FARMING'S VALUE TO SOCIETY

THE OXFORD FARMING CONFERENCE
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REALISING THE OPPORTUNITY

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Contents

"We recognise and truly understand the value of the relationship between food, land and people."

Mike Gooding, Chairman,
2013 Oxford Farming Conference

Foreword

As a farmer myself, for many of us, integration with our communities comes as second nature - it's just 'what we farmers do'. What is also clear is that the UK's increasingly urban population also has a connection with, and derives value from, farming; although it is much more difficult to understand that value, or to feel confident about the quality of the understanding of the wider population.

What is reassuring is that every nursery school child will be able to recite 'Old McDonald has a farm' with great enthusiasm, but do we recognise and truly understand the value of the relationship between food, land and people, particularly as these youngsters grow into adulthood?

Literally, just a few years ago we were paid to take land out of production, now the challenge is for more food production from less resource use. And with Europe and the UK's wider society struggling to emerge from recession, policy also demands greater public goods from farming and the countryside.

This report - produced with the support of generous sponsorship from Burges Salmon, Volac and the RSPB - seeks to illustrate the full breadth of value delivered by UK farming from the obvious provision of food, to the less tangible contributions to society's well-being. Not a simple task, but one that seeks to inform the debate about the future of farming, that challenges the stereotypical disconnect between farming and society, and inspires farmers to go out and re-engage with the public with confidence.

Mike Gooding, Chairman,
2013 Oxford Farming Conference

Executive Summary

In the past, farming's role in society was clearly understood and appreciated. It would never have occurred to ask: 'what is the value of farming?'. By the 1970s and 1980s, however, as the full effects of post-war agricultural intensification emerged, public attitudes to farming became increasingly determined by its impacts on the environment, animal welfare, the Common Agriculture Policy (CAP) budget and food surpluses. As a result, farmers felt increasingly marginalised.

Opinion polls suggest that the public, once again, is mostly in favour of farming. And some farmers and farm leaders are feeling more confident. However, confidence cannot rely just on public opinion, but requires an evidence-based understanding of farming's continuing value to society. This study aims to address that need.

Using a wide-ranging review of published literature, this report assesses the total value to society of farming in the UK, particularly aiming to uncover some of farming's less recognised social impacts. 'Farming' refers to farming activity, the farming community and farmland. A range of indicators is used to assess value.

The study's core is an analysis of value as delivered by food, land and people, and an evaluation of how farming satisfies values. As context, we examine current public attitudes to farming and key policy challenges. We conclude with an assessment of total value and recommendations as to how it might be further realised.

Public attitudes

Public attitudes to farming and farmers are mostly positive, although significant minorities hold negative opinions. Public understanding of farming is, however, limited. Most people regard farming as important to the economy and believe that farming plays an important role in protecting the environment; they remain concerned about farm animal welfare and GMOs.

Policy challenges

UK farming has to rise to the challenges of global food security, climate change and energy security, yet must do so in the light of experience of the profound environmental impacts of intensive agriculture. Policy must place society's present and future needs at the centre of the farming and food system - understanding farming's value to society is vital to do this.

Food

Food production remains farming's core value - both current production and the capacity to produce food into the future. UK farming substantially feeds a population of 63.5 million people, and supports industries that together contribute nearly 7% of national Gross Value Added (GVA). Food security is valued - many people believe that Britain needs to be more self-sufficient in food. But there are no indications of a mandate to obtain this at the cost of compromising animal welfare or environmental protection.

An important additional part of the value of food is delivered through its provenance. People value knowing where food comes from and how it is produced: animal welfare and British/regional/local origins are particularly significant. The 'ethical' food market (from UK sources) has more than doubled in the last 10 years and accounts for about 2.7% total food spending. For some, a direct relationship with producers matters - as evidenced by the growth in farm shops, farmers' markets and community-supported agriculture.

Land

As well as food production, farmland supports other industries, such as tourism, riding and shooting, which play important roles in rural economies and communities. Farming has both positive and negative impacts on the natural environment – its negative impact has decreased, but it still imposes a net cost on the environment and there are further improvements to be made.

Farmland's social and cultural value is expressed through landscape, nature and place.

- *There are many indicators of the high value placed on farmland landscapes and biodiversity. Their continued value, however, depends on stewardship of the natural and cultural components of farmland.*
- *Farmland provides a valuable natural amenity, attracting regular recreational visits and increasing the value of nearby property. The therapeutic benefits of nature are increasingly recognised, and farmland plays a role in delivering these.*
- *As place, farmland makes an important contribution to national, regional and local identities - land has been eulogized over many years in much of the UK's best-loved literature and art, and is at the heart of our cultural identity.*

People
Farming people add another important, though less recognised, dimension to farming's value. They have created distinctive landscapes, places and communities over the centuries, and, despite declining numbers, remain a significant influence on rural life in many areas. Farming has an important place in people's imagination, as evident in the popularity of farming-themed television and radio programmes. Interest in connecting with farming is also revealed by the growing numbers of people visiting open farms. Recent experience and growth in therapeutic day visits to farms, and, especially, in care farming, is evidence of the considerable therapeutic potential of the farm as a whole.

Values
Farming is valuable because it satisfies, or could satisfy, values related to subsistence, security, relationships among people and with nature, tradition and identity. These latter reflect many of the social and cultural benefits of farming identified above. Satisfying them depends on public access to farms and farmland, strong connections between farming and wider society, and stewardship of the natural and cultural environment.

Ethical perspectives urge us to move beyond thinking just in terms of 'delivery', costs and benefits, to understanding farming and society as a relationship of mutual consideration and responsibility, with emphasis on stewardship and service. Ethics can also inform how we value farming's public goods and how farming engages with the public.

Total value
Farming satisfies needs and values and provides a broad range of different benefits (as well as incurring costs). Farming touches people's lives in perhaps more ways than any other industry. The different types of value delivered by farming, and the indicators that reveal them, cannot, however, be meaningfully added up: appreciating total value means seeing things from different viewpoints at the same time.

As well as taking up specific opportunities, delivering more value to society requires farming (both the industry and policy) to strengthen public engagement, determine the critical number of farms and farmers needed to secure farming's full value, and consider how to use the CAP and other policy measures to secure social goods. For the future, farming should draw inspiration and ideas from a wide range of sources, including from outside farming - farming needs not only technical solutions, but also social innovations.

Recommendations
We recommend the following as ways for farming to deliver more value:

- *Deliver more food with evident provenance and build direct producer-consumer relationships.*
- *Reinforce the public's understanding that farms produce food.*
- *Review progress of the 2002 Policy Commission on the Future of Farming and Food's recommendation of reconnecting 'the public with food and farming' and developing future strategy.*
- *Further enhance farmland biodiversity and recognise and realise the wider social and economic benefits of agri-environment schemes.*
- *Help address major public health and social issues, through creating greater access and opportunities for green exercise on farmland, and by further developing therapeutic day visits and care farming.*
- *Investigate why the public does not take up the opportunities offered by farmland for green exercise, and assess potential savings to the public purse of increased green exercise and farming therapy.*
- *Encourage greater participation in schemes to open farms to the public.*
- *Use explicit values and ethics frameworks to inform policy development.*
- *Use participatory and deliberative techniques as the preferred methods for assessing the value of farming's public goods and for engagement with the public.*

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Finally, we recommend that the farming industry considers this report and uses it to determine specific future directions and a clear course of action to which all interested parties can be committed. There is clear evidence that farmers have every reason to feel confident about their contribution to society; the opportunity now is for producers to re-connect with the wider population.

CHAPTER 1

Introduction

For centuries, farming in the UK enjoyed a special relationship with wider society. Farming was a vital industry and farmers were respected citizens. Farming families played a major role in country life and farming practices created and preserved the countryside. When the Second World War drew attention to just how reliant the UK was on food imports, farming rose to the challenge to increase home production, and, in the years after the war, intensified production and dramatically increased output, more than doubling national self-sufficiency. There was no need to ask `what is the value of farming?' - it was obvious.

All that changed in the 1970s and 1980s, as people woke up to the full costs of the agricultural intensification of the previous decades. Public attitudes to farming became increasingly shaped by disappearing hedgerows, vanishing wildlife, environmental pollution, and `factory farming' - and later by animal disease epidemics (e.g. BSE[1]) and technology-related concerns (e.g. BST[2], GMOs[3]). These perceptions were exacerbated by an increasing CAP budget, food surpluses and agriculture's seemingly reduced contribution to the national economy.

This apparent imbalance between farming's benefits to society and its imposed costs became a major factor in determining the public's regard for farming, and farmers' own views of their standing in society. As the

critique of intensive agriculture gained momentum, farming received increasingly `bad press' and farmers felt like `victims'. Farming was urged to `clean up its act' and pressure grew to use the CAP budget to help achieve this.

In the last two decades, spurred on by regulation and incentives, UK farming has made progress in reducing its negative environmental impacts and improving animal welfare standards, but there is still some way to go. The CAP has shifted some of its resources towards environmental goods, but issues of affordability and what it is appropriate for the public purse to support remain. Further reforms are imminent.

While farming's hidden costs have been revealed, some of its benefits remain largely hidden. These include farming's indirect impacts on the wider economy and its continuing importance in managing landscapes and biodiversity. But, it is farming's social value, its enrichment of people's lives, its contribution to health and well-being, and its role in shaping cultural history and identity, that have been most overlooked. This is understandable. These things are not easily quantified or valued in terms most people, including farming people, understand or regard as legitimate. But understanding these is essential to a full recognition of farming's value to society.

The era of `bad press' and `farmers as victims' may have passed! As David Yelland said at the 2009 Oxford Farming Conference, the press does not hate farmers and neither does the public; rather, farmers enjoy "genuine affection in the hearts and minds of ordinary people". He argued that farmers are still stuck in an obsolete mindset and are speaking mostly to themselves in the language of defeat – adding that regaining confidence calls for recognition of how the public actually sees farming, and a new lexicon directed at a new audience.[4]

Recent opinion polls and public relations exercises suggest that things have moved a little in the direction Yelland urged. Public opinion has shifted in favour of farming, and there is a mood of new confidence among some in the farming industry. But confidence cannot be built on public opinion or PR alone, especially given farming's most immediate and impending challenges. Farmers' confidence must also be built on a well-argued and evidence-based understanding that farming continues to be valuable to society and that there will be new opportunities to deliver more value in the future. And that understanding needs to be developed within a broader and deeper framework than hitherto. This study aims to address that need.

CHAPTER 2

Approach

The general aim of this study is to assess the total value to society of farming in the UK. A particular objective is to uncover some of farming's less recognised social benefits – especially those beyond the well-rehearsed issues of environment and animal welfare. The study is based on a review of published literature. This section describes our approach, in terms of definitions and methods, and outlines the structure of the report.

'Farming' is defined, broadly, as encompassing farming activity, the farming industry and community, and farmland. Farmland refers to all land in the UK classified as agricultural – nearly 74% of the UK land area - and includes both enclosed arable and grassland, mostly in the lowlands, and unenclosed permanent grass and rough grazing, much of it in the mountains, hills and uplands.

Farming uses human effort and ingenuity to add value to the natural resources associated with land to produce outputs, most importantly food. All of farming's benefits, from food and landscapes to the therapeutic value of care farming, arise from a blending of the natural and the human. Although it could be argued that an assessment of the value of farming should attempt to extricate the value due to farmers' activities from the value arising from natural ecosystems, this is not attempted here. Rather, farming is treated as the unique total outcome of the combination of the natural and the human. However, it is important to recognise that many of farming's benefits (e.g. biodiversity) depend on farming's stewardship of nature, and for some (e.g. access to nature) farming may be incidental.

'Society' refers to everyone living in the UK, but recognises that people live in different and overlapping communities, that these communities assign different values to different aspects of farming and that farming's benefits and costs are spread unevenly across these communities (e.g. people living in rural areas will place a higher amenity value on (readily-accessible) farmland than people in inner cities). People also assign value differently in relationship to others (e.g. as 'citizens') from the way they do as individuals (e.g. as 'consumers').

'Total value' combines economic, environmental and social dimensions. These are best understood as emphases or ways of looking at value rather than mutually exclusive categories. Assessing total value calls for a mixture of methods and frameworks that reflects these dimensions.

- *From an economic viewpoint, farming delivers goods and services. Some goods (notably food) have a market value. Many others (e.g. landscape preservation, biodiversity conservation) cannot be bought and sold - they are 'public goods'.[5] Economists use a variety of hypothetical methods to find out what people would be willing to pay for these public goods were they to be traded in the market. These are mostly based on what they say they will pay ('stated preferences') or what they pay without realising it ('revealed preferences'). These methods have been used, for example, to evaluate the amenity value of nature (Page 30) and agriculture's environmental costs and benefits (Page 37).*
- *From an environmental perspective, farming influences the delivery of 'ecosystem services' (i.e. outputs of ecosystems from which people derive benefit). The UK National Ecosystem Assessment (UK NEA),[6] the first comprehensive analysis of the benefits to society of the UK's natural environment, used a combination of economic valuations (as above), health benefits and shared social values to assess the value of ecosystem services to society. Because many (most in area terms) of the UK's ecosystems are farmland ecosystems, the UK NEA has been a particularly important source of data for many parts of this study.*
- *Farming's social value arises because farming satisfies people's needs and values. Economic valuation can be applied to some of farming's social benefits, but it cannot represent its total (or real) social value. This is revealed in other ways, including people's opinions (e.g. attitude surveys), what people do (social behaviour), government policies, and what people think, feel, say and write (e.g. stories, cultural texts, popular and academic discourses[7]). The idea that farming's value arises, ultimately, because it satisfies human values and is developed explicitly in Section 8.*

Farming people use land to produce food, and food, land and people lie at the heart of farming's value to society. The core of this report, therefore, is an assessment of farming's value as delivered by food, land and people (Sections 5, 6 & 7). Section 8 develops the idea of farming as satisfying values. Section 9 brings the different aspects of value together and discusses how more of farming's value might be realised.

Prior to that we address two questions critical to the context of this study:

- *What does the public think about farming now? (Section 3)*
- *What are the policy challenges shaping farming in the future? (Section 4)*

> **Farming has a special place in most people's hearts, even though they know surprisingly little about it.**
>
> University of Cambridge, 2012 [8]

CHAPTER 3

Public Attitudes

Recent opinion polls reveal that current public perceptions of farming are mostly positive, but the public has a very modest knowledge and understanding of farming.

Of those surveyed by Defra in 2008:[9]

- *98% believed a thriving farming industry in England was very important (79%) or quite important (19%), and 88% had a very favourable (49%) or quite favourable (39%) view of farmers;*
- *62% strongly (34%) or partly (28%) agreed that 'farmers should receive more financial support from the Government', while 60% strongly (33%) or partly (27%) disagreed that 'farmers need to stand on their own two feet, and should not receive financial support from the Government'.*

A survey by IGD for the Oxford Farming Conference in the same year revealed similar support and priorities for farmers (Figures 1 & 2). In addition to the questions in these figures, respondents were presented with a set of words or phrases and asked which best described farmers: highest scores went to 'hard working' (78%), 'important' (51%) and 'down to earth' (43%), but some negative descriptors were selected by significant minorities, including 'set in their ways' (29%), 'moaners' (23%), 'grumpy' (18%) and 'victims' (17%). Similarly, although the results revealed support for farmers, they also showed that the public remains concerned about farm animal welfare and GMOs.

Figure 1

Consumer perceptions of British farmers' responsibilities and roles, 2008

Question	Options	% first choice	% first or second choice
What should be the main responsibility of farmers in Britain? And second?	To provide food that meets the needs of British shoppers	43	58
	To produce the raw materials needed for food production	20	29
	To manage and protect the countryside and rural environment	12	30
	To contribute to a strong British economy	11	25
	To help feed a growing world population	7	12
	To produce sustainable biofuels	2	3
What is the single most important contribution that farmers make to British society? Others (max 2)?	To produce food	61	73
	To reduce food miles by supplying local food	13	34
	To manage the countryside	9	33
	To preserve a traditional way of life	5	18
	To encourage wildlife into the countryside	3	13
	To provide access to the countryside via footpaths/bridleways	1	6
	To produce renewable energy, i.e. biofuels	2	5
	To provide facilities and locations for leisure activities	2	4
	To host farm walks	0	1

Source: 2009 Oxford Farming Conference Research conducted by IGD[10]

Figure 2

Consumer attitudes to British farmers, 2008

Statement	% agree strongly	% agree slightly	% neither agree or disagree	% disagree slightly	% disagree strongly
British farmers deserve the full support of the British public	58	30	9	1	1
British farmers deserve better prices and purchase conditions from supermarkets	50	31	16	3	1
British farmers should be allowed to use approved GMOs - genetically modified organisms	7	20	32	14	27
Hygiene standards are very high on British farms	17	35	40	7	2
British farmers are responding well to concerns about global warming	8	27	54	8	3
The standards of animal welfare on British farms need to be improved	16	34	33	13	4
Supermarkets should focus more on selling food produced by British farmers	60	32	10	2	1
Britain needs to be much more self-sufficient in food	56	32	10	3	0
British farmers have an important role in helping to feed a growing world population	38	33	16	10	3
British farmers can do more to help reduce the cost of food in the shops	13	26	27	23	11

Source: 2009 Oxford Farming Conference Research conducted by IGD[11]

The combination of strong support for farmers and poor knowledge of farming was particularly evident in the findings of a YouGov-Cambridge survey in 2012. Of those surveyed, 72% felt that they do not know much, or know nothing, about the sector: just 10% knew, to within 10 percentage points, the actual amount of land that is farmed nationally, with the mean estimation being about 35% (compared with the actual figure of 74%); the mean contribution of farming to the national economy was reckoned at an average of 24% (compared with the actual value of around 0.6%).[12] Other results of the YouGov-Cambridge survey confirm the profile of public opinion evident in the earlier Defra and OFC/IGD surveys (Figure 3).

Figure 3

Public attitudes to farming, UK, 2012

Question	Strongly agree or agree (%)	Neither agree or disagree (%)	Strongly disagree or disagree (%)	Don't know
'Farming is important for the UK economy as a whole'	85	7	2	5
'Farming is important for the economy in the local area where I live'	57	20	16	8
'The share of the UK economy based on farming will get significantly smaller over the next 10 years'	62	18	5	16
'Farming plays an important role in protecting the environment in the UK'	74	15	4	7

Source: Adapted from You-Gov & University of Cambridge[13]

However, although the above suggests strongly positive attitudes towards farming, these do not as yet appear to translate into interest in agriculture as a career. In a survey by CHILDWISE in 2011[14] of the career aspirations of 1,581 children aged 12-18 years, just 4%, included agriculture on the list of careers they might consider. The main reasons given for not considering agriculture as a career were lack of interest (64%), lack of knowledge (38%) and a belief that it would be repetitive and boring (26%). The main stated reasons for interest in agriculture (among the small group who would consider it as a career) related to interest in the role of science, working

with animals, independence, working outdoors and caring for the environment.[15]

Another survey by CHIILDWISE[16] in the same year investigated perceptions of food and farming among a sample of 2,603 children aged 7-15 years.

- *The results suggest a higher level of exposure to farming and the countryside than might be inferred from the level of interest in agriculture above: 80% of the 7-11s and 59% of the 11-15s said they had visited a farm in the last three years (36% of 7-11s' visits were with their school) and 71% of the whole cohort visited the countryside at least once a year, with 27% visiting once a week or more (but 19% of the 7-11s and 11% of the 11-15s said they never visit the countryside).*
- *Attitudes to farmers were generally positive: 7-11s described farmers as 'hard working' (78%), 'friendly' (65%), 'happy' (55%) and 'clever' (44%), but there were some negative minority views, including 'set in their ways' (24%), 'stressed' (19%), a 'bit thick' (14%) and 'grumpy' (14%). While 64% of 7-11s and 57% of 11-15s believed that farmers 'care for the countryside', only 32% of 11-15s recognised that farmers 'run a business'.*

As evidence of public support for farming has emerged, so has a renewed confidence among some in the farming industry. For example, in November 2011, RASE Chairman, Henry Cator, was reported as announcing that the "tide of public opinion has changed in favour of farmers. Now, farmers are seeing the future and just how valuable food production in terms of global food security is going to be".[17] NFU President, Peter Kendall, expresses a similar sentiment in his introduction to the NFU's campaigning document, 'Farming Delivers for Britain': "It is not so very long ago that farming was seen in some political and academic circles as an industry in terminal decline, which delivered nothing more for Britain than a series of animal disease crises". Kendall adds that now, "no serious politician or commentator any longer queries the value of an efficient, productive, environmentally-conscious British farming sector, in a global context of growing pressure on food supplies, resource depletion and climate change".[18]

Image supplied by kind permission of FAI Farms www.faifarms.co.uk

"Over the next few decades, the global food system will come under renewed pressure from the combined effects of seven fundamental factors: population growth, the nutrition transition, energy, land, water, labour and climate change. The combined effects will create constraints on food supply and if action is not taken, there is a real potential for demand growth to outstrip increases in global food production… Expectations of abundant and ever cheaper food could come under strain. The UK can no longer afford to take its food supply for granted."

Chatham House report on Food Futures, 2009 [19]

CHAPTER 4

Policy Changes

The new confidence expressed by Cator and Kendall arises from new and far-reaching challenges to the global food system and the belief that farming in the UK can address these challenges, especially global food security and climate change – issues that have become major drivers of public policy. The re-emergence of food security on the political agenda and the imperatives of climate change adaptation and mitigation are being seen by some in the farming industry as a mandate to concentrate on maximising food (and biofuel) production now and into the future.

Certainly, global food price volatility has revealed the UK's global interdependency. And, as access to scarce resources becomes an increasingly urgent concern for many countries, world trade structures will come under increased pressure. The UK is unlikely to escape this, as farming currently depends on a small number of critical inputs from the world market, notably soya-based animal feed and phosphate fertilisers.

Global food and energy security are urgent and important issues, but they alone cannot drive the future of agriculture in the UK. What is needed is a more complex and nuanced response. Efforts to secure food and energy supplies

need to take account both of these future challenges and of our post-war experience and knowledge of the profound environmental impacts of intensive agriculture. The food system of the future needs to be shaped more by society's present and future needs and values and less by individuals' consumer preferences or by political agenda.[20]

The Chatham House report offers one response to these imperatives, urging the creation of a new food system, based on stakeholder partnerships, that reconciles long-term resilience, sustainability and social benefits with competitive advantage and consumer needs. There are many other approaches. Leaving aside the feasibility of its detailed prescriptions, what is significant is that the Chatham House approach places society, rather than economics or politics, at the centre, and proposes a middle way between radical restructuring and adapting current arrangements. Understanding farming's value to and relationship with society is crucial to such a process.

Ultimately, farming and food in the UK will develop within the overarching framework of the CAP. Although it is often overlooked, the CAP is essentially a social policy. Its original aims included ensuring a fair standard of living for the farming community and providing consumers with food at reasonable prices. Of course, these social purposes are not always explicit in the largely economic instruments that have been used to support its objectives. But, in principle at least, the CAP supports a social agenda. The proposed 2014 reforms to the CAP (whilst far from acceptable to many in the UK farming industry for many reasons) continue to pay some attention to the social dimension of agriculture, with an emphasis, for example, on young farmers and small farmers, as well as a continued focus on environmental protection.

> **Food is the most direct link we have between culture and nature, city and farm folk… food is not simply fuel, but is in fact a natural, social, cultural and spiritual product.**
>
> Norman Wirzba, 2003 [21]

CHAPTER 5

Food

Everyone eats! And most people in the UK derive a substantial part of what they eat from UK farming. Providing food is the most immediate and important thing that farming does for society, and food provides the strongest link between society and farming. And, as shown previously, the majority of the public in the UK see food production as farming's main raison d'être (as do farmers themselves).

For farming, food production is the major component of its economic value. For consumers, food's first value is as a source of nutrition - UK farming provides the major part of the diet of the UK's population of 63.5 million people. However, people's engagement with food is complex and multifaceted, and food has meaning and value beyond the economic and nutritional.

The social, cultural and environmental significance of food is embedded especially in food provenance and in connections between producers and consumers. These are explored below. This is followed by a brief consideration of the economics of food production and of food security.

5.1 FOOD PROVENANCE AND FOOD CONNECTIONS

A growing number of consumers want to know where food comes from, how it is produced and how far it has travelled. Food consumption is increasingly becoming an expression of citizenship, and food is increasingly being 'sold with a story'.[22]

The issues driving 'food citizenship' or 'ethical consumption' relate to:

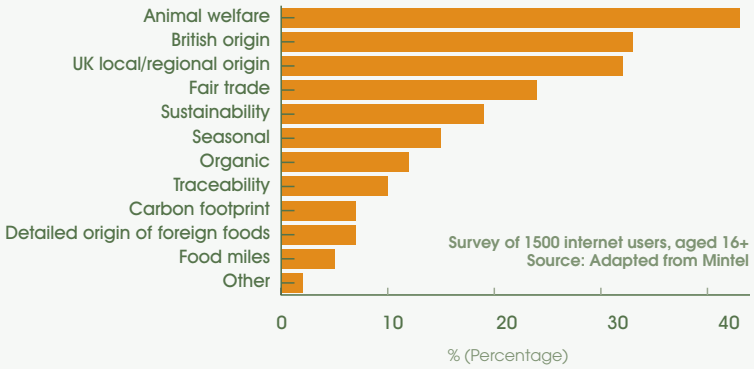
- *Personal responsibility, i.e. 'you are what you eat', hence, concerns about food safety and health (e.g. in relation to pathogens and pollution, 'personalised nutrition', functional and health foods, and food-related diseases such as obesity, cardio-vascular diseases and cancer).*
- *Social justice and human rights, including the imperative to feed a growing world population and concerns about impacts of production on working conditions, fair trade etc.*

- *Environmental responsibility, including the impacts of production practices on climate change, biodiversity, animal welfare, and the ethics of research (e.g. in animal breeding).*

Of these concerns, the welfare of farm animals is especially important in the UK: in the OFC/IGD 2009 research reported earlier, 50% of respondents felt farm animal welfare needs to be improved (Figure 2), while in a 2012 Mintel survey, 43% of people saw animal welfare as an important food issue (Figure 4). The value society places on animal welfare is also evident in the growth in consumption of free-range and freedom foods (e.g. Figure 5)[23], and in the regulations and legislation related to the care of farm animals.

Figure 4

Food related issues seen as important, UK, 2012



Geographical origins are also important, as revealed in preferences for national, home-produced, regional, and local foods.

- *The 2012 Mintel survey showed that origins of food are important to a significant minority: about one third saw British and local sourcing as important (Figure 4). In addition, nearly two thirds of consumers surveyed would like to see more local produce in their supermarkets and half believed that buying local supports the local economy – yet only about 20% are actively seeking out local produce.*[24]
- *A survey by Mintel in 2011 revealed that 76% believed buying British food supports British businesses, 59% preferred British food to imports because it is fresher, 53% believed buying British ensured higher farming standards and 38% considered it to be of better quality than imported food.*[25]
- *The 'Red Tractor' food assurance scheme, which guarantees British origins, now assures the products of 78,000 farms.*[26]

Figure 5

Spending on ethical food and drink, UK, 2000 – 2010

Item	2000	2009	2010		2000 - 2010	2009 - 2010
	£m	£m	£m	% total food & drink	% growth	% growth
Organic	605	1704	1527	1.61	152.40	-10.39
Fairtrade	33	749	1017	1.07	2981.82	35.78
Rainforest Alliance		1076	1198	1.26	N/A	11.34
Free range eggs	182	448	483	0.51	165.38	7.81
Free range poultry	44	174	174	0.18	295.45	0
Farmers' markets	142	220	220	0.23	54.93	0
Vegetarian products	479	549	541	0.57	12.94	-1.46
Freedom foods		122	127	0.13	N/A	4.1
Sustainable fish		178	207	0.22	N/A	16.29
Food and drink boycotts	587	1040	1084	1.14	84.67	4.23
Total	2072	6260	6578	6.92	217.47	5.08

Sources: Adapted from The Co-operative Group & Defra[27]

Expressed opinions do not, of course, necessarily translate into buying decisions, and there is usually a gap between what shoppers say and what they do. As Figure 5 shows, although there has been considerable growth in spending on 'ethical' food and drink,[28] it remains a very small proportion of the total. The market value of locally sourced food increased by 27% to £5.5 billion between 2006 and 2011, but it is still only about 4% of the overall food market. The growth has come primarily from the leading supermarkets making local sourcing part of their corporate responsibility agenda and seems set to continue[29] (a phenomenon which runs counter to the ideals held by some consumers concerned with food provenance – as shown over the page). Further, there are some indications that interest in food provenance tends to be higher among consumers in the AB socio-economic group and over 55 years of age.[30]

As well as satisfying individual preferences and ethical concerns, some consumers are looking for closer connections and more direct communication with producers and production. This is evidenced by the numbers, which have increased markedly in the last 15 years or so, of farmers' markets, farm shops, box schemes, pick-your-own, Community Supported Agriculture (CSAs) and Community Farm Land Trusts[31] (Figure 6).

Figure 6

Direct sales schemes, UK

Scheme	Number	Notes
Farmers' markets	850	Based on Lloyds Europa 2008 survey of farmers' markets in England, Scotland and Wales. These markets support 8,000 to 10,000 farmers/local food producers, and provide c 30,000 jobs.
Farm shops	4,000	From Retail Networks UK Ltd assessment. Farm shops support an estimated 50,000 jobs; many have a café attached.
Pick-your-own	600	Based on Lloyds Europa survey.
Commuity Supported Agriculture (CSAs)	80	Identified in Soil Association survey in England. Comprise at least 5,000 trading members, feed around 12,500 people a year, work over 1,300 ha of land, and have an annual turnover of £7 million (0.2% of total farm income for England).

Source: Adapted from Gareth Jones[32] & Soil Association[33]

These networks aim to build short supply chains, with closer and more 'authentic' relationships between producers and consumers than characterise the dominant 'long-chain' industrial food system. Especially, they seek to 'cut out the middle man', by short-circuiting the small number of processors and supermarkets that manage and control the relationships between production and consumption. Quality is an important theme, with organic, environmental and/or animal-welfare-focused production systems featuring strongly. At the core, however, are ideals of 'relationship' and 'reconnection'.

- *Encountering the people and places associated with food production is integral: fresh food sold in many farmers' markets, at least outside major cities, must come from no more than 30 – 50 miles distance,[34] and be sold by someone associated with its production and who is able to provide information on it; box schemes often include a regular farm walk or family event on the producing farms.*
- *Community Supported Agriculture is founded on an understanding of mutual support and has been defined as a "partnership between farmers and consumers where the responsibilities and rewards of farming are shared".*[35]
- *Community Farm Land Trusts take the concept a stage further, providing a mechanism for the ownership of land and property by a community. Their several aims have a common thread of building long-term connections between communities and farmland in meaningful, practical and productive ways, with many potential positive spin-offs.*[36]

5.2 FOOD PRODUCTION AND FOOD SECURITY

Food production from farms in the UK not only provides the major part of the nation's diet, it also provides essential inputs to food manufacturing, wholesale, retail, catering and export, and the market for the agricultural supply industry.

- *Production agriculture contributed £7.1 billion, 0.56%, to UK GVA*[37]*, while the agri-food sector as a whole contributed £86.2 billion, 6.9% of GVA (2010).*
- *Agriculture employed 1.67% of the UK workforce, but employment in the agri-food sector accounted for 13.69% of the workforce in 2011.*
- *In 2011, exports of food, feed and drink were 6.1% of total exports by value - although most of these were 'highly processed' (3.46%) or 'lightly processed' (2.08%), with just 0.56% 'unprocessed', (i.e. by implication directly from the farm).*
- *The agricultural supply industry contributed approximately 0.08% of GVA and employed 0.04% of the workforce.*[38]

In 2011, direct payments to farmers totalled £3.44 billion, of which 81% went through the single farm payment scheme and just over 14% through agri-environment schemes.[39] As well as benefits to the environment, it can be argued that without farm payments, the CAP would not have achieved its original objectives of stabilising markets, securing supplies and providing food at reasonable prices, over the last few decades. Nevertheless, farm subsidies have been a significant factor in the relationship between farming and society. Farm payments, however, need to be considered in the light of the economic and wider benefits of farming to society and in comparison to other components of public spending.

While food is a market good, the capacity to produce food into the future can be regarded as an important public good, the value of which is additional to food's market price. This capacity to go on producing food is part of 'food security'.

'Food security' implies "sustained access by all consumers to sufficient food that is affordable, safe, nutritious and appropriate for an active and healthy life".[40] Food security combines national food self-sufficiency with the wider imperative of securing a just and fair supply of food for all people.[41] Concern for food security is prompted by actual or anticipated constraints on supply, e.g. as indicated by rising food prices. Food prices have risen recently in the UK and globally, along with fuel cost increases and wider economic instability and insecurity, and food security has become a major national policy priority.[42]

The public also is concerned about both aspects of food security. For example, in the OFC/IGD 2009 research reported earlier, 88% of respondents agreed that Britain needs to be much more self-sufficient in food, and 71% agreed that British farmers have an important role in helping to feed a growing world population.

Food self-sufficiency (by value) in 2011 was 63% in all food and 78% in indigenous type food.[43] These proportions have increased over the last few years, but are appreciably lower than their most recent peak values of 78% and 95% respectively in 1984. Self-sufficiency ratios are, however, a poor indicator of the extent to which the UK is producing what it eats. They conceal considerable variation across sectors. It masks the UK's (and indeed the EU's) dependence on imported inputs of energy, fertiliser, feed and machinery. And, it can be argued anyway, that, as the UK is an EU member subject to the CAP, it is EU self-sufficiency that matters.

In terms of global food security, Defra states that "UK agriculture contributes to food security through its contribution to global supply, particularly in cereals".[44] However, overall UK food production has fallen in the last 20 years and the value of cereals and all other food imports except drink continues to exceed the value of exports.[45]

Quantifying the public-good value of food security is difficult. Some indication of the value of maintaining national agricultural production capacity is, however, provided by comparing the costs of agriculture with other components of public spending. It might be argued, for example, that spending on agriculture plays a similar strategic role to defence spending. In 2011, UK direct farm payments were £3.44 billion, while total public spending on agriculture, forestry, fishing and food was £5.2 billion. In the same year, the military defence budget was £33.0 billion, health and welfare cost £234.8 billion and total public spending was £689.2 billion.[46]

5.3 CONCLUSIONS

Key findings

Food production is farming's main value to society. Farming in the UK provides the major part of the diet of the country's 63.5 million population, and food production provides an essential basis for industries that together contribute nearly 7% of national GVA and employ nearly 14% of the workforce.

Farming is valued for its current food production and for ensuring future food supplies; in other words to contribute to food security. Although gauging the value of this is difficult, comparisons between spending on agriculture and other components of public spending suggest that the strategic value of maintaining a flourishing agricultural industry is secured at a relatively modest cost.

An important part of the value of food is delivered through its provenance. People value knowing where food comes from and how it is produced. Survey and market data reveal a particular concern for animal welfare and British/regional/local origins, which for a significant minority of people translates into their buying choices.

For some people, a direct relationship with producers is important, for example, via farm shops, farmers' markets and community supported agriculture, all of which have grown in the last 10 years. Although these represent only a small part of total food production or sales, they are indicative of a desire to reconnect with food production and the land.

Opportunities

Foods with provenance. Farming has responded to an extent to the opportunities offered by the appreciable growth of interest in foods with provenance, such as through farm assurance schemes. But there is potential for further development - to deliver more food 'with a story', and, especially, to do so through more direct producer-consumer relationships. The challenges for farming are to investigate the potential market through developing understanding of consumer values and motivations, to produce to standards that satisfy these values, to communicate commitment to standards, and to strengthen engagement with consumers. Downstream actors in the supply chain also need to recognise the opportunities and pass financial benefits from consumers back to producers.

Land is never simply physical dirt but is always physical dirt freighted with social meanings derived from historical experience.

Walter Breugemann, 1977 [47]

And I have felt a presence that disturbs me with the joy of elevated thoughts; a sense sublime of something far more deeply interfused … Therefore am I still a lover of the meadows and the woods, and mountains; and of all that we behold from this green earth.

William Wordsworth, 1789, Lines written a few miles above Tintern Abbey

CHAPTER 6

Land

If food is the first and foremost source of farming's value to society, land comes a close second. Farmland has economic value as a resource for production, and environmental value both intrinsically and via ecosystem services. But, like food, farmland is overlaid with social and cultural meanings well beyond the economic and environmental. These meanings are encapsulated by the ideas of landscape, nature and place and are explored below. Environmental value is then examined in terms of agriculture's changing environmental accounts. Finally, some aspects of farmland's economic value other than from food production are considered.

6.1 LANDSCAPE

Ask most people what farmland means and they will think first of landscapes. Landscape connotes visual enjoyment and aesthetic quality of land, but has deeper meanings, with complex historical associations and cultural significance. Landscape is not just pleasing scenery; it is also suggestive of common ownership, of 'national treasure', of something rooted in our past that must be passed on to future generations.

Further, landscape arises not only from the meanings we attach to land; it is also the outcome of how we use it. The UK's landscapes have been formed primarily by agriculture, and are valued as much for their agricultural artefacts[49] as for their natural content. Like farming itself, landscapes are both natural and human. And the balance is a delicate one. Landscape change was a major part of the critique of post-war

Some have taken Constable's paintings to be of a quintessential English rural idyll, an unchanging landscape where people are tied to place and land. I prefer to think of them as snapshots of an economic as well as a cultural landscape, geared mainly to producing food.

Jules Pretty, 2007 [48]

intensive agriculture, and although some of the change was simply the loss of the familiar,[50] much of the change could be traced to a diminishing of landscapes' natural components. The continuing landscape value of farmland depends, therefore, on farming's stewardship of landscape's natural and cultural assets.

Indicators of the value society assigns to farmland landscapes include:

- *Appreciation of the diversity and celebration of the regional and local distinctiveness of UK landscapes, for example as evidenced by the Landscape Character Areas of Northern Ireland (130 areas) and Wales (49 areas) and the National Character Areas of England (159 areas).*[51] *In Scotland 300 landscape character types are aggregated into 53 categories.*[52]
- *Historical development of 'landscape' and 'countryside' and their emergence as distinct categories. The ideas of landscape and countryside arose more than two centuries ago from an idealisation of rural land as a counterbalance to urban and industrial society. This was partly due to closeness to nature, but also arose from an elevation of agriculture, which was seen as more virtuous than industry and commerce.*[53]
- *Celebration of landscapes in art, literature and music. The late 18 c and 19 c saw a burgeoning of poets and artists who were inspired by and depicted the landscape in their writings and paintings, of whom Wordsworth and Constable are just the best known. For Thomas Hardy, landscape was essentially a farmed landscape and farming life played a major role in his writings. Edward Elgar's music is especially evocative of the farmland landscapes of Herefordshire and Worcestershire, where much of it was composed. For Frederick Delius also, landscape and nature were an especially important stimulus.*[54]
- *Conveying of special status and protection to some landscapes through designation as National Parks (9% UK land), and Areas of Outstanding Natural*

Beauty (8.5% UK land) or National Scenic Areas (4.2% UK Land).[55] *These designations have a core aim of safeguarding and enhancing the natural beauty of landscapes.*

- *The popularity of some landscapes as places for recreation and volunteering. For example, in 2010, England's National Parks accumulated 104.2 million visitor days and attracted spending of £2,202 million.*[56] *More widely, again in England, in 2011/12 the adult population made an estimated 1.42 billion visits to the countryside.*[57]
- *Membership and income of voluntary organisations concerned with practical conservation of the UK's landscapes or with campaigning and advocacy to preserve and enhance them. These include the National Trust (4 million members), National Trust for Scotland (308,000 members), the Royal Society for the Protection of Birds (1 million members), Campaign to Protect Rural England (60,000 members/ supporters), Campaign for the Protection of Rural Wales (1,500 members), and a host of regional, local and specialist organisations. The combined fundraised income of the first three of these was £181.5 million in 2008/09.*[58]
- *Results of economic valuation studies. Building on a series of economic valuations of farmland landscapes from the 1990s onwards, Defra estimated the total net value of UK agriculture's landscape amenity services as £517.3 million in 2008 (see Figure 10). However, as Defra points out, there are major gaps in the data for landscape benefits and this is likely to be an appreciable under-estimate.*[59]

6.2 NATURE

'Nature' is an aspect of landscape, but refers to the natural world apart from humanity. Farmland provides contexts to encounter nature, but, while farming is intrinsic to landscape, it may be incidental or even get in the way of nature. Even more than landscape, farmland's nature value depends on farming's stewardship of the land's natural assets. The value to society of nature may arise simply from aesthetic appreciation, but there is growing recognition that connecting to nature is essential to people's physical, mental and spiritual health and well-being.

Three key aspects of the nature value of farmland are explored below: farmland biodiversity, the amenity value of nature and the health benefits of farmland. Other aspects of farmland's nature value include its role in ecological education and the appreciation of rare and local breeds of farm animals. Encountering nature also has an important religious and spiritual dimension: "the feeling of 'wholeness' and 'healing' bestowed by contact with nature in the countryside is for many close to religious experience and is frequently expressed in religious language".[61]

"The need of quiet, the need of air, the need of exercise, the sight of sky and of things growing seem human needs, common to all men."

Octavia Hill, co-founder of the National Trust, 1895

"The natural environment provides plentiful opportunities… for aesthetic experience… intellectual challenge and reward… meaningful relationships with its denizens… opportunities to commune with the spiritual or divine, but only for those who possess the disposition to appreciate it in these ways"

Ronald Sandler,2005 [60]

Farmland biodiversity

Nature is important to people. An 'ecological conscience' has become embedded in contemporary society, at all levels, from public policy to popular environmentalism. According to the World Values Survey, 16% of the GB population in 2006 were members of an environmental organisation. [62] Environmental charities in general rank highly in terms of charitable giving in the UK - seventh in terms of fundraising income and fourth in terms of legacy income, after cancer, animals and general social welfare charities.[63]

Central to environmental concern is the conservation of biodiversity,[64] which in the UK is substantially farmland biodiversity. Evidence of the value to society of biodiversity includes the following:

- *Membership of nature conservation organisations. Most nature conservation organisations have seen marked growth in membership in the last few years, with at least 7% of the UK population a member of one or more of these.*[65]
- *Public attitude surveys, generally reveal high levels of concern for wildlife conservation (e.g. 80% of respondents to a Defra survey in 2009 agreed that they 'worry about the changes to the countryside in the UK and the loss of native plants and animals').*[66]
- *Biodiversity-related designations. Most important are Sites of Special Scientific Interest (SSSIs) (Areas of Special Scientific Interest (ASSIs) in Northern Ireland), designated for their outstanding wildlife habitats, species and geology. There are about 6,871 such sites in the UK, covering 9.9% of the UK land area. Many of them*

are on farmland.

- *Designation of specific species and habitats. The UK Biodiversity Action Plan (BAP) lists 65 habitats and 1,150 species that are conservation priorities under threat because of their rarity and rate of decline. Of the habitats, at least 11 are farmland types. Lowland semi-natural grassland habitats are among the most threatened and are home to 206 BAP species.[67] Upland grasslands contain 41 BAP species. Arable and improved grassland areas contain two BAP habitats, field margins and hedgerows, with 65 and 83 BAP species in the two habitats.[68]*
- *Results of economic valuation studies. Using the same methods as for farmland landscapes as above, Defra estimated the total net value of UK agriculture's biodiversity as £938.1 million in 2008 (see Figure 10). Again, as Defra point out, there are major gaps in the data for biodiversity benefits and this is likely to be an appreciable under-estimate.[69]*

Like landscape change, the loss of habitats and species from farmland has been a major factor in the critique of intensive farming. Some habitats and species have diminished considerably, most notably semi-natural grassland habitats.[70] For others, including species of birds, butterflies and bees, the decline has been slowed (though not necessarily stopped). Designations and agri-environment payments, and their associated management requirements, have played a role in this. As well as helping conserve biodiversity, recent research shows that the latter deliver appreciable wider local economic and social benefits, including generating off-farm income and employment in the local economy, increasing farmers' knowledge and transferable skills, and developing new social contacts and networks.[71]

Amenity value of nature

It is generally recognised that proximity to natural amenities is highly valued by local residents with access to them and this is reflected in property prices. Recent research analysed 1 million housing transactions in England between 1996 and 2008, using a series of regression models to extract the value due to proximity to natural amenities from other determinants of value (a technique known as 'hedonic pricing').[72]

Some of the results are shown in Figure 7. These show estimates of what people are willing to pay through one-off house prices for marginal increases in the specified natural amenities. The land-cover analysis was based on the UK Broad Habitats used within the UK NEA.[73] The farmland related categories are shaded in orange.

Figure 7

Estimated marginal willingness to pay (£) for access to nature, England, 2008

	All England	London, South East and West	Midlands, East Midlands and East	North, North West and Yorkshire
Distance to (implicit prices associated with a 1km increase in distance to the amenity, i.e. the lower the number, the higher the value of amenity):				
Coastline	-275	-56	-94	-348
Rivers	-1,751	-2,446	**-2,711**	-884
National Parks	**-461**	**-348**	-188	**-782**
Nature reserves	-143	-1,322	632	-402
NT properties	**-1,347**	**-3,596**	-212	**-1,117**
Land cover share in 1 km square (implicit prices for a 1% increase in the share of the specified land cover in the 1 km square containing the property, i.e. the higher the number, the higher the value of amenity):				
Marine and coastal	70	138	53	58
Freshwater, wetlands, floodplains	**768**	**1,332**	36	233
Mountains, moors and heathland	166	-155	-258	**832**
Semi-natural grassland	-27	6	-32	**-191**
Enclosed farmland	**113**	**123**	32	**71**
Coniferous woodland	227	**305**	307	-131
Broadleaved woodland	**377**	**495**	**412**	240
Sample size	1,013,125	476,846	341,527	194,752
Mean house price 2008 £	194,040	243,850	181,058	158,095

Values in bold are significant at p<0.01 and p<0.05; values in regular type at p<0.10 or at lower levels of significance.

Source: Adapted from Mourato *et al* [74]

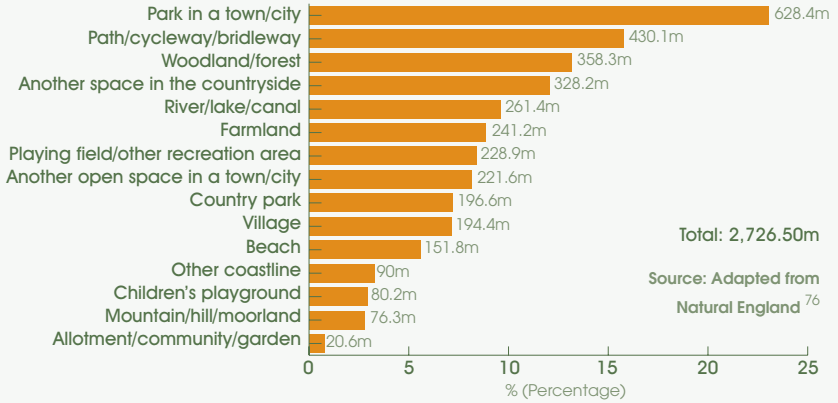
These results suggest that farmland is valued, but not as highly valued as freshwater or woodland, while proximity to rivers, National Parks, National Trust properties and nature reserves is particularly highly valued. The estimated values vary considerably among regions. The research also calculated a willingness to pay £2,000 per year (at a 3% discount rate) for the access to nature provided in the highest nature-value areas (i.e. Lake District, Northumberland, North York Moors, Pennines, Dartmoor and Exmoor).

More generally, farmland provides amenity access to nature for outdoor activities. In England, in 2011/12 the adult population made an estimated 2.73 billion visits to the natural environment: 1.42 billion (52%) to the countryside; the remaining 1.31 billion (48%) to urban green spaces, seaside coastline or seaside towns. An average of 42% of the adult population will have made a visit to one or more of these locations in the previous seven days. The most popular activities on visits to countryside destinations in England were walking with a dog (58%) and walking without a dog (24%).

These findings are based on a questionnaire survey in which respondents self-scored their visit destinations, first into the broad categories above, then into more specific categories. Scores for the latter are shown in Figure 8. It is not possible to establish very accurately the number of visits made to farmland. The minimum is the 0.24 billion (nearly 9% of the total) scored as farmland; the maximum is the 1.27 billion (46% of the total) indicated by assuming that 'countryside' means farmland, forestry and woodland and that visits are evenly distributed across the total area of these.[75]

Figure 8

Estimated volume of visits to natural amenities, England, 2011/12



The importance of farmland for exercise and recreation was vividly illustrated by the 2001 FMD outbreak, which revealed the extent to which it was used for amenity. Only when it was shut was the central role it plays in people's day-to-day lives appreciated.

There are around 900,000 horses owned by 451,000 people, and 3.5 million riders in the UK, with 1.6 million of these riding at least once a month. Much of this riding takes place across farmland. An estimated 470,000 people regularly shoot game in the UK; again this will be mostly on farmland (see Section 6.5).

Health benefits of farmland

There is growing scientific evidence that exposure to nature, especially if it is combined with exercise, can significantly improve physical and mental health and well-being, and address some of the most pressing health problems in Western society. Many of the latter arise from sedentary lifestyles, poor diets and obesity, and mental illness: the cost of these, in terms of NHS costs and wider effects on the economy in England, has been estimated at £10.8 billion, £4.2 billion and £105.2 billion respectively.[77] The negative effects of disconnection from nature are also increasingly recognised, especially among children - as evidenced, for example, by the idea of 'Nature Deficit Disorder'.

On the basis of scientific evidence accumulated over the last few years, researchers at the University of Essex[78] have classified the different levels of contact with nature and their benefits as follows:

- *Observing nature in paintings, photographs, or through the window of a house, car or train, has positive, measurable effects on mental and emotional well-being, and a series of mental and physiological indicators.*
- *Contact with nearby nature can reduce stress and improve mood and concentration. Even relatively short exposure can be effective.*
- *Green exercise. Exposure to nature combined with physical exercise has a greater effect than the sum of the two, improving psychological well-being, generating physical health benefits and facilitating social networking and connectivity.*
- *Green care is a specific therapy for vulnerable groups (e.g. psychiatric patients, people with learning difficulties, disaffected youth, and people in rehabilitation from substance abuse) in which exposure to nature is linked with various activities in a structured and facilitated programme. It includes: therapeutic horticulture, animal-assisted interventions, green exercise therapy, ecotherapy, wilderness therapy and care farming (see Section 7.3).*

A study of the relationship between instantaneous mood states and immediate environments in the UK using a "satellite geo-located, large-scale, smartphone-based Experience Sampling Method (Mappiness)"[79] concluded that people were happier outdoors than indoors, and that energetic outdoor activities had a particularly positive effect. Locations were specified as the UK Broad Habitats used on the UK National Ecosystem Assessment[80] - being in any of these habitats made people happier than being in urban locations (Figure 9).

Figure 9

Estimated subjective well-being in relation to location and activity, UK

Explanatory variable	Difference in explanatory variable	Associated difference in happiness response (% increase)
Walking, hiking	Not doing compared with doing this activity	**2.6**
Sports, running, exercise		**6.1**
Gardening, allotment		**2.5**
Birdwatching, nature watching		**2.9**
Outdoors	Being indoors compared with being outdoors	**1.4**
Marine and Coastal Margins	Being outdoors in 'continuous urban' land cover compared with being outdoors in the listed land cover type	**5.2**
Freshwater – Openwaters, Wetlands and Floodplains		1.7
Mountains, Moorlands and Heaths		**4.0**
Semi-natural Grasslands		**1.2**
Enclosed Farmland		**2.1**
Coniferous Woodland		**4.5**
Broad-leaved/ Mixed Woodland		**2.3**
Suburban/rural developed		**1.0**

Values in bold are significant at the P<0.001 or P<0.01 levels.

Source: Adapted from Pretty *et al* [81]

It is difficult to establish the extent to which farmland delivers or could deliver the health benefits described above. Figure 9 suggests all farmland habitat categories (shaded in orange) are preferable to urban locations, although they do not rate as highly as coniferous woodland or the seaside. Of the farmland habitats, the uplands make people happiest (this may reflect the feeling that they are perceived as more natural as well as the ease of access to the land, once at the location). However, instantaneous mood state is only one very specific indicator. Further research is needed to establish, for example, the extent to which farmland's health benefits are influenced by the perceived quality of farmland as a natural setting as against its accessibility.

6.3 PLACE

Farmland provides foci for people to develop a sense of place. Landscape and nature contribute to the formation of sense of place, but 'place' reaches deeper than both into human values and individual and community identity. Land as place is bounded, historical and particular; it is territory - the identification of particular tracts of land with the lives of specific people and communities.

Place, therefore, assigns another layer of value to farming, but one that is not readily articulated and even less amenable to valuation than landscape and nature. Central to the value of farmland as place is the way it contributes to national and local identities; these themes are explored below.

> **"Into my heart an air that kills, from yon far country blows: what are those blue remembered hills, what spires, what farms are those?"**
>
> A E Houseman, 1896, A Shropshire Lad

> **"People do form bonds with place… and territory is vitally important to people and may serve as an integral component of self-identity."**
>
> David Storey, 2001[82]

National identities

Land and landscapes play a central role in national identity in many countries. What is argued here is that: a sense of national identity is important to people in the UK, land provides a concrete focus for the abstract ideas of national identity, and much of the land that provides this

focus is farmland. Although land can be seen simply representing territorial claims, land plays a richer and more complex role in national identity, providing, for example, a nuanced object of patriotic devotion.[83]

The majority of UK citizens hold some patriotic ideals - at least sometimes. For example, the 2006 World Values Survey reported that 54% of people in GB were 'very proud of their nationality', and 38% were 'quite proud' (corresponding values for France were 30% and 58%, and for Germany were 22% and 51%);[84] while 2012, the year of writing, saw huge turnouts and television viewing figures for the Queen's Diamond Jubilee and the London Olympics.

Although most people in the UK live in towns and cities, the "defining senses of place appear to be built around typically rural landscapes."[85] "The landscape heritage of the UK has been used as visual evidence for a variety of national narratives, some working with a myth of a deep Albion, others with Celtic identity, Anglo-Saxon heritages and more."[86] As this suggests, the focus of these narratives varies among the four nations, but farmland plays a significant role in all of them.

The connection between national identity and farmland is especially true in England. The 'typically English' 'patchwork' landscape of fields and hedgerows epitomizes for many the quintessential character of England. "The English value the notion of 'deep England', with lowland agricultural landscapes symbolising continuity, social stability and a productive nature."[87] Art, literature, music, film and television provide vivid evidence of the role of farmland landscapes in shaping English identity.[88]

Local identities

Farmland is also important in creating or reflecting local identities. "Every rural area is different, with a unique package of attributes derived from its physical geography, landscape, natural flora and fauna and people's interaction with these factors over a very long period of time. In a world in which urban places appear increasingly homogenous, the distinctive characteristics and cultures of rural places are highly valued."[89]

People who have farmed or resided in an area across the generations can have intimate knowledge of their land and its memories, associations and artefacts - things that tell that particular community's story and provide a sense of rootedness and belonging (although such ties have been greatly weakened by increased mobility and population churn). Further, identification with place is not confined to local residents, but extends to a wider 'diaspora' - people with historical ties to a location or even regular visitors who, for a few days or weeks each year, make a place their own.[90]

6.4 AGRICULTURE'S ENVIRONMENTAL ACCOUNTS

Many of farming's benefits and costs arise from its relationship with, and effect on, the natural environment. An important dimension of the value of farmland arises, therefore, from the balance of farming's positive and negative environmental impacts. Drawing on a series of earlier studies,[91] Defra calculated and published a time series of environmental accounts for the years 2000 – 2008. Some of the results are shown in Figures 10 and 11. The values in these figures are derived from a mixture of methods for the economic valuation of public goods.[92]

Subtracting total costs from total benefits provides an indication of UK agriculture's net impact on the environment. According to these calculations, this has declined from a net cost of £613 million in 2000 to £210 million in 2008. This is the result of both an increase in benefits and a reduction in costs. These data suggest an overall reduction in agriculture's negative environmental impact. However, the results need to be treated with caution. The most significant increases in benefits arise from designated habitats (A/SSSIs). As Defra point out, there are major gaps in the data, especially for landscape and biodiversity benefits, which are almost certainly under-estimated. Several ecosystem services identified by the UK National Ecosystem Assessment are not represented, such as pollination, biological pest control, and genetic resources of wild plants and rare livestock breeds. In many cases, values are derived from a relatively small number of empirical studies; people's willingness to pay for landscape benefits, for example, can be very site-specific. And there are inherent questions regarding the validity of attempting to value public goods as if they were market goods (see Section 8.4).

Figure 10

Estimated value (£ million, 2000 prices) of environmental benefits from agriculture, UK, 2000 - 2008

Benefit	2000	2008
Semi-natural habitats	471.7	492.6
Linear features	25.3	24.7
Total landscape	497.0	517.3
Habitats (A/SSSIs)	308.5	442.9
Species	535.4	495.2
Total biodiversity	843.9	938.1
Waste sink	16.7	36.1
Total benefits	1 357.6	1 491.5

Source: Adapted from Defra [93]

Damage/cost	2000	2008
Estuarine water quality	3.6	2.9
Lake water quality	22.8	22.8
Marine water quality	2.4	1.6
River water quality	73.6	57.1
Total water quality	102.4	84.4
Water pollution incidents	1.7	0.4
Water abstraction	53.1	28.4
Drinking water clean-up costs	57.5	59.3
Flooding from agriculture	201.0	201.0
Total water	415.7	373.5
Waste	7.0	7.0
Soil erosion	9.1	9.1
Carbon dioxide emissions	71.8	60.5
Methane emissions	313.8	277.5
Nitrous oxide	458.6	383.3
Soil carbon accumulation (grassland)	- 110.7	- 110.6
Soil carbon loss (arable)	235.2	233.5
Total GHG	968.7	844.2
Ammonia	407.1	377.4
Other air emissions	163.2	90.4
Total air quality	570.3	467.8
Total damages	1 970.8	1 701.6

Source: Adapted from Defra [94]

Figure 11

Estimated value (£ million, 2000 prices) of environmental damage/costs from agriculture, UK, 2000 - 2008

6.5 FARMLAND AS RESOURCE AND PROPERTY

Farmland provides the essential resource for producing goods and services. In addition to food, farmland supports the generation of revenues from recreational services, such as countryside tourism, shooting and riding.

- *Tourism direct GVA in the UK was £44.6 billion in 2009.[95] About 17% of total tourism spending is spent in the countryside.[96] Applying this proportion to total GVA provides a very approximate estimate of £7.5 billion GVA (c 0.6% UK GVA) from countryside tourism.*
- *Riding. According to the British Horse Industry Confederation (BHIC), there are an estimated 900,000 privately owned horses, owned by 451,000 people, and 3.5 million riders in the UK, with 1.6 million of these riding at least once a month. Estimated gross output of the equestrian sector is valued at £3.8 billion per year. The BHIC does not report GVA, but applying a similar GVA to Gross Output ratio to that of agriculture gives a GVA of £1.2 billion (c 0.1% UK GVA). The equestrian sector employs about 48,000 Full Time Employees (FTE). Most of the business and jobs are rural-based, and most of the horses are kept and ridden on enclosed farmland, with about 500,000 ha dedicated to maintaining and producing horses.[97]*
- *Shooting. A detailed study[98] of shooting in the rural economy, conducted in 2004, estimated that 480,000 people regularly shot game in the UK, contributing £1.6 billion to UK GVA (c 0.13% UK GVA), supporting a total of around 70,000 FTE paid jobs (c 0.27% of the UK workforce) and killing more than 24 million birds and mammals per year, more than three-quarters of which enter the food chain. Much of this shooting took place on farmland.[99]*

Farmland is also property, a source of wealth and a tradable asset, with a 'value' indicated by the price it commands in the market.[100] The price of farmland is not solely related to the income it can generate, but incorporates other dimensions, for example, of investment and status: land is an attractive investment and, for the last three centuries, "most people who have made any serious money have tended to obtain a country property."[101]

6.6 CONCLUSIONS

Key findings

As a resource, farmland provides the basis of food production. It also supports other businesses, including tourism, riding and shooting – these together contribute very approximately 0.8% to UK GVA and play important roles in rural economies and communities.

Farming has both positive and negative impacts on the natural

environment. Its negative effects were a major factor in the post-war critique of intensive agriculture. Farming's negative environmental impact has decreased over the last decade, but it still imposes a net cost on the environment, and there are further improvements to be made.

Farmland's social and cultural value is expressed through landscape, nature and place.

- *Landscape. Society highly values the UK's diverse and distinctive landscapes, and their historical and cultural associations. These landscapes have been formed mostly by farming and are appreciated for both their natural and agricultural content - but the balance is a fine one, and the continued delivery of landscape value depends on stewardship of both the natural and cultural components of farmland.*
- *Nature. Farmland provides contexts to connect with nature. Farmland biodiversity is highly valued, and like landscape, its continued delivery depends on stewardship of the natural components of farmland. As a natural amenity, farmland attracts somewhere between 3.7% and 19.5% of the population for a recreational visit every week and increases the value of nearby property. The present role of farmland in delivering the therapeutic benefits of nature is not yet clear, but there is future potential (further in the report).*
- *Place. As place, farmland contributes to national and local identities. The importance of farmland to national identity is revealed in art, literature, music and the senses of place embedded in national cultures. Farming shapes local identities through distinctive landscapes and artefacts, and through its continuity and memories.*

Opportunities

Biodiversity is integral to the value to society of farmland, and biodiversity loss has been a major influence on public attitudes toward farming. Although much has been lost irrevocably, there has been progress in the last decade or so in halting further losses on many farms. This has been helped by a series of environmental stewardship schemes, which, as recent research shows, not only help to preserve biodiversity, but also generate wider local economic and social benefits. This combination of the high societal value of biodiversity and the wider benefits of stewardship schemes suggests that there is considerable scope for farmers and government to work together further to enhance farmland biodiversity.

Health. The growing body of evidence of the physical and mental health benefits of exposure to nature and 'green exercise' shows that there is considerable potential for farming to help address major public health issues, including obesity and mental illness. The UK's health budget is nearly 10% of GDP, government is very aware of the potential savings from increasing outdoor exercise, and there have been numerous schemes to persuade people to address these issues. Farmers and government need to work together to address the key issues of access and uptake:

- *The majority of people in the UK (c 78%) live in urban areas. Distance prohibits ready access to farmland, while unfamiliarity may result in lack of interest. Although these can gain some benefit from viewing farmland in pictures, films or TV, or from cars and trains, the challenge is to find ways to increase both motivation and accessibility.*
- *Access in many farming areas depends on the extent and the condition of rights of way. Both may need attention. As local authority budgets are increasingly stretched keeping footpaths clear may be a lower priority. New rights of way may need to be created and the condition of existing ones maintained. Issues of landowners' reluctance to provide permissive access due to worries about being able to stop it once people became used to that access, concerns about dogs worrying livestock or wildlife, and the problems of access on the urban fringe need to be revisited and addressed.*
- *Research is needed to establish why much of the public do not take up the opportunities offered by farmland, and to assess potential savings to the public purse.*

Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, and they are tied to their country and wedded to its liberty and interests by the most lasting bonds.

Thomas Jefferson, 1785 [102]

CHAPTER 7

PEOPLE

As we have seen above, farming delivers value through food and land. But farming is not just about land and food. At the heart of farming there are farmers and farms - a farming community. Food and land deliver value without the need for any direct encounter with farms or farmers, but encounters with farming people can add value to land and food (as we saw with food connections), and provide value over and above food and land - although far fewer people experience or appropriate this value. The value due to farming people relates especially to their role in shaping landscapes and rural communities, the public's engagement with farming and farming's therapeutic potential.

7.1 WORKING LAND, LIVING LANDSCAPES

As we saw above, landscapes have been created by centuries of farming and continue to be shaped by active connections between people and land. Nature, while defined as apart from the human, is both influenced and interpreted by people. Sense of place is constructed out of both land and people components.

The people element of farmland is not incidental, but integral to the whole. Farmland landscapes are both places to encounter nature and culture, and places of work. The idea and appreciation of worked and working landscapes, of 'living landscapes', with communities intimately linked to the land and developing and changing together, is central to the identity and value to society of UK farming.

And these communities are as diverse as the landscape. Behind Britain's 'patchwork landscape' are a 'patchwork people', a community and culture of different families tied to land and place. While other industries have become dominated by a few, large, global corporations, family farms have resisted this trend, making agriculture increasingly a distinctive

For the British, rural land is both 'wilderness' and 'workplace' - a working (and not merely scenic) countryside is important to the British imagination.

Norman Wirzba, 2007 [103]

social form of economic activity. This has produced diversity and idiosyncrasy. Arguably, it is this heterogeneity within an increasingly homogenised world that sets farming apart from other economic activities. And arguably, it is also a factor in counter-urbanisation and what makes it attractive to connect with farming through farm shops, farmers markets etc and through virtual farming and open farms.

Farming, then, has shaped the land, and shaped rural communities, and farming people can still play a significant role in the life of some local communities. But in many areas their role has diminished as the numbers working in agriculture have declined and the commuter population has increased - a symptom not only of counter-urbanisation and tourism (forces from outside farming), but also enlargement of farm sizes (a force from within it) and the reduction in farm employment through technology. However, the scale and extent of the retreat of farmers from their traditionally prominent position in rural life varies between different areas.

While the overall trend has been towards a weakening of the ties between farming people and local communities, it would be a mistake not to recognise the continuing importance of farmers in a number of respects. In commuter areas they may be notable by the fact that they actually work, as well as live, within the rural locality; their role in managing the landscape is highly visible; and many have lived within their locality for a long period, often all their lives, making them repositories of local knowledge. As a result, farmers, therefore, may have a greater social visibility than warranted by their numbers alone. Indeed, farmers can symbolise the virtues of continuity and connectedness within communities to which newcomers to rural areas may aspire.

7.2 PUBLIC ENGAGEMENT WITH FARMING

Virtual farming

Farming has a place in people's imagination - for many an important place. This is evidenced for example, by the popularity of radio and TV programmes that provide virtual encounters with farming and farming people, real or fictional. Examples include the following:

- *BBC Radio 4's 'The Archers' has been running for 62 years - the world's longest running radio soap and the world's longest running soap opera in any format, and the most listened to Radio 4 non-news programme, attracting around 4.85 million average weekly listeners.*[104]
- *BBC's Countryfile is a magazine-style television programme, reporting on rural and environmental issues mainly within the UK. It has been running since 1988 (replacing the long-running programme 'Farming', which started in the 1960s). It attracts an average of 7.2 million viewers. Although Countryfile's breadth of interest is much wider than farming, farming stories and issues form a regular, central and most watched part of the programme.*[105]
- *Farming nostalgia BBC documentaries 'Victorian Farm', 'Edwardian Farm' and 'Wartime Farm' have attracted large audiences. Victorian Farm (2009) consistently attracted audiences in excess of 5.2 million. Audiences for Edwardian Farm (2010-11) averaged 3.8 million per episode. Wartime Farm (WW2) was first broadcast in September 2012, and is still running at time of writing.*[106]

Open farms

Opening farms to the public provides real encounters with farming. Open farms both bring people closer to food production and farmland, but almost always involve encounters and connection with farming people, who both interpret the food and land dimensions and provide a 'whole-farm experience'.

- *Open Farm Sunday is an annual open day started in 2006 by LEAF (Linking Environment and Farming). In 2012, 335 farms opened to 150,000 people, a 25% increase in visitors from 2011. Most visitors reported a better understanding of farmers' roles in producing food after their visits, while nearly 80% of farmers reported that the day offered a host of business opportunities and improved links with local communities. Many expressed a feeling that the events helped "improve the image of the industry."*[107] *(What is not reported is whether or not the events helped farmers better to understand the public.)*
- *Visits by schoolchildren to farms have increased in recent years. As reported above, an estimated 36% of primary aged children visited a farm with their school in the three years up to 2011. There are several organisations that facilitate these, including Farming and Countryside Education (FACE) and Farms for Schools.*
- *'Let Nature Feed your Senses' (LNFYS) connects disengaged groups and individuals with nature and the countryside through food and farming. Since the project began in 2009, some 11,800 people have been able to visit farms and nature reserves, most of whom had no opportunity to do so previously.*[108]

7.3 FARMING AS THERAPY

Let Nature Feed your Senses

'Let Nature Feed your Senses' (LNFYS)[109] is an example of the therapeutic value of farming. LNFYS is targeted specifically at people of all ages with a disability or who live in an area of high social deprivation, people aged 65 or over, and school children unable to access farm visits. Across England, over 75 farmers and nature-reserve managers host LNFYS visits.[110]

Recent research, using a combination of questionnaires and interviews, demonstrated a range of positive impacts of participating in LNFYS events, including improved mental and physical health, more confidence in accessing the natural environment, and a better understanding of the link between the natural environment and their everyday lives.[111]

Care farming

Care farming is "the therapeutic use of farming practices,"[112] aimed especially at vulnerable and disengaged people.[113] It uses normal farming activities and the farm environment to promote individual health and well-being. Care farming involves sustained encounters with farming people, land and production, and represents, perhaps, the quintessential experience of farming's total value. It has grown remarkably in the last 10 years, and although at present it does not engage large numbers of people, for those involved, it is life changing. Care farming is a poignant symbol of just what farming can do for society, in a total sense.

Most care farming projects are partnerships with health and social care providers, and payments from national health or private schemes provide farmers with an additional income stream. However, most UK care farmers are not motivated by financial gain, but by a desire to help people and meet needs, and care farming should not be regarded as a form of diversification or pluriactivity.[114] An important part of the care farming experience is contact with livestock,[115] and in contrast to most commercial livestock enterprises a wide variety of animal species is often present on care farms. In July 2010 there were 130 practising and 90 prospective care

farms in the UK; by February 2012, there were 189 and 206 respectively. Assuming an average of about five places per farm; then there could be around a 1,000 people currently attending a care farm in the UK.

Care farming provides a range of well-evidenced benefits to users (Figure 12). As with LNFYS, the most vivid evidence of the impacts of care farming comes from the testimonies of users themselves, many of which are available as YouTube clips.[116] Although less noticed or researched, care farming also impacts farmers and their families.

Figure 12

Some benefits of attending a care farm

Physical health	Mental health	Social
More physical strength	Increase in self-esteem	Better social interaction
Better appetite	Increase in self-respect	More social contacts
Development of skills	Enthusiasm	More social skills
Better use of energy	Increase in self-awareness	More independence
Better use of senses	Increase in responsibility	Employment

Source: Adapted from Elings & Hassink[117]

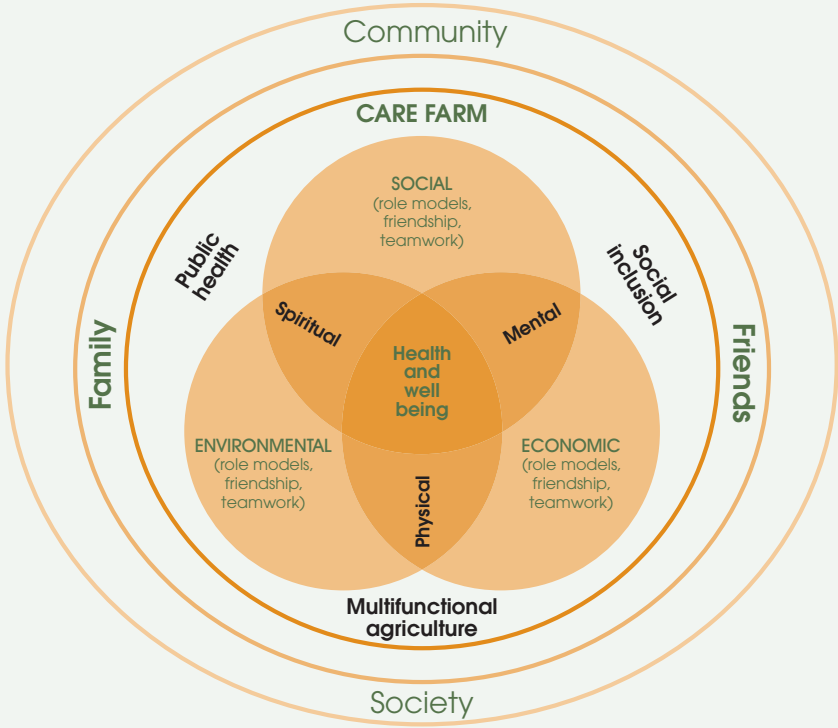
Image supplied by kind permission of FAI Farms www.faifarms.co.uk

Care farming meets a range of current needs. For care farmers, it is a focus for two vocations - care for the land and care for people. For users, it provides a way to regain self-worth and re-integrate in society. For society it addresses issues of public health, social care and social inclusion. A depiction of the sources of care farming's value appears in Figure 13.

The diversity and complexity of care farming's benefits means

Figure 13

A holistic interpretation of sources of care farm value



Source: Reproduced from Leck[118]

that quantifying and financially valuing them is difficult. To address this, researchers at the University of Worcester conducted a Social Return on Investment (SROI) analysis to evaluate the benefits of a particular care farm project in Herefordshire.[119] On this basis, they concluded that for every £1 invested in the project, £4 of social value is created in return.

7.4 CONCLUSIONS

Key findings

Farming people add another layer to farming's value, but one that often goes unrecognised. Farming communities have shaped landscapes, habitats, places and communities over the centuries, and continue to do so. Despite intensification and consolidation, the farming industry is still characterised by distinctive families and communities tied to land and place. Even though their numbers have declined markedly, farmers remain a significant influence on rural life in many areas, and, we would argue, a factor in the attractions of rural areas to others.

The value society places on farming people is revealed, for example, in the popularity of farming themed television and radio programmes and in the growing numbers of people visiting open farms, notable on Open Farm Sunday. The LNFYS project and, especially, the recent growth and experience of care farming point to the considerable therapeutic potential of 'whole farm experiences'.

Opportunities

Open farms. There is potential for much greater engagement between farmers and the public through visits to open farms. For example, although participation in Open Farm Sunday has grown markedly, the number of farms involved is just 0.15% of the total number of agricultural holdings in the UK and 0.8% of the total number of holdings of over 100 ha.

Farming therapy. The emerging evidence of the therapeutic value of farming indicates the considerable potential for farming to help address urgent issues of social inclusion and the care of disengaged and vulnerable people - via both structured day visits and, most notably, care farming. The magnitude of the need and extent of the potential benefits, combined with the still very small participation in farming therapy, suggests that the 'market' is well below saturation. There is, therefore, an opportunity for farming industry, government (including Defra and Department of Health) and local authorities to work together to identify opportunities and barriers and develop a strategy for greater realisation of the therapeutic value of farming.

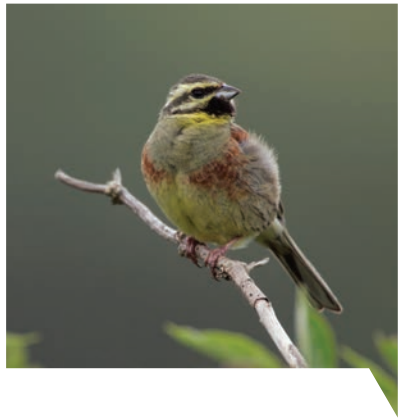


Image supplied by kind permission of RSPB
www.rspb.org.uk

CHAPTER 8

VALUES

Values are not the same as value. Value implies worth. Values are the principles that underpin people's attitudes, motivations, decisions and actions. They determine economic behaviour, but reach well beyond the merely economic. Four different approaches to values are described and applied to farming below.

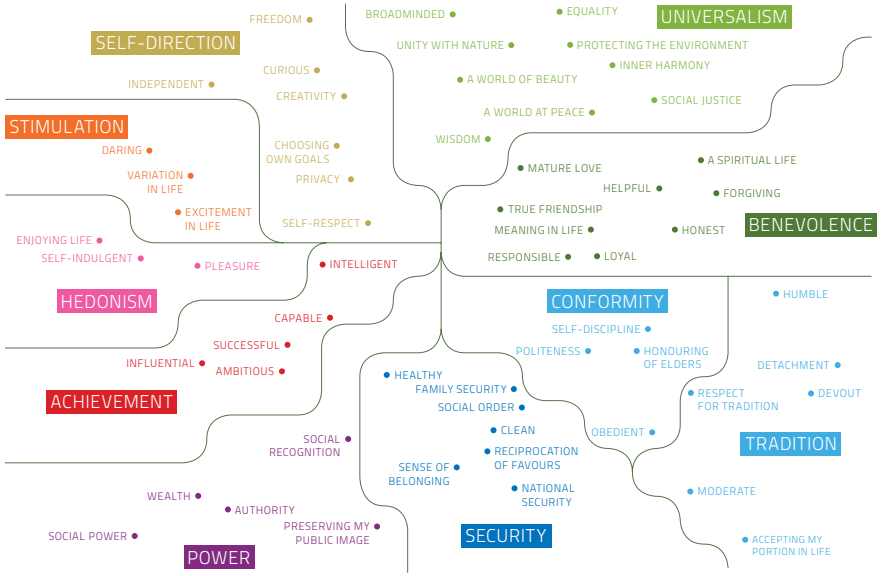
8.1 UNIVERSAL HUMAN VALUES

Social psychologists have drawn on hundreds of cross-cultural studies over several decades to identify a number of consistently occurring human values. These can be mapped into groups, such that a person who prioritises one value is very likely to prioritise one close to it, but much less likely to prioritise one that is further away. Further, the groups could be classified according to whether the values within them are self-interested or altruistic and open or closed to change. The values and groups are shown in Figure 14.

Image supplied by kind permission of Ian Piggot
www.thralesend.co.uk

Figure 14

Recurring human values and value groups



Source: Reproduced from Holmes *et al*[120]

As a 'thought experiment' (there is no claim that this is a scientific analysis), Figure 15 shows how farming might satisfy these different values in wider society, suggesting that as well as providing products, security and leisure, farming has the potential to address values related to protecting nature, community and tradition – delivering these is variously dependent on environmental stewardship and high standards of animal welfare, public engagement and access, and maintenance of traditional practices. Not only are some values more satisfied by farming than others, because values are clustered (Figure 14), some people will attach more value to some aspects of farming than others.

Figure 15

Descriptions of value groups and farming's potential contribution to satisfying values

Value	Description of value	How farming might satisfy the value in wider society
Universalism	Understanding, appreciation, tolerance and protection for the welfare of all people and nature	Protecting the environment; unity with nature; a world of beauty; *community cohesion*
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact	
Tradition	Respect, commitment and acceptance of the customs and ideas that traditional culture or religion provide the self	Respect for tradition; *preservation of symbolic landscapes, cultural heritage and distinctive customs; sense of place; community continuity; national identity*
Conformity	Restraint of actions, inclinations and impulses likely to upset or harm others and violate social expectations or norms	
Security	Safety, harmony and stability of society, or relationships, and of self	Health; social order; sense of belonging; clean *air and water*; national security; *food security; energy security*
Power	Social status and prestige, control or dominance over people and resources	*Food and energy security (in face of global threats)*
Achievement	Personal success through demonstrating competence according to social standards	
Hedonism	Pleasure and sensuous gratification for oneself	*Products and services to consume; food, local food, gourmet food*
Stimulation	Excitement, novelty and challenge in life	*Green exercise, outdoor recreation, extreme sport*
Self-direction	Independent thought and action – choosing, creating, exploring	

Orange shading indicates a general effect of farming. Items in regular type in the right-hand column are extracted from Figure 14; italics are additions.

8.2 FUNDAMENTAL HUMAN NEEDS

Economist Manfred Max Neef saw values in terms of needs. Beyond the need for subsistence, human beings have a relatively small number of fundamental needs that make for a 'good life'. He identified nine basic values that, he argued, are widely accepted to be fundamental to our understanding of what it means to be human, and four ways or contexts within which these can be satisfied. He called the result the Human-Scale Development Matrix.[121]

Again, as a 'thought experiment', Figure 16 presents a version of the matrix annotated to show how farming might satisfy the 36 needs in wider society. It highlights farming's main role as meeting subsistence and protection needs (i.e. through food production and food security). Beyond that, farming may satisfy needs related to relationships among people and with nature, education, leisure and identity – but, again, this depends to a great extent on access to farms and farmland, farming engaging with the public, stewardship of the natural environment, and the maintenance of traditional forms of farming and of farming's role in the wider community.

Figure 16

The Human-Scale Development Matrix applied to farming

	Existence needs (contexts)			
Value needs	Being (qualities)	Having (things)	Doing (actions)	Interacting (settings)
Subsistence	1/ **Physical health, mental health**, sense of humour, adaptability	2/ **Food**, shelter, work, ***fibre, fuel, energy, water***	3/ Feed, procreate, rest, work, **take exercise**	4/ **Living environments, social settings**
Protection	5/ Care, adaptability, autonomy, solidarity	6/ Insurance systems, savings, social security, health systems, work rights, family, ***food security, climate change amelioration, water & air quality***	7/ Co-operate, prevent, plan, take care of, cure, help	8/ Living space, dwelling, social environment
Affection	9/ Self-esteem, respect,tolerance, passion, determination.	10/ Friendships, family, partnerships, **relations with nature**	11/ Caress, express emotions, take care of, cultivate, appreciate	12/ Private spaces, intimacy, home, spaces of togetherness
Understanding	13/ Critical conscience, receptiveness, curiosity, discipline, intuition, rationality	14/ Literature, teachers, method, education policies, communication policies, **environmental education**	15/ Investigate, **study**, experiment, **educate**, analyse, meditate	16/ Settings of formative interaction, schools, universities, groups, gardens, **natural habitats,** ***open farms***
Participation	17/ Adaptation, receptiveness, solidarity, willingness, determination, respect, etc	18/ Rights, responsibilities, duties, privileges, work	19/ **Affiliate, co-operate,** propose, share, dissent, obey, interact, express opinions	20/ Parties, churches, **communities,** neighbourhoods, parks, **greenspaces, natural habitats**

	Existence needs (contexts)			
Value needs	Being (qualities)	Having (things)	Doing (actions)	Interacting (settings)
Leisure	21/ Curiosity, receptiveness, imagination, recklessness, tranquility	22/ Games, spectacles, clubs, **holidays**	23/ Daydream, remember, **relax, connect, have fun, play**	24/ Privacy, time, intimate spaces, **surroundings, landscapes**
Creativity	25/ Passion, determination, imagination, boldness, rationality, inventiveness, curiosity	26/ Abilities, skills, method, work	27/ Work, invent, build, design, compose, interpret	28/ Productive and feedback settings, cultural groups, spaces for expression, temporal freedom.
Identity	29/ Self-esteem, sense of belonging, consistency, differentiation, assertiveness	30/ Symbols, language, religion, habits, **customs, reference groups, values, norms, historical memory**, work, ***regional foods & food customs, cultural landscapes & farming practices, local livestock breeds***	31/ Commit oneself, integrate, confront, decide, recognise oneself, grow	32/ Social rhythms, **natural rhythms**, everyday settings, maturation stages
Freedom	33/ Autonomy, self-esteem, determination, passion, assertiveness, boldness, rebelliousness, tolerance	34/ Equal rights	35/ Dissent, choose, run risks, develop awareness, commit oneself, disobey	36/ Temporal and spatial plasticity-offering multiple opportunities and meanings

A general effect of farming is shown by orange shading; effects on the categories in the original table are in bold; added items specific to farming are in bold italics.

Source: Adapted from Church *et al*[122]

8.3 RELATIONSHIPS

Good relationships make a good society. Therefore, things that are characterised by, or promote, good relationships are valuable to society. The Relationships Foundation[123] in Cambridge has developed 'relational analysis' as a tool for informing public policy. Using their approach, Figure 17 presents a tentative relational analysis of farming. The final column combines ways in which farming might promote wider social relationships and things that make for good relationships between farming and society. Again, these emphasise that delivering these values depends on farming engaging effectively with the public. Good farming-society relationships also enhance the value of other farming benefits (i.e. we generally value qualities in our friends more than the same qualities in strangers or enemies!).

Figure 17

Relational domains, promoters, outcomes and relevance to farming

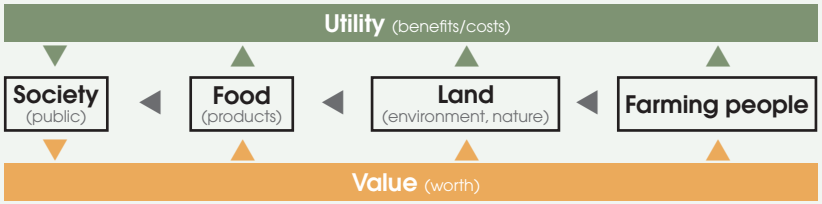
Relational domain	Promoters of good relationships/ relational proximity	Outcomes of good relationships/relational proximity	Farming relevance
Communication	Directness, reducing the extent to which presence is mediated or filtered	Connectedness and clarity, making for completeness of communication	Local food, direct sales, farm visits, open farms, and access improve communication
Time	Continuity, managing the gaps between interactions	Meaning and belonging, resulting in momentum and growth	Farming can promote community continuity, and hence local and regional belonging and sense of place
Information	Multiplexity, improving the breadth and quality of information	Being known and mutual understanding, enabling situations to be read and needs addressed	Food labelling, bespoke marketing, own branding, explaining land-use changes, and new enterprises strengthen mutual understanding
Power	Parity, the fair use of power	Mutual respect, promoting participation and investment	Farming eschews 'us-and-them' confrontation with public and espouses constructive engagement - promotes mutual respect
Purpose	Commonality, building a shared purpose	Unity, resulting in motivation and synergy	Shared goals and agenda, like food security and environmental stewardship, promote synergy and unity

8.4 ETHICS

'Ethics' refers both to principles of right and wrong and to the study of these principles. Most of the discussion so far has been constructed around the idea that the value of farming depends on the extent to which it delivers what society wants. Even meeting needs or satisfying values can be thought of this way. This reflects a 'utilitarian' ethic - 'the greatest happiness for the greatest number' – and is illustrated in Figure 18. Utilitarianism is the standard moral argument used by governments in the Western world; it undergirds economics and is the basis of most of the ways we have assessed value here.

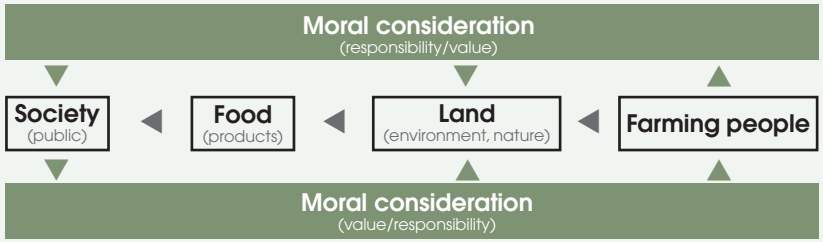
The problem with utilitarianism is that it frames people as essentially self-centred ('utility maximising' in economics language), and reduces the human experience to a game of pleasure and pain. Simply adding up all the pleasure and pain (i.e. benefits and costs) fails fully to protect the moral welfare of particular individuals, minority groups and non-human and non-sentient life. Utilitarian economics cannot fully describe or determine the human condition. Human beings are not just economic beings (i.e. consumers), but also social (e.g. citizens), ecological, moral and spiritual beings.

Figure 18
Utilitarian account of the relationship between farming and society



There are alternatives to utilitarianism, based, for example, on the value of things 'in themselves' (intrinsic value), rights and duties, ideas about what makes a good person, a good life and a good society, and responsibility to God. Most of us instinctively use many of these in everyday life. These approaches put farming, society and land/nature/environment in a shared 'moral space', characterised by consideration and responsibility, stewardship and service (Figure 19). The value of farming depends not on 'delivery', but, for example, on the intrinsic value of nature and of every individual person, the significance of people in places and communities, what best serves the common good, and the duties and rights of farming and society within the 'social contract'.[124]

Figure 19
Alternative ethical accounts of the relationship between farming and society



Several of these themes reflect the Christian roots of the values of UK society. The simple imperative to 'love God and neighbour' will be familiar. Biblical principles for land and farming may be less well known. In the biblical economy, land is neither just individual private property nor just a common possession, but an inheritance and a gift, ultimately from God, to be received with gratitude, farmed in accordance with principles of sharing, caring and restraint (which are especially focused in Sabbath and Jubilee), and passed on in 'good heart'. For farmers, these principles find expression, for example, in the familiar virtues of husbandry and stewardship. For wider society, they mean that farmers are both worthy of honour and accountable - as keepers of the land and its produce, which are given to all.[125]

More specifically, these alternative ways of thinking have implications for the way we value public goods. Public goods are not only non-market goods; they are often also objects of ethical concern (i.e. issues of right and wrong) and aspects of the common good (because they enrich society, aside from any benefit to individuals).[126] Public goods are a matter of public debate and should be valued using methods that treat people as citizens rather than consumers. For public goods, the 'forum' is preferable to the 'market place'. However, although there has been some progress in applying participatory and deliberative[127] methods, nearly all the public goods valuation evidence associated with farming, land and environment is from economic valuation studies. This means, for example, that the data on environmental impacts reported in Section 6.4 need to be treated with caution.

Using participation or deliberation to determine value is an example of 'ethical procedure', which, in simple terms, proposes that a decision is 'right' if it is made in the 'right' way. The right way means using agreed principles, which may include participation, fairness, impartiality, consent, and free choice. Ethical procedure usually involves creating an interactive dialogue among all interests, working back and forth until a just equilibrium is reached. Ethical procedure offers a way of advancing in the face of differing beliefs and values and of resolving complex issues.

8.5 CONCLUSIONS

Key findings

Farming is valuable because it satisfies or could satisfy values. Although some of these relate to basic needs of subsistence, provision, protection and security, farming can also satisfy values related to relationships among people and with nature, tradition, identity, education and leisure. These reflect many of the social and cultural benefits of farming identified earlier. Satisfying them depends on public access to farms and farmland, strong connections between farming and wider society, and stewardship of the natural and cultural environment.

Consideration of ethics broadens our horizons and urges us to transcend the language of delivery, costs and benefits and place farming and society in a relationship of mutual consideration and responsibility, stewardship and service. Ethical perspectives provide an important critique of how we value farming's public goods, how we make decisions in contexts of differing beliefs and values, and how farming engages with the public.

Opportunities

Values and ethics. There is potential for farming and policy to engage more specifically with values and embed ethics more explicitly in farming practice and policy. Explicit values and ethics frameworks, as exemplified here, could be used to inform the development of policies to secure social goods within a reformed CAP, enabling policy more closely to represent the needs and values of the society it serves.

The recent crises of trust in banking, the media and public life drive home the urgency of addressing and embedding ethics in business practice and public policy. Farming and agricultural policy could lead the way in this.

Procedure. Participatory and deliberative techniques and ethical procedures offer more inclusive and robust ways of assessing the value of farming's public goods, making complex decisions, and engaging with society.

CHAPTER 9

Total value

9.1 ASSESSING TOTAL VALUE

Farming delivers a wide range of benefits to society (along with several significant costs). Figure 20 is a synopsis of these benefits, with indicators of their value, as identified in this study. Figure 21 provides a very approximate indication of how people connect with farming.

These figures take us towards an assessment of 'total' value (although there is no claim that they are the last word). They reveal the breadth and diversity of farming's role in and value to society: farming touches everyone's life in some way, and the lives of some people in many ways. They also show that an authentic assessment of farming's value to society requires us to integrate different types of value and valuation frameworks - to see things from several different viewpoints at the same time.

What we cannot do is add up these different dimensions of value to arrive at some sort of global sum - they are incommensurable and any attempt to do so (e.g. as might appear possible using economic valuations of non-market goods) would be misleading and meaningless. Privileging those things that can be quantified or monetised would almost totally neglecting farming's social and cultural roles, which are our emphasis here, and paint a very inaccurate and unhelpful picture of farming's value.

Figure 20

The 'total' value of UK farming

Source of value	Basis of valuation	Indicators of value
FOOD		
Commodity	Real market	Agriculture - 0.56% UK GVA; agri-food – 6.9% UK GVA.
Nutrition	Statistics	UK farming provides major part of diet of 63.5 million people.
Security	Public opinion	88% say UK needs to be more self-sufficient; 71% say important for British farmers to help feed the world.
	Strategic argument	Supporting agriculture is similar to other strategic public spending, such as defence (£33 billion pa).

Source of value	Basis of valuation	Indicators of value
Provenance	Real market	Approx. £2,531 million spent on ethical food from UK sources (2.7% total food spending); 160% growth in last 10 years. Red Tractor scheme assures 78,000 farms.
	Public opinion	Important food issues scored in surveys: 43% animal welfare, 33% British, 32% local/regional. Free-range/barn eggs are 45% market for whole eggs.
Connections	Social behaviour	At least 850 farmers markets, 4,000 farm shops, 600 PYO and 80 CSAs in the UK.
LAND		
Farmland as landscape		
Diversity	Government policy; discourses	Identification & description of landscape character areas.
Idea	Cultural texts; discourses	History of the idea of landscape and countryside.
Inspiration	Cultural texts	Art, music, literature inspired by/ celebrating landscapes
Worth protecting	Social behaviour	21.7% of UK land designated for its landscape value.
Recreation	Social behaviour	104.2 million visitor-days to National Parks in England.
Affiliation	Social behaviour	At least 7% of UK population are members of a landscape preservation charity.
Content	Cultural texts; discourses	Academic/popular accounts of natural/cultural artefacts.
Worth paying for	Hypothetical markets	Studies on specific locations show a willingness to pay to preserve landscapes; UK farmland landscapes 'valued' at £517 million.

Source of value	Basis of valuation	Indicators of value
Farmland as nature		
Affiliation	Social behaviour	c 16% UK population are members of environmental organisations; at least 7% UK population are members of a nature conservation charity.
Biodiversity	Public opinion	80% of survey respondents worried about loss of native plants and animals on UK countryside.
	Government policy	Designation of farmland as A/SSSIs.
	Government policy	c. 11 of 65 BAP habitats and at least 300 of 1,150 BAP species on farmland.
	Hypothetical markets	UK farmland biodiversity 'valued' at £938.1 million.
Amenity	Hypothetical markets	Willingness-to-pay £113 on house prices for 1% more local enclosed farmland and £166 for uplands, and £2000 per year to live in house with access to high-nature areas.
	Social behaviour	0.24 – 1.27 billion amenity visits to farmland each year in England.
Health	Social & medical research	Scientific evidence of health benefits of exposure to nature; people 1.2-4.0% happier on farmland than in town.
Farm animals	Cultural texts & discourses	Popular/academic accounts of value of local breeds.
Spiritual/religious	Cultural texts & discourses	Popular/academic accounts of spiritual and religious significance of nature in the countryside.
Farmland as place		
Sense of place	Cultural texts & discourses	Academic/popular accounts of farmland as place.
National identity	Cultural texts & discourses	92% proud to be British; farmland and national identity in deep culture, art, music, literature.

Source of value	Basis of valuation	Indicators of value
Local identity	Cultural texts & discourses	Academic/popular narrative evidence.
Farmland as environment		
Agriculture and environment	Hypothetical markets	Farming's net environmental cost estimated as £210 million in 2008.
	Government statistics	Monitoring evidence of changes in environmental indicators.
Farmland as resource and property		
Food production	Real market	Agriculture - 0.56% UK GVA; agri-food – 6.9% UK GVA.
Shooting	Real market	c 0.13% UK GVA, 70,000 FTE jobs.
Riding	Real market	c 0.1% UK GVA; 48,000 FTE jobs.
Tourism	Real market	Countryside tourism – 0.6% UK GVA.
Asset	Real market	Record farmland prices – average £8,900 per acre.
PEOPLE		
Farming shaped landscapes	Cultural texts & discourses.	Academic & popular narratives of centrality of agriculture in generating UK landscapes.
Farming shaped rural communities	Cultural texts & discourses; research.	Academic accounts and research findings demonstrating farming's determinative role in rural communities.
Virtual farming	Social behaviour	At least 8 million people watch/listen to farming-themed TV/radio programmes.
Access to open farms	Social behaviour	150,000 visitors to Open Farm Sunday 2012; c 4.52 million school-age children (7.3% UK population) visited a farm in last three years - 1.3 million (2% UK population) on a primary school visit.

Source of value	Basis of valuation	Indicators of value
Farming as holistic therapy	Social research; real & hypothetical markets	Research evidence of benefits of therapeutic farm visits and care farming; estimated 400% social return on investment on one case-study care farm.
	Social behaviour	11,800 visitors to LNFYS farms over 3 years; 189 practising and 206 prospective care farms, UK, 2012; estimated 1000 people attending care farms.
VALUES		
Universal values	Academic discourses; social research.	Farming can satisfy aspects of values of universalism, tradition, security, power, hedonism and stimulation.
Fundamental needs	Academic discourses; social research.	Farming can satisfy aspects of needs for subsistence, protection, affection, understanding, participation, leisure, and identity.
Social relationships	Academic discourses; social research.	'Connected' farming promotes good relationships between farmers and society; farming can help promote community continuity and sense of belonging.
Ethics	Reasoned argument.	Placing farming and wider society in relationship of mutual responsibility, stewardship and service transcends value derived from 'delivery', costs and benefits.

Figure 21
How does UK society connect with farming?

Of the total UK population:

- *100% eats food from UK farms. In statistical terms, 78% derives all their indigenous food and 63% all their food from UK farms.*
- *3.7-19.5% of adults made an amenity visit to farmland in the last seven days.*
- *At least 7% regularly watches/listens to a farming-themed TV/radio programme.*
- *5.5% rides horses over farmland.*
- *2% made at least one primary school visit to a farm in the last three years.*
- *0.75% shoots game over farmland.*
- *0.69% is employed in agriculture.*
- *0.24% visited a farm on Open Farm Sunday.*
- *0.0016% attends a care farm.*

9.2 REALISING TOTAL VALUE

As Figure 20 suggests, there is potential for farming to deliver more value to society and for policy to facilitate this. We have identified specific opportunities to develop foods with provenance, to enhance farmland biodiversity, to develop farming's therapy, and to engage more specifically with values and ethics, especially at policy level. Delivering these and other benefits depends variously on engagement with the public and consumers, the welfare of farm animals, access to farmland and farms, stewardship of the environment, and a willingness to embrace new ways of thinking and adopt new approaches.

More broadly, the challenge to deliver more value to society in a fast changing world prompts four questions: how does farming strengthen its relationship with wider society? What kind of farms, farmers and farming industry do we need? What kind of policies do we need? What models should shape farming's future development? These questions are considered in the next sections.

Farming and society

We started this report with an account of the changing relationship between farming and society, and the suggestion that there may be misconceptions and a measure of ignorance on both sides. Farmers need better to appreciate the value of farming from multiple perspectives, while society needs to gain a deeper and broader understanding of farming.

With regard to the former, it is hoped that this study will help farmers to see themselves on a broader canvas, recognising the current positive public profile they enjoy, the breadth of their current contribution to society, and the potential to address future needs.

In relation to the latter (i.e. the strengthening of society's understanding) standard approaches are to campaign to educate and persuade people of just how valuable farming is to society, and to gauge society's appreciation of that value through opinion polls etc. Such approaches have had some success, but do carry risks. Agenda evidently set by one side may appear top-down, patronising and alienating. Reliance on opinion polls based on leading questions and pre-formed hypotheses may simply fail to reveal the complexities of people's real views and feelings.

We suggest that the farming industry and policy makers consider new approaches to engaging with stakeholders and society:

- *Participatory methods that aim to achieve a shared view are to be preferred to those that simply try to win others over to one's viewpoint.*
- *Specific two-way local initiatives (e.g. where farmers invite local people to a particular event, or simply greater participation by farms in Open Farm Sunday as suggested previously) are more likely to build relationships than general campaigns.*
- *Less structured, narrative-based methods to explore the people's feelings about farming, as is currently being piloted by the authors of this report,* [128] *are preferable to conventional market-research methods.*

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Farms and farmers

Different types of farms deliver different types of value, and inevitably there is a measure of zoning. It is often perceived that intensive lowland farms produce higher outputs of food per unit area and upland farms deliver more land-related value (e.g. landscape, nature). The extent to which continuing this zoning will help or hinder the delivery of the full spectrum of farming's value needs to be considered, and alternative approaches may need to be developed. This perception also masks much local and regional variation and can militate against the appreciation and realisation of the non-market value of more intensive farms - this also needs addressing.

Farming people are at the heart of farming and some are grasping opportunities to be part of farming's value to society, not just as managers and deliverers, but also as part of the farming experience. There is a long tradition of seeing working on the land as both privilege and responsibility. Farming's traditional values of hard work, rootedness and continuity, stewardship and service, have much to commend themselves to a society that in many senses has lost its way. And, as we have seen, farming could play a much greater role in addressing some specific urgent social problems facing the UK.

But there are fewer farmers than there were, and for many the pressures of survival may not be conducive to a broadening of their horizons just now. More farm consolidation seems likely to compromise many of the sources of value identified here. The retention of people and families on the land is important if we are to secure farming's total value into the future. Careful consideration needs to be given to what is the critical number of farms and farmers and what is the 'tipping point'.

Policy

It is not the purpose of this report to enter into the crowded territory of debating CAP reform. What we can say is that policy matters. Decisions made in the current round of CAP reform will influence the value of farming in the years to come and our argument is that the CAP needs to recognise the broad value of farming as set out in this report, and create the conditions to enable the potential societal benefits farming can offer to be realised. As we argued earlier, policy needs also to engage more specifically with values and ethics.

Shaping the future

How, then, does farming rise to the above challenges, conceive and shape its future and deliver more value to society?

A pragmatic model sees the current arrangements as simply needing to be adapted. Economics remains descriptive and determinative, and if necessary can be developed and sophisticated to represent most, ultimately all, of the values farming delivers. The public may need better to understand just what farming does, and the key is to inform and educate - relationships with society are managed through PR and marketing and monitored through opinion polls.

By contrast, the idealist calls for a radical restructuring of the whole farming-food-society system. Economics and its child, industrial agriculture, are the problems. Alternative paradigms, drawn from ecology and history must be employed, centred on ideas of resilience, working with nature, diversity and holism, community, inclusion and participation. New relationships between farming and society must be forged. For the idealist, what is needed is not reform, but revolution.

Between the two extremes is an emerging paradigm that draws inspiration, ideas, ideals, models and imperatives from both pragmatism and idealism, and from beyond agriculture and the disciplines usually associated with it. The strength of this model is an ability to listen to and talk to the other two and to broaden its horizon beyond the familiar. This seems likely to be the one that provides the strongest focus for constructive dialogue, solving complex problems, adapting to change, picking up weak signals and developing innovative solutions.

Finally, while farming has been very effective in adopting technical solutions, what farming needs now, we argue, are social innovations. Science and technology have revolutionised agriculture in the past and remain essential to meeting future challenges. But, in a complex world and facing an uncertain future, perhaps farming now needs to turn for inspiration also to the social sciences, to philosophy, ethics and theology, and even to art, literature and poetry.

CHAPTER 10

Conclusions

This study assesses the total value to society of farming in the UK, aiming especially to uncover some of farming's less recognised social impacts. Its core is an analysis of farming's value as delivered by food, land and people, and an evaluation of how farming satisfies values. To set the research in context, we examined public attitudes to farming and policy challenges.

Public attitudes

Public attitudes to farming and farmers are mostly positive (although significant minorities hold negative opinions), but the public has very limited understanding of farming. Most people regard farming as important to the economy and believe that farming plays an important role in protecting the environment, although they remain concerned about issues like farm animal welfare and GMOs.

Policy challenges

UK farming has to rise to the challenges of global food and energy security, yet it must do so in the light of our post-war experience of the profound environmental impacts of intensive agriculture. It is essential for policy to place society's present and future needs at the centre of the farming and food system - understanding farming's value to society is a requirement of doing this.

Food

The production of food is farming's main value to society - both current production and the capacity to produce food into the future. Food security is valued, but there are no indications of a mandate to obtain this at the cost of compromising animal welfare or environmental protection. An important part of the value of food is its provenance. People value knowing where food comes from and how it is produced, and are particularly concerned about animal welfare and British/regional/local origins. For some, a direct relationship with producers is important, as evidenced by the growth in farm shops and farmers' markets.

Land

Farmland provides the basis of food production and supports other industries, such as tourism, riding and shooting, which play important roles in rural economies and communities. Farming has both positive and negative impacts on the natural environment – its negative impact has decreased over the last decade, but it still imposes a net cost on the environment, and there are further improvements to be made. Farmland's social and cultural value is expressed through landscape, nature and place, and there is much evidence that farmland landscapes and biodiversity are highly valued. But their continued value depends on stewardship of the natural and cultural components of farmland.

Farmland provides a valuable natural amenity, attracting regular recreational visits and increasing the value of nearby property. The therapeutic benefits of nature are increasingly recognised and there is potential for farmland to deliver these. As place, farmland makes an important contribution to national, regional and local identities. For example, land has been eulogized over many years in much of the UK's best-loved literature and art, becoming the very essence of our cultural identity.

People

Farming people themselves add another, though less recognised, layer to farming's value. Farmers have shaped distinctive landscapes, places and communities over the centuries and, despite declining numbers, remain a significant influence on rural life in many areas. The value society places on farming as a whole is revealed, for example, in the popularity of farming-themed television and radio programmes and in the numbers of people visiting open farms. The recent growth in care farming is evidence of the considerable therapeutic potential of the farm as a whole, in which farmers play a crucial role.

Ethical perspectives

Farming is valuable because it satisfies, or could satisfy values – related to subsistence and security, relationships among people and with nature, and tradition and identity. These values reflect many of the social and cultural benefits of farming identified above. Satisfying these depends on public access to farms and farmland, strong connections between farming and wider society, and stewardship of the natural and cultural environment.

Ethical perspectives move us beyond thinking just in terms of delivery, costs and benefits, to understand farming and society as needing to be in a relationship of mutual consideration and responsibility, with emphasis on stewardship and service. Ethics can also inform how we value farming's public goods and how farming engages with the public.

Total value

Farming meets basic needs, satisfies values and provides an array of benefits, touching people's lives in perhaps more ways than any other industry. These different forms of value cannot, however, be meaningfully added up: appreciating total value means seeing things from different viewpoints at the same time. Specific opportunities for farming to deliver more value to society include: developing foods with provenance, further enhancing farmland biodiversity, greater public access to farms and farmland, and developing farming's therapeutic roles.

In general, if farming is to demonstrate and indeed to enhance its value to society, it has to address: how it engages with the public, how many farms and farmers we need, and how the CAP and other policy measures secure social goods. For the future, farming should draw inspiration and ideas from a wide range of sources, including from outside farming. Finally, reflecting our emphasis on the social and cultural value of farming for its future, we believe that farming needs not only technical solutions to production challenges, but also social innovations.

CHAPTER 11

Recommendations

Foods with provenance

There is potential for farming to deliver more food with evident provenance and to build direct producer-consumer relationships.

- *We recommend that farmers and the farming industry investigate the potential market through developing understanding of consumer values and motivations, produce food to standards that satisfy these values, communicate commitment to standards, and strengthen their engagement with consumers.*
- *Downstream actors in the supply chain also need to recognise the opportunities and pass financial benefits from consumers back to producers.*
- *Research is needed to review progress of the 2002 Policy Commission on the Future of Farming and Food's recommendation of reconnecting 'the public with food, farming and the countryside', to identify barriers and incentives to connection, to learn from the growth of alternative food networks, and to develop future strategy. Clear, long-term strategy, coupled to action and the development of producer-consumer relationships, is needed.*

Biodiversity

Biodiversity is integral to the social value of farmland. As recent research has shown, agri-environment payments both help to conserve biodiversity and generate wider local economic and social benefits.

- *We recommend that farmers and government work together further to enhance farmland biodiversity and to recognise and realise the wider benefits, within and beyond the existing frameworks.*

Green exercise

The growing body of evidence of the physical and mental health benefits of exposure to nature and green exercise shows that there is considerable potential for farming to help address major public health issues, including obesity and mental illness.

- *We recommend that farming, government and local authorities work together to address issues of access to farmland, as affected by the extent and condition of all rights of way (i.e. not just concentrating on a few 'showcase' paths). These issues include: the creation of new rights of way, concerns about the irrevocability of permissive access, dog and urban-fringe problems, and the effects of stretched local authority budgets on footpath condition.*
- *Research should investigate why much of the public does not take up the opportunities offered by farmland and assess potential savings of increased green exercise to the public purse.*
- *We recommend that the farming industry, government and the voluntary sector form partnerships to develop innovative approaches to catalyse and facilitate greater use of farmland as contexts for encountering nature and green exercise.*

Open farms

The appreciable growth in participation in Open Farm Sunday since the scheme started and the many positive reports of its success are indicative of the value of opening farms to the public, yet the number of farms involved is less than 1% of the total number of agricultural holdings.

- *We recommend that the farming industry and its leaders reflect on the value of opening farms to the public and encourage greater participation, not only in Open Farm Sunday, but also in other schemes, especially local initiatives.*

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Farming as therapy

Evidence of the therapeutic value of the whole farm indicates the considerable potential for farming to help address urgent issues of social inclusion and the care of disengaged and vulnerable people.

- *We recommend that the farming industry work with government (including Defra and DH), local authorities and the voluntary sector to identify opportunities and barriers, and develop a strategy for greater realisation of the therapeutic value of farming through day visits and especially care farming.*
- *We recommend that government give greater recognition, and provide incentives, to care farming and other farming therapy as exemplary expressions of the 'Big Society'.*

Values and ethics

We believe there is potential for farming and policy to engage more specifically with values and for embedding ethics more explicitly in farming practice and policy.

- *We recommend that explicit values and ethics frameworks, as exemplified here, be used to inform the development of policies to secure social goods within a reformed CAP. This will enable policy more closely to represent the needs and values of the society it serves.*
- *We recommend that participatory and deliberative techniques and ethical procedures be used as the preferred methods for assessing the value of farming's public goods and for farming's engagement with the public.*

Realising farming's total value

We believe that farmers need better to appreciate the value of farming from multiple perspectives, and that society needs to gain a deeper and broader understanding of farming.

- *We recommend that the farming industry considers this report and its findings and uses it to catalyse an ongoing debate to identify specific future directions and a clear course of action to which all interested parties can be committed.*

Sponsors' messages

Burges Salmon

Food production is farming's priority – all the more so as food security concerns intensify. But at a time when the headlines tend to focus on controversies, misfortunes and challenges, it is clear that the wider benefits provided by farming, through the way it produces and sells food, its land management role and the contribution made by farmers to society as a whole, should be valued, celebrated and used by all involved in agriculture.

We are pleased to have helped the Oxford Farming Conference develop an innovative review of this issue and hope that this research will form an important part of the discussion of the value of farming to the UK.

RSPB

Society has a lot invested in agriculture. We all pay at the till, and via subsidies through our taxes. Until now, agriculture's impact – positive and negative – on society has not been fully examined. This report takes the first steps to doing so. The RSPB supports this report because we value the wildlife dependent on farming - and so do our 1,000,000 members; because we manage one of the UK's largest landholdings; and as the single biggest national provider of free farm advice, we invest in agriculture. As agricultural policies reform, policy-makers must take full account of the impact of agriculture on society. Doing so, ensures their decisions will enhance our countryside for future generations of farmers, local communities and wildlife.

Volac

Volac is delighted to support the 2013 Oxford Farming Conference report which takes a fresh approach to the vitally important question of how we assess the value of UK farming to society. Whilst this assessment was always going to be complex, the report breaks down the issues in easily digestible sections which include areas of real inspiration.

In the future we will have to make increasingly hard decisions about how and where our food is produced. As we rise to the challenge of producing more food using fewer resources whilst caring for our natural capital, there is a real need for a cohesive UK Food Strategy. This year's report provides real insight for this strategy.

REFERENCES

*Note: Links that begin with '**http://tinyurl.com**' are shortened versions of the original websites and open when entered into a web address bar.

[1] Bovine Spongiform Encephalopathy.
[2] Bovine Somatotropin.
[3] Genetically Modified Organisms.
[4] Yelland, D (2009) Farmers' image. Address to the Oxford Farming Conference 2009, p 4, **www.ofc.org.uk/files/ofc/papers/yelland.pdf**, accessed September 2012.
[5] A public good is one that is broadly available to everyone (ie it is 'non-excludable') and the consumption of which by one person does not reduce the amount available to others (ie it is 'non-rival'). Public goods from farming include: landscapes, biodiversity, water catchment and quality, flood control, soil condition and quality, air quality, carbon storage and sequestration, leisure and recreation, amenity, nature, sense of place, inspiration and education, health and well-being, the viability and vitality of rural communities and economies, and history, heritage and culture. In addition, some private goods can be understood as providing public benefits, due, for example, to their universality of demand (e.g. food), the association of their supply with a common resource (e.g. land), or their ability to address public-policy issues or strategic needs (e.g. addressing the climate change challenge by providing renewable energy in the forms of hydroelectric power, wind-power, and biomass) (Carruthers, S P, Thompson, N, Carroll, T, Webster, D, Harper, A & Soane, I, 2009. Developing the English uplands. A report to the Commission for Rural Communities Inquiry into the Future for England's Upland Communities. Cheltenham: Commission for Rural Communities).
[6] The UK NEA was conducted between 2009 and 2011, involved 500 scientists and others, cost £1.3 million, and produced more than 2000 pages of reports (**www.uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx**, accessed November 2012).
[7] Cultural texts include literature, art, television, film, magazines and official documentation (Fish, R, Burgess, J, Church, A & Turner, K, 2011. Shared values for the contributions ecosystem services make to human well-being. In: UK National Ecosystem Assessment, The UK national ecosystem assessment: technical report. Cambridge: UNEP-WCMC, **http://tinyurl.com/ca3r2y6**, accessed September 2012). A discourse is a "bundle of ideas, terms, concepts and values held and articulated in various ways by a group of people" (University of Aberdeen Department of Agriculture & Forestry and Macaulay Land Use Research Institute, 2001. Agriculture's contribution to Scottish society, economy and environment, p 52. Aberdeen: University of Aberdeen.).
[8] University of Cambridge (2012) Farming loved but misunderstood, survey shows. Research News, **www.cam.ac.uk/research/news/farming-loved-but-misunderstood-survey-shows/**, accessed September 2012.
[9] Defra (2010) Public attitudes to agriculture the farmed landscape and natural environment. Discussion paper prepared for Agricultural Change and Environment Observatory, **http://tinyurl.com/cefkp34**, accessed August 2012.
[10] IGD (2009) Understanding consumer perceptions of British farmers. Research commissioned by the Oxford Farming Conference. **www.ofc.org.uk/files/ofc/papers/delegate-reportconsumer-perceptions-british-farmers.pdf**, accessed September 2012.
[11] See Note 10.
[12] See Note 8.
[13] All figures are from YouGov plc and M Reader, University of Cambridge (personal communication, October 2012) and are reproduced with permission. Total sample size was 1,736 adults. Fieldwork was undertaken 29 – 30 July 2012. The survey was carried out online. The figures have been weighted and are representative of all GB adults (aged 18+).
[14] Ehren, J, Duff, R & Leggett, S (2011) Careers in Agriculture. Benchmarking the views of students and teachers on careers in agriculture and its associated industries. Research report for Farming & Countryside Education (FACE) and Business in the Community (BITC), Careers in Agriculture Campaign. Norwich: CHILDWISE.
[15] The survey was part of an initiative, 'Careers in Farming and Food Supply', launched recently to help change attitudes towards the many careers offered by the agricultural industry (Pigott, I, 2012. Careers in farming and food supply. Farmers Apprentice, Sunday 3 June 2012, **www.fwi.co.uk/Articles/03/06/2012/133222/Careers-in-Farming-and-Food-Supply.htm**, accessed October 2012.
[16] Ehren, J & Duff, R (2011) Research in Schools, Benchmarking the views of children aged 7-15, on food, farming and countryside issues, Quantitative Report. Agriculture and Horticulture Development Board (AHDB) in conjunction with Farming & Countryside Education (FACE). Norwich: CHILDWISE.
[17] EADT24 (2011) Tide of public opinion has changed in favour of farmers, says farming leader. East Anglian Daily Times, Sunday, November 6, 2011, accessed September 2012.
[18] NFU (2012) Farming delivers for Britain, p 2. Stoneleigh Park, Warwickshire: National Farmers' Union.
[19] Ambler-Edwards, S, Bailey, K, Kiff, A, Lang, T, Lee, R, Marsden, T, Simons, D & Tibbs, H (2009) Food Futures: Rethinking UK Strategy. A Chatham House Report. London: Chatham House.
[20] See Note 19.
[21] Wirzba, B (2003) Introduction. In: Wirzba, N (Ed) The essential agrarian reader, pp 15-16. Lexington, Kentucky: The University Press of Kentucky.
[22] Jackson, P, Ward, N, Russell, P & Perks, R (2007) Manufacturing meaning along the food commodity chain. Findings, Cultures of Consumption, **www.consume.bbk.ac.uk/research/jackson.html**, accessed November 2012.
[23] Free-range or barn eggs comprised 45% of whole egg market in 2009 (RSPCA, 2009. The welfare state: five years measuring animal welfare in the UK, 2005 – 2009, **http://tinyurl.com/bzejhc2**, accessed November 2012).
[24] Mintel (2012) Provenance in food and drink, UK, April. London: Mintel.
[25] Mintel (2011) Food provenance, UK, April. London: Mintel.
[26] **www.redtractor.org.uk/Red-Tractor-Assurance**, accessed November 2012.
[27] The Co-operative Group (2011) Ethical Consumerism Report 2011. The Co-operative Group, **www.co-operative.coop/corporate/Investors/Publications/Ethical-Consumerism-Report/**, accessed November 2012.
[28] In contrast to all the other categories in Figure 5, sales of organic food dropped between 2009 and 2010; in 2011, the Soil Association reported a continuing fall in sales of organic produce. By contrast, since 2010, UK sales of Fairtrade products have continued to increase: the UK is now the world leader in Fairtrade, accounting for one fifth of all sales. It is probable that few people buy organic because it is organic, but because they believe it satisfies values related to health, environment and animal welfare. A rise in sales of other categories, like 'freedom foods', suggests that shoppers are opting for alternatives that are lower priced, but perceived as still satisfying their ethical concerns (Huxley, R, Land, J & Lobley, M, 2011, A review of the UK food market. Cornwall Food & Drink & University of Exeter).
[29] See Note 25.
[30] See Note 25.
[31] Examples of Community Farm Land Trusts include Fordhall Farm, Shropshire (**www.fordhallfarm.com**, accessed November 2012), Stroud Common Wealth (**http://tinyurl.com/bsotfms**, accessed November 2012) and Yorkley Court, Forest of Dean (**www.yorkleycourt.wordpress.com/community-farm-land-trust/**, accessed November 2012).
[32] Gareth Jones, Lloyds Europa, personal communication, November 2012.
[33] Soil Association (2011) The impact of community supported agriculture, **http://tinyurl.com/bb2qrlr**, accessed November 2012.
[34] Local Foods (2012) Farmers' Market Certification - Certification - abridged rules, **http://tinyurl.com/c22yll2**, accessed November 2012.
[35] Pilley, G. (undated) A share in the harvest. Bristol: Soil Association.
[36] E.g. see Ravenscroft, N & Taylor, B (2009) Public engagement in new productivism. In: Winter, M & Lobley, M (Eds). What is land for? The food, fuel and climate change debate. London, Earthscan.
[37] Gross Value Added.
[38] Defra (2012) Agriculture in the United Kingdom 2011. London: Department of Environment, Food and Rural Affairs. **www.defra.gov.uk/statistics/files/defra-stats-foodfarm-crosscutting-auk-auk2011-120709.pdf**, accessed November 2012.
[39] See Note 38.
[40] Dowler, E A, Kneafsey, M, Lambie, H, Inman, A & Collier, R (2011) Thinking about 'food security': engaging with UK consumers. Critical Public Health, 21 (4), p 403.
[41] With an estimated 925 million (1-in-7) people in the world going hungry, this, for many people, is the most pressing issue (FAO, 2010. The state of food insecurity in the world. Rome: Food and Agriculture Organisation of the United Nations).
[42] See Note 40.
[43] See Note 38.
[44] Defra (2010) Food statistics pocketbook 2010, p 34. London: Department of Environment, Food and Rural Affairs.
[45] Defra (2012) Food statistics pocketbook 2012. London: Department of Environment, Food and Rural Affairs.
[46] UK Public Spending Details 2011, **http://tinyurl.com/bbgkolm**, accessed November 2012.
[47] Breugemann, W (1977) The land. Philadelphia: Fortress Press. P 2.
[48] Pretty, J (2007) The earth only endures. London: Earthscan Publications Ltd. P 158.
[49] In enclosed farmland, meadows, field systems, hedgerows, and traditional farm buildings are particularly appreciated (Firbank, L, Bradbury, R, McCracken, D & Stoate, S, 201. Enclosed farmland. In: UK National Ecosystem Assessment, The UK national ecosystem assessment: technical report. Cambridge: UNEP-WCMC, http://tinyurl.com/c7db4jr, accessed September 2012) Upland landscapes are valued not only for their wildness and distinctive flora and fauna, but also for their rare livestock breeds, dry-stone walls, and farm buildings (Van der Wal, R, Bonn, A, Monteith, D, Reed, M, Blackstock, K, Hanley, N, Thompson, D, Evans, M & Alonso, I, 2011, Mountains, moorlands and heaths. In: UK National Ecosystem Assessment, The UK national ecosystem assessment: technical report. Cambridge: UNEP-WCMC, **http://tinyurl.com/czuhoss**, accessed September 2012). In his classic history of the countryside, Oliver Rackham describes the British landscape in terms of features that bear witness to centuries of cultivation, including wood pasture, parkland, wooded commons, field systems, hedges and walls, ditches and banks, highways, grassland and ponds, dells and pits (Rackham, O, 1986, The History of the Countryside. London: Phoenix).
[50] Familiarity, memories, 'pleasant associations' and a preference for the status quo are much stronger elements in the value attached to landscapes than abstract aesthetic criteria. For example, in a pioneering contingent valuation study on the valuation of landscapes in the Yorkshire Dales, visitors and residents were presented with eight paintings of the present and seven possible future landscapes (abandoned, semi-intensive agricultural, intensive agricultural, planned, conserved, sporting, and wild): the most favoured and highest valued landscape overall was 'today's' (Willis, K & Garrod, G, 1992, Assessing the value of future landscapes. Landscape and Urban Planning 23, 17-32).
[51] **www.doeni.gov.uk/niea/landscape/countrylandscape.htm; www.landuse.co.uk/project/wales-landscape-character-map; www.naturalengland.org.uk/publications/nca/default.aspx.**
[52] **www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/lca/lca-further-information/**.
[53] 'Countryside' first appeared in English in the 16 C in response to the growth of London, and, ever since, the countryside has been idealized as a virtuous counterpoint to the "brutality of the market or the anonymity of the city". The 18 C & 19 C Romantics found in the countryside both intimations of wilderness, which they revered as a "symbol of an earthly paradise" and "an antidote to the corrupted industrial city", and virtuous agriculture: "just as the demarcation of the wilderness comes only with the development of agriculture, so the praise of agriculture comes only with the development of urban centres" (Short, J R, 1991. Imagined Country, London: Routledge. Pp 31, 6, 30. Murdoch, J, Lowe, P, Ward, N & Marsden, T, 2003, The Differentiated Countryside, London: Routledge. P 1).
[54] These are just a few of a broad genre of music, art and literature rooted not only in landscapes and place, but also in farming life. "Many Burns poems evoke a strong sense of agriculture and its contemporary social context… George Mackay Brown's work is replete with agricultural activity and an extraordinary sense of attachment to place" (University of Aberdeen Department of Agriculture & Forestry and Macaulay Land Use Research Institute, 2001. Agriculture's contribution to Scottish society, economy and environment. Aberdeen: University of Aberdeen, P 69.). Almost all of R S Thomas's work concerns the Welsh landscape and the Welsh people, with many of his earlier works focusing on the lives of his rural parishioners (**www.en.wikipedia.org/wiki/R.S.Thomas**,

accessed November 2012). Like R S Thomas in Wales, Patrick Kavanagh in Northern Ireland exposed the dark side of farming life, while many of Seamus Heaney's poems evoke his upbringing on his family's farm in County Derry (**www.culturenorthernireland.org/article/1368/the-poetry-of-rural-ulster-1**, accessed November 2012).

[55] National Park Authorities are "independent bodies funded by central government to: conserve and enhance the natural beauty, wildlife and cultural heritage; and promote opportunities for the understanding and enjoyment of the special qualities of National Parks by the public" (National Parks, 2009, About us, **www.nationalparks.gov.uk/aboutus**, accessed November 2012). The primary purpose of AONB designation is to conserve and enhance the natural beauty of the landscape. Two secondary aims complement the purpose: to meet the need for quiet enjoyment of the countryside and to have regard for the interests of those who live and work there" (National Association for AONBs, 2005, AONBs in more detail, **http://tinyurl.com/9tj4v**, accessed December 2009). National Scenic Areas (NSAs) are areas of Scotland "of outstanding scenic value in a national context ". "The purpose of the NSA designation is both to identify our finest scenery and to ensure it is protected from inappropriate development" (Scottish National Heritage, 2012, National Scenic Areas, **http://tinyurl.com/8yohd47**, accessed November 2012).

[56] Commission for Rural Communities (2010) State of the Countryside 2010. Cheltenham: Commission for Rural Communities.

[57] Natural England (2012) Monitor of Engagement with the Natural Environment: The national survey on people and the natural environment, **http://publications.naturalengland.org.uk/file/1755933**, accessed November 2012.

[58] Mourato, S, Atkinson, G, Collins, M, Gibbons, S, MacKerron, G & Resende G (2010) Economic analysis of cultural services. Executive summary. The UK national ecosystem assessment: economic analysis report. Cambridge: UNEP-WCMC, **http://tinyurl.com/dxa44zc**, accessed September 2012.

[59] Defra (2009) Environmental accounts for agriculture, UK country tables, **http://tinyurl.com/boatt7f**, accessed September 2012.

[60] Sandler, R (2005) Introduction: environmental virtue ethics. In: Sandler, R and Cafaro, P (Eds) Environmental virtue ethics. Lanham, Maryland: Rowman and Littlefield Publishers Inc. P 4.

[61] Archbishops' Commission on Rural Areas (ACORA) (1990) Faith in the Countryside. Worthing, Sussex: Churchman Publishing Ltd. P 7.

[62] World Values Survey (2012) Active/inactive membership of environmental organisation, Great Britain (2006), **www.wvsevsdb.com/wvs/WVSAnalizeQuestion.jsp**, accessed September 2012.

[63] See Note 58.

[64] Biodiversity can be defined as "the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems" (Natural England, 2012, Biodiversity, **www.naturalengland.org.uk/ourwork/conservation/biodiversity/default.aspx**, accessed November 2012).

[65] Membership of landscape, conservation and wildlife charities in 2012 is shown below.

Charity	Membership	% UK population	Comments
The National Trust	4,000,000	6.4	Britain's largest charity and largest private landowner; owns 248,000 ha of land and 575 miles of coastline in EW
RSPB	1,000,000	1.6	Owns 200 nature reserves covering almost 130,000 ha; 175 local groups.
The National Trust for Scotland	308,000	0.5	Scotland's largest membership organisation
The Woodland Trust	223,000	0.4	
The Wildlife Trusts	800,000	1.3	47 individual trusts across the UK; "largest UK voluntary organisation dedicated to protecting wildlife and wild places everywhere".

Sources: Adapted from Naturenet (2012) The National Trust, **www.naturenet.net/orgs/nattrust.html**, accessed September 2012. RSPB (2012) About us, Facts and figures, **www.rspb.org.uk/about/facts.aspx**, accessed September 2012. The Woodland Trust (2012) Annual Review 2011. **http://tinyurl.com/byu2yks**, accessed November 2012. The Wildlife Trusts (2012) Who we are, **www.wildlifetrusts.org/who-we-are**, accessed November 2012.

[66] See Note 56.

[67] Bullock, J M, Jefferson, R G, Blackstock, T H, Pakeman, R J, Emmett, B A, Pywell, R J, Grime, P & Silvertown, J (2011) Semi-natural grasslands. . In: UK National Ecosystem Assessment, The UK national ecosystem assessment: technical report. Cambridge: UNEP-WCMC, **http://tinyurl.com/cd92qkb**, accessed September 2012.

[68] Firbank, L, Bradbury, R, McCracken, D & Stoate, S (2011) Enclosed farmland. In: UK National Ecosystem Assessment, The UK national ecosystem assessment: technical report. Cambridge: UNEP-WCMC, **http://tinyurl.com/c7db4jr** accessed September 2012.

[69] See Note 59.

[70] For example, Worcestershire contains the most unimproved lowland pasture of any English county, yet its 1945 area has been reduced by 97%.

[71] Mills, J, Courtney, P, Gaskell, P, Reed, M & Ingram, J (2010) Estimating the incidental socio-economic benefits of environmental stewardship schemes. Final Report. Cheltenham: Countryside and Community Research Institute.

[72] See Note 58.

[73] See Note 6.

[74] See Note 58.

[75] See Note 57.

[76] See Note 57.

[77] Bragg, R, Wood, C, Barton, J & Pretty, J (2012) Let Nature Feed Your Senses: Engaging people with nature, food and farming. Colchester: University of Essex.

[78] Pretty, J, Barton, J, Colbeck, I, Hine, R, Mourato, S, MacKerron, G & Wood, C (2011) Health values from ecosystems. In: UK National Ecosystem Assessment, The UK national ecosystem assessment: technical report. Cambridge: UNEP-WCMC, **http://tinyurl.com/ckwvdmr**, accessed September 2012.

[79] See Note 78.

[80] See Note 6.

[81] See Note 78.

[82] Storey, D (2001) Territory: the Claiming of Space. Harlow, Essex: Prentice Hall. P 17.

[83] Patriotism can be defined as "love of one's country, identification with it, and special concern for its well-being and that of compatriots". It is not the same as nationalism. Patriotism is about moral duties and responsibilities, about defending one's nation, a way of life and set of values, but in a non-exclusive way, not attempting to impose these on others; nationalism is an exclusive focus on nation, defined ethnically, and a desire to acquire power and prestige for that nation, if necessary at the expense of others (Cafaro, P, 2009. Patriotism as an environmental virtue. Journal of Agricultural and Environmental Ethics, DOI 10.1007/s10806-009-9189-y. Primoratz, I, 2009, Patriotism. In: Zalta, E N (Ed) The Stanford Encyclopaedia of Philosophy (Summer 2009 Edition), **http://plato.stanford.edu/archives/sum2009/entries/patriotism**, accessed September 2012.

[84] World Values Survey (2012) How proud of nationality, Great Britain (2006), **www.wvsevsdb.com/wvs/WVSAnalizeQuestion.jsp**, accessed September 2012.

[85] See Note 68.

[86] Church, A, Burgess, J, Ravenscroft, N, Bird, W, Blackstock, K, Brady, E, Crang, M, Fish, R, Gruffudd, P, Mourato, S, Pretty, J, Tolia-Kelly, D, Turner, K & Winter, M (2011) Cultural services. In: UK National Ecosystem Assessment, The UK national ecosystem assessment: technical report. Cambridge: UNEP-WCMC, **http://tinyurl.com/ctag7ro**, accessed September 2012. P 667.

[87] Firbank et al, op cit, p 219.

[88] Constable's paintings not only celebrate farmland landscapes, but are also regarded as expressions of the English rural idyll. Elgar's music is not only 'rural'; it is also essentially 'English'. Referring to some of Delius' most popular works, including Brigg Fair, In a Summer Garden, Summer Night on the River, and On Hearing the First Cuckoo in Spring, Diana McVeagh (2011, quoted in **www.en.wikipedia.org/wiki/FrederickDelius**, accessed November 2012) comments, "these exquisite idylls, for all their composer's German descent and French domicile, spell 'England' for most listeners". J R R Tolkien's epic fantasy, The Lord of the Rings, with its rich imagery of land and landscapes, took much inspiration from Tolkien's home in the Warwickshire countryside, and was, according to Humphrey Carpenter (1977, J R R Tokien: a biography. London: George Allen and Unwin) written as a myth for the English. One of Frank Newbould's eleven WW2 posters shows an image of a farmer with sheep and sheepdog on the South Downs and is entitled "your Britain – Fight for it now" (**www.ww2poster.co.uk/2010/02/frank-newbould-b-1887-d-1951/**, accessed September 2012).

[89] Carnegie UK Trust (2007) Carnegie Commission for Rural Community Development. A Charter for Rural Communities. The Final Report of the Carnegie Commission for Rural Community Development. Carnegie UK Trust, Dunfermline. P 59.

[90] This role of land and place in local community identity and development is increasingly recognised and forms, for example, the substance of 'sense of place projects' and 'ecomuseums'. The sense of place concept is based on the idea that cultural identity and sense of place are defined by tangible and intangible heritages from the deep past to the present. Ecomuseums are "community-led museum or heritage projects that aid sustainable development" and are "dedicated to in-situ conservation and interpretation of 'cultural touchstones' within a defined geographical territory, with subsequent benefits for local communities. There are over 300 ecomusuems operating around the world. Ecomuseums originated in France, but are now operating in Denmark, France, Germany, Italy and the United States, as well as parts of Asia, Latin America and Australia" (Woods, M, Richards, C, Watkin, S, Heley, J, Convery, I, Dutson, T, Rogers, J & Storey, D 2008, Rural People and the Land – the Case for Connections. Report to the Commission for Rural Communities. Cheltenham, Commission for Rural Communities. Pp 77-78. Convery, I. and Dutson, T. 2006. Sense of place project report. Newton Rigg, Cumbria: University of Central Lancashire).

[91] E.g. Pretty JN, Brett C, Gee D, Hine RE, Mason CF, Morison JIL, Raven H, Rayment M, van der Bijl G (2000) An assessment of the external costs of UK agriculture. Agricultural Systems 65(2), 113–136. Hartridge, O & Pearce, D (2001) Is UK agriculture sustainable? Environmentally adjusted economic accounts for UK agriculture. London: CSERGE-Economics, University College, London. Eftec & IEEP (2004) Framework for environmental accounts for agriculture. Final report. London: Economics for the Environment Consultancy. **www.archive.defra.gov.uk/evidence/economics/foodfarm/reports/envacc/documents/Eftec-Finalrep.pdf**, accessed November 2012. Jacobs & SAC (2008) Environmental accounts for agriculture. Final report. **www.archive.defra.gov.uk/evidence/economics/foodfarm/reports/envacc/documents/Jacobs-fullreport.pdf**, accessed November 2012.

[92] These include market prices, mitigation costs, production functions, hedonic pricing, travel costs, contingent valuation and discrete-choice experiments, combined with benefits transfer.

[93] See Note 59.

[94] See Note 59.

[95] **http://www.ons.gov.uk/ons/rel/tourism/tourism-satellite-account/2009---the-economic-importance-of-tourism/rep-2009tsa.html**, accessed November 2012.

[96] Woodward, A (2009) Keynote speech, The challenges of rural tourism.The Tourism Society & Royal Geographical Society with IBG, **http://tinyurl.com/csoyx4o** accessed December 2012.

[97] **www.bhic.co.uk/facts-and-figures/beta-survey.html**, accessed November 2012. BHIC (2009) The size and scope of the British horse sector, **www.bhic.co.uk/downloads/sizescope.pdf**, accessed November 2012.

[98] PACEC (2006) The economic and environmental impact of sporting shooting. A report prepared by PACEC on behalf of BASC, CA, and CLA and in association with GCT. PACEC (Public and Corporate Economic Consultants),

London, **www.shootingfacts.co.uk/pdf/pacecmainreport.pdf**, accessed November 2008.
[99] The study also claimed that shooting influences in some way the management of 15 million ha of land (61% total UK land), with specific habitat and wildlife management carried out on 2 million ha (8% UK land) (40% of which is woodland). Shooting's impact is most marked in the uplands, where shooting has played a major role in shaping the landscape. The present 'cultural landscape' of the English uplands, for example, is the outcome of sheep farming, game management and forestry over the last 150 years; 27% of the English uplands, defined as the SDAs, is managed as grouse moorland and 56% of the land above the Defra designated moorland line (Sotherton, N, May, R, Ewald, J, Fletcher, K & Newborn, D, 2009, Managing uplands for game and sporting interests. In: Bonn, A, Allot, T, Hubacek, K & Stewart, J (Eds) 2009, Drivers of Environmental Change in the Uplands. Routledge, Abingdon. Pp 241-260). Shooting also provides a social focus. Although most participants are likely to be rich outsiders (including from outside the UK), shoots provides seasonal employment for locals, e.g. as loaders, beaters, pickers up and flankers, draws on other local services, such as accommodation and catering, and, with the social activities and get-togethers around the shoots, provides a significant social focus for the community.
[100] Agricultural land prices have increased rapidly over the past decade, rising by about 200% in the ten years up to June 2012. Accumulated inflation over the same period is about 30%. Farmland prices are now at a record high - in England at an average of £8,900 per acre. This, however, masks the difference between bare land (£6,300 per acre) and equipped farms with houses and buildings (£9,600 per acre). Arable land values are rising faster than livestock values. The overall supply of land for sale is, however, at an all-time low (**www.smithsgore.co.uk/news-smiths-gore/farmland-values-continue-to-34282**. Barclays (2012) UK Agriculture Sector Outlook, Third Quarter 2012, **http://tinyurl.com/9wn6q2r**, accessed November 2012).
[101] Short, J R (1991) Imagined Country, London: Routledge. P 73.
[102] The idea that farmers and farming are virtuous, that working the land is both virtuous and imparts virtue, and that it forms "the moral character, not only of individuals, but also of society as a whole" (Thompson, P B, 2008, The agricultural ethics of biofuels: a first look. Journal of Agricultural and Environmental Ethics 21, p 194) can be traced back to Greek ideas that a society based in farming promotes harmony and virtue, to the philosophy of the Scottish Enlightenment, and to the Romantics' "praise of farming and the pleasure of work amidst nature" (Thompson, P B, 2000, Agrarianism as philosophy. In: Thompson, P B & Hilde, T C (Eds) The agrarian roots of pragmatism. Vanderbilt University Press. P 42). Adam Smith commented, "there is perhaps no trade that requires so great a variety of knowledge and experience…The direction of operations, besides, which must be varied with every change of the weather as well as with many other accidents, requires much more judgement and discretion than that of those which are always the same or very nearly the same" (quoted in Jones, C R, 2011. Give us this day our daily bread. ATP Briefing Paper, No 1, **www.agriculture-theology.org.uk/wp-content/uploads/Give-us-this-Day.pdf**, accessed November 2012). Thomas Jefferson thought farming would cultivate citizenship, while fellow American, Ralph Waldo Emerson, believed farming promoted integrity and self-reliance (Thompson, 2008, op cit). Contemporary expression of these ideas can be found in agrarianism, which is variously a movement, a culture, a way of life and a philosophy. Agrarianism is a distinctively US phenomenon, but shares some common ground with the organic farming movement, particularly as articulated by its founders (e.g. Eve Balfour, Albert Howard, H J Massingham). Resonances of some of these ideas can also be found in the contemporary writings of Jules Pretty (Pretty, J, 1998, The living land. London: Earthscan Publications Ltd. Pretty, J, 2002, Agri-Culture. Reconnecting people, land and nature. London: Earthscan. Pretty, J, 2007, The earth only endures. London: Earthscan Publications Ltd).
[103] N Wirzba, personal communication, 2007.
[104] **www.en.wikipedia.org/wiki/TheArchers**. Number of listeners are RAJAR figures for April-September, 2012; provided by the BBC.
[105] BBC data.
[106] **www.simonwhaleytutor.blogspot.co.uk/2009/06/victorian-farm.html**, accessed November 2012. **www.en.wikipedia.org/wiki/EdwardianFarm**, accessed November 2012.
[107] LEAF (2012) Open Farm Sunday 2012, Sharing Successes, **www.farmsunday.org/resources/000/678/249/OpenFarmResults2012FINALwebversion.pdf**, accessed November 2012.
[108] See Note 77.
[109] LNFYS is a partnership between two charities, LEAF and the Sensory Trust, and has been funded by Natural England (80%, through its 'Access to Nature' grants scheme). LEAF works to "inspire and enable prosperous farming that enriches the environment and engages local communities". Sensory Trust promotes and supports inclusive environmental design and management to build richer connections between people and the natural world, and is experienced in addressing the barriers to access that prevent use of the outdoors by socially excluded communities, particularly older people, disabled people and families and carers (Bragg et al, op cit).
[110] A vivid insight into the flavour of the scheme and evidence of its impact is provided by 51 video clips at the Project's YouTube site **http://tinyurl.com/bxtag7k**, accessed November 2012.
[111] See Note 77.
[112] **www.carefarminguk.org**.
[113] "The main user groups in the UK are currently disaffected young people, those with drug and alcohol problems, and people with learning disabilities or mental health issues. There are, however, other vulnerable groups who are also increasingly accessing this form of care or the associated opportunities for recovery or rehabilitation, with these including the physically disabled, elderly, probationers and ex-service personnel" (Leck, C, 2012,Social Return on Investment. Evaluation Report of the Houghton Project. Worcester: University of Worcester. P 9).
[114] Leck, C, Evans, N & Upton, D (2012) Agriculture – Who cares? An investigation of 'Care Farming' in the UK. In preparation.
[115] In this respect, Leck et al make an interesting point, of wider relevance to this analysis: "Curiously, farm animals continue to suffer from a lack of emphasis in research, both in terms of their relationship with the general public and farmers themselves. Work on the therapeutic worth of farm animals to human existence has been patchy... However, many farm-based recreation enterprises on diversified farms depend for their success upon the human-animal relationship, especially where encounters can be staged between people and 'unusual' livestock. Such research has glimpsed the complex socio-cultural importance of livestock to farmers, beyond the 'standard view' of animals as economic commodities" (Leck et al, 2012, op cit, p 16). In the research for this report, apart from references to the value placed on traditional livestock breeds in particular settings, no references to the value of farm animals to society were identified.
[116] E.g. **http://tinyurl.com/cucmj4q** (video).
[117] Elings, M. & Hassink, J (2008) Green care farms, a safe community between illness or addiction and the wider community. Therapeutic Communities, 29(3), 310-322.
[118] Leck, 2012, op cit.
[119] SROI is a framework that seeks to measure, account for and communicate a broad concept of value by incorporating wider social, environmental and economic aspects. SROI uses financial proxies to conceptualise the value of the change that stakeholders experience as a result of the activities under consideration. Crucial stages include identification of stakeholders and mapping key outcomes (Leck, 2012, op cit).
[120] Holmes, T, Blackmore, E, Hawkins, R & Wakeford, T (2012) The common cause handbook. Machynlleth, Wales: Public Interest Research Centre.
[121] See Note 86.
[122] See Note 86.
[123] **www.relationshipsfoundation.org/Web/.** Shepanski, P, Schluter, M, Ashcroft, J, Hurditch, B, Trend, M & Lynas, P (2009) The Triple Test. Integrating economic, environmental and social policy. Cambridge: Relationships Foundation. Schluter, M & Ashcroft, J. 2009. Influencing, developing and assessing relationships. Cabinet Office Strategy Unit Seminar, 3 March 2009, **http://www.cabinetoffice.gov.uk/media/136494/relationshipshandout.pdf**, accessed April 2009. Schluter, M & Lee, D (1993) The R factor. London: Hodder & Stoughton.
[124] The 'social contract' is an implied agreement among members of society to accept a limited set of rules to enable social cooperation. Based on self-interest ('a good society is good for me') or duty (to serve the 'common good'), the social contract provides a rationale for individuals to act morally and for governments to create and maintain a just and ordered society. Drawing on the work of US agricultural ethicist, Paul Thompson, the table below shows different ways in which the social contract is specified and how they can be applied to farming and the land.

Theory	Libertarianism	Egalitarianism	Utilitarianism	Agrarianism
Deep value	Liberty (non-interference)	Fairness (equal opportunity)	Greatest good (efficiency)	Reciprocity (ecological integrity)
Principles	Property rights	Redistribution	Regulated market	Stewardship
Attitude to land/ farming	Ownership & control	Means of subsistence	Asset value	Intrinsic value & virtue
Proponents	Locke Robert Nozick	Rousseau John Rawls	Bentham/Mill Garrett Hardin	Thomas Jefferson Wendell Berry

Source: Adapted from Carruthers , S P, Thompson, N, Carroll, T, Webster, D, Harper, A & Soane, I (2009) Developing the English uplands. A report to the Commission for Rural Communities Inquiry into the Future for England's Upland Communities. Cheltenham: Commission for Rural Communities.
[125] Carruthers, S. P (2009) The land debate – 'doing the right thing': ethical approaches to land-use decision making. In: Winter, M & Lobley, M (Eds). What is land for? The food, fuel and climate change debate. London, Earthscan. Carruthers, S P (2002), Farming in crisis and the voice of silence. Ethics in science and environmental politics, 2002, 59-64.
[126] Jacobs, M (1997) Environmental valuation, deliberative democracy and public decision-making institutions. In: Foster, J (Ed) Valuing Nature. London: Routledge.
[127] Deliberation allows citizens to develop shared values through reasoned dialogue, in contrast to economic valuation methods, which aggregate consumers' individual preferences to arrive at an 'optimal' outcome.
[128] Farming Stories, **www.farmingstories.org.uk**, accessed December 2012.

About this report

This study was commissioned by the Oxford Farming Conference to provide information for the 2013 Conference: Confident Farmers Delivering for Society. This report examines UK farming's contribution to society and recommends how the farming industry, the supply chain and policy-makers could harness even more value in the future to address specific societal needs.

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The Oxford Farming Conference
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About The Oxford Farming Conference
The Oxford Farming Conference is a registered charity with the mission to 'Inform, Challenge and Inspire.'

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