to Oban.

Islay, in our opinion, has the potential to expand its tourist business rather as Mull has done, not least because of its exceptional over-wintering wild birds. The island is served by an air service as well as by ferry, but both are expensive. This could be enough to deter tourists, especially those with families, as well as being a major cost for those who live there. It was plain to us from our discussions in Islay that there is criticism of the ferry service and that a review is needed. We think that the service to Jura is equally unsatisfactory, since there is no direct ferry link; it involves going to Islay first and then the additional short journey by a different ferry to reach Jura. The Parliamentary Committee refers to the possibility of a direct ferry from Jura to the mainland and also the suggestion of an island hopping route to Islay. We did not find much support for this latter suggestion, which would in any case involve major expenditure on roads. Nevertheless, the present arrangement is far short of satisfactory. It was suggested to us that the journey time by ferry could be considerably shortened if a terminal were built on the mainland to reduce the length of the crossing. This could perhaps make possible an additional crossing per day and permit a triangular service between Islay and the mainland with some services calling also at Jura.

In the Western Isles, there were few criticisms, following the very substantial improvements already made. It was suggested to us that the long journey time from South Uist could be shortened if a service were reinstated to Mallaig, instead of Oban.

In the Northern Isles, we were told that capacity for vehicles on the inter-island Orkney service operated by the Council was inadequate, especially in summer and that this was a serious impediment to any further development of tourism on Orkney's outlying islands. Ability to increase this capacity depends on the funds that the Council can make available. Shetland appears to be well served by Northlink though, in view of the distance from Aberdeen, the cost is inevitably high, even with government support. We were concerned that the Faroese ferry that had previously called at Lerwick, linking Shetland with Faroe, Iceland and Denmark no longer did so, despite Shetland Islands Council having a shareholding in the company. This is regrettable, as it seems to us that there could be potential for developing tourism from Scandinavia and linking islands of Norse origins if it were properly promoted.

While we were considering these matters, the Scottish Government announced its intention to introduce Road Equivalent Tariff (RET) on a pilot basis to services to the Western Isles. This will result in a substantial reduction in costs both for passengers and freight and it will be important to assess the effect. The original author of RET, Roy Pedersen¹²⁷, argues however that cost is only one element in the disadvantages that island communities suffer from transport. At least as important are journey time (shorter crossings where possible), frequency of service and hours of operation. Nevertheless, a boost to tourism can be expected and RET should also help the development of businesses that are dependent on buying in materials or exporting to the mainland. It should, of course, be remembered that transport costs can also give a degree of protection to local business from mainland competition, but we would expect this to be greatly outweighed by the benefits.

The cost to government of RET will be substantial, even if major increases in traffic and hours of operation result. Estimates put this cost for the pilot scheme at £22 million, with the cost for a passenger car being set at £5 plus 60p per mile. Having introduced this scheme, it is hard to see how it could be withdrawn later no matter what the result of the assessment. But there is concern that the pilot scheme, which will only serve the Western Isles and Coll and Tiree, may disadvantage other island groups, especially in the attraction of tourists. It would seem reasonable for the scheme to be also introduced for the Argyll Islands, where it would provide at least as great a boost. For the Northern Isles it has been estimated that RET would reduce the cost to Orkney across the Pentland Firth but, in view of the long distance from Aberdeen, not for Shetland. The Minister has told the Parliamentary Committee that, if RET is applied to all the islands, steps will be taken to ensure that none are disadvantaged compared with present arrangements. But we consider that if RET is to benefit all the other island groups a way would need to be found of giving similar benefit to Shetland.

Recommendation 52: The Scottish Government should review the means for supporting ferry services to other islands served from the mainland so that they have a similarly advantageous scheme to that of the Western Isles.

Subsidiary Recommendation 52a: A review should be carried out on the ferry services to Islay and Jura with a view to improving the service and reducing its cost as a boost to local business and tourism.

Subsidiary Recommendation 52b: An assessment should be carried out on the possibility of restoring a service from Barra and South Uist to Mallaig.

Subsidiary Recommendation 52c: The capacity on the Orkney inter-island service should be increased as soon as funding can be found and that Scottish Government should consider whether it can assist the Islands Council.

Improved Access to Telecommunications

The development of rapid, high volume, communication systems, particularly based on the internet, offer possibilities for business development in remote communities that were never even dreamt of a short time ago. Websites on the internet advertise tourist accommodation, and bookings are routinely made by email. It also enables people to work at long distance from colleagues or from mainland offices. Already these facilities are widely used in rural and island communities, where they help to overcome many of the disadvantages of remoteness. They also have major potential benefits in reducing carbon emissions if orders can be placed and business conducted from remote locations without the need to travel.

It is particularly important that these communities are provided with a high standard of service. Broadband is the key to this and is now available in much of the Hills and Islands, but not everywhere. Pockets without access to broadband remain and, where this is so, the communities affected are at a serious disadvantage. Furthermore, we understand that for most of the areas that do have access, the speed of broadband is relatively slow and the capacity of the transmission lines low compared with other parts of the country. A major problem is that a very large number of rural subscribers only access about 500 kilobytes because of distance from the exchange.

This can only be solved by bringing fibre optic coverage much closer to them by, for example, placing "street cabinets" (a kind of mini-exchange) at a large number of rural locations. This would be extremely costly, and is unlikely to attract a market solution. The gap between broadband speed in urban areas and rural areas is widening. This is likely to mean that remote working possibilities for rural areas will not be considered. We welcome the recent Scottish Government announcement for the extension of the broadband access coverage. We consider that even greater effort is required, given that society is moving towards a lower carbon economy, and moving into an era of structurally higher fuel costs.

Recommendation 53: The Scottish Government and its preferred contractor should give priority to ensuring access to broadband, and in the future new technologies, for all Hill and Island communities, and to ensuring that its capacity and speed throughout the area is increased.

With the change to digital transmission of radio and TV programmes, some parts of the Hills and Islands will be disadvantaged. The plan is that the majority of the UK will be connected, but there will be areas that do not receive access to digital signals. This is unsatisfactory, as these areas are just as entitled to gain access as those in towns and cities. Already there remain areas where radio and TV signals are such as to restrict the availability of an adequate service. With the advent of integrated communication systems, it is likely that many households will use TV receivers to gain access to broadband and to a wide range of information services.

As things have developed over the past couple of decades, the rural and urban economies have become very much more integrated, and one aspect of this is a still-increasing degree of commuting; long distances in some cases. It is likely that this is not sustainable in the long term, and some large companies are already re-evaluating a higher degree of home working, and other measures to reduce the commute. If people who already live, or wish to live in, more remote areas are to take advantage of this potential trend, then it is vital that high bandwidth, reliable internet services are available to them.

For the future, it is essential that the remoter areas, where reception from centralised, managed communications systems is relatively poor, are provided with the facilities to connect with information and contacts throughout the world.

Recommendation 54: The remoter areas of the mainland and islands should be given special priority for access to any new communication services.

Rural Post Offices and Integrated Service Delivery

In the course of our Inquiry, concerns have been raised about the continuing decline in access to post office services. The post office is often the last remaining local service available as banks, pubs, and village shops close. Government acknowledges that the Post Office has a role to play in these areas, but fails to define what this means. As a result, the social and economic role that post offices play for consumers and their communities could be ignored when closures are decided. The Post Office has a key role in achieving cross cutting public policy objectives.

The loss of the rural post office will only serve to deepen social and financial exclusion for the people living in those areas. There are significant vulnerable groups especially in the remoter areas that will be affected by continuing closures. These include the elderly, people on low incomes, people in ill health, benefit recipients, single parents and people without bank accounts (i.e. the financially excluded). In this context, the Scottish Government and Local Councils need to recognise the role that the post office network plays in helping to achieve public policy objectives to tackle exclusion.

Successful initiatives have taken place to increase the footfall, and therefore the viability, of post offices as businesses by the introduction of services such as banking facilities, bill payment facilities, bureaux de change, Post Office Broadband and car licensing. However, anything achieved appears to have been almost against the grain, as the UK Government has simultaneously withdrawn services from post offices. Admittedly, some of what has happened has a certain inevitability about it as more people do business electronically. Nevertheless, we suggest that serious attention should be given to extending the services which are delivered through local access points, and that local post offices are the most obvious places to start. Council services are possibly the most obvious candidates for examination of devolution to localities, but other state services should be as well.

We believe that there is room for further development of a very broad range of services, which are currently difficult to access for many citizens. We commend the efforts of the Post Office to develop outreach and mobile services in outlying rural areas, and urge that all such efforts be supported.

Community engagement – **Mull and Iona Community Trust:**

Established in 1997, the Trust now has 12 volunteer Directors and 11 part-time staff. It has assisted the Mull Fishermen's Association to upgrade the historic and business piers in Tobermory; runs two charity shops and the Mull Butchers; established and run the Taste of Mull & Iona Food Festival: coordinates the Mull & Iona Wildlife Week; launched the first community-run Countryside Ranger Service; created the Mull & Iona Wildlife & Heritage Trail; and was the founder partner and chair of the Argyll & Islands Community Economic Development Partnership which secured and distributed £800,000 to community projects across the region.

There is a need for greater cooperation between the Post Office, government departments, local authorities and other agencies to improve the delivery of their rural services, recognising that the post office may be the most effective vehicle. Expansion of this facility might include payment of rent, council tax, parking fines, communication with health services, and prescription collection. In the meantime, we consider that the current closure programme of post offices in rural areas should be halted to allow detailed development of solutions for service delivery that meet social and community needs, rather than merely the centralised business targets set in London.

Recommendation 55: All parts of central

and local government and their agencies in providing services to rural areas should establish effective mechanisms to ensure integrated delivery of services to increase the viability of rural communities.

Recommendation 56: The UK and Scottish Governments should recognise that the role of post offices is not simply as a commercial business, but that there is an important social role as well and that it should seek to develop the range of services provided through post offices. The current closure programme should be halted to allow a new rationale to be implemented.

The loss of local shops, garages and other facilities has been a continuing, but unfortunate, development in many parts of the Hills and Islands, and in rural areas more generally. Economies of scale in business, opportunities for residents to visit larger centres as a result of higher levels of car ownership, and the development of large retail establishments, especially in the food sector, by the major retail chains, have all contributed to this trend. It is noticeable that in Finland, for example, there has been a commitment to support rural shops and develop them into a multi-service network¹²⁸. Although there have been many discussions on this issue in Scotland, the Government in Scotland and at UK level has consistently turned its back on providing any form of support to the services sector, including shops. At the same time, planning

Community skills development -**Southern Upland Partnership** Communities on the Edge project

This project has been running since 2004, operating in three communities 'on the edge' of large private landowning estates in Douglas, Langholm and Yetholm. It provides community animators to help and support local people to create positive change in their places, by creating sustainable rural businesses. The project takes a community development approach, focusing on making the most of available assets - not only material assets but also the skill, knowledge, time and energy of communities and estates.

authorities have given permission for the establishment of supermarkets with petrol retail facilities which have both undermined the financial viability of nearby shops in the same settlement, and have also led to the demise of shops in the more remote locations.

Recommendation 57: Local Councils and enterprise bodies should work with local entrepreneurs to devise a means of retaining or opening local shops in rural areas.

Education and Culture

A modern economy depends for its prosperity on the skills and quality of its workforce and this is as important in the Hills and Islands as elsewhere. Also, vibrant communities thrive when there is access to a range of school, further and higher education facilities, either through local provision or through remote learning opportunities. Generally, our rural schools have an excellent reputation. Accessibility to pre-school, primary and secondary schools is a major factor in retaining young families in rural areas and in enticing others to locate there. It is recognised that the unit costs are much higher than for schools in urban areas, largely because of smaller class sizes, but in the broader context of vibrant rural communities, this provision is essential.

We note the findings of the recent OECD Rural Policy Review on Scotland¹²⁹ which shows that in educational attainment, rural regions of Scotland have a higher proportion of people without qualifications (24 per cent compared with 17 per cent and 15 per cent in intermediate and urban regions). It must be assumed that this is largely due to difficulties around accessibility to education and training. However, these same rural areas have higher levels of tertiary educational attainment (32 per cent) than intermediate and urban areas (27 per cent and 28 per cent respectively). Indeed, Scotland's rural regions have the highest levels of tertiary education attainment for predominantly rural regions in the OECD.

Further and higher education facilities

We believe that easier access to further and higher education by people in the Hills and Islands, particularly by mature students, is essential for the economic, social and cultural well-being of those communities. The presence of a university in an area brings substantial benefits. Not only is it a source of high quality employment, but research undertaken, focusing very often on subjects of special importance in the area, can lead to new high quality businesses being created. It can also be a factor in inward investment, and creating better paid jobs. The very promising developments from the Scottish Association for Marine Science laboratory at Dunstaffnage, one of which won last year's Gannochy/RSE Award for Innovation, and Heriot-Watt University Marine Centre for the development of wave technology in Orkney are good examples.

Although there are several further and higher education institutions operating in the Hills and Islands, it is a matter for regret that none of Scotland's major universities are based in the areas with which this report is concerned. Until recently, attendance at university required pupils to go elsewhere. The creation of the University of the Highlands and Islands Millennium Institute (UHI) has, however, changed this for its catchments, as has the Crichton University Campus in Dumfries, which houses parts of Glasgow and the West of Scotland Universities alongside Dumfries and Galloway College, and the outpost of Heriot-Watt University in Galashiels. In effect, there are two models for delivery based on organic growth: a multi-campus solution as in UHI, and a single campus with multiple institutions, as at Crichton. In future the development of the West of Scotland University joint facility with the Scottish Agricultural College in Ayr will also be available. The upgrading of technical colleges, especially as part of UHI and the maintenance of specialist institutions in rural areas, such as Barony near Dumfries for agriculture and related skills, and at Thurso and in Angus as part of Further Education (FE) Colleges, have all

provided local access to higher and further education. The development of the internet as a basis for distant learning is important for educational and research institutions in rural areas, since it enables students to study in a variety of locations, not necessarily in a central institution.

At present, there are three specialist FE colleges for the land-based sector: Oatridge in West Lothian, Elmwood in Fife, and Barony College near Dumfries. These are important, given the focus of this Inquiry on the land resource and its proper stewardship. In addition, some of the FE colleges provide specialist courses, such Angus College at Forfar and Thurso College. There is an opportunity to take a broader-based and more integrated view of the sector as a whole. The Scottish Agricultural College (SAC) provides the most geographically dispersed and comprehensive education and training for the land-based sector. The well tried and tested, and highly customer regarded model, provided by SAC could form the basis for a more integrated approach.

Recommendation 58: The Scottish Government, working with existing FE and HE providers, should help to secure a coordinated and integrated approach to the provision of further and higher education in rural Scotland.

We recognise the importance of arts and culture as part of the tradition and continuing interest in many rural areas of Scotland. During our visit to Skye, the point was made to us very strongly that the regeneration of the Gaelic language can give a confidence to an area from which the economy can also benefit. We could see for ourselves how the foundation of Sabhal Mòr Ostaig, and the development of the Gaelic culture, has helped in the regeneration of the Sleat peninsula. Celebratory events are an important part of the yearly calendar, and also of great interest to

visitors. Maintenance and stimulation of the diversity of artistic and cultural activities is vital for the future health and viability of local communities. We commend the many events, festivals and other activities that promote participation and enjoyment in arts and culture. There are far too many examples to list here and that in itself is a very positive attribute of the Hills and Islands. Suffice to say, that new events throughout the year, celebrating local culture, led by people in the community to display and perform the creative efforts of local artists, musicians and writers give a community strength and are developing all the time. We note that it is easier to get assistance to help with the cost of capital than operating costs. This places an onus on members of communities to help themselves in often quite difficult circumstances.

Rural life and culture

It is also often argued that farming activity contributes to keeping schools and other public and private services open and keeping the countryside peopled. In employment terms, it complements part-time activities, such as seasonal tourism, and these might not survive if agriculture did not supply at least part of the incomes of those involved. This argument represents a rather distinctive public good value of agriculture. The extent to which local agricultural shows and organisations such as Young Farmers' Clubs create identity in some rural areas should not be discounted.

Cultural identity - Sabhal Mòr Ostaig

Founded in 1973, the College has become recognised as a centre for the Gaelic language and culture and is an academic partner of the UHI Millennium Institute. Central to the College's mission is the promotion of the Gaelic language, culture and heritage as a whole, which in turn enriches the social and economic development of the Gaelic community. Current student numbers stand at approximately 100 on full-time courses, about 160 on distance learning courses, and up to 900 enrol on short courses each year. Sabhal Mòr Ostaig is the largest employer in the south of Skye, with approximately 60 full-time staff and approximately 80 part-time staff.

CHAPTER 7. REFOCUSING INSTITUTIONAL STRUCTURES AND APPROACHES

Throughout the Inquiry, we have gathered evidence and scrutinised documents which indicate a great deal of government activity in relation to the issues faced by the Hills and Islands of Scotland. The majority of this is from the Scottish Government and its agencies and Local Councils. These are invariably the result of other needs as there are no specific policies, interventions and institutional structures focused purely on these areas. This is hardly surprising. Even the Less Favoured Areas policy for agricultural support is targeted on a larger area, comprising 85 per cent of the land area of Scotland. Nevertheless, we consider that there are improvements to government policies that could be made and improvements in the way various parts of the governmental machine operate which would help to address some of the issues we have identified during our Inquiry.

More Strategic Approaches

Many strategies have been developed in recent years that are relevant to the Hills and Islands. This is a positive consequence of the devolution of government arrangements put in place in 1999. We welcome the strategic approach taken and note that too often prior to devolution there was no clear sense of purpose on many aspects of public administration and no articulation of longer-term objectives and the development of the necessary instruments to deliver them. We note, in particular, strategies relevant to our Inquiry¹³⁰ on agriculture, on agrienvironment, on animal health, on biodiversity, on tourism, on forestry, and on enterprise. There have been statements and annual updates about rural areas detailing the Scottish Government's efforts. These and other strategies are framed within the *Sustainable Development Strategy*¹³¹. More recently, a programme was developed to bring together the delivery of the various parts of central government under the control of the former Scottish Executive Environment and Rural Affairs Department: the On the Ground Initiative and the Scotland's Environment, Agriculture and Rural Services SEARS¹³² initiative launched in June 2008 by the Scottish Government. There is also the new National Planning Framework in the context of the statutory Town and Country Planning system.

Despite all of this commendable activity and statements of strategy, there is no integrated or coordinated approach to the development and delivery of policy for the land and related natural resources for the communities that work and depend on it. The nearest approach is the Scotland Rural Development Programme, but inevitably it can only deal with those aspects within the four Axes of the EU Rural Development Programme. However, it is focussed largely on the agricultural and environmental management issues, rather than the broader issues of rural society and economy, and has a very short time frame.

As argued and recommended in Chapter 3, Recommendations 1-3, we consider that the Scottish Government and its agencies, and Local Councils should adopt an explicit policy statement for Scotland's Hills and Islands, and for its rural areas more generally. There is a general consensus about the attributes of the Hills and Islands, and we suggest a vision for the area and identify a series of objectives which should guide future policy and action.

Strategies are in place for relatively short time periods, with a few exceptions such as The Scottish Forestry Strategy. There is also substantial uncertainty about the future funding of agriculture through the CAP, especially after the review date of 2013 and given the UK Government's stated desire to remove direct support (see Chapter 4). Also, we note that the Scotland Rural Development Programme is only for five years.

¹³⁰ Scottish Executive, The Forward Strategy for Agriculture, Next Steps for Agriculture, Custodians of Change, Animal Health and Welfare Strategy, 2004, Scottish Biodiversity Strategy, Scottish Tourism: a tourism framework for change, 2006, The Scottish Forestry Strategy, 2006, Smart, Successful Scotland, 2004.

 $[\]textbf{131} \quad \textbf{Choosing Our Future, Scotland's Sustainable Development Strategy, Scottish Executive, 2005}$

¹³² http://www.sears.scotland.gov.uk/DocumentView.aspx?id=9

The Scottish Government Spending Review 2007 sets out clear policies and targets for public expenditure in Scotland for 2008 to 2011. It is surprising that a major cross-cutting issue like the provision of government support to rural areas is not given any prominence. One approach often used is to test whether all policies, activities and resource allocation within government meet the needs of particular areas or customer groups. This is termed 'policy proofing'. It is used for testing compliance with the sustainable development strategy for Scotland. With the increasing complexity of government intervention, such an approach is necessary. We support the proposals by the Scottish Consumer Council¹³³ that there needs to be policy proofing for all policies that affect rural areas. We agree with this proposal.

Recommendation 59: the Scottish Government should establish a *Rural Areas Proofing Test* for all policies and activities affecting rural areas.

For the Hills and Islands, and given our concentration on multi-faceted land-based issues, we have recommended in Chapter 3, Recommendation 4, a *Land Stewardship Proofing Test* for policies and actions. This would ensure that the range of policies, strategies, funding instruments and activities affecting the use of the land would be tested before approval and implementation.

More Integrated Delivery

Evidence provided, particularly during our visits, emphasised the need for greater coordination and integration of delivery of support in all forms from government. Successful businesses told us that government policy was too rigid and lacked flexibility, policies were too often based on past market economies and ignored environmental drivers, and delivery was not user-friendly.

We heard criticism of the approach taken in the Scotland Rural Development Programme, to the effect that it was not a rural development programme but a programme for assisting farmers. We understand the basis of the criticism, but note that the resources are supplied under the CAP and the amount available is not adequate to meet all of the legitimate needs that should be financially supported by the EU, and by the UK and Scottish Governments. We have already expressed our concerns on this point and argued the case for a higher level of support for land management activities (see Chapter 4). We note the comments in the OECD Rural Policy Review¹³⁴ that the SRDP is not a comprehensive plan, as most of it devotes resources to Axes 1 and 2 and only a limited amount is focused on Axes 3 and 4. We consider that this is an incorrect analysis, as the report fails to recognise the role of other government policy instruments, for example, HIE and SE, and the role formerly played by Communities Scotland, to provide nonland-based support to rural areas.

The SEARS approach should help to provide a more integrated approach for the responsibilities of the Rural Directorate of the Scottish Government. But these are only a small part of the Scottish Government's overall support to rural areas. There remains no decision on the advisory services for the support of farmers under the reformed CAP. At present, there are two publicly-funded services: Farming and Wildlife Advisory Group (FWAG) and the Scottish Agricultural College. Given our support for more integrated approaches to land management, we consider that one integrated agency for agricultural advice would be preferred. This needs also to be seen in the wider context of greater integration of support to the land resource sector. We support the combination of research and development, training, skilling and re-skilling, and advisory and business support services through the mechanism of knowledge transfer from the laboratory to the client in land management.

The reform of the two enterprise agencies offers opportunities for re-considering the support for business at the local level. But we were told on a number of occasions that the proposed reforms would make the business advisory services much more remote from those seeking advice, particularly as the work of the two enterprise agencies would be focused on achieving national competitiveness targets. There was a good deal of scepticism amongst those whom we met about the ability of Local Councils to deliver business advisory services to meet the needs of customers in the Hills and Islands.

Consideration needs to be given urgently to placing the customer and client at the centre of new ways of working, rather than the standard, top-down approach and the reduction in the number of agencies, which seem to be the main driving forces for the reforms of the Local Enterprise Companies. Customer-focused approaches are particularly important in the remoter parts of the Hills and Islands.

Recommendation 60: The Scottish Government should ensure that the national delivery agencies operate effectively on a regional and devolved basis to ensure integrated delivery of policy and action to meet the diversity of needs and opportunities around rural Scotland.

Subsidiary Recommendation 60a: The Scottish Government should develop customer-focused, one-door, multi-function advisory services accessible to all those seeking help within rural areas, paying particular attention to those in the remoter areas.

Community Planning has often been held out as the way forward in achieving greater integration between different service providers, especially in rural Scotland, and, in particular, in devising forward plans and defining outcomes. We recognise the import of these arguments in theory, and support formal mechanisms at the appropriate geographical scale, most probably regional. We were informed of examples of good practice, for example, in Caithness, and in

Sutherland Community planning Partnership

The Sutherland Partnership is a Community Planning Partnership, a not-for-profit company set up in 1998, in Scotland's northern Highlands, to help further the Scottish Executive's aim of helping communities participate more fully in local democracy. During its eight years of existence, Sutherland Partnership has been involved in promoting activity in the economic, social and environmental fields. Examples have included social inclusion initiatives, community transport innovations, graduate placement programmes and assistance to communities in planning, and drawing down funding for, community building programmes.

Sutherland through the respective Community Planning Partnerships. However, we were also told of many instances where the system was not working, despite the fact that it has been in operation for the whole of this decade.

Two fundamental flaws were pointed out. First, was the inevitable problem of the differing cultures among the partners. Business, health, local councils and environmental bodies all looking at the issues from different perspectives. Without greater commitment to realign the cultures of organisations to deliver jointly on key services, this problem will continue. Second, each service provider has separate national level strategies, accountability lines, financing mechanisms and audit trails. As a result, there is an inherent tension between serving the master who provides the resources and participating in inter-agency exercises; the former inevitably wins. We do not advocate scrapping the system. We prefer

We recognise that the community planning approach is aimed primarily at service delivery by public-sector bodies. However, we received representations on the need to involve local communities in the process of planning their future and in advising on the delivery of services. Our preference is for the evolution of Community Planning Partnerships as a means of integrating the various parts of government and engaging the key non-government stakeholders in the delivery of services and the development of opportunities.

More Effective Organisational Structures

At present, there is no one body charged with responsibility for the implementation of policy and action for the rural areas of Scotland. For the Highlands and Islands, HIE has a wide ranging remit, including community development, alongside its economic and enterprise responsibilities. We have found very strong support for the broader remit throughout our visits to the Highlands and Islands. The social dimension, embracing population demography, cultural and other key aspects of community welfare, has proved an important added benefit to rural customers. It has allowed HIE and its predecessor to work in a more comprehensive manner with small communities, rather than just concentrating on enterprise matters. We consider that these powers and responsibilities are essential if economic development opportunities are to be implemented in a meaningful way in rural areas, and especially in the remoter areas and on the Islands. The focus of the reformed enterprise agencies on larger-scale enterprises and on growing existing businesses is less likely to be helpful to these areas, and really only relevant to those rural areas close to the main centres of population. We are firmly of the view that removal of these powers and responsibilities would be a highly detrimental step for the Highlands and Islands and most especially for the remoter parts of the region.

We were told in other parts of Scotland, outside the Highlands and Islands, that the narrower powers and responsibilities of Scottish Enterprise and its network of Local Enterprise Companies was too limited in the permitted scope of its operation and funding to be beneficial to rural areas. There was a marked preference stated for the HIE style of model in other parts of Scotland. We are, therefore, concerned that this effective model has not been pursued by the Scottish Government, as we see substantial benefits to communities in rural Scotland from the integration of the various components of government support beyond that related to enterprise and business development. In theory, it would be expected that Local Councils, with their broad remits, should be best placed to deliver this remit, but we found few who were prepared to argue that this was likely to be successful, including those who have been actively involved in the operation of Local Councils.

It is notable that HIE was tasked by the Scottish Executive to operate the Scottish Land Fund for the whole country, presumably given its proven track record in working with communities. And more recently, it has been asked to extend the Highlands and Islands Community Energy Company's operations to the lowlands of Scotland in view of the importance of the successful community-based approaches.

We see the need for limited institutional change in government organisations operating within the Hills and Islands of Scotland to achieve more effective delivery of support to consumers. The Scottish Government might have other reasons for wishing to pursue mergers, but we do not comment on these. Nor do we consider that there should be an extension of HIE to other parts of

Scotland as the issues faced in the Highlands and Islands are different from those of north east, east and southern Scotland. However, we consider that there is a strong case for more integrated delivery of social and economic development for the rest of rural Scotland outside the Highlands and Islands. Integration of service delivery needs to go well beyond those functions administered by the Scottish Government Rural Directorate under the SEARS initiative. We also consider that there has been a high degree of centralisation in key organisations as a result of government decisions in recent years: the loss of local business expertise and knowledge with the abolition of the Local Enterprise Companies, the loss of local accountability through the abolition of the SNH Areas Boards, and the loss of local understanding and awareness of tourism opportunities through the nationally-focused marketing approach of VisitScotland and the removal of the Area Tourist Boards. We do not argue that all of these structures should be reconstituted. But new ways of operating are needed to ensure that government and its agencies dealing with the Hills and Islands, and rural areas more generally, have a closer knowledge and understanding of the needs and opportunities of these areas, and can deliver appropriate government support in an integrated way.

With the decline of agriculture, the further development of forestry, the opportunities for promoting enjoyment of nature, the need for action to mitigate and ameliorate climate change, and the vital importance of maintaining and developing viable human communities, we consider that a more targeted and focused approach is needed for rural areas outside the Highlands and Islands. In the light of these opportunities and the Scottish Government's decisions on reform of Scottish Enterprise, we strongly recommend that it gives serious and early consideration to the measures that could achieve this.

Recommendation 61: The Scottish Government should give serious and early consideration to integrated policy-making and delivery on social and economic development for those areas outside the Highlands and Islands.

Informal Mechanisms

Formal structures for the development of new approaches, for consultation on policies and action, and for delivery of services have an important role to play. However, in rural areas, and especially in dispersed communities and small settlements, less formal mechanisms are often more effective. Initiatives such as *Planning to Succeed* and *Profit without Subsidy* have had some successes, led by government organisations. But the success of the LEADER programme, discussed below, illustrates the importance of more locally-based approaches. Informal structures and working methods can often succeed where more formal approaches are perceived as a threat to communities. We commend approaches such as the Cairndale Group in Dumfries and Galloway, which was set up to stimulate debate on rural economic development. Indeed, there is already discussion in some parts of rural Scotland about the need for Local Economic Forums as a means of replacing the local enterprise companies when they are withdrawn from local economic development.

Recommendation 62: The Scottish Government and Local Councils should give more active support to the development of local community leadership and empowerment, and facilitate the more effective involvement of local communities in the community planning process and in the development of social and economic opportunities.

The LEADER approach developed by the EU and used extensively in Ireland, and more recently in Scotland and other EU Member States, has been commended to us on a number of occasions. The reasons for its success seem to be community participation in the development and implementation of solutions relevant to the area, and because it is an integrated approach that is able to bring different partners and perspectives together. We commend this way of working because it seems to meet the stated needs of communities in rural areas. We consider the model has potential for wider use in the allocation of funds from central and local government sources.

Recommendation 63: Central and local government should adopt the principles of the LEADER approach in developing and implementing schemes in rural areas.

Coping with Regional Variation

It is clear from our visits (see Chapter 2 and Appendix 5) that there is a great deal of variety in circumstances and opportunities within the Hills and Islands of Scotland. For example, the differences between Orkney and Shetland mean that they cannot be regarded under the generic heading 'Northern Isles'. Similarly, there are considerable differences in southern Scotland between the Borders to the east and Dumfries and Galloway to the west. Agriculture is part of the land use and the economy of all areas, but its relative importance is highly variable, for example between the highly dependent locations, such as the Borders and Orkney, compared with those of lesser dependency, such as Skye, and the northwest mainland. Also, community viability is highly variable: some locations are improving, some deteriorating and others remain at the margin of viability. It is for these and other reasons that solutions cannot be applied on a uniform basis throughout rural Scotland.

The 'one size fits all' approach sometimes used by central government is not appropriate: locally and regionally tailored solutions make more economic, social and environmental sense than top down approaches.

It is very tempting for central and local government administrations to develop schemes for the whole of the geographical territory under their administration. What is required is a consistent national level strategy for rural Scotland, as advocated and recommended earlier in this report (see Chapter 3), within which measures and outcomes can be defined to meet the varying needs and opportunities around the country. We commend the model used by HIE: an objective-based approach by defining relative need for support and using this as a basis for allocation to projects.

Recommendation 64: When setting new policies and reviewing existing ones, both central and local government should ensure that the diversity of social, economic and environmental circumstances and opportunities are fully taken into account, rather than a uniform approach.

Recommendation 65: Scottish Government and Local Councils should develop flexible policies, funding mechanisms and approaches in recognition of the diversity of opportunities and situations in rural Scotland.

Lack of Consistency in Delivery

Evidence given to us indicated that there are wide variations in the level of central government funding for different parts of rural Scotland for no apparent reason. This view was made particularly forcibly and backed with data for the south of Scotland compared with the Highlands, for example. Also, there are more wide-ranging support structures for some parts of Scotland, notably HIE compared with SE, as discussed earlier in this chapter. And, finally, there are claims that certain parts of Scotland, particularly the Highlands, can easily gain politicians' and ministers' attention compared with other parts, such as southern Scotland. In effect, there is a view held in southern Scotland that it is a forgotten corner, especially so in Dumfries and Galloway. We cannot comment on the veracity of these statements, but they are widely held perceptions which we wish to draw to the attention of politicians and ministers. Most important is the requirement for transparency of approach, especially in special structures and funding arrangements. These can be justified provided that there are sound arguments made explicitly and debated through formal channels.

Financial Implications

None of the above recommendations are without their cost in public expenditure. Even a more liberal planning policy will involve the additional provision of services, such as water. The right approach is for government to provide the investment in services that helps Hill and Island communities and economies to become self-sustaining. Failure to do this only ensures that their support becomes an increasing burden for public funds. We urge therefore that government should give priority to the measures outlined above.

Recommendation 66: The Scottish Government, as part of a new integrated policy for rural areas recommended in this Report, should recognise in its financial allocations the need for maintaining viable communities in the remoter areas of Scotland. It should also ensure that the services provided by other parts of government achieve the same objectives.

APPENDICES

APPENDIX 1: CONSULTATION QUESTIONS & LIST OF RESPONDENTS

Consultation questions

In order to inform the work of the Inquiry, the Committee invited organisations and individuals with relevant experience to send in their views on the following issues:

- 1) What would you perceive to be the main drivers of change and sources of income generation in upland and island areas of Scotland?
- 2) What are the attributes of social, cultural and economic value in Scotland's hill and island areas?
- 3) How will changes in agriculture, forestry and tourism affect the economies of these areas and what scope is there for alternative sources of income and employment?
- 4) What are the impacts of changes to land use and ownership on the landscape, environment and communities of these areas?
- 5) What are the implications of climate change on agriculture/communities in Scotland's hill and island areas?
- 6) What are the regional variations in opportunities and disadvantage and how can these be accounted for in policies and support structures at the Scottish level?

The formal period of consultation was between 14 May 2007 and 20 August 2007.

Consultation respondents

Organisations:

Aberdeenshire Council

Association of Salmon Fishery Boards, and Rivers and Fisheries Trusts of Scotland

Borders Forest Trust

Borders Foundation for Rural Sustainability

British Veterinary Association (Scottish Branch)

Cairngorms National Park Authority

Comhairle nan Eilean Siar

Communities Scotland

Confederation of Forest Industries (UK) Ltd

Council for Scottish Archaeology

Deer Commission for Scotland

Dumfries and Galloway Chamber of Commerce

Game Conservancy Trust

Heather Trust

Highland Council

Highlands and Islands Enterprise

Irish Islands Federation

Loch Lomond and the Trossachs National Park Authority

National Trust for Scotland

NFU Scotland

NFU Scotland Highland Perthshire Branch

NFU Scotland Orkney Branch

NFU Scotland Tiree Branch

North Ayrshire Council

Orkney Islands Council

Perthshire Chamber of Commerce

Quality Meat Scotland

Ramblers Association Scotland

RSPB Scotland

Rural Housing Service

Scotland's Moorland Forum

Scottish Agricultural College

Scottish Association of Meat Wholesalers

Scottish Churches Rural Group

Scottish Crofting Foundation

Scottish Crop Research Institute

Scottish Enterprise

Scottish Environment Protection Agency

Scottish Equestrian Association

Scottish Estates Business Group

Scottish Federation of Housing Associations

Scottish Forest Industries Cluster

Scottish Forestry Trust

Scottish Natural Heritage

Scottish Raptor Study Groups

Scottish Rural Property & Business Association Limited

Scottish Salmon Producers Organisation

Shetland Crofting, Farming and Wildlife Advisory Group

Soil Association Scotland

South Lanarkshire Council

Southern Uplands Partnership

Sutherland Partnership

VisitScotland

Wester Ross Alliance

Individuals:

Professor Michael Anderson OBE FRSE

Mrs Mary V Armstrong

Reverend Professor David Atkinson

Dr Jean Balfour CBE FRSE

Dr Sandy Clark

The Hon Dame Mary Corsar DBE FRSE

Mr Donald Ewen Darroch

Dr Neil Duncan

Dr James Fenton

Mr John Findlay

Professor C H Gimingham OBE FRSE

Mrs Maggi Kaye

Professor B P Lenman FRSE

Mr Colin Liddell

Mrs L G Luescher

Professor K G Lumsden FRSE

Councillor Bruce Marshall

Mr Peter Peacock MSP

Mr Robert Millar

Mr Morris Pottinger

Professor P J Sloane FRSE

Ms Jane Thomas

Mrs Daye Tucker

Professor A E Vardy FRSE

Mr Steven Watson

Professor Roger Wheater OBE FRSE

The Committee also heard oral evidence at the RSE from the following organisations and individuals:

Deer Commission for Scotland (Simon Pepper)

Forest Enterprise Scotland (Dr Hugh Insley (Chief Executive))

Forestry Commission (Dr Bob McIntosh (Director Scotland), Chris Nixon (Policy Advisor, Carbon Management & Greening), Dr Mike Perks (Forest Management Division, Forest Research))

Highlands and Islands Enterprise (Mr Sandy Brady (Director of Strategy), Mr John Watt (Director of Strengthening Communities), Mr Bob Stubbs (Senior Key Industries Manager, Business Growth and Research))

National Farmers Union (Scotland) (Andy Robertson (Chief Executive), Jonathan Hall (Head of Rural Policy), John Cameron)

National Trust for Scotland (Mark Adderley (Chief Executive), Dee Macintosh (Director of Policy and Communications), John Mayhew (Head of Policy), Paul Johnson (Head of Countryside), Richard Lucksmore (Nature Conservation))

North West Highlands Geopark (Dr Issie Macphail (Geopark Officer))

Northlink Ferries (Bill Davidson (Chief Executive))

RSPB Scotland (Ms Katrina Marsden (Agriculture and Rural Development Policy Officer), Mandy Gloyer (Head of Land Use Policy), Pat Thompson (Uplands Conservation Officer))

Rural Housing Service (Mr Derek Logie (Chief Executive))

Scottish Agricultural College (Dr Alan Renwick (Land Resources Research Group Manager))

Scottish Crofting Foundation (Patrick Krause (Chief Executive), Norman Leask (Chairman), Becky Shaw (Policy Officer))

Scottish Enterprise (Dr Julian Pace (Director, Strategy & Corporate Services, SE Borders), Mr Neil Ferguson (Rural Development Manager, SE Cross-Cutters Unit), Mr David Rennie (Manager Business Support Services, SE Dumfries & Galloway))

Scottish Environment LINK (Mr Jonathan Wordsworth (Adviser on Rural Land Use))

Scottish Environment Protection Agency (Mr Darrell Crothers)

Scottish Estates Business Group (Andrew Bruce Wootton (General Manager), Mark Oddy (Buccleuch Group - Langholm Estate), Polly McPherson (Director of Research and Communications))

Scottish Executive Environment and Rural Affairs Department (Mr Peter Russell (Director, Rural Affairs and Environment Portfolio), Dr Ian Bainbridge (Chief Ecological Adviser), Cornilius Chikwama (Rural and Environmental Research and Analysis Directorate), David Brew (Head of Rural Ccommunities Division))

Scottish Federation of Housing Associations (Ms Jacqui Watt (Chief Executive))

Scottish Forestry Trust (Dr David Rook (Director), Mr Stuart Goodall (Confor))

Scottish Natural Heritage (Mr Peter Pitkin (Rural Development), Susan Davies (Acting Director, Operations North), John Thomson (Director, Operations South), Andrew Thin (Chairman))

Scottish Rural Property and Business Association (Keith Arbuthnott (Chairman), Andrew Bradford (Chair of Planning, Housing and Infrastructure Policy Group))

Soil Association Scotland (Hugh Raven (Director))

The John Muir Trust (Mr Dick Balharry MBE (Chairman))

UPM Tillhill (George McRobbie (Operations Director))

VisitScotland (Mr Riddell Graham (Director of Strategy))

Western Ferries (Gordon Ross (Managing Director))

Dr Andrew Moxey, Pareto Consulting

Professor Paul Jarvis FRS, FRSE, Institute of Atmospheric and Environmental Science, University of Edinburgh

Professor Pete Smith, Professor of Soils & Global Change, University of Aberdeen

Professor Terry Stevens (tourism consultant)

APPENDIX 2: INQUIRY VISITS

The Inquiry undertook the following visits and met with the following stakeholders:

27 September 2007: Argyll & Mull

Oban Ferry Terminal, Oban

Argyll & Bute Agricultural Forum (Angus MacFadyen (Chair), Fergus Younger (Support Officer))

• Isle of Mull Hotel, Mull

Mull & Iona Community Trust (James Hilder (Development Manager), Sandy Brunton (Chair))

• Crannich Farm, Aros, Mull

Crannich Woodfuel (Robin & Samantha Sedgwick)

Keith Miller (Forestry Commission Scotland)

Adam Dawson (Native Woodland Development Officer)

Dervaig, Mull

North West Mull Community Woodland Company Ltd (Colin Morrison (Chair), John Addy (Director), Julie Paton (Director))

28 September 2007: Mull

Western Isles Hotel, Tobermory, Mull

Tobermory Harbour Association (Brian Swinbanks (Chairman), Morag Brown (Development Manager))

Alistair MacLean (Mull Fishermen's Association)

Nick Turnbull (Secretary, Mull and Iona Aquaculture and Fisheries Association)

Sally Davies (Scottish Sea Farms)

White Tailed Eagle Public Viewing Partnership

David Sexton (RSPB Scotland)

Glenforsa Hotel, Salen, Mull

Mr Jim Corbett (Chairman, Mull Deer Management Group)

Ian MacFadyen (NFU Branch Chairman)

John Cameron (NFU Branch Vice-Chairman)

Bert Leitch (NFU Regional Chairman)

James Campbell (Fidden farm)

Hugh MacPhail (Highland Cattle Society)

Donald MacLean (Mull Blackface Breeders Association)

19 November 2007: Aberdeenshire

Macaulay Institute, Aberdeen

Dr Gerald Schwarz

Dr Ayele Gelan

Dr Simon Langan

Dr Lucy Gilbert

Dr Anke Fischer

Dr Colin Campbell

Dr Kirsty Blackstock

Dr Keith Matthews

• Kincardine Estate, Kincardine O'Neil, Aboyne

Andrew Bradford

9 November 2007: Islay

• Harbour Inn, Bowmore, Islay

Neil Scott (Discover Islay Tourist Initiative)

Dr Margaret Storrie

Keith Abernethey (Area Director HIE Argyll and the Islands)

• SNH Office, Bowmore, Islay

Louise Greggory (SNH)

Margaret Morris (SNH)

• Gaelic College, Islay

Andy MacDonald (Manager, Gaelic College)

Islay House Community Garden, Islay

Tony Archibald (Director, Community Garden)

Alistair Hutchison (Director, Community Garden)

Lindy MacLellan (Islay Access Project Officer)

Bridgend Hotel, Islay

Gill Johnstone (farmer)

Jim MacHarrie (farmer)

Craig Archiebauld (farmer)

Rab Smith (farmer)

• RSPB Gruinart Reserve, Islay

Jack Fleming (RSPB Scotland)

• Port Mor Centre, Port Charlotte, Islay

James McEachen (Warden)

• Bruichladdich Distillery, Islay

Mark Renier (Managing Director)

Duncan McGillivry (Distillery Manager)

• Dunlossit Estate

Chloe Randall (Estate Manager)

Angus Rice (IDEAS Group)

22 November 2007: Skye and Lochalsh

HIE Community Land Unit, Lochalsh Business Park, Auchtertyre, Balmacara

Gail Rogerson (Community land adviser - Skye, West Highland, Lochaber)

Angus Robertson (Aftercare Officer)

Pamela Noble (Aftercare Case Officer)

• Sabhal Mòr Ostaig, Sleat, Skye

Duncan MacInnes (Chair, Sleat Community Trust)

Susan Walker (Cultural Co-ordinator, Highland Council)

Pat Walsh, Chair (Skye and Lochalsh Crossroads Care)

Donald A MacLennan (Manager of the Columba Initiative)

David McDonald (Estate Manager, Clan Donald)

23 November 2007: Skye

Sabhal Mòr Ostaig, Sleat, Skye

John Phillips (Skye and Lochalsh Ranger)

Sandy Masson (Skye Organic Grower)

Alison Maclennan (RSPB)

Shirley Spears (The Three Chimneys Hotel)

Flora MacLean (Manager, Eilean Iarmain Hotel)

Donald John MacInnes (Crofter/Farmer)

• Eilean Iarmain Estate, Sleat, Skye

Sir Ian Noble

Highlands and Islands Enterprise, Portree, Skye

Robert Muir, (Area Director)

AROS, Portree

Alaisdair Hunter (Crofter)

Angus McHattie (Crofter and member of Crofters Commission)

17 December 2007: Scottish Borders

• Philiphaugh, Selkirk

Lynne Hume (Philiphaugh)

18 December 2007: Scottish Borders

• Ettrick Riverside, Dunsdale Road, Selkirk

Scottish Enterprise Borders (SEB) Land Based Advisory Group: (Julian Pace, Director of Strategy and Planning, Scottish Enterprise Borders; Gareth Baird, Chairman, Scottish Enterprise Borders; David Gass, Senior Director Operations, Scottish Enterprise Borders; Vicky Davidson, Councillor, Scottish Borders Council)

Chris Trotman (Farm Business Advisor)

Bob Kay (Chairman, Tweed Forum)

Bryan McGrath (Head of Economic Development, Scottish Borders Council)

William Aitken (farmer)

Richard Dixon (farmer)

David McTaggart (farmer)

Billy Renwick (farmer)

7stanes Glentress and Innerleithen in the Tweed Valley

Hugh McKay (District Forester for Scottish Borders)

• Tontine Hotel, High Street, Peebles

Julie Cartner (7stanes Development Co-ordinator)

Ian Withers (MB7 Limited)

Andrew Lowe (Director of Social Work) and Kathy Fancy, Scottish Borders Council

15 & 16 January 2008: Dumfries & Galloway

• Browne House, Crichton University Campus, Dumfries

Donald MacKinnon (South of Scotland European Partnership)

Gordon Mann (Managing Director of the Crichton Development Company)

Ros McNay (LEADER+ Programme Manager, Dumfries and Galloway)

Alan Stannett (CARA Consultants Ltd)

Margaret Watson (Senior Executive Forestry, Scottish Enterprise)

David and Wilma Finlay (Cream O' Galloway, Rainton farm)

Tony Fitzpatrick (Group Manager Economic Regeneration, Dumfries & Galloway Council)

David Rennie (Scottish Enterprise Dumfries & Galloway)

Dr Chris Miles (Area Manager, SNH Dumfries & Galloway)

Chris Rollie (Area Manager, RSPB)

Jamie Dent (Dumfries & Galloway Small Communities Housing Trust)

Jacky Wilson (Kirkconnel Initiative)

Flora McDowall (Project Officer, Southern Uplands Partnership)

John Gold (Communities on the Edge Officer, Southern Uplands Partnership

Crichton Carbon Centre (Crichton University Campus), Dumfries

Dr Mary Ann Smyth (Director, Crichton Carbon Centre)

22 January 2008: Western Isles

• An Lanntair, Stornoway, Western Isles

Neil MacArthur (Chair, Outer Hebridies Tourism Industry Association)

David Maclennan (Area Manager, SNH)

Martin Scott (RSPB)

Angus Macmillan (VisitScotland)

Murdo Mackay (Economic Development Officer, Comhairle nan Eilean Siar)

• Lewis Crofters Ltd, Stornoway, Western Isles

Iain MacIver (Factor, Stornoway Trust)

Ian Fargie (Manager, Lewis Crofters Ltd)

Kenny Maclennan (Chairman, Lewis Crofters Ltd)

Roddy Mackenzie (local farmer)

Kevin Kennedy (new croft entrant scheme member)

23 January 2008: Western Isles

• Comhairle nan Eilean Siar Council offices, Stornoway, Western Isles

Matt Bruce (Housing Policy, Comhairle nan Eilean Siar)

Murdo Mackay (Economic Development Officer, Comhairle nan Eilean Siar)

Lower Bayble, Western Isles

Matt Bruce (Housing Policy, Comhairle nan Eilean Siar)

Murdo Mackay (Economic Development Officer, Comhairle nan Eilean Siar)

21 February 2008: Highlands

Highland Council, Town House, Inverness

Highland Council (Sarah Allen (Agricultural Development Officer), George Hamilton

(Countryside, Heritage and Natural Resources Manager), Robert Patton (Forestry Officer), Isobel McCallum (Councillor and Chair of the Council's Natural Resources Working Group),

Carron McDiarmid (Head of Policy and Performance), Malcolm MacLeod (Policy and Information

Manager), David Mudie (Team Leader Development Management), Kenny MacKinnus

(Economic Advisor, Planning and Development Service))

Di Alexander (Highlands Small Communities Housing Trust)

Susan Torrence (Highland Housing Alliance)

Anna MacConnell (Coordinator, Caithness Partnership)

The Sutherland Partnership (William Sutherland (Manager), Cllrs Robbie Rowantree (Chairman) and Jim McGillivray))

Nicholas Gubbins (Chief Executive, Highlands & Islands Community Energy Company)

22 February 2008: Highlands

• Scottish Natural Heritage, Inverness

SNH (Ian Jardine (Chief Executive), Barbara Bremner, Duncan Stone (Policy and Advice Manager))

George Campbell (North Regional Director, RSPB Scotland)

Tom Girvan (Chair of Highlands and Islands Agricultural Network)

Highlands & Islands Enterprise (Bobb Stubbs (Key Industries Manager), John Ward (Senior Tourism Manager))

Highland Council (Davie MacLeod, Isobell McCallum, Colin Simpson (Tourism coordinator))

Anne Rae (Principal Agricultural Officer, Scottish Government Rural Payments and Inspections Directorate)

Archie MacLellan (Agricultural Consultant, SAC)

Scott Armstrong (Area Director, VisitScotland)

27 February 2008: Orkney

• Rennibister Farm, Firth, Orkney

Ken Watson (farmer)

• St Magnus Centre, Palace Road, Kirkwall

Graeme Harrison (Operations Manager, HIE (Orkney))

Michael Stevenson (President, NFU Orkney)

Edgar Balfour (Chief Executive of Orkney Meat)

George Baikie (SAC)

Kenny Slater (NFU secretary)

Michael Cursiter (Chairman, Orkney Livestock Association)

UHI Agronomy Institute (Dr Sellers, Fay McKenzie, Syed Shah)

Chris Matthews (SEPA)

David Sawkins (Orkney Ferries)

Sandy Kerr (Orkney Renewable Energy Forum)

Major Malcom McCray (Orkney Tourism Group)

Orkney Islands Council (Jeremy Baster (Director of Development Services), Shona Croy

(Head of Economic Development Service), Gavin Barr (Principal Planner, Policy & Projects),

Christine Skene (Environment Policy officer), Jackie Thomson (Economic Development Service))

28 February 2008 (Group A): Shetland

• Burradale Wind farm, Shetland

David Thompson, Angus Ward (Shetland Aerogenerators Ltd)

Aaron Priest (Project Coordinator Viking Energy)

• Uradale Farm, Shetland

Ronnie Eunson (farmer)

Shetland Islands Council Economic Development Unit, Lerwick, Shetland

Josie Simpson (Vice-Chair; Shetland Islands Councillor)

Andrew Hughson (Shetland Islands Councillor)

Laura Baisley (Shetland Islands Councillor)

Mr Ronnie Eunson

National Farmers Union (Hazel Mackenzie)

Scottish Crofting Foundation (Elma Arthur and Peter Dodge)

Shetland Island Council (Maggie Doe, John Dunn)

28 February 2008 (Group B): Aberdeenshire

• Macaulay Land Use Research Institute, Craigiebuckler, Aberdeen

Vicky Thomson, Aberdeenshire Council, Rural Development Officer

Leslie Allan, Aberdeenshire Council, Marr Area Manager

Peter Cook, Consultant and Vice-Chair Aberdeenshire Rural Development Advisory Committee

Alistair Laing, SAC Regional Manager North East

Ken Watt, Senior Agricultural Officer, SGRIPD

Priscilla Gordon Duff, Drummuir Estates, Grampian Regional Forestry Forum

Robert Armstrong, Aberdeenshire Council, Senior Business Development Executive

Roddy Matheson, Aberdeenshire Council, Industry Sector Manager

Clair Wright, Grampian Enterprise, Sustainable Rural Development Executive

Colin Mitchell, Grampian Enterprise, Manager, Sustainable Rural Development Executive

Ian Dunlop, VisitScotland, Area Manager

Paul Timms, SNH

Eric Baird, Vice-Chair, Cairngorms National Park

Hamish Trench, Cairngorms National Park, Head of Heritage and Land Management

John Barr, NTS Regional Chairman

Malcolm Nicol, SRPBA, Chairman North East

Jo Durno, Highlands & Islands Committee NFUS, NE

Sandy Tulloch, LFA Committee Member, NFUS, NE

29 February 2008 (Group A): Shetland

• Shetland Museum, Lerwick, Shetland

Shetland Museum (Tommy Watt, Brian Smith)

Jimmy Moncrieff (General Manager, Shetland Amenity Trust)

Katrina Anderson (Shetland Tourist Guides Association)

Davy Cooper (Shetland Culture and Heritage)

Douglas Irvine (Shetland Islands Council Head of Business Development)

Steven Henry (Shetland Tourism Association/Proprietor Self-Catering Shetland)

Dr Jonathan Wills (wildlife tourism operator)

Quendale Mill, Shetland

David O'Kill (SEPA: Unit Manager Shetland) Pete Ellis (RSPB Area officer)

29 February 2008 (Group B): Aberdeenshire

• Thainstone Centre, ANM Head Office, Aberdeen

Andy Robertson, Vice-Chair, NFUS, NE
Fiona Chalmers, Cairngorms National Park
Jo Durno, Highlands & Islands Committee NFUS, NE
Ken Watt, Senior Agricultural Officer, SGRIPD
John Barr, NTS Regional Chairman
Phil Sleigh, Chairman, NFUS, NE
Bruce Walker, NFUS, NE
Lorna Paterson, NFUS, NE
Stuart Ashworth, Industry Information Manager, QMS
Dr Dick Birnie, Science Communication Specialist, Macaulay Institute
John Gregor, General Manager, ANM

4 April 2008: Republic of Ireland

Dublin, Republic of Ireland

Department of Agriculture, Fisheries and Food (John Fox, Dr Diarmuid McAree, Brid Cannon, Pat O'Hara, Lorcan O'Shea, and Michael MacCarthy)
Department of Community, Rural and Gaeltacht Affairs (Finola Moylette and Aodhan MacCormaic)
Department of Arts, Sport and Tourism (Ray O'Leary, Francis Rochford)
Fáilte Ireland (Beverly Sherwood)

29 April 2008: Belgium

Brussels, Belgium

Wladyslay Piskorz (Head of Unit, Territorial Cohesion, Directorate General for Regional Policy)
James Johnston (Environment Desk Officer, Scottish Government EU Office)
Klaus Dieter Borchardt (Deputy Head of Cabinet), Mariann Fischer Boel (Agriculture Commissioner)
Michael Hammell (Head of Unit, Agriculture and Soil, DG Environment)
David Barnes (UK REP)

APPENDIX 3: RELATIVE DEPRIVATION MAPS

We reproduce here maps showing the variation in education, skills and training; in employment; in housing; and in current income. The maps are taken from the Scottish Executive Scottish Index of Deprivation 2006.

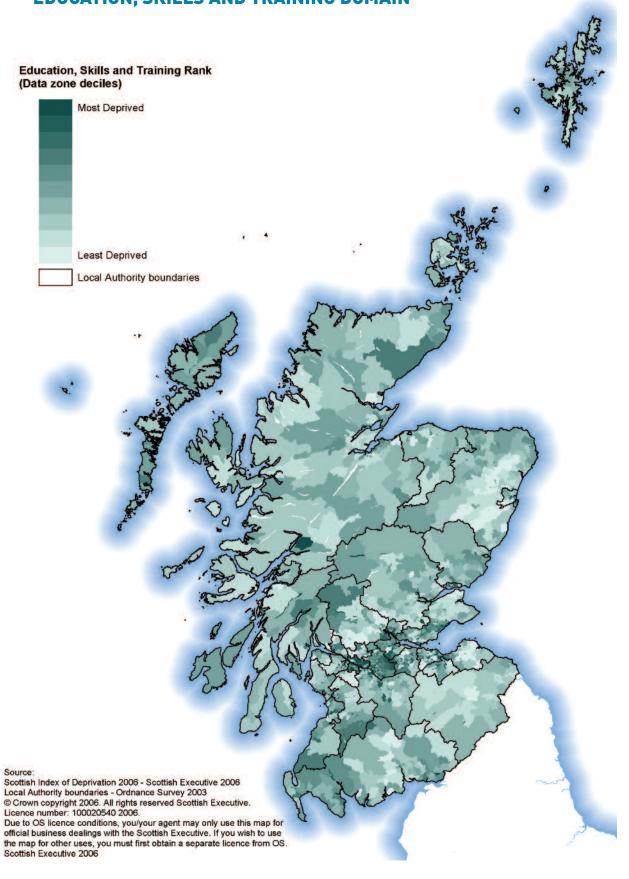
Educational attainment is highly variable with pockets of 'most deprived' in east Sutherland, the Trossachs, and south Ayrshire. However, much of the Hills and Islands is the upper half, i.e. less deprived, level.

For **employment**, the position is somewhat worse than educational attainment. There are substantial areas in the 'most deprived' category in the Western Isles, north Caithness and north Sutherland, Cowal, and Galloway.

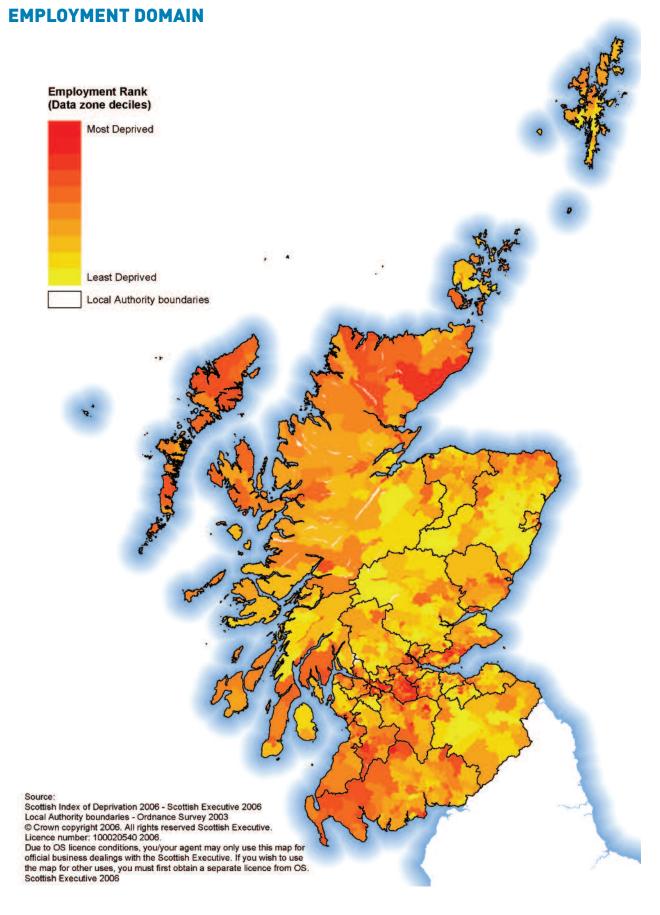
For **housing**, the picture is much worse than the two previous indicator sets. Substantial parts of the Hills and Islands are defined as 'most deprived'. The worst incidence is in the west Highlands, the Inner Hebrides, the Uists and Argyll.

Current **income** shows a similar pattern, albeit the level of deprivation is not as high as for housing with the exception of much of the Western Isles, and parts of Caithness and Sutherland.

SCOTTISH INDEX OF MULTIPLE DEPRIVATION 2006 **EDUCATION, SKILLS AND TRAINING DOMAIN**

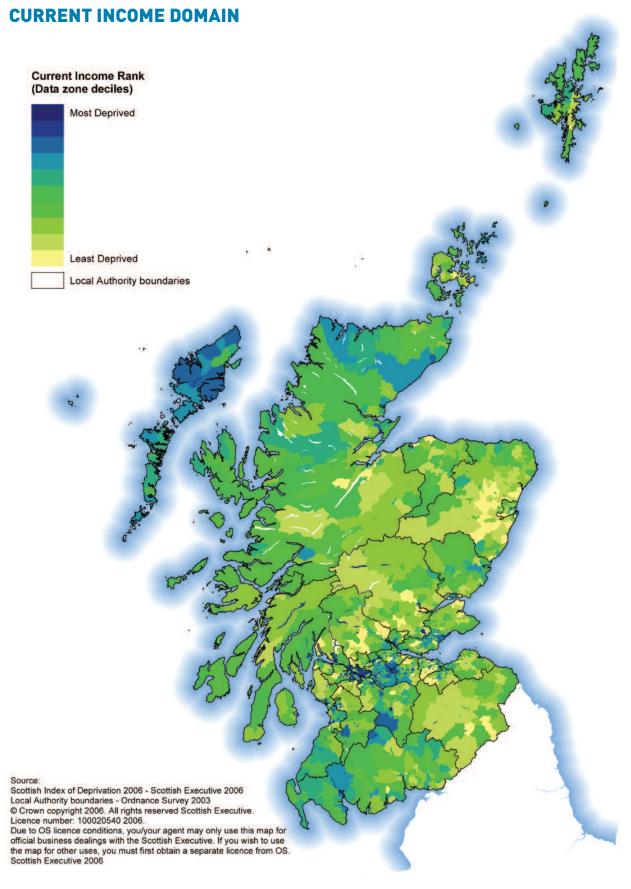


SCOTTISH INDEX OF MULTIPLE DEPRIVATION 2006



SCOTTISH INDEX OF MULTIPLE DEPRIVATION 2006 HOUSING DOMAIN Housing Rank (Data zone deciles) Most Deprived Least Deprived Local Authority boundaries Scottish Index of Deprivation 2006 - Scottish Executive 2006 Local Authority boundaries - Ordnance Survey 2003 © Crown copyright 2006. All rights reserved Scottish Executive. Licence number: 100020540 2006. Due to OS licence conditions, you/your agent may only use this map for official business dealings with the Scottish Executive. If you wish to use the map for other uses, you must first obtain a separate licence from OS. Scottish Executive 2006

SCOTTISH INDEX OF MULTIPLE DEPRIVATION 2006



APPENDIX 4: NATURAL HERITAGE DESIGNATIONS

Sites of Special Scientific Interest:

Designated by Scottish Natural Heritage under the Wildlife and Countryside Act 1981 and the Nature Conservation (Scotland) Act 2004 to protect rare and representative plants and animals, geological and geomorphological features from damage. Owners are expected to manage the land in agreement with Scottish Natural Heritage. An incentive scheme is available. Damaging operations can be stopped by Ministers granting a Nature Conservation Order.

National Nature Reserves:

Established by Scottish Natural Heritage under the National Parks and Access to the Countryside Act 1949 to preserve special areas of habitats and species and geo formations from damage and to encourage access for learning and enjoyment.

Special Protection Area:

Designated by the Scottish Government under the EU Directive on the Protection of Wild Birds 1979 (The Birds Directive) to protect listed species of birds that are rare or representative of the Atlantic biogeographic region of Europe.

Special Area of Conservation:

Designated by the Scottish Government under the EU Directive on Protection of Wild Flora and Fauna 1992 (The Species and Habitats Directive) to protect listed species of plants and animals and habitats that are rare in or representative of the Atlantic biogeographic region of Europe.

Ramsar site:

Designated by the Scottish Government under the International Convention on the Conservation of Wetlands (the Ramsar Convention) to protect internationally important wetlands and their dependent species.

Biosphere Reserve:

Designated by UNESCO on recommendation of national Government to protect habitats and to encourage sustainable development of surrounding areas.

Geopark:

Designated by UNESCO on recommendation of national Government in recognition of outstanding earth heritage features and opportunities for sustainable development based on them.

National Scenic Area:

Designated by Scottish Parliament to protect nationally important areas of scenic beauty and landscape. Legislation no longer exists for this purpose.

National Park:

Area designated by Scottish Parliament in recognition of outstanding national importance for natural and cultural heritage, in need of integrated management, and where there is support from national and local constituencies.

World Heritage Site:

Inscribed on UNESCO World Heritage List as of Outstanding Universal Significance for its natural/built/cultural heritage and which can be protected adequately through national law and appropriate ownership.

APPENDIX 5: AREA PEN PICTURES

This Appendix sets out the Committee's summary of the key points from our visits to various parts of Scotland. It reflects the points made to us and the discussions we had, but is not a full record of all of the material given to us, rather we list what we regard as the salient points for each location.

Aberdeenshire

- High productivity of agriculture in the North East
- Decline in full-time and increase in part-time farmers, partly due to diversification of incomes
- Concern over the lack of youngsters involved in working the land
- House prices were high due to the proximity to Aberdeen and need for more affordable housing
- Tourism in Aberdeenshire decreased by 2 per cent, compared to 6 per cent growth in Aberdeen
- Potential for forestry to be used for biomass energy

Dumfries and Galloway

- Young people leaving the area in search for housing, jobs or training, and a lot more old people were settling in the region
- Benefits of a higher and further education campus in the area
- Not enough added value to the livestock produced in the area
- Need more promotion of the area as a tourist destination
- Lack of a forest strategy for the area
- Importance of environmental designations to marketing the area

Highlands

- Low wage economies and high levels of rural poverty
- High proportion of public sector employment
- Lack of affordable housing due to lack of water/sewage provision
- Strong regional identities within area
- Livestock reduction in the north and west of the region and beginning of land abandonment
- Loss of agricultural critical mass needed for supporting industries such as hauliers and vets
- Need for more accessible public transport
- Drive for renewable energy development
- Tourism was the biggest business sector for the region but was very seasonal

Islay

- Inadequate ferry connections from mainland with regard to both Islay and Jura
- Potential for whisky industry to benefit local communities
- Importance of SNH goose payment scheme to local farmers
- Decline in sheep numbers and concerns over the viability of livestock farming
- Recent switch from dairy farming to beef cattle
- Benefits of a local abattoir for the development of a local brand for produce
- Shortage of affordable housing

Mull

- Unfinished road link between Ferry terminal at Craignure to Tobermory
- Need for re-establishing ferry connections between Tobermory and Coll & Tiree
- Role of community enterprise in addressing market needs where private enterprise was absent (e.g. taking over the local butcher shop)
- Concern at the inadequate return from farming and dependence on the SFP and LFASS
- Potential of forestry for local wood fuel heating
- Potential of cruise ship, and marine leisure tourism
- Further potential for shellfish farming, and importance of aquaculture for island economy
- Further potential for wildlife tourism and collaboration
- Bio-physical conditions limit farming production and productivity
- Importance of Environmentally Sensitive Area status to farm incomes

Orkney

- Importance of agriculture to the local economy
- Decline in sheep numbers
- Concern at the low return from beef farming
- Importance of local food branding through Orkney Island Gold
- Cost of transporting goods to and from the Island
- Importance of historic monuments and wildlife to tourism
- Encouraging marine and wind renewable energy development
- Importance of SFP and LFASS payments to farm businesses
- Potential for arable farming of crops such as Bere barley
- Shortage of ferry capacity to Orkney's outer islands

Scottish Borders

- Importance of LFASS and SFP payments to farmers
- Sheep coming off the hills and tick numbers increasing as a result
- Importance of river basin management of the Tweed
- Difficulties in matching seasonal restaurant trade with open all year round visitor attractions, such as mountain biking
- Proximity to Edinburgh had increased house prices

Shetland

- Consistent wind sources for community wind energy development
- Desire for better livestock product marketing
- Importance of crofting to the community
- Importance of the environment and culture to the island identity
- Loss of the ferry link to the Faroes
- Very short tourist season, but opportunities to extend it through cultural festivals such as Up-Helly-Aa, and wildlife tourism
- The development of VisitShetland marketing body

Skye

- Shortage of affordable housing
- Importance of UHI Gaelic college to local employment
- Importance of Gaelic and local culture to community identity
- Serious concern amongst local farmers about inadequate returns from agriculture and difficulty of remaining in business. Less concern amongst crofters compared with farmers
- Benefits and difficulties of promoting local produce for the tourism sector
- Few young people wanting to go into farming
- Importance of tourism sector

Western Isles

- Less than half the crofts actively worked, undermining previous communal crofting activities, such as gathering sheep
- High demand for crofts as a means to obtain affordable rural housing
- Very few crofters applied for SFP and LFASS
- Decline in sheep numbers
- Concern about the future of agriculture on the islands
- Declining numbers of B&B businesses as the occupation was no longer attractive to young people
- Over half the land mass of the Western Isles was under community or government ownership

APPENDIX 6: SUMMARY OF RECOMMENDATIONS

An Overarching Rural Policy

Recommendation 1: The Scottish Government, its agencies and local councils should use our proposed objectives and outcomes as a basis for developing new policies and incentives for rural Scotland and in particular for the Hills and Islands.

Maintaining the Viability of Rural Communities

Recommendation 2: The Scottish Government, its agencies, and local councils should have an explicit policy to achieve and maintain community viability in the remoter areas of the mainland and on the islands.

Adopting an Integrated Approach to Land Resource Use

Recommendation 3: The Scottish Government, working with all relevant parts of government and key stakeholders, should develop a *Strategic Land Use Policy Framework*: an overarching integrated policy framework for the use and management of the land resources of Scotland to deliver a range of products and non-market public benefits, a policy that facilitates the resolution of conflicts in the use of land, and flexible enough to deal with the considerable volatility in prices of primary commodities such as energy and food.

Subsidiary Recommendation 3a: The Scottish Government should review all relevant legislation and propose modifications to conform with the new policy framework.

Subsidiary Recommendation 3b: Once the strategy is complete, all relevant parts of government, central and local, should review and align their relevant plans to the new strategy.

Recommendation 4: All government bodies in Scotland, central and local, before determining policies, actions and financial allocations, should use a *Land Stewardship Proofing Test* and associated criteria to assess their efficacy to deliver the widest range of public benefits.

Recommendation 5: The regulations and codes of practice for the use of land resources should be reviewed and rationalised to provide a single set of standards for environmentally sustainable management of Scotland's land resources.

Agriculture and the Environment

Recommendation 6: In the forthcoming EU negotiations the Scottish Government should, as a priority, press for the resources available for agri-environment programmes to be substantially increased post 2013 to a level that allows all farmers the opportunity to participate in achieving enhanced levels of biodiversity, climate change mitigation, improved water management and flood mitigation.

Subsidiary Recommendation 6a: The agri-environmental schemes should be substantially simplified in construction and administration.

Subsidiary Recommendation 6b: Agri-environmental schemes should have a substantially longer lifespan, so that the benefits to the environment can be realised in perpetuity, and changes of practice detrimental to the environment after cessation of grants should result in repayment of support.

Subsidiary Recommendation 6c: The Scottish Government's environmental agencies should identify those areas of the Hills and Islands requiring grazing and determine practical means of its implementation by land managers.

The Single Farm Payment

Recommendation 7: The Scottish Government should begin to plan for a change to make the Single Farm Payment on an area basis as soon as possible and consider doing so in phased steps before 2013, to ease what is likely to be a difficult change and recognising that a simple shift to a flat rate area-based payment would be illogical and inappropriate.

Subsidiary Recommendation 7a: It is essential that the Single Farm Payment is attached to the land and reflects the cost to the land manager of the public services that will be expected to be delivered from it.

Recommendation 8: We urge the Scottish Government to commission research to inform decision making and assist in the resolution of the difficult issues arising from the conversion of the SFP to an area based payment so that an effective and transparent scheme can be put in place to deliver the public goods required.

Recommendation 9: The Scottish Government should support the proposed greater flexibility for Article 69 and consider applying it to provide an element of managed grazing by sheep and cattle to achieve a range of public goods.

Recommendation 10: A clearer definition of the public benefits paid for by the SFP is required for the period after 2013: the Scottish Government should take steps to ensure that these benefits are fully understood by land managers and by the public, and that they are properly enforced.

Recommendation 11: There should be a requirement for a whole farm plan for each unit in receipt of public funds to define the public good outcomes and the management protocols to achieve them.

Recommendation 12: The Scottish Government should accept the proposed increased rate of compulsory modulation provided that it is compensated for by a reduction in voluntary modulation and that the funds raised in Scotland are entirely retained within Scotland.

Recommendation 13: The Scottish Government should support the European Commission's proposals to focus additional funding arising from increased compulsory modulation on climate change mitigation and adaptation.

Recommendation 14: The criteria for support for land defined as Less Favoured Area should be changed to give greater emphasis to the delivery of environmental and climate change public benefits rather than solely agricultural production.

Pillar 2 Funding

Recommendation 15: The Scottish Government should make it clear that it does not accept the present inadequate EU funding of Pillar 2, which puts Scottish farmers at a serious disadvantage compared with their counterparts in other Member States, and press the UK Government in the forthcoming negotiations on the EU budget to get it increased, even if some erosion of the UK's rebate is necessary to achieve this.

Crofting

Recommendation 16: The Crofters Commission should, through appropriate procedures, and with the support of Scottish Ministers, select areas, and use their powers under legislation, in partnership with others, to pursue change within the areas selected, through the creation of crofts and other measures.

Recommendation 17: The Scottish Government, as part of its revised approach to crofting, should ensure that powers to overcome neglect and misuse of crofting land are fully utilised, particularly where crofting communities have agreed local community development plans.

Recommendation 18: The Scottish Government should ensure that the revisions to the CAP arising from the Health Check permit crofts of any size to be recipients of SFP support, and that any future review of SRDP is used to increase opportunity for crofters.

Forestry

Recommendation 19: The Scottish Government and the Forestry Commission should develop detailed proposals for implementing the 25 per cent target, including the necessary incentive regime, the type of woodland and means of identifying land for planting, and conduct an open consultation on its proposals.

Recommendation 20: The Forestry Commission should initiate a joint study with relevant interests to examine the potential of short-rotation forestry as an integral part of farming and to recommend measures for improving integration of agriculture and forestry on working farms.

Sporting Estate Management

Recommendation 21: The sporting estate management sector should work with the Scottish Government to ensure that the sector is fully integrated into a *Strategic Land Use Policy Framework* proposed in Recommendation 3.

Recommendation 22: Landowners' associations should explore mechanisms to give recognition to exemplary stewardship of land.

Responding to Climate Change

Recommendation 23: The Scottish Government should, as part of its revised climate change policy, institute greater regulation of the intensity of herbivore grazing on carbon-rich soils. In particular, the Government should facilitate the development of sustainable deer management within a revised regulatory and incentive-based framework so that this sector contributes to the integrated land use policy proposed in this report.

Recommendation 24: The Scottish Government should provide targeted incentives and appropriate regulation to encourage the management of existing forest and woodland to maintain carbon storage and increase further the potential for carbon sequestration, and support the necessary research to achieve these objectives.

Recommendation 25: The Scottish Government should support the wood fuel industry development with long-term measures, such as a renewable heat target, rather than the current, stop/go, single-year funding regime.

Recommendation 26: The Forestry Commission should ensure that its grant schemes and its own practice in the state forests are fully aligned with the developing advice from Forest Research on climate change issues.

Recommendation 27: The Scottish Government should urge the adoption of a rigorous, market-based carbon-trading scheme that gives land managers financial benefit to encourage low-impact forest management, tree planting and other appropriate activities.

Subsidiary Recommendation 27a: Research is required to develop effective and efficient methods for calculating and verifying the retention and sequestration of GHGs in soils and vegetation.

Recommendation 28: The Scottish Government should press the EU to change its policy on exclusion of forestry in helping to achieve its emission reduction targets and to place greater emphasis on climate change action in the Rural Development Programme.

Recommendation 29: Investigations to set out the implications of and options for achieving the 80 per cent reduction in GHG emissions, and to define the GHG impacts of different land use activities, should be undertaken urgently on behalf of the Scottish Government.

Recommendation 30: New mandatory codes of practice for the use and management of carbon-rich soils, for the management of water in upper and middle areas of catchments, and for planting, managing and restocking of forests and woodlands, should be implemented within two years as an essential component of climate change mitigation.

Refocusing the SRDP

Recommendation 31: the SRDP should be revised to make greater provision for adaptation to and mitigation of the effects of climate change, especially in the light of the recent scientific evidence provided to the Scottish Government.

Recommendation 32: The Scottish Government should redesign and implement the SRDP within the context of our proposed *Strategic Land Use Policy Framework*.

Recommendation 33: The RPACs should have their membership broadened to include local and regional representatives of the land using sectors, working alongside officials of the relevant government agencies. In particular, the revised and expanded RPACs should be given full delegation for the implementation of the SRDP.

Recommendation 34: The boundaries of the RPACs should be redrawn to better reflect the diversity of land in Scotland using a biogeographic approach, such as SNH's Natural Areas, within an appropriate

administrative context.

Recommendation 35: The funds available under the Scotland Rural Development Programme need to be substantially increased if its objectives are to be achieved and should include relevant expenditure by all government agencies.

Recommendation 36: The Scottish and UK Governments and the EC should consider a new instrument for funding the delivery of public benefits from land management for introduction in 2013 in the form of a *Land, Environmental and Climate Change Policy* when the next review of the CAP is due to be implemented.

Tourism

Recommendation 37: Given the levels of criticism of VisitScotland, the Scottish Government should radically change the institutional structure for tourism by establishing a new national tourism organisation, with combined responsibility for development, investment, marketing and training, and *Regional Tourism Boards*.

Subsidiary Recommendation 37a: The level of funding for tourism from the Scottish Government should be increased: a higher level of investment would yield economic and employment benefits far outweighing the additional investment.

Subsidiary Recommendation 37b: Reducing seasonality should be a high priority as it will help to expand tourism businesses and exploit opportunities in the market place which are currently underdeveloped.

Subsidiary Recommendation 37c: Marketing resources should be used to develop long-term campaigns similar to New Zealand's '100% Pure' and Ireland's 'Your Very Own Ireland'.

Subsidiary Recommendation 37d: Tourism business leaders and tertiary level education and training providers in the Hills and Islands should work together to ensure that appropriate training and development opportunities are available throughout the area in order to improve the career prospects of people who wish to work in the industry and by doing so improve the quality of services offered to visitors.

Subsidiary Recommendation 37e: Compulsory registration of tourism establishments should be examined and independent assessments should be undertaken to improve visitor service standards by an agency such as the AA or RAC.

Subsidiary Recommendation 37f: Public and business interests in the tourism sector should work more effectively together to ensure that information for potential visitors is readily available on the web on a par with competitor destinations.

Subsidiary Recommendation 37g: Land and water based leisure activities and facilities should be developed by the new *Regional Tourism Boards* working with other public bodies and the private sector to meet consumer demand for visitor use provided that they do not reduce the quality of the environment.

Recommendation 38: The Scottish Government, other relevant bodies and local communities should seriously consider the establishment of further National Parks in the terrestrial, coastal and marine environments.

Recommendation 39: Public authorities and local communities around the Hills and islands should work together to prepare proposals for the designation by UNESCO of Geoparks, Biosphere Reserves and World Heritage Sites in the Hills and Islands.

Energy

Recommendation 40: The 'locational charging scheme' for entry to the national grid should be urgently reviewed. The Scottish Government should press the Department for Business Enterprise and Regulatory Reform and the National Grid Company to reduce the disadvantage of remoter locations to supply electricity from renewable sources to UK consumers.

Recommendation 41: The Government and National Grid Company should develop a strategy for the connection of island-based renewable energy sources to the mainland electricity grid.

Recommendation 42: The Scottish Government should develop a scheme for ensuring that local communities receive financial benefits from renewable energy developments.

Recommendation 43: Community-based sustainable energy projects should be encouraged and communities' ability to get the best deal from major energy companies, land owners and other development interests should be increased by expanding the Highlands and Islands Community Energy Company to cover the whole of rural Scotland.

Recommendation 44: The proposed Renewable Heat Strategy should be implemented as soon as possible to enable biomass to contribute as fully as possible to our renewable energy commitments. Funding packages should be introduced to encourage long term planning and development in the installation and distribution sectors.

Food

Recommendation 45: The provision of local abattoirs and meat processing facilities in the Hills and Islands of Scotland should be investigated by the Scottish Government in relation to EU State Aids, the economics of operation, and the wider benefits to local businesses and the community. A geographical spread of facilities needs to be provided to improve the prospects of adding value locally to livestock products.

Recommendation 46: Farmers' organisations and marketing cooperatives should make greater efforts to produce locally distinctive livestock and other food produce for local consumption by residents and visitors, and for direct sale into more distant markets.

Subsidiary Recommendation 46a: Tourism businesses should be encouraged to use regional and local food as their dominant offering.

The Need for Affordable Housing

Recommendation 47: We support the Scottish Government's intention to increase the supply of social rented housing and its intention to end 'right to buy' on new social housing. We recommend that new build should be undertaken, for preference, by housing associations.

Recommendation 48: Grant arrangements, equivalent to Housing Association Grant for housing associations and linked to affordable rents, should be made available to implement the Scottish Government's wish to work with the private sector in providing affordable housing to rent.

Subsidiary Recommendation 48a: Inheritance Tax liability on property let at affordable rents should be reviewed to enable the former to be deferred so long as it is let on affordable terms

Subsidiary Recommendation 48b: We support shared equity schemes and recommend that their role should be further developed for those unable to fund the whole cost of home ownership. In particular, we would like to see Small Communities Housing Trusts in operation throughout rural areas.

Recommendation 49: The Scottish Government and Local Councils should urgently review their planning policies to make them less restrictive on the building of new housing in rural areas, with emphasis instead on design, environmental footprint and landscape compatibility.

Improved Transport Provision

Recommendation 50: The Scottish Government should consider appropriate measures for alleviating the high fuel costs for those living and working in the remoter areas of Scotland.

Recommendation 51: Transport Scotland should undertake a review of modernisation of the main trunk routes servicing key settlements and ferry terminals in rural Scotland to ensure that they do not constrain economic development and that they provide the life-line services required by communities.

Recommendation 52: The Scottish Government should review the means for supporting ferry services to other islands served from the mainland so that they have a similarly advantageous scheme to that of the Western Isles.

Subsidiary Recommendation 52a: A review should be carried out on the ferry services to Islay and Jura with a view to improving the service and reducing its cost as a boost to local business and tourism.

Subsidiary Recommendation 52b: An assessment should be carried out on the possibility of restoring a service from Barra and South Uist to Mallaig.

Subsidiary Recommendation 52c: The capacity on the Orkney inter-island service should be increased as soon as funding can be found and the Scottish Government should consider whether it can assist the Islands Council.

Improved Access to Telecommunications

Recommendation 53: The Scottish Government and their preferred contractor should give priority to ensuring access to broadband, and in the future new technologies, for all Hill and Island communities, and to ensuring that its capacity and speed throughout the area is increased.

Recommendation 54: The remoter areas of the mainland and islands should be given special priority for access to any new communication services.

Rural Post Offices and Integrated Service Delivery

Recommendation 55: All parts of central and local government and their agencies in providing services to rural areas should establish effective mechanisms to ensure integrated delivery of services to increase the viability of rural communities.

Recommendation 56: The UK and Scottish Governments should recognise that the role of post offices is not simply as a commercial business, but that there is an important social role as well and that it should seek to develop the range of services provided through post offices. The current closure programme should be halted to allow a new rationale to be implemented.

Recommendation 57: Local Councils and enterprise bodies should work with local entrepreneurs to devise a means of retaining or opening local shops in rural areas.

Education and Culture

Recommendation 58: The Scottish Government, working with existing FE and HE providers, should help to secure a coordinated and integrated approach to the provision of further and higher education in rural Scotland.

More Strategic Approaches

Recommendation 59: The Scottish Government should establish a *Rural Areas Proofing Test* for all policies and activities affecting rural areas.

More Integrated Delivery

Recommendation 60: The Scottish Government should ensure that the national delivery agencies need to be able to operate on a regional and devolved basis to ensure integrated delivery of policy and action to meet the diversity of needs and opportunities around rural Scotland.

Subsidiary Recommendation 60a: The Scottish Government should develop customer-focused, one-door, multi-function advisory services accessible to all those seeking help within rural areas, paying particular attention to those in the remoter areas.

More Effective Organisational Structures

Recommendation 61: The Scottish Government should give serious and early consideration to integrated policy making and delivery on social and economic development for those areas outside the Highlands and Islands.

Informal Mechanisms

Recommendation 62: The Scottish Government and Local Councils should give more active support to the development of local community leadership and empowerment, and facilitate the more effective involvement of local communities in the community planning process and in the development of social and economic opportunities.

Recommendation 63: Central and local government should adopt the principles of the LEADER approach in developing and implementing schemes in rural areas.

Coping with Regional Variation

Recommendation 64: When setting new policies and reviewing existing ones, both central and local government should ensure that the diversity of social, economic and environmental circumstances and opportunities are fully taken into account, rather than a uniform approach.

Recommendation 65: Scottish Government and Local Councils should develop flexible policies, funding mechanisms and approaches in recognition of the diversity of opportunities and situations in rural Scotland.

Financial Implications

Recommendation 66: The Scottish Government, as part of a new integrated policy for rural areas recommended in this Report, should recognise in its financial allocations the need for maintaining viable communities in the remoter areas of Scotland. It should also ensure that the services provided by other parts of government achieve the same objectives.

APPENDIX 7: ACRONYMS AND GLOSSARY

AA Automobile Association B&B Bed and Breakfast

BSE Bovine Spongiform Encephalopathy

BVD Bovine Virus Diarrhoea

Carbon

CAP Common Agricultural Policy

CBGLS Crofting Building Grant and Loan Scheme CCAGS Crofting Counties Agricultural Grants Scheme

CGT Capital Gains Tax

CHGS Croft House Grant Scheme CVO Chief Veterinary Officer

Department for Environment Food and Rural Affairs DEFRA

EAE **Enzootic Abortion of Ewes**

European Agricultural Fund for Rural Development EAFRD **EAGGF** European Agricultural Guarantee and Guidance Fund

EC **European Commission**

ESA **Environmentally Sensitive Area**

EU **European Union** FΕ Further Education Foot and Mouth Disease FMD FTE Full Time Equivalent

FWAG Farming and Wildlife Advisory Group

GAEC Good Agricultural and Environmental Condition

GB **Great Britain**

GDP Gross Domestic Product

GHG Greenhouse Gas GVA **Gross Value Added**

ha Hectare

HAG **Housing Association Grant**

ΗE Higher Education

HIDB Highlands and Islands Development Board

HIE Highlands and Islands Enterprise

HNV High Nature Value

IACS Integrated administration and control system

IBR Infectious Bovine Tracheitis

IHT Inheritance Tax

IRR Internal Rate of Return

LEAF Linking Environment and Farming

LFA Less Favoured Area

LFASS Less Favoured Area Support Scheme

MTR Mid Term Review of the CAP

NE North East NFI Net Farm Incomes

NFUS National Farmers Union (Scotland)

NNR National Nature Researce
NGO Non Government Organisation
NSP National Scrapie Programme

OECD Organisation for Economic Co-operation and Development

OFGEM Office of Gas & Electricity Markets

PACEC Public and Corporate Economic Consultants

PCHS Premium Cattle Health Scheme

PSGHS Premium Sheep and Goat Health Scheme

RAC Royal Automobile Club

REPG Rural Empty Properties Grant

RET Road Equivalent Tariff

RPAC Regional Proposal Assessment Committee

RSE Royal Society of Edinburgh

RSPB Royal Society for the Protection of Birds

SAC Scottish Agricultural College

SE Scottish Enterprise

SEARS Scotland's Environment, Agriculture and Rural Services
SEERAD Scottish Executive Environment and Rural Affairs Department

SEPA Scottish Environment Protection Agency

SFP Single Farm Payment

SGRIPD Scottish Governments Rural Payments and Inspections Directorate

SLMG Shetland Livestock Marketing Group SMR Statutory Management Requirements

SNH Scottish Natural Heritage SRC Short Rotation Coppice

SRDP Scotland Rural Development Programme

SRPBA Scottish Rural Property and Business Association

SRF Short Rotation Forestry

SSSI Sites of Special Scientific Interest

UHI University of the Highlands and Islands Millennium Institute

UK REP UK Permanent Representation to the EU

UKWAS UK Woodland Assurance Scheme

UNESCO United Nations Educational, Scientific and Cultural Organization

USD United Stated Dollars

vCJD variant Creutzfeldt Jacob Disease

WHS World Heritage Site
WTO World Trade Organisation

Afforestation: Establishment of a new forest by seeding or planting on non-forested land

Article 69: Of Council Regulation (EC) No 1782/2003, which will become Article 68 in the proposed Council Regulation COM(2008) 306 final. Member States may retain up to 10% of the component of Pillar 1 payments for specific types of farming which are important for the protection or enhancement of the environment or for improving the quality and marketing of agricultural products

Axis 1, 2, 3 & 4: The Scotland Rural Development Programme is set out under four Axes: Axis 1 – Improving competiveness of the agricultural and forestry sector; Axis 2 – Improving the environment and countryside through land management; Axis 3 – Improving quality of life through diversification of economic activity, and Axis 4 – to increase the capacity of local community and business networks to build human capital, stimulate innovation and co-operation locally through LEADER.

Biosecurity: The policies and measures taken to protect from biological harm. It encompasses the prevention and mitigation of diseases, pests, and bioterrorism, for the economy, environment, and public health.

Brash: The branches and tops of trees, and small, dead trees that are not suitable for conventional timber processing.

Brashing: removing lower branches.

Carbon Dioxide equivalent: The concentration of CO2 that would cause the same level of radiative forcing as a given type and concentration of greenhouse gas.

Cleughs: Name for deep gullies in the Borders.

Common Agricultural Policy: Article 39 of the Treaty of Rome in 1957 set out the objectives of the CAP as follows: to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilization of the factors of production, in particular labour; thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture; to stabilize markets; to assure the availability of supplies; to ensure supplies reach consumers at reasonable prices. (see Pillar 1 and 2)

Crofting Counties: The crofting counties are the former counties of Argyll, Inverness, Ross and Cromarty, Sutherland, Caithness, Orkney and Shetland. These counties have been replaced by local council areas, but crofts exist only in the areas covered by the old county councils.

Good Agricultural and Environmental Condition: To receive the Single Farm Payment farmers must comply (known as cross-compliance) with the two main conditions. Firstly, Statutory Management Requirements (SMRs) which aim to protect public, plant and animal health, the environment and the welfare of animals and secondly, Good Agricultural and Environmental Ccondition (GAEC) standards where farmers are required to maintain soils, habitats and landscape features. Farmers will be inspected to check that they are meeting these standards, and breaches may result in sanctions being imposed.

Headage payment: Headage payments are budgetary payments made to individual producers on the basis of the number of head of a specific type of livestock to supplement producer returns earned through sales at market prices.

LEADER: Part of the new Scotland Rural Development Programme, aimed at promoting economic and community development within rural areas. It replaces the Leader+ programme that ran from 2000 to 2006, and encourages new and experimental approaches to rural development. LEADER is a bottom-up method of delivering support for rural development through implementing a local rural development strategy.

Less Favoured Area: In the European Union, Less Favoured Area (LFA) is a term used to describe an area with natural handicaps (lack of water, climate, short crop season and tendencies of depopulation), or that is mountainous or hilly, as defined by its altitude and slope.

Less Favoured Area Support Scheme: Is part of the Scotland Rural Development Programme and aims to contribute to the maintenance of the countryside, and viable rural communities, by ensuring continued agricultural land use maintains and promotes sustainable farming systems. It does this by compensating the farmers and crofters who farm in the most disadvantaged areas of Scotland with annual area-based payments.

Light lambs: Lambs which are sold at weaning at live weights of less than 25 kg are defined as light lambs.

Modulation: A movement of funds from Pillar 1 of the CAP to Pillar 2.

Muirburn: The practice of burning heather moorland to encourage heather regeneration, usually for the benefit of game birds such as grouse.

Pillar 1 and 2: The Common Agriculture Policy accounts for around 50% of the EU's budget and covers a wide range of expenditure. It is divided in two, referred to as Pillar 1 and Pillar 2. Pillar 1 provides direct support to farmers under the Single Farm Payment. Pillar 2 provides expenditure under the Rural Development Regulation for a range of measures including: agri-environment, farm adaptation, forestry, processing and marketing of agricultural produce, training and development, and Less Favoured Area support.

Primary Industries: Agriculture, forestry and fishing.

Regional Proposal Assessment Committee: Each of the 11 RPACs are made up of representatives of the Scottish Government, Scottish Natural Heritage, the Scottish Environmental Protection Agency, the Forestry Commission, and from Business Enterprise and/or Local Authority and are Chaired by one or other of these representatives. These RPACs will select which Proposals to recommend to Scottish Ministers for funding.

Sawlog: The term sawlog refers to that part of a tree stem that will be processed at a sawmill. This is in contrast to those other parts of the stem that are designated pulpwood.

Single Farm Payment: The main aim of the payment is to guarantee farmers more stable incomes. Farmers can decide what to produce in the knowledge that they will receive the same amount of aid, allowing them to adjust production to suit demand. To be eligible, a farmer in Scotland requires payment entitlements calculated on the basis of the payments received by the farmer during a reference period (historical model).

Scotland Rural Development Programme: This is a programme of economic, environmental and social measures designed to develop rural Scotland. Measures will be delivered through: Crofting Counties Agricultural Grant Scheme; Food Processing, Marketing and Co-operation Grant Scheme; Forestry Commission Challenge Funds; The LEADER initiative; Less Favoured Area Support Scheme; Rural Development Contracts; Skills Development Scheme.

Short Rotation Coppice: An energy crop which usually consists of densely planted, high-yielding varieties of willow and poplar.

Short Rotation Forestry: The practice of cultivating fast-growing trees that reach their economically optimum size between eight and 20 years old. Species used are selected on this basis and include Alder, Ash, Southern Beech, Birch, Eucalyptus, Poplar, Willow, and Sycamore.

Thinning: The goal of thinning in forestry is to control the amount and distribution of available growing space. By altering stand density, foresters can influence the growth, quality, and health of residual trees. It also provides an opportunity to capture mortality and cull the commercially less desirable, usually smaller and malformed, trees. Unlike regeneration treatments, thinnings are not intended to establish a new tree crop or create permanent canopy openings.



Copies of this report, and of the summary report, are available from the Royal Society of Edinburgh or on its website (**www.royalsoced.org.uk**).

For further information, please contact

Dr Marc Rands, Evidence & Advice Manager:

22 - 26 George Street, Edinburgh EH2 2PQ

Tel: **0131 240 5000**

Email: evidenceadvice@royalsoced.org.uk

www.royalsoced.org.uk

The Royal Society of Edinburgh, Scotland's National Academy, is Scottish Charity No. SC000470

ISBN: 978 0 902198 70 8 © 2008 The Royal Society of Edinburgh