

Agri-culture - Security through Diversity

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FARM was founded by a group of working farmers and campaigners aiming to bring together farmers, environmentalists and the public to fight for a sustainable and viable future for farming and food production both in the UK and globally.

We launched in November 2002 with the objective of providing an independent voice for the thousands of farmers and farm-workers whose views did not seem to be represented by existing, mainstream bodies.

This body of people still make up a significant proportion of farming in the UK. But the way of life, philosophy and systems of farming they follow are increasingly under threat.

Anecdotal and local knowledge, allied with reported annual official statistics indicate an under-reported exodus out of agriculture, leading to farm amalgamations and so increases in the size and intensity of production of the holdings remaining.

With fewer people left in farming and reduced opportunities for new and younger people to start on the farming ladder, it seemed obvious that there would be a reduction in the number of families sustained by farming directly, with likely knock-on effects for rural communities and their economies.

Our starting point for researching this report was the belief that it was the middle-ground of farmers, those often loosely termed 'family' farmers that were most under pressure, accounting for the bulk of the exodus.

Yet this exodus of many thousands of people out of the farming sector, which would normally excite media comment and parliamentary questions in other areas of the economy, seems to have been largely ignored. Despite the fact that with them, went a set of actual or potential wider 'valued outputs' to society.

To examine some of these assumptions and our concerns, FARM commissioned The Rural and Tourism Research Group at the University of Plymouth to conduct a thorough literature review of available sources relevant to the UK farming context to ascertain:

- What was meant by the term 'family farm'?
- Whether there were there any particular values attached to the type of farm and farming it represented?
- Would anything be lost to society if the family farm became less numerous and diverse?

The results of that literature review and commentary have informed a good deal of, and provided much of the evidence for, this report.

However, we have looked beyond the initial research to identify further sources, consider the causes behind the farming crisis, and indicate what needs to be done to address it. Therefore, this published report and its arguments predominantly reflect FARM's analysis and opinions.

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Additional research by:

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Expanded from initial scoping research by the Rural & Tourism Research Group, University of Plymouth:

'The contribution of Family Farms to Multifunctional Agriculture',

by Dr. Matt Reed, Dr. Matt Loble and Professor Andrew Errington,
Department of Land Use and Rural Management, Seale-Hayne Campus, October 2002

FARM would like to acknowledge the considerable contribution of the late Professor Andrew Errington to our knowledge and understanding of family farms, their structures and attributes.

FARM – The Independent Voice of Farmers, December 2004

www.farm.org.uk

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“One of the original meanings [of culture] is ‘husbandry’ or the tending of natural growth... The word ‘coulter’ which is a cognate of ‘culture’, means the blade of a ploughshare. We derive our word for the finest of human activities from labour and agriculture.”

Terry Eagleton, 2000, *The Idea of Culture*, Blackwell.

Executive Summary

A Positive Vision

FARM's primary founding principle was that the organisation would not be, 'just another group of whingeing farmers moaning about how terrible everything is.' Therefore, a key objective of this report is to set out what is, could and should be good about farming.

Values of Good Farming

Agriculture is viewed by most politicians as a 'problem' area. Yet on the big issues of Economy, Employment, Education and Environment, it has the potential to deliver key policy objectives:

Economic	At the national & regional level, farming is a driver of, rather than a drain on, the economy: <ul style="list-style-type: none">• Although just 0.7% of the UK's GDP, farming is the foundation of a food-chain that contributes 14% to overall GDP.• Each £1.00 of agricultural income boosts the local economy by £2.20.
Employment	<ul style="list-style-type: none">• For every 100 agricultural jobs, 50 other local jobs are sustained in other sectors.
Education	Farms and farming families provide secure learning environments. The popular caricature of farmers being more brawn than brains is overturned by the statistics: <ul style="list-style-type: none">• 80% of farmers in the 25-34 age range have higher education qualifications, compared to 32% for the general population.
Environmental	Agriculture is held responsible for wholesale ecological-destruction, yet: <ul style="list-style-type: none">• Environmental services provided by farming amount to £1 billion per annum.

Additionally, there are strong cultural and social values inherent in farming communities, agri-culture shapes and sustains local language and landscape.

Many of these values can be attributed to agriculture generally, but several are specific to or delivered more consistently by certain structures, systems and scales of farming.

Trends undermine Values

Set against these positive values are some negative trends:

- 4,500 farm holdings are going out every year; 87 a week; 12 a day.

This exodus is undermining agriculture's ability to deliver the values. The prevailing trend in the UK is to fewer, bigger farms - with a consequent decline in numbers of farmers and farm workers. Policy-makers see this as 'inevitable'. Indeed, the Government's Rural Recovery Czar, Lord Haskins, believes it is desirable,

'...farms will get bigger & that's a good thing. A lot of agricultural reformers, like the Prince of Wales, want farmers to stand around being subsidised & making thatched roofs. Well, that's for the birds. Agriculture has got to strive to be more competitive and more productive.'

According to such influential voices, mainstream UK farming can only survive by operating on an industrial-scale, producing food and fibre at world market prices. This narrow view limits the value of farming to simply that of maximum yields of crop or livestock per acre at lowest cost. On that basis, only the grimly prophesied 10,000 to 20,000 acre holdings producing for international commodity markets would be viable. UK farming structure is shifting in that direction:

- Farms above 300 hectares increased their share of the land from 36.3% in 1997 to 37.7%, representing 3.5% of all the holdings in the UK in 2000.
- 2.7% of UK farms produce 28.2% of all output.

This shift benefits neither farmers nor the environment. The US drive to become major grain exporter led to a 40% increase in soil erosion and caused a 25 percent increase in average farm size, with the loss of one third of all American farmers between 1970 and 1992. Under present policies & market conditions, the same fate will befall UK farming:

- Farm incomes have declined by 58.8% in real terms (2002/3 prices) over the past 25 years, leading to bankruptcy and worse - in 2002, 59 farmers committed suicide - one every 5 days.

Falling farm-gate prices

The exodus from agriculture and this shift to fewer, bigger farms is primarily driven by farm-gate prices falling below the true costs of production:

- Farmers received 28% less in 2003 of the share of a shopping basket of food than in 1988.
- Whilst producers' prices for beef have gone up 18% over the past 20 years, shop prices have increased 74%.
- The difference between the farm-gate and shop prices for chicken was 229% in 2002; for potatoes, a staggering 691%.

In response, farmers strive to reduce their costs by pushing land and livestock harder. Many fail in the struggle. Those that survive, amalgamate their holdings into bigger units in an attempt to improve economies of scale. But even the largest farms have little bargaining power against the small number of vast corporations who dominate the food-chain. Canada's National Farmers Union has mapped out such concentrations of power their country's 270,000 farms have to contend with:

- 3 fertiliser manufacturers, 4 seed companies, 2 major beef packers, 4 millers, and 5 dominant supermarkets.

A comparable concentration exists in the UK, where just 4 supermarkets control over 75% of all grocery sales. Tesco alone accounts for 28% of all grocery sales.

Subsidising supermarkets

Government attempts to counter such uncompetitive markets with subsidies, ducks tackling the fundamental problem of farm-gate prices below the costs of production. Continuing downward price pressure makes it doubtful whether even the new Single Farm Payments scheme can staunch the flow of farm bankruptcies for long. In any case, why should taxpayers subsidise the supermarkets and processors to access cheap raw ingredients?

Facts not Romantic Rhetoric

The fight for a real future for farming must provide the public, press and politicians with facts, not rhetoric. Agribusiness proponents, like Lord Haskins, prevail partly because those promoting the values of Agriculture have not made their case in sufficiently concrete terms. Loose, romanticising about the 'family farm' won't do.

Family Farms

The majority of farms in the UK could be said to be 'family farms' – whatever their scale or system. Farms run by single, childless or gay people are equally capable of contributing productively, environmentally and culturally to their communities and the nation more generally. Whilst we identify some quantifiable values associated with family farms, the generic term does not convince policy-makers to act. Examining the concept in 1990, The House of Lords Select Committee concluded that it did not,

'...regard the concept of a 'family farm' as one which is useful for policy purposes, since it can mean more or less anything one wants it to mean. Nor is it clear what benefits the 'family farm' confers on society'.

Small Farms

Although, what counts as 'small' varies enormously across terrain and topography – 2000 hectares might be considered small in Dumfries, 250 acres in Devon. There's more evidence as to the benefits of smaller farms:

- UK farms under 100 acres provide five times more jobs per acre than those over 500 acres.
- Woodland on small farms, as a proportion of utilised farm area, is double that on larger farms.

Organic Farms

The market success and positive public image of organic farming offers lessons to promoting 'good' agriculture more generally. Legally binding standards and supporting scientific evidence have been crucial in building consumer trust. A comprehensive review of UK studies comparing biodiversity on organic lowland farms to that on 'conventional' lowland farms found:

- 5 times as many wild plants in arable fields on organic farms;
- 57% greater diversity of species;
- 25% more birds in organic field edges, with 44% more in-field over autumn and winter.

However, only 4% of the UK's farmland is currently under organic management.

Diversity is the key factor

Overall our conclusion is that it is not the family structure or scale or prescribed set of practices that are most important, but rather the diversity and mix of farming system, size and sector. This is confirmed from the evidence and experience of agriculture during and after the Second World War – a period, when farming regained its pre-eminence as a vital sector in the Nation's economy and security.

Unfortunately, policy-makers failed to understand that it was mixed- farms with their range of enterprises, banks of fertility held under rotational fallow, and resource of multi-skilled labour that had enabled the boost in food production that beat the U-boat blockade. Instead the 1947 Agriculture Act set in motion the trend towards simplification and specialisation - with disastrous consequences for farmers, the countryside and ironically our long-term food security.

Specialisation and simplification did for both farmer and fauna and flora

The Nature Conservancy Council's 1984 report, Nature Conservation in Great Britain, gave a litany of wildlife and habitat losses since 1945:

- over 95% of wildflower-rich lowland meadows;
- 60% of heathland;
- 50% of ancient semi-natural woodland;
- 140,000 miles of hedgerow.

This accurately recorded the toll 'bigger', 'more efficient' farming had exacted upon the UK countryside, but failed to note the corresponding impacts the push to intensification was having upon farmers:

- 17% decline in farm numbers over past 30 years;
- 24% decline in farm workers over past 20 years;
- A majority of the UK's 500,000 farms at the end of the War, 'mixed farms' have declined to a minority of just 10,961 by 2002 (4%).

Had the cataloguing of ensuing wildlife destruction been matched by a parallel set of statistics showing the decline in numbers and diversity of those working the land, environmentalists and farmers might have made common-cause earlier.

Future Shocks & Challenges

Today we face even greater and longer-term shocks and challenges than during the war years. Climate change, depleted global oil and gas stocks, and the threat of international terrorism undermine our food-system's dependence on extensive fossil-fuel use and world commodity markets.

- 57% of Grade1 farmland is at risk of flooding from sea level rise due to global warming.
- Global oil reserves are up to 80 percent less than predicted, production levels will peak within 10 years.

Addressing the City of London police in October 2003, the Head of MI5 warned:

'TERRORISTS could target UK food supplies, the head of the government security agency MI5, Elizabeth Manningham-Buller has warned.'

Yet national food security does not seem to concern those in charge of agricultural policy:

'FOOD and farming minister Lord Whitty has told farmers that the government does not believe Britain should be self-sufficient in food. Britain is part of the global economy and farmers should compete on the world market, he told journalists at the Royal Smithfield Show. A [self-sufficiency] target is not what drives policy," Lord Whitty said, "Being competitive drives policy."
Farmers Weekly, November 2001

The government's own Sustainable Development Commission disagrees. Reviewing the Policy Commission report on Sustainable Farming and Food, the SDC commended the Commission for acknowledging the relevance of food security, but criticised the lack of any long-term policy direction:

'There is an excellent acknowledgement of the importance of food security right at the start (of the Policy Commission report): 'but land and expertise remain available if greater quantities of home-produced food are suddenly needed'.

But beyond this there is almost no mention of the need for resilience to potential risks from climate change, global resource (e.g. oil) disruption, transport breakdowns etc. Increases in local sourcing and distinctiveness are seen as cultural benefits; shorter supply chains as a way to cut costs. None of them are recognised as prudent ways to increase security through diversity.'

FARM's vision is for such a resilient agriculture sector, one that delivers the essential environmental, social & cultural values integral to good farming.

But farming must pay. Tackling excessive concentration of power in the food-chain is an essential first step to get agriculture onto a sustainable and viable footing.

As well as short-term action, agriculture needs a long-term vision from government – with food security and the regeneration of an expanded, more diverse national food producing sector top policy objectives.

Actions

Government	<ul style="list-style-type: none"> • Draw-up a long-term, sustainable vision for UK Agriculture. • Carry out a risk assessment of UK National Food Security. • Regulate major retailers. • Address fundamental issue of farm-gate prices. • Direct R&D funding to regenerate and develop 'modern' mixed farming systems.
Public	<ul style="list-style-type: none"> • Support UK farming • Re-learn seasonality, buy UK-grown and even better locally and regionally grown produce in preference to imported competing produce. • Make Food Security an electoral issue - lobby your County Councillors, MP and MEP.
Farmers	<ul style="list-style-type: none"> • Reject Agri-business & embrace Agri-culture Join Farm!

“I believe there is a real and prosperous future for the family farm, in some cases on a more diversified basis. But I would be astonished and dismayed if we were to see the disappearance of the traditional family farm”

Margaret Beckett speaking to House of Commons Select Committee on Environment, Food and Rural Affairs, 14 November 2001

At FARM's launch on 4th November 2002, we highlighted what we thought was a startling enough statistic: in the 50 years up to 2001 the number of the UK's farmers had decreased from 439,000 to 240,000¹.

We alerted the politicians and media's attention to this, by hanging 11 empty farmers' boiler-suits outside Secretary of State, Margaret Beckett's office at the Department of Environment, Food and Rural Affairs(DEFRA) to symbolise the number of farmers who'd gone out of business each and every day over those 50 years.

Nearly two years on the statistics of farm losses and the exodus of farmers and farm-workers leaving the land have not improved. In May 2003, Farmers Guardian reported figures from the Office of National Statistics suggesting that:

‘52,000 people had left the farming and fishing industries over 2002, double the previous year's drop in the workforce of 26,000.’²

FARM contacted the ONS to see if the figures could be broken down more accurately between the two industries. Although, we were told that this was not possible, it was acknowledged that the majority would have gone out from the farming sector.

This exodus is treated largely with indifference or fatalistic acceptance. If almost one thousand people a week were being sent down the road from the manufacturing sector or out of the City of London, it would surely be front-page news, with editors demanding action, and questions asked in the House? Yet it seems to have been accepted that this exodus doesn't matter, is 'inevitable', reflects 'progress' and necessary 'streamlining' of farming. Unlike a car manufacturer going bust, there is no mass departure of a thousand people leaving in one block to capture on camera as the factory gates close behind them. Individual farms don't lie abandoned and derelict, like a rusting redundant shipyard, but instead are bought up and maintained by non-farmers, with the majority of the farmland amalgamated into bigger units. On the surface, the infrastructure of farming looks in good heart, the underlying trends tell us otherwise.

The summary of statistics that follow, gathered from more recent research and enquiries of DEFRA, the Office of National Statistics and other sources are set out to confirm that indeed there is an ongoing exodus out of farming. We will go on to indicate why this matters to society more generally and not just to those most immediately losing their livelihoods.

¹ Pretty J., 2002, *‘Agri-culture, Reconnecting People, Land and Nature’*, Earthscan.

² Farmers Guardian, 16/5/03 :‘Exit numbers double’.

Numbers of Farms, farmers & farm workers have been and are declining

Averaged out, over the past 50 years, 4,500 farm holdings have disappeared each year, that's 87 a week, 12 a day:

- Between 1956 – 2002, the number of farm holdings³ in the UK, went from 511,935 to 303,200, a drop of 208,735 (40.8%) in 46 years.⁴
- For farm workers (excluding farmer owner/occupiers), the labour force fell from 882,296 in 1951 to 198,000 by 2001, a loss of 684,296 (77.6%) in 50 years. 13,686 workers lost per year; 263 per week; 37 per day.⁵
- The total combined workforce (farmers, partners, directors, spouses, regular / seasonal / casual workers, salaried managers), numbers fell from 757,045 in 1978 to 533,000 by 2003. A loss of 224,045 (29.6%) in 25 years. 8,962 total labour force workers per year; 172 a week; 25 a day.⁶

Overall, the trend is towards – fewer, bigger, specialised farms dominating commercial food production

In general, UK holdings which are already large, compared to European farms have seen their size increase further:

- In 1956, the average holding was 37.8 hectares (1 hectare = 2.47 acres). By 2002, this had increased to 61.0 hectares.⁷
- Average field size increased over 1945 – 1983 by between 39% and 182%.⁸
- Between 1995 - 2000, the number of farms over 100 hectares declined from 17.2% to 17.4%, and the percentage of all land held on these farms rose from 66.8% to 70%.⁹
- Farms above 300 hectares increased their share of the land from 36.3% in 1997 to 37.7%, representing 3.5% of all the holdings in the UK in 2000.¹⁰

³ Holders EUROSTAT website definition = the farm holder is the legal or physical person taking benefit of the agricultural activity. Are only accounted [sic] the individual holders and not the holders of group holdings

⁴ MAFF, Agricultural Statistics United Kingdom: Agricultural Census and Production (London: Stationery Office) and DEFRA, 2004, Agriculture in the United Kingdom 2003 (London: Stationery Office)

⁵ MAFF, Agricultural Statistics United Kingdom: Agricultural Census and Production (London: Stationery Office) and DEFRA, 2002, Agriculture in the United Kingdom 2001 (London: Stationery Office)

⁶ MAFF, Agricultural Statistics United Kingdom: Agricultural Census and Production (London: Stationery Office) and DEFRA, 2004, Agriculture in the United Kingdom 2003 (London: Stationery Office)

⁷ MAFF, Agricultural Statistics United Kingdom: Agricultural Census and Production (London: Stationery Office) and DEFRA, 2004, Agriculture in the United Kingdom 2003 (London: Stationery Office)

⁸ The State of Soils in England & Wales, Environment Agency report, 2004

⁹ Reed M., Lobley M., Errington A., 'The Contribution of Family Farms to Multifunctional Agriculture', Dept. of Land-Use & Rural Management, Seale-Hayne, October 2002. See also Journal of the Royal Agricultural Society of England, 2000.

¹⁰ Changes in Agriculture's Structure in the Twentieth Century, RASE Millennium Journal 2000, Prof. J. North.

It was the farms between the very small and the very large that declined most in number, with the concentration of land held in the very large farms increasing.

Economic output not necessarily linked to scale

The physical size of the farm holdings alone is not a guide to its agricultural, economic performance; 400 hectares of moorland or mountain will not be as agriculturally productive as the same area on flat lowlands. A Welsh hill farmer may have more land than an East Anglian grain baron, but generate a fraction of the income.

To account for these contrasts, holdings are measured in European Size Units (ESUs) that gauge the economic potential of the farm rather than its physical size alone.

The minimum to qualify as a full time holding is estimated at 8 ESUs. Of the 303,200 farm holdings identified by DEFRA in 2003, only 114, 200 are classified as full-time farms, i.e over 8 ESUs.

A relatively small group of large, highly mechanized and heavily capitalised farms play a dominant role in supplying the market for agricultural commodities:

- In 2000, 48.1% of all farms in the UK were not officially considered as full-time economic holdings. These accounted for just 2.7% of all agricultural output in the UK.
- Whereas the largest holdings (200+ ESUs, see box above) although only 2.7% of all farms produced 28.2% of all agricultural output.¹¹

Number of farms bought by non-farmers increasing

According to figures from the Royal Institute of Chartered Surveyors the percentage of farms purchased by non-farmers is outstripping the percentage purchased by farmers:

- From April – June 2003, 44% of farms were bought by non-farmers, rising to 56% in the south-east.
- From July – September, the ratio of non farmer to farmer purchases was 45% to 41%.
- From October – December, the ratio of non-farmer to farmer purchases was 51% to <40%. Rising as high as 65% non-farmers in the south-east.¹²

Latest figures for 2004, show a slight decrease in the share of farms being bought by non-farmer, residential buyers. The apparent contradiction between the pressures on and exodus of smaller and family farmers and yet the increase in the number of small 'farms' is explained by that fact that many of these will not be working or commercially viable holdings:

¹¹ Changes in Agriculture's Structure in the Twentieth Century, RASE Millennium Journal 2000, Prof. J. North.

¹² Sources:

RICS, 4 August 2003, '*City slickers bolster rural prices*' (Press release, available at www.rics.org)

RICS, 31 October 2003, '*Farmers keep out*' (Press release, available at www.rics.org)

RICS, 2 February 2004, '*Land prices hit record high as non-farmers take over the market*' (Press release, available at www.rics.org)

- Between 1995 and 2000 the percentage of holdings below 20 hectares grew from 40.7% of all holdings to 46.2%.¹³
- From 1995 to 1997, the number of holdings in the UK under 5 hectares increased by 1 in 8.¹⁴
- By 2003, the percentage of farms not considered commercially viable in their own right had increased to 62%.¹⁵

Farm Incomes have been declining over the last 25 years:

- UK net farm incomes have dropped 58.8% in real terms (2002/3 prices) over the past 25 years. Falling from an average annual income of £29,654 in 1978/9, to just £12,211.00 in 2002/3. Figures from DEFRA for 2003 estimate that total farming income has risen by 28% in real terms on 2002. However, incomes for dairying and general cropping farms fell by 47% and 31% respectively.¹⁶
- On a weekly basis, comparing data from the Average Earnings Index (AEI), farmers were earning around double the national average in 1978/9, but by 2002/3 this had fallen to half the national average¹⁷:
1978/9: farmers = c. £163.00, national average = c. £84.00;
2002/3: farmers = c. £234.40, national average = c. £470.00

Farmers' share of the 'Food £1' falling:

Overall, food corporations are taking an ever-increasing share of the price people pay for food, while the farmers' share keeps shrinking:

- Farmers, the primary food producers, receive only 7.5p from every £1 spent by shoppers on food, compared to 50p (10 shillings) 50 years ago.
- Between 1988 and 2003, the farmer's share of the shopping basket price fell by 28%.¹⁸
- In the UK, the food and catering retail price index has risen 50 per cent since 1987, while the price that farmers receive has dropped by 3 per cent.

Farmers' declining incomes are paralleled by a rising concentration of power in the UK food-chain, particularly evident in the supermarket sector:

- Just 4 major supermarkets control over 75% of all grocery sales; One Tesco, accounts for over 25% of the market.
- In 2001/2, Tesco's profits were £1.4 billion, compared to the total income earned by all the UK's farmers of £2.36 billion. In 2004, Tesco's profits rose to £1.6

¹³ Claude Vidal, 2000, 'Thirty years of agriculture in Europe: Farm numbers declining as farms grow in size'. EUROSTAT.

¹⁴ Claude Vidal, 2000, ditto..

¹⁵ DEFRA statistics cited by Reed M., Lobley M., Errington A., 'The Contribution of Family Farms to Multifunctional Agriculture', Dept. of Land-Use & Rural Management, Seale-Hayne, October 2002.

¹⁶ Agriculture in the United Kingdom, 2003, DEFRA 2004.

¹⁷ Sources: DEFRA & Office of National Statistics

¹⁸ Agriculture in the United Kingdom, 2003, DEFRA 2004.

billion, equivalent to an annual spend in a Tesco store for every UK citizen of around £500.¹⁹

‘Breaking the Armlock’

The disproportionate power and profits of Tesco and the other major supermarkets is clear when just one retailer’s profits alone amount to over 60% of the combined income of all of the UK’s 300,000 plus farms. There is no shortage of money in the food-chain, but it appears that some sectors are making excessive profits at the expense of others.

The Competition Commission inquiry into supermarkets stopped short of saying that either or both farmers and consumers were being ripped off, but it did itemise nearly 30 practices supermarkets employed that were not in the public interest. Most of these involve treatment of suppliers, for example a recent grower survey, by the British Independent Fruit Growers Association; found that 85% of apple and pear growers said that multiple retailers were not giving them a fair deal.²⁰

Even the Prime Minister has acknowledged that,

“...the supermarkets have pretty much got an arm-lock on you people at the moment”, and promised that it was,

“...something we have got to sit down with them and work out”.²¹

At time of writing that arm-lock has not been eased. That’s why FARM joined 14 other organisations to form the ‘Breaking the Armlock’ Alliance, which is campaigning for a legally binding and strengthened Code of Practice to regulate supermarkets, along with an independent watchdog, with the powers to protect both producer and consumer interests.

See www.breakingthearmlock.com

The decline in farm incomes is matched by an increase in earnings brought in from off-farm work:

- According to the Farm Business Survey 2002, 40% of farmers were engaged in off-farm agricultural work and 17% in other work off the farm.
- In 2000 MAFF (now DEFRA) reported that 25% of farms had diversified their on-farm business and the Inland Revenue reported an 85% growth in non-agricultural incomes on farms, with the largest amount coming from investments and state benefits.
- In total, 62% of farm household income was generated outside of agriculture²².

‘Diversification’

Government has been keen to point out the benefits of farmers and their families ‘diversifying’ into a range of other enterprises on and off the farm to add to their income stream. These range from running Bed & Breakfasts, to setting up equestrian and golf courses, to converting redundant farm buildings into work units for letting. Such entrepreneurial ventures by farmers are to be applauded, but it is worth bearing in mind the contribution in income such diversification schemes actually bring in. According to a DEFRA press release of January 2004, the average earnings in 2002-3 from diversification schemes were a mere £1,800 per farm.²³

¹⁹ Tesco PLC, Annual Reports 2001/2/3.

²⁰ Grower Survey by the Independent Fruit Growers’ Association, October 1999.

²¹ Prime Minister, Tony Blair addressing a group of farmers, 1/3/2001

²² DEFRA, 2001 quoted in Reed M., Lobley M., Errington A., ‘*The Contribution of Family Farms to Multifunctional Agriculture*’, Dept. of Land-Use & Rural Management, Seale-Hayne, October 2002.

²³ www.defra.gov.uk/news/latest/2004/farm-0104.htm

Fundamental questions that arise from the whole push by government for farmers to diversify are:

Shouldn't the job of producing food pay in its own right?

And

Isn't farming alone a job that requires a diversity of skills and knowledge?

A farmer's daily work already encompasses a diverse set of roles and responsibilities: machinery operator; crop rotation planning and management; animal husbandry; form-filling... and that begs the further question as to why a fundamental necessity of food production should be dependent on additional occupations and income streams to prop it up.

There is also a distinction to be made between diversification, where farmers take up non-farming activities to supplement their incomes and the multi-functional outputs that more inherently diverse farming systems and food production can provide. For example, farming that maintains landscape quality and encourages wildlife has a function beyond just food production and provides a valued output to the tourism industry.

Farmers are getting older

The average age of farmers is 58. In 2000, 25% of farm holders in the UK were over 65, a slight increase on the 1990 figure of 23%. This puts the majority of farmers in the minority of the overall UK workforce, who are over 50. Only 5.2% of farm holders were under 35, again down from 7.3% in 1990.²⁴

It would be possible to interpret this statistic positively if a greater number of older people were coming into farming, with an improved level of health that enabled them to work as hard as a 30 year old and with sufficient financial resources to put into improving their farm businesses and employing additional farm labour. However, this is not the case. With the overall trend indicated earlier of people leaving farming and declining incomes, this statistic shows instead that there is an ageing rump left holding on in poor financial straits. Worse there is a dearth of successors and new entrants ready to take on the burden and rejuvenate agriculture.

Lack of Opportunities for New Entrants

It has been claimed that the rising age of farmers is due to a lack of interest from young people wanting to come into the industry and take up a working life consisting of long hours of hard, physical work, often outdoors in all weathers. Yet a survey by Farmer's Weekly in February 2002 showed that 80% of young people whose families were from rural backgrounds wanted to work in a rural occupation. More specifically 54% of them wanted to work as ***'a farmer, farm worker or farm manager'***.²⁵

The problem is not lack of potential new entrants, but lack of opportunities and support for new entrants in the UK, with the overall disincentive of insufficient income levels as shown earlier in this chapter. There are EU schemes which provide enabling legislation for new entrants (Articles 7 and 8 of Council Regulation (EC) No 1257/1999). These allow Member States to offer young people setting up in farming a maximum grant of 25,000 Euros (£16,600), with a further 25,000 Euros available as a loan to cover the costs of establishment, as well as allowing for co-finance investment by government of up to 45% for young farmers (55% in less favoured areas).

²⁴ Agriculture in the UK 2003, DEFRA 2004. London: Stationery Office.

²⁵ Relf, T., 'Young want to stay in country', Farmers Weekly 2002.

Across EU Member States, the average annual 'installation' of new entrants stands at between 24 – 31,000 people. France alone accounts for 40% of the take-up of the scheme. The UK has a 0% take-up.²⁶

These figures indicate, despite statements to the contrary, the UK Government's view that there is little or no future for farming in the UK. As the Tenancy Reform Industry Group commented in its report of May 2003,

'As with retirement, there is EU enabling legislation allowing member states to introduce schemes to encourage young, new entrants. A study by the Conseil Europeen des Jeunes Agriculteurs has shown that currently the UK is the only Member State that has not taken advantage of these powers. In this respect young, new entrants in the UK are at a disadvantage to those in other member states.'²⁷

County Council farm tenancies have traditionally been a key 'first rung on the farming ladder'. But successive governments have encouraged or forced Councils to disperse their farming estate. The acreage of council tenancies declined by 7,558 acres, with 202 farms no longer available to tenants over a three- year period between 1999 – 2002. Figures from the same source give a total of 4,684 county farm holdings covering 311,305 acres of land in 2002 (Other sources indicate a lower figure of under 3,400 county tenancies, covering c. 263,000 acres). The money raised by councils from selling off farm holdings over 1999-2002 totalled £116.7 million, but only £11.5 million (10%) was reinvested in their farm estates.²⁸

Any industry needs new blood and fresh ideas to maintain its vigour. By not encouraging new and young people into farming, the Government is not only indicating its lack of faith in UK agriculture, but is failing to recognise the potential economic growth such seed-corn funding could stimulate. Against the prevailing view and in spite of a total lack of interest from the governments of the time, the organic movement has developed into one of the fastest, burgeoning sectors. The majority of early organic pioneers came from outside farming.

Diversity of people

If UK farming is to thrive, there should be more opportunities for new people and for those outside the expected sectors of society. Agriculture should not become ossified or only the preserve of 'privileged inheritors' of farms.

One sector particularly poorly represented, other than through the unsavoury activities of some gang-masters and their provision of near slave labour, are ethnic groups. This is understandable as agriculture is a small industry relatively, with a steadily declining number of people working in it.

But of 355,000 people in England and Wales working in Agriculture, Hunting and Fishing, only 3,494 people, 1.5% of the total, were from minority ethnic groups. This amounts to just 0.2 per cent of all people from minority ethnic groups in work. There is no data; we could source specifically identifying farmers or workers by ethnic group.²⁹

²⁶ FARM standpoint on New Entrants, www.farm.org.uk

²⁷ Tenancy Reform Industry Group (TRIG), May 2003, DEFRA.

²⁸ County Farms & Rural Estates Statistics 2001/2, Chartered Institute of Public Finance and Accountancy, quoted in Tenancy Reform Industry Group (TRIG) report, DEFRA, 2003.

²⁹ 2001 Agricultural Census, DEFRA.

There are several obvious factors why ethnic groups are under-represented in farming compared to other industries:

- Location: People from minority ethnic groups tend to live in urban areas, distant from agricultural employment opportunities;
- Employment opportunities are contracting for workers;
- Financial barriers to entry into the industry are high for entrepreneurs, and agricultural wages are too low to attract workers from minority ethnic groups

Although, contrary to initial expectation many migrants from developing countries may have relevant skills and experience. At a question and answer session at the 2002, BBC Good Food Show in Birmingham, a local businessman, whose family came originally from the Punjab, asked why there were so few openings in farming for ethnic minorities. In his case, his family had expanded from running grocery stores to growing produce themselves – partly, because of the difficulty of sourcing particular types of vegetables in demand from his community. As he pointed out, his family came from *'five generations of farmers'* back in the Punjab. A family farmer indeed – and one able to spot new opportunities to supply the large and specialist markets of urban ethnic groups in the UK with a good deal of home-grown produce.)

Farmers are taking their own lives:

During the 1980's, farmers, horticultural workers and farm managers had the second highest suicide rate after vets. During the period of 1991-6 they dropped to the third highest group, with vets and doctors being the most at risk. The availability of the means to end their lives is a key factor here.

Between 1991-1996, 190 farmers, farm managers and horticultural workers committed suicide. This meant that 1 farmer took her or his life every 11 days between 1991-1996. In 1999, 77 farmer suicides were recorded, the most recent figures for 2002, show 59 farmers committed suicide, raising the average to one suicide every 6 days³⁰.

'Occupational groups representative of the rural economy such as vets and farmers have suicide rates which are significantly higher than the average - vets 350% higher and farmers 200%.

Other groups not particularly associated with the countryside such as doctors and dentists have rates similar to those of farmers but, because there are many more farmers than doctors or dentists, this group has the rare distinction of having a higher number of suicides than any other male occupational group.

Farmers' wives also have a raised suicide rate but less so than their partners with an excess of 50% above other women of the same age.

In the UK as a whole a farmer commits suicide every week and 40% do so with their own shotguns - having a convenient method of committing suicide such as a shotgun is a well documented risk factor. '

Director of Public Health Annual Report 2001, Dyfed Powys Health Authority³¹

³⁰ Samaritans, 2002, Suicide & Occupation & National Farmers Union, UK Agricultural Review, Farming in Crisis, 2002.

³¹ http://www.dyfpws-ha.wales.nhs.uk/dirphanrep2001/ch4_rstress.htm

Being a family farm member can often mean that a farmer has a close-knit support to help ease the pressure. But in other instances, the family and its history are the pressure. A Methodist minister, working in the farming community, describes the process that can lead to suicide,

'What happens is that they say "I'm not going to be the one who gives up farming. This has been handed down to me for 10 generations and I'm not going to be the one that gives up farming. I'm not going to be the one who chucks it in". The pressure on them not to be the one, from parents, from cousins and uncles and aunts is so strong that at the end of the day, they go out and shoot themselves, because it is too much.'³²

Up to this last point, it would be possible to rationalise the trends that we have outlined, as 'inevitable', the price of progress etc. Indeed, certain politicians and pundits do just that, arguing along the following lines:

- 'So what that the numbers of working farms have declined since the end of the last war? That's just progress and no different to any other industrial sector. Advances in technology mean fewer, more efficient, farmers can produce more of our food more cheaply.'
- 'Fewer, more mechanised, modern farms means less need for back-breaking work from dawn until dusk. No one wants to hand hoe fields of turnips all day. Chemicals and machinery have liberated people from toiling on the land to working in clean offices and factories protected from the weather.'
- 'Average farm incomes may be declining, but that's because there are 'too many farmers'. As numbers of 'inefficient', 'unprofitable' farmers do the sensible thing and leave the industry, the overall available income from farming will be spread amongst fewer farmers and so incomes will rise.'
- 'Where's the harm if redundant farms are bought up by non-farmers, who keep a few chickens or horses and enjoy the 'good life'? At least that means there are no derelict farms and new comers bring incomes and new types of employment into rural areas.'

Even if all the above arguments were perfectly reasonable, and this report goes on to show why they are not, the final statistic we cited of farm suicides that farmers should be totally unacceptable to the majority of the population. It indicates a sector of society in deep distress and for whom the proffered strategies of individual diversification and collective cooperation provide no immediate solution to their problems.

These farm suicides are individual tragedies that should provoke outrage and action in their own right. But as we argue in the next chapter, the decline in the number of farms and farmer and the narrowing down of remaining farms to more specialised and uniform operations brings a decline in and narrowing down of the wider values that agriculture can and should bring to society more generally.

³² Interview conducted February 2002, Dept. of Land Use & Rural Management, Seale Hayne, University of Plymouth.

Chapter 2. Why these trends matter - the Values of Agriculture

***"Anything less than three or four thousand acres for each crop grown will probably not be sufficient...
It probably means taking a block of 20,000 acres and planning out the cropping and responsibilities in a very precise and maybe hardhearted way."***

Sir Ewen Cameron, Chair of the Countryside Agency, addressing a group of former students of the Royal Agricultural College 2002.

The above quote from the Chair of the Countryside Agency indicates an acceptance, if slightly reluctantly, that the trends outlined in Chapter 1 are inevitable, that there is nothing we can or should do to challenge them. Other blunter commentators such as the Government's Rural Recovery Czar, Lord Haskins, see these trends not just as inevitable, but desirable and beneficial,

***'...farms will get bigger & that's a good thing. A lot of agricultural reformers, like the Prince of Wales, want farmers to stand around being subsidised & making thatched roofs.
Well, that's for the birds. Agriculture has got to strive to be more competitive and more productive.'***

Quotes attributed to Lord Haskins, Govt's Rural Recovery Coordinator Patrick Wintour, The Guardian, 11/4/01

According to such influential voices, mainstream UK farming can and only deserves to survive through operating on an increasingly, industrial scale enabling it to produce food and fibre at world market prices. This perspective is one that limits farming's outputs primarily to that of its yields.

Yield means the production per unit area of a single crop – i.e. 'metric tons of wheat per hectare.' The highest yield of any single crop can be obtained simply by planting it alone on a field - in a monoculture, as is the preference in industrial agriculture because this is what large machinery is designed to work with. Through the system of intensively managed monocultures grown on very large fields industrial agriculture has managed to increase yields dramatically.

On the measure of yield alone, the models and scale of farming predicted and promoted by Ewen Cameron and Lord Haskins does seem the inevitable and preferred model. Yet there are well-documented costs associated with this model, which are itemised later. There are also costs with abandoning all types of farm and farming that don't fit with this model. Those costs are due to the loss of the wider outputs or values that agriculture can deliver above and beyond food and fibre.

Looking at yield alone reflects a narrow focus of everything that farming can and does produce and chooses to ignore or discount the negative impacts and external costs of industrial agriculture. When the latter's proponents claim it is the only model that can feed the world's population, they conveniently ignore the fact that of the main commodity crops produced by industrial agriculture, a third of the world's wheat, two-thirds of the maize, and at least three-quarters of barley and soya, do not feed people directly, but go into animal feed.³³ The latter does result in producing

³³ Tudge C., 'So Shall We Reap', Penguin 2003

food for humans, but it is questionable how efficiently or cost-effectively compared to directly consumable human foodstuffs.

Higher Yields, Lower Incomes – The Canadian Experience

For UK farmers, unconvinced by our challenging of the sacred dogmas of ‘yields’ and ‘economies of scale’, we recommend that they get hold of a copy of the study by the Canadian National Farmers Union (CNFU), *The Farm Crisis, Bigger Farms, and the Myths of “Competition” and “Efficiency”*. This offers a powerful critique analysis of what the drive to fewer, bigger farms and greater ‘efficiency’ has meant for Canadian farmers.

Like UK farmers, Canadian producers were told that the only way forward was to get bigger and to take up all available technologies, that this would be to their benefit, and enable them to increase their income. However, CNFU’s analysis is that the underlying plan had the benefits of others than farmers primarily in mind:

‘The Government and agri-business transnationals have a plan for Canadian farmers. That plan takes various forms, but its essence is this:

Driven by competition and aided by technology, Canadian farms must become larger and more efficient, though less numerous. The embedded assumption is that open, deregulated, globalised markets will drive our farms to higher levels of efficiency, raising incomes for farmers and lowering prices for consumers. A key part of this plan to increase efficiency is to increase farm size. And increases in farm size will require a decrease in the number of farmers.’

While the Canadian Government has recently been less explicit about reducing the number of farmers, they were formerly very explicit. A Federal Task Force in 1969 recommended that one-half to two-thirds of Canadian farmers be moved out of agriculture. The Task Force criticised those who:

“...were loathe to recognise the need for a widespread exodus from farming”, claiming that this exodus out of farming would help, ***‘achieve a higher per capita net farm income for those left in farming while at the same time obtaining better paid employment for those who leave agriculture.’***

The trend in Canada has been down the same path of expansion and technological innovation as evident in, and of which more of the same is proposed for UK agriculture. Farms have indeed got bigger, increasing from the 300 and 600-acre arable farms a generation or two ago, to today’s 3,000- and 6,000-acre farms. With the largest farms already standing at 10,000, or even 20,000 acres. Tractor power has also doubled from 100/200 horsepower to 300/400. Yet the CNFU found that whilst such new technologies had enabled Canadian farmers to double their gross revenue —from about \$17 billion in the late 1940s to over \$35 billion today - their net income has actually fallen.³⁴

Everything from machinery, outbuildings, acreage per farm, livestock and crop yields per acre, production per farm, has increased in scale and intensity. As has Canada’s total agricultural production, allowing agrifood exports to double over the past decade. Everything has increased, except for farmers’ farm-gate prices and incomes. In relative terms, the prices farmers receive have not increased over the past 25 years. As the CNFU wryly comments:

‘Farmers’ ability to continue producing without a price increase for 25 years — despite rising prices for fuel, fertiliser, and other inputs—suggests a high degree of efficiency. Few others can match farmers’ performance: General Motors, Shell Oil, and Coca-Cola cannot today make and sell their products for 1975 prices.’

³⁴ *The Farm Crisis, Bigger Farms, and the Myths of “Competition” and “Efficiency”*. Canadian National Farmers Union, 2003.

Even with fewer farms left to share the net income “pie,” and adjusted for inflation, overall net farm income today is one third of its 1940s level. As in the UK, to keep in farming, most families rely on additional income from off-farm jobs. Nor has this increased ‘efficiency’ at the farm level resulted in lower food prices for consumers. While farm gate prices have held steady, consumer food prices have increased by 500% over the past 25 years.

Yet government ministers, policy makers and pundits across the world continue to urge farmers that by becoming more ‘efficient’, they can improve their lot. Here’s Canada’s own version of Lord Haskins, Liberal MP Bob Speller, on the theme:

‘Farmers must be encouraged and assisted to compete aggressively in domestic and international markets on the basis of efficiency and quality. . . .’³⁵

‘Efficiency’ is the term used by politicians and agribusiness spokespeople in the UK and around the world, when they want to persuade their public and farmers that the global trend towards fewer, bigger farms is both inevitable and for the best. Whether in Canada or the UK, “efficiency,” really means reducing the number of farmers and farm-workers.

www.nfu.ca

On a simple comparison of yield, the Cameron-Haskins model would be a hands-down winner. The 62% of farms that fall below the official threshold of 8 ESUs as economically viable farms, producing under 3% of all the UK’s food and fibre output, must be ‘inefficient’ compared to the 2.7% of farms that deliver over 28% of all food and fibre? Not necessarily, if we adjust the measure to consider the total output of different farming systems.

Output includes not just the full range of crops, utilisable crop residues, livestock manures etc. that a farm can produce, but also the wider economic, environmental, social and cultural ‘values’ agriculture can deliver. Agriculture’s ability to produce such values has been widely and officially acknowledged:

“Beyond its primary function of producing food and fibre, agricultural activity can also shape the landscape, provide environmental benefits such as land conservation, the sustainable management of renewable natural resources and the preservation of biodiversity, and contribute to the socio-economic viability of many rural areas.

Agriculture is multifunctional when it has one or several functions in addition to its primary role of producing food and fibre.”

OECD Declaration of Agricultural Ministers Committee, 1998

This multifunctionality can and does apply across many types, systems and scales of farming. It is not and does not have to be restricted to any one size or model of farming, although our research identifies there are certain characteristics of some farms and systems of farming that better deliver specific values. But as the trends set out in the last chapter indicate, it is these farms and systems, small, family and mixed farms, that are most under pressure, and so the values they offer are also under threat. That these farms are going out at the rate they are, shows that officially and publicly they and their contribution to multifunctional agriculture are undervalued. Conversely, the trend towards and official approval for the

³⁵ Quoted in Hill Times, April 2, 2002, ‘PM’s Task Force hopes to work with Agriculture Minister, rural and farm organizations, consumer groups, to establish a vision.’

internationally competitive, industrial-scale agribusinesses indicates that too much emphasis is being put on one value of agriculture, that of producing 'cheap' food.

Total output is the sum of everything a farmer produces: various grains, fruits, vegetables, fodder, animal products, etc. Considering yield alone biases the results toward larger farms, whereas if total output is considered then large-scale, intensive farms can often be shown to be actually less 'productive'.

When this distinction is made between yield and total output, large-scale industrial agriculture can be seen to be making the least efficient use of land.

This inverse relationship between farm size and farm productivity has been observed by agricultural and development economists for some time³⁶. Peterson asserts:

"...that small family and part-time farms are at least as efficient as larger commercial operations. In fact, there is evidence of diseconomies of scale as farm size increases."³⁷

Values that all farms can contribute to:

Nevertheless, there are some values that pretty much all and any farms can contribute to.

Food & Fibre Production

It would certainly be perverse not to mention the production of food and fibre as a primary 'value' of agriculture. UK Agriculture has vastly increased its ability to produce large volumes of food and fibre at low cost, at least through the narrow measure of yields:

- UK farmers boosted their production from just 30% of all temperate foodstuffs to around 50% over just 6 years during World War Two.³⁸
- Over the 60 years prior to the War, wheat yields had remained constant at an average of around 2- 2.5 tonnes per hectare. But since the 1940s through to the present day, yields have risen dramatically to an average of 8 tonnes per hectare, with a good number of arable farmers making the '10 tonne' club.³⁹
- There was a marked degree of intensification between 1975 and 1987, when UK farms' economic output increased by a factor of 2.6. But between 1987 and 1997, growth in the economic output of holdings came only from the increase in their physical size."⁴⁰

National Economic Value

When looked at from the simple focus of its specific contribution to the national economy, Gross Domestic Product (GDP), agriculture appears to play a declining role:

³⁶ Barret, 1993; Ellis, 1993; Tomich et al., 1995; Berry and Cline, 1979; Feder, 1985; Prosterman and Riedinger, 1987; Cornia, 1985 cited in '*The Multiple Functions and Benefits of Small Farm Agriculture*', Food First, 1999.

³⁷ Peterson, Willis L., '*Are Large Farms More Efficient?*' Staff Paper P97-2. University of Minnesota, Department of Applied Economics. January 1997.

³⁸ Selly C., '*Ill fares the land, Food, Farming & the Countryside*', Andre Deutsch 1972

³⁹ Harvey G., '*Killing of the Countryside*', Vintage 1998.

⁴⁰ Claude Vidal, 2000b, Twenty years of agriculture in Europe: Ever larger holdings but different economic situations (EUROSTAT), p. 2.

- In 1973, agriculture accounted for 3% of GDP, reducing to 1% by 1998, and to just 0.7% by 2002.⁴¹
- Farming's gross value in the food chain amounted to £7.9 billion in 2002, compared to £19.5 billion for the food processing and manufacturing sector, and £17.4 billion for the retail sector.⁴²
- Overall UK consumers spend £134 billion on food and drink, adding food exports brings this figure up to just under £144 billion.⁴³

Whilst the value of farm commodities may have fallen, the share of the food industry overall (production, retailing and catering) in the national economy has increased to 14% of the UK's GDP. Agriculture is therefore the source, if not the beneficiary of much of that growth. Farmers produce the raw materials for a clearly, very profitable food processing and retailing sector. It can be concluded that it is not so much that the importance of farming has declined, but more that the profitability has moved to other parts of the food chain. Farmers have reduced their costs through taking up technology, shedding labour etc to increase yields, whilst reducing the relative price of raw foodstuffs. Others in the food chain have capitalised upon that by adding 'values' through processing, packaging and convenient retailing.

Regional Economic Value

Studies from the US show that farms with lower-input systems tend to buy a larger proportion of their inputs locally. Whilst the total of local purchases may not be as high per acre as for 'high-input' farms, a greater portion of the latter's value of production leaves the local economy to pay for purchased inputs.

Using farm business management data, a survey of 30 crop and livestock farmers in Minnesota, showed larger farms tended to buy a smaller percentage of their inputs from the local markets, particularly in the case of livestock farmers. Larger crop and livestock farmers were more likely to group together to purchase seeds and chemicals from factory or wholesale outlets thereby bypassing local sales people and receiving lower prices for their inputs⁴⁴. And an examination of the local purchasing patterns of large and small dairy farms in Wisconsin found that the percent of dairy feed purchased locally declined as herd size increased.⁴⁵ A similar, positive knock-on effect has been observed for UK agriculture on other industries and employment:

- Across the UK, it has been estimated that every pound of agricultural income boosts the local economy by £2.20.⁴⁶
- A study in 2000 of farms in Lancashire calculated that for every £1m of agricultural output, there was a corresponding increased output of £0.45m in

⁴¹ Agriculture in the UK 2003, DEFRA 2004, London Stationery Office.

⁴² The UK Food Chain, Sustainable Food & Farming, DEFRA 2002.

⁴³ The UK Food Chain, Sustainable Food & Farming, DEFRA 2002.

⁴⁴ Chism J.W. & Levins R.A., 1994, *'Farm spending & local selling. How do they match up?'*, Minnesota Agricultural Economist.

⁴⁵ Foltz J.D., Jackson-Smith D., & Chen L., 2002, *'Do purchasing patterns differ between large and small farmers?'* Agricultural & Resources Economic Review..

⁴⁶ *'Farming Foundations: policies to support a diverse UK farming system'*, SAFE Alliance, December 1995.

other local industries. This multiplier for farming of 1.45 is at the top end of the range across all other local industries.⁴⁷

- A review of Hill Farming's contribution to the economies of the UK's Less Favoured Areas showed that for every £10,000 of revenue generated on a sheep farm added a further £20,000 to the local economy.⁴⁸

Regional Employment Value

The same study of agriculture and horticulture's economic contribution in the West Lancashire District quoted above showed a similar employment multiplier of 1.5. So for every 100 agricultural jobs, 50 other local jobs are created and sustained in other sectors.

Agricultural employment has been in long-term decline, dropping from 6% of total rural employment in 1991 to 4% in 1996, and under 2% in 2004. Increasingly those employed on farms are the owners of that farm, and have contractors working for them. But in many remote rural areas, family farms still provide the only employment and the only consistent source of income for service providers, keeping an area economically active.

For example, parts of Cumbria and Northumberland, Devon and Cornwall remain highly dependent on farming for employment, with agriculture accounting for up 30% of the workforce.

Landscape Value

The restrictions imposed on access to the countryside during the Foot and Mouth disease outbreak, highlighted the importance of tourism to the rural economy:

- Each year in the UK, we make more than 500 million day and overnight visits to the countryside and seaside, spending a total of £14 billion in local economies. That's more than four times all subsidies paid to farmers (£3 billion annually).⁴⁹
- 78 per cent of holiday trips to the South West were motivated by 'conserved landscapes', generating an estimated spend of £2,354 million per year.

Obviously a range of things draw people to visit the countryside, many of which are not the product of human intervention, but a number are. Much of the countryside and its look, features and wildlife are a direct result of farming practice:

- Annual expenditure by farmers on looking after landscape features and habitats across a range of farm types in England and Wales has been estimated at c.

⁴⁷ LAWTEC, May 2000 *'The Economic Impact of Agriculture & Horticulture in West Lancashire District'*.

⁴⁸ Hill farm review, NFU, 1993.

⁴⁹ Data for visits and expenditure in the UK countryside comes from the Countryside Agency (2001) and English Tourist Council (2000), who use the UK Leisure Day Visits Survey and UK tourism surveys to calculate the number of visits made to the countryside for leisure and recreational activities. In 1998, some 1.261 billion tourist day visits were made, of which 72% were to towns, 6% to the seaside, and 22% to the countryside. In addition to day visits, a further 172 million tourist trips are taken by UK and overseas residents, in which one or more nights are spent away, totalling 707 million days. Thus there were 433 million visit-days to the countryside. Average spend per day/night is £16.90 for UK day visitors, £33.00 for UK over-night visitors, and £58.40 for overseas over-night visitors, putting the total spend at £11.02 billion per year.

£250 million. It would cost 4 times this amount if the work were to be carried out by the local council or another body.⁵⁰

Environmental Value

One of farming's most important services is the responsible stewardship of the countryside – its quality of biodiversity and natural resources:

- Farmland in the UK accounts for over three-quarters of our natural environment.
- Over 50% of the most highly valued fauna and flora types in Europe occur on farmland managed in a 'low intensity manner'.
- Of the 75 types native to the UK, 32 occur on managed farmland.⁵¹

Overall the environmental services provided by farming have been calculated to be in the region of £1 billion per annum, including the benefits of agricultural soils and crops as 'carbon sinks', storing the greenhouse gas, carbon dioxide.⁵² However, this valuable provision of positive environmental services is countered by estimated negative costs of between £1.5 to £2 billion.⁵³ Rather than viewing these opposing figures as cancelling out farming's contribution to environmental and resource management, they should be seen as representing a choice between two systems: One, Agriculture brings inherent benefits to biodiversity and husband's natural resources, The other Agribusiness reduces biodiversity and squanders the resources upon which it depends. We look at the costs of this latter model in Chapter 4.

Values linked to particular types and systems of farming

As the preceding section shows there are aspects of multifunctionality or wider outputs than food and fibre alone that can potentially be delivered by all farms, whatever their size or system. But some values are inherent in and particular to certain systems and scales of farming. Increasing and improving the delivery of multifunctionality by all agriculture is a reasonable course to follow (as is intended by the recently introduced 'Broad & Shallow' agri-environment scheme) and indeed it would be, if we had not shown that some of the sectors that can inherently if not best deliver these wider values are the ones most under threat. Their systems of farming are undervalued by policy makers and the trends are setting us on course to follow the path the US has taken where there is a greater polarisation between vast agribusiness style commodity producers and a remnant of what had been the bedrock of America's agriculture, the smaller, family farmers.

We will examine what is meant by the terms 'small' and 'family' farmer in the UK context in the next chapter and try to pin down a more precise definition. Nevertheless what follows is the evidence we have been able to gather of the real benefits to society delivered by specific types and scales of farming:

⁵⁰ Univ. of Exeter Agricultural Economics Unit, February 2000, *Who Cares?*

⁵¹ Bignal E. M. & McCracken D., 1996. *Low intensity farming systems in the conservation of the countryside*, Journal of Applied Ecology, 33: 413-424.

⁵² Hartridge O. & Pearce D. 2001 *'Is UK Agriculture Sustainable? Environmentally Adjusted Economic Accounts for UK Agriculture'*, CSERGE-Economics paper

⁵³ Pretty J. et al (2000) *'An Assessment of the Total External Costs of UK Agriculture'*, Agricultural Systems, Vol. 65 pp. 113-136

Organic Farms – better for biodiversity?

‘The general conclusion is that on average there is a positive benefit to wildlife conservation on organic farms. In most studies, organic agriculture provides a conservation benefit...’

Sustainability benefits of organic farming, DEFRA

There is a vast amount of literature setting out the inherent benefits of organic farming for human health, animal welfare and the environment. There is a corresponding body of literature disputing the concerns many people have about the agrochemicals and antibiotics used in conventional farming that organic farmers do without. The fact that the organic food market is worth over £1 billion annually in the UK shows that a significant body of people believe there are certain values delivered by that system of farming. Therefore, it is welcome that government has provided some official support for that view by introducing its Organic Action Plan that aims to increase the acreage under organic farming to 30% by 2010

Claims for the superior nutritional value of organic food are hotly disputed, but there is no doubt that organic farming is better for biodiversity, delivering more wildlife per acre than other types of farming. A comprehensive review of UK studies in 2000, comparing biodiversity on organic lowland farms to that on ‘conventional’ lowland farms found:

- 5 times as many wild plants in arable fields on organic farms; 57% greater diversity of species, as well as several key, rare and declining arable wild plants.
- The same review found 25% more birds in organic field edges, with 44% more in-field over autumn and winter. This was attributed to the increased number of insect food species for birds under organic systems (1.6 times). Interestingly, for crop pests such as aphids, there was a significant decrease in numbers in organic fields.⁵⁴

This has been reinforced by an update review in 2004 by the RSPB and English Nature of 76 independent studies showing both species abundance and range tend to be higher on organic farms.

DEFRA has calculated the environmental benefits to society of organic farming as standing at between £130 – 170 per hectare. So the current Organic Aid Scheme which pays just £60 per hectare could be said to be very good value for money or somewhat stingy, depending whether you work for the Treasury or are an organic farmer.

A key reason cited in the studies for these observed differences, leaving aside the absence of agrochemical use, is the fact that the majority of the organic farms are mixed farms ie. they practise field rotations of crops and livestock.

Organic farming is the closest existing system to the original traditional mixed farming model, relying on rotations and livestock manures for fertility building, utilisation of farm wastes and minimal dependence on off-farm inputs.

‘Integrated’ Farming Systems

Additionally, a significant number of ‘conventional’ farmers who whilst not pursuing the pure organic path have recognised the limitations and costs of excessive dependence on agrochemicals and developed half-way house systems seeking to

⁵⁴ The Soil Association & WWF-UK, 2000, *‘The Biodiversity benefits of organic farming’*.

incorporate the best of traditional farming methods with modern technology. One example of this would be LEAF (Linking Environment and Farming), which promotes Integrated Farm Management (IFM) that claims to combine, '... the best of traditional farming methods with modern technology.'

Both organic farming and integrated farm management are systems of farming that seek to inherently deliver a number of different outputs or values.

Small Farms – environmental values

Research shows that small farmers are often the most environmentally aware members of the farming community, particularly those small farmers who have recently entered farming from another occupation. That's not to say larger farmers are by definition uninterested in conservation schemes, but studies show that this is often on a remedial basis, i.e. putting back habitats that they'd previously removed or damaged.⁵⁵ The explanations given for the greater environmental output per acre of small farms compared to larger farms include:

- Small farms tend to have a larger proportion of the farm down to grass, smaller field sizes and a greater density of hedgerows⁵⁶.
- Eurostat data shows that the area of woodland on small farms as a proportion of utilised farm area is double that on larger farms⁵⁷.
- A 1990 study showed that smaller, rather than larger farms tended to have woodland present, with 21.3% of holdings under 20 hectares having woodland, compared to 13.2% for farms of 200 hectares or more⁵⁸

A pragmatic reason may also be that many smaller farms are not large enough to justify the expenditure on more machinery and do not have the capital to intensify their production methods and machinery. Alternatively, the occupiers may not be wholly dependent on the farm for their income, and so can 'afford' to allow nature more of her head.

Small farms may provide rich reservoirs of semi-natural vegetation and wildlife habitat, but can also suffer greater rates of damage and loss to that higher base of existing environmental features. Those farmers still mainly dependent on agricultural income, will be more vulnerable to economic change and so more likely to pull out of farming altogether. When that happens, it is common for them to be consolidated into larger, more efficient and intensive farms or holdings with consequent losses to environmental features and wildlife.

⁵⁵ Potter C. Barr C.J. et al, '*Environmental change in Britain's countryside: an analysis of recent patterns and socio-economic processes based on the Countryside Survey 1990.*' Journal of Environmental Management 48: 169-186, 1996. Also see Small Farming & the Environment, Potter, C. & Lobley, M., 1992.

⁵⁶ CEAS 1988, '*A Review of opportunities presented by extended field margins for conservation*', DEFRA.

⁵⁷ Agriculture & the Environment, Eurostat 1993,

⁵⁸ Potter C. Barr C.J. et al, '*Environmental change in Britain's countryside: an analysis of recent patterns and socio-economic processes based on the Countryside Survey 1990.*' Journal of Environmental Management 48: 169-186, 1996. Also see Small Farming & the Environment, Potter, C. & Lobley, M., 1992.

The Farms that Government forgets...

Despite the evidence of the considerable conservation capital value of small farms, they are a neglected sector. Perversely, government grant schemes designed to increase conservation value such as the Countryside Stewardship Scheme (CSS) can actively discriminate against such farms because of their inherent environmental benefits. Smaller farms with excellent existing biodiversity, have been refused Countryside Stewardship as compared to larger farms, which are accepted into the scheme for remedial work - so farmers who have neglected or damaged the habitats on their farms are more likely to qualify than those who've looked after them. This was the case for the chair of the Small Farmers Association, Philip Hosking, whose Devon farm is acknowledged to be an absolute jewel in the crown of small farms. Despite having a television series made about his farm celebrating its wildlife, *'The Farm that Time Forgot'*, Mr Hosking's farm was refused CSS acceptance. He believes because the assessment of farms is done on a net environmental gain approach. It seems that DEFRA is 'forgetting' and overlooking the value of small farms too...

A significant body of small farms are occupied by older farmers. We have commented on the fact that farming has a greater number of older people in it than other professions. This is only a bad thing when there are few opportunities and little incentive for new, young people to come into the sector – as is currently the case. With regards to the environment, the greater age of many farmers is both a present good and a potential future bad thing. As there is evidence that farms worked by older occupants can be higher in conservation capital or wildlife features, because they are not worked as hard as larger farms. They are inherently low intensity systems with low inputs of chemical fertilisers or pesticides. Older farmers do not have the need for the income a young family requires, and are not able to work so physically hard. Equally, unless they have a successor, they may not be willing to undertake the considerable investment to modernise their farm.⁵⁹

Whether these farmers are active conservationists or more so by default, considerable conservation capital is likely to be lost if their farms are sold or amalgamated into bigger units.

Small Farms - greater efficiencies of scale?

While small farms may be more productive than large farms in terms of environmental output per unit area, this can be offset by the generally unchallenged claim that large farms are still more 'efficient' producers of food and fibre. But even this 'given' is open to debate, depending on the definition of 'efficiency' that one chooses.

Large farms generally have higher labour productivity due to mechanisation, so they might be considered to be more efficient in labour usage. The definition of efficiency most widely accepted by economists is that of "total factor productivity," an averaging of the efficiency of use of all the different factors that go into production, including land, labour, inputs, capital, etc. Studies by researchers at Cornell University provide data from the 1960s, 70s and early 80s, which show small farms have greater total factor productivity than large farms in Sub-Saharan Africa, Asia, Mexico and Columbia.⁶⁰

⁵⁹ Potter C. and Lobley M., 1992, *'The conservation status and potential of elderly farmers'*, Journal of Rural Studies 8 (2): 133-143. Also same authors, *Small Farming & the Environment*, 1992.

⁶⁰ Tomich T.P., Kilby P., & Johnston B.F., *'Transforming Agrarian Economies: Opportunities Seized, Opportunities Missed'*. Ithaca, Cornell University Press, 1995.

For industrial countries like the US and UK, the pattern is less clear. The consensus position is probably that very small farms are inefficient because they can't make full use of expensive equipment, while very large farms are also inefficient because of management and labour problems inherent in large operations. Thus peak efficiency is likely achieved on mid-sized farms that have one or two hired labourers. In a recent, detailed analysis of true total factor productivity, corrected for a number of biases in the data, the author concludes that advantages to larger farm sizes found by some analysts "disappear, while there is evidence of diseconomies as farm size increases".⁶¹

Small farms – employment value

Although farms occupied by older farmers are shown to have geared down their farming activity. There is evidence that contrary to expectations smaller farms actually provide more employment opportunities than large-scale businesses:

- A report by the International Sustainability & Environment Council cites studies showing that UK farms under 100 acres provide five times more jobs per acre than those over 500 acres.⁶²

This statistic is likely to be influenced by the good number of horticultural holdings included, producing fruit and vegetables requiring labour intensive methods, as well as smaller, mixed-farms with consequent demands for animal husbandry management. Whereas large, arable farms are highly mechanised and will have shed on-farm labour apart from the immediate farming family, in favour of contractors so as to meet world commodity prices for cereals. There is a virtuous circle observable in both producing food for more local and regional consumption, which in turn provides more local employment.

'Family Farms' – solid foundations for learning

"The greatest thing that agriculture furnished this country is not food or fibre, but a set of children with a work ethic and a good set of values."

Ron Macher, of Clark, Missouri. Editor of Small Farm Today Magazine, speaking at Memphis public meeting, July 28, 1997

A unique long-term, large-scale US study of the children of farming families in Iowa found strong evidence that children raised on farms had certain advantages that would be of benefit to their community,

"From the evidence at hand, young people with ties to the land are more successful across all domains than other adolescents. They tend to rank higher on academic performance, social prominence, self-confidence, and the avoidance of problem behaviour, other factors being equal"⁶³

The study led by Glen Elder and Rand Conger, focused on those children whose families either had ties to the land, were still farming or who had recently given up. They were chosen because the area had been through the intense farm crisis of the

⁶¹ Tomich T.P., Kilby P., & Johnston B.F., ditto. See also Strange, 1988; Madden, 1967; Peterson, 1997.

⁶² ISEC, *'Bringing the Food Economy Home'*, Zed Books, October 2000.

⁶³ Elder, Glen H., Jr., and Rand D. Conger. 2000. *'Children of the Land: Adversity and Success in Rural America.'* Chicago: University of Chicago Press.

early to mid 1980's and their families had experienced considerable hardship. The project sought to track how these children fared through adolescence into early adulthood. Elder and Conger found that young people with ties to the land, overall did better at college, and were:

- more confident and 'less likely to get into trouble';
- more likely to be leaders in their peer group;
- more likely to be involved in paid work out of school or college and to be involved in more civic organisations.

Elder and Conger concluded that a good deal of the success of the children of farming families was based on the depth of the social resources their parents had, even those families whose farm had failed. It has been demonstrated that those who have access to some assets can avoid the worst effects of poverty and exclusion. Those with even low levels of savings (perhaps as low as £600) fare better in education, are able to take a fuller part in society and eventually work themselves out of poverty.

Notwithstanding that observation, there is an identifiable value of stability, cohesion and enterprise present within the family farm structure. The research by Elder and Conger also noted an unsurprising gender imbalance reflecting that in farm employment and opportunities:

'Apart from their competence as students, farm girls are unusually successful in pursuing higher education. Some of this may stem from lack of good alternatives'.

Although no directly comparable studies exist for the UK, the largest study of UK farmer's education attainment by Dr Ruth Gasson of Wye College, showed that:

- In the 1970's approximately 10% of UK farmers had received further and/or higher education, rising over the late 1980s to approximately 30% and to 50% by the mid 1990's.⁶⁴
- A survey of 200 farmers in England by Lobley et al 2002 indicated that 48% of the sample had undertaken post school agricultural and that 29% were educated to Diploma or degree level.
- In 1991, a survey by the Nat West bank of almost one fifth of all British farms found that 80% of 25-35 year old farmers had qualifications from agricultural college or university.
- In an academic survey of just Devon and Cornwall, the figure for farmers under 40 years of age with qualifications was around 75%.⁶⁵

These figures become more meaningful when comparing the % of higher education qualifications of those raised on farms to the national average. Using data from a Nat West study alongside Department for Education (DfES) national averages for 1993, we found that:

⁶⁴ Gasson R., 'Educational qualifications of UK farmers: a review,' in Journal of Rural Studies 14 (4), pp. 487-498, 1998.

⁶⁵ Warren, M. 1989, 'Farming Change in Devon & Cornwall: The implications for training and advice.' Plymouth, Polytechnic of the South West.

- Whereas 80% of those raised on farms in the 25-34 age bracket had further education qualifications, the national average for that age bracket was only 38%.
- In the up to 24 age bracket, the statistics are similar, 74% for farmers compared to just 30% nationally.

These are indicated rather than exact comparisons, as the Nat West and DfES statistics were compiled around slightly different parameters. Overall, however, the comparison above is somewhat generous to the national average. The Nat West survey only concerned agricultural studies at college or university, whereas the DfES national averages for NVQ level 3 and above include a wide array of courses and qualifications, including A levels, at various institutions. The figures therefore underestimate the difference between the educational attainments of farming children and the national average.

Taking that into account the comparative figures are even more favourably inclined to those raised on farms:

- 25-34 Age bracket, 80% of farmers took higher qualifications, compared to 32% nationally.
- Up to 24, 74% of farmers took higher qualifications, compared to 15% nationally.

Therefore, these UK studies confirm some of the findings of the US studies quoted later, that farms offer strong foundations for encouraging education and attainment for their children.⁶⁶

Cultural Values

'Likewise, if that link between the farming communities and their land which has been built up over generations is severed, we will have lost something precious, which cannot be reinvented.'

HRH Prince Charles, speaking during FMD crisis, 2001

Numbers of bird and beetles found on different farm types, size and systems can be counted and compared relatively easily. Statistics on educational attainment are also fairly straightforward to source and itemise. But there are other wider values that can be and are delivered by farming, which are less tangible and so often undervalued or discounted. However, these are no less important as the evidence for them that we have been able to track down shows.

Surrounding the practice of farming there is a strong sense of culture that whilst not showing up readily in balance sheet, holds deeper, aesthetic and emotional values to society. The traditional ways in which farmers interact with the land, their livestock

⁶⁶ Sources for section on education: DfES, Autumn 1993 statistics, based on Quarterly Labour Force Survey.

Ruth Gasson, 1998, *'Educational qualifications of UK farmers: a review,'* in Journal of Rural Studies 14 (4), pp. 487-498

NatWest, 1992, The NatWest National Farm Survey: Summary Report and Tables. National Westminster Bank, Agricultural Office, Coventry, UK

M. Warren, 1989, *'Farming change in Devon and Cornwall. The Implications for Training and Advice.'* Polytechnic South West Seale-Hayne, Faculty of Agriculture, Food and Land Use, Newton Abbot

and local community have helped form many of the characteristic features of British rural life as well as the 'conserved landscapes', which are of such value to the tourism industry.

Anthropology is more usually associated with studies of peoples and places that are still more obviously removed in place, culture and ways of living than anything to be found within the British Isles. Which is why it is all the more interesting that one anthropologist, John Gray, has focussed his studies on the hill farming communities of the English/Scottish border country.

Gray's work shows how these hill farmers have created a 'sense of place' around how they live on their farms and talk about themselves and their animals. Farming families exist in 'an ecology' of other people, landscapes, animals and language, which they shape and are shaped by.

He describes this relationship as 'consubstantial':

'In using this term, I am arguing that what is essential to hill sheep farming people is a spatial relation between family and farm, between beings and a place, such that the distinct existence and form of both partake of or become united in a common substance.'⁶⁷

The substance of the family and farm become joined together, to be seen and to see itself as one con-joined entity. The labour of the farm becomes embodied in the farm's stock, in this instance sheep:

In this sense, the hirse⁶⁸ of sheep embodies the personhood, identity and herding ability of the shepherd whose life is so intimately bound up with it.

The shepherd controls the breeding of the sheep, adapting them to the land and the market he is seeking, over the years the decisions he makes are reflected in the sheep, as the characteristics of the flock are changed. Over time, animals become 'hefted' to the areas of land on which they habitually graze, not only adapted to it but unwilling to leave it and to some extent. The shepherd shapes his flock to suit the environment they must survive in, and so livestock and landscape shape each other. It is not too far-fetched to see the same process affecting the farming families themselves:

"Family farms come to resemble their flocks' relation to the hills where they graze: both are descent groups associated with a particular territory over generations."⁶⁹

In other words, farmers, their families, entire farming communities become as equally 'hefted'⁷⁰ to an area as their sheep.

⁶⁷ Gray J. N., 1996. 'Irony & Paradox in the Scottish Borderlands: Hill Sheep Farms and their relations with the European Union and the UK.' Australian Journal of Anthropology.

⁶⁸ 'a term that refers simultaneously to the sheep for which one shepherd is responsible and the area of hill where they graze' Gray, J. N. (2000). 'At home in the Hills: sense of place in the Scottish Borders'. Oxford, Berghahn.

⁶⁹ Gray, J. N. 2000. 'At home in the Hills: sense of place in the Scottish Borders'. Oxford, Berghahn.

⁷⁰ Hefted flocks are those that are bred and acclimatised to a specific area, landscape, hillside. The term became more widely known during the Foot & Mouth outbreak, when flocks

What Gray discovered was that the farmers' sense of self-identity was based on a fusion of family and farming: the name of a family and farm-place (both the farmhouse and farmland) were used interchangeably. Figures of speech, pictures and examples constantly bridge the gap between humans, animals and the landscape: Farmers are born to their role, the family is known as the 'X-farm', the flock is known as 'X- farmer's flock. Farming is not just a job, but at the core of how the farmer views his or herself and the world.⁷¹

Gray reveals a specific and real culture of family farming: a culture based on the lived experience of farming; and a way of life. His outlook offers a very different definitional mindset from the usual academic approaches. He describes family farming as a culture; one that defies exact taxonomic definition, but which amounts to a sum greater than its component parts:⁷²

“...the family farm is more a way of being-in-the-world than a specific set of people, relations and/or activities whose boundaries can be precisely defined.”

Such an anthropological assessment of the intangible, but nevertheless real cultural values created by and held within family farming is unique and powerful. This observed integration of a group of people's sense of identity, use of language, and intense relationship with their environment and the fauna and flora that inhabit it, is a concept that many people readily accept when applied to the world's surviving indigenous peoples, such as the Indians of the Amazon or the Aborigines of the outback.

It is understandably quite a jump for people to make the same connection to a group living in and part of our modern, western society in the UK. But there are some valid parallels. Many farming families are holding on against the odds and in the face of 'inevitable progress'. In cold economic terms, they should have given up and moved off the land and into some other more productive activity long ago. Like the indigenous tribes of South America and elsewhere, they represent a different culture and set of values to the increasingly homogenised and simplified consumer society being imposed on urban populations across the world by the proponents of globalisation and 'free-trade'.

Although decreed as almost valueless by the advocates of standardised production and consumption, more people in urban and rural areas are questioning the dominant model of development and seeing that the sense of place and intimate knowledge of locality that such family farmers retain is indeed of real value – be it in the UK or in the developing world.

Such individuals and their communities represent a counter-culture to the 'one size fits all' mentality of global markets. The rise of the Slow Food Movement across Europe, now spreading into North America shows that such counter-cultures are valued and supported by growing numbers of people. Slow Food now numbers some 100,000 supporters across five continents, its founder Carlo Petrini describes Slow Food as 'an eco-gastronomic movement', but one which quickly realised that

that had become 'hefted' over generations were threatened with culling – for example, the famous Herdwick flocks of Cumbria.

⁷¹ Gray, J. N. 2000, *'At home in the Hills: sense of place in the Scottish Borders.'* Oxford, Berghahn.

⁷² Gray, J.N. 1998, *'Family farms in the Scottish Borders: a practical definition by sheep farmers,'* in *Journal of Rural Studies* 14 (3), pp. 341-356

the regional foods it wanted to protect from extinction and substitution by 'Fast Food' were intimately connected to the work of people,

'...of farmers, who with their ancient knowledge are the true custodians of biodiversity and the land...'

Slow Food champions and supports producers seeking to sustain their livelihoods and distinctive local and regional produce. Petriani's analysis is one that many UK farmers and ecologists would share:

'Restoring traditional production techniques strengthens the communities that have become victims of a global production system and the industrialisation of food. You see, when one loses a flavour, one loses a recipe. When one loses a recipe, one loses the knowledge of the use of a natural product. And when one loses this knowledge, one loses the ability to cultivate that product. As a result we are slowly losing animal breeds and varieties of vegetable, and this means communities lose the capacity to maintain themselves – the whole fabric of society disintegrates and the scene is set for dependence upon multinational products.'

So too does the success and public profile of Jose Bove and the influential network of small, family farmers in France, the Confederation Paysanne Europeene in making such issues national and international news. Bove sees globalisation as the driving force behind the farm crisis in France and his peaceful dismantling of a MacDonald's restaurant being built in the nearby town was a powerfully symbolic short-hand message of what he stands for and against. (Although specifically it was a protest against the US trade embargo imposed on Roquefort cheese, which Bove makes, and other European products in retaliation for the EU ban on US beef produced using hormones):

***'There are two different views of society. One where the market, with its own rules, runs everything, and where all human activity (health, education, culture, and so on) takes place with capital as the bottom line; the other where people and their political institutions – not to mention issues such as the environment and culture – are at the forefront of society's concerns.'*⁷³**

From the US to the UK

A springboard for our attempting to make the case for a diverse, sustainable farming sector, was finding an existing report reflecting our indicated area of research and offering a similar pattern of argument: 'The Multiple Functions and Benefits of Small Farm Agriculture', published in 1999, by the California-based organisation, 'Food First', the Institute for Food and Development Policy:

'Surveying the data we indeed find that small farms almost always produce far more agricultural output per unit area than larger farms.'

⁷³ Bove, J. *'The World Is Not For Sale'*, Verso 2001

***This holds true whether we are talking about an industrial country like the United States, or any country in the Third World.*⁷⁴**

We are grateful to the Institute's permission to refer to and quote directly sections of that report here. Although, Food First's report relates mainly, but not wholly to the US farming situation, there are clear parallels to the UK farming and political context.

As we will discuss in Chapter 3, it is easy to get bogged down in defining what precisely is meant by the terms 'small' and 'family' in the UK farming context. Whereas what is and what is not a small or family farm is much clearer in the US, where the trends identified in Chapter 1 are already far more advanced, and where comparisons between privately owned and run farms to those owned and run by corporate agribusinesses are more obvious and extreme. Many 'small' US farms would be large by UK standards, so 'small' by US standards often means average to middling for the UK.

Bringing together research from countries in both the developed world (primarily the US) and also developing countries, Food First offers convincing evidence to demonstrate that 'small' farms are actually more productive, more efficient, and contribute more to economic development, than large farms:

- Large-scale monocultures may produce higher 'yields' (i.e. volume of a single crop per unit area), but land farmed this way produces little or nothing else of use to the farmer, while requiring greater investment of labour in weeding or capital in herbicide.
- Smaller farmers are more likely to plant crop mixtures and tend to combine or rotate crops and livestock, with manure serving to replenish soil fertility.
- Overall such integrated farming systems produce far more per unit area than do monocultures. As though the yield per unit area of one crop may be lower on a small farm than on a large monoculture, the total output per unit area, often composed of more than a dozen crops and various animal products, can be far higher. This holds true for both industrialised and developing countries, and is widely recognised by agricultural economists, as the "inverse relationship between farm size and output".⁷⁵

The report quotes data from the US Agricultural Census, which investigated the relationship between farm size and output per acre. This showed that the smallest farms, those of 27 acres or less, had more than ten times greater dollar output per acre than larger farms.⁷⁶ While this is in large part due to the fact that smaller farms tend to specialise in high value crops like vegetables and flowers, it also reflects relatively more labour and inputs applied per unit area, and the use of more diverse farming systems.

Peter Rossett, the main author of the Food First report boldly sets out the case for the smaller farm:

⁷⁴ Rossett P., *'The Multiple Functions and Benefits of Small Farm Agriculture'*, 1999. Food First, the Institute for Food and Development Policy.

⁷⁵ Tomich T. P., Kilby P., & Johnston B.F., 1995. *'Transforming Agrarian Economies: Opportunities Seized, Opportunities Missed.'* Ithaca: Cornell University Press. Also Barret, 1993; Ellis, 1993; 1995; Berry and Cline, 1979; Feder, 1985; Prosterman and Riedinger, 1987; Cornia, 1985.

⁷⁶ U.S. Agricultural Census, vol. 1, part 51, pp. 89-96, 1992.

'I challenge the conventional wisdom about small farms and assert they are 'multi-functional – more productive, more efficient, and contribute more to economic development than large farms. I argue that small farmers make better stewards of natural resources, conserving biodiversity and safeguarding the future sustainability of production.'

This cannot be dismissed by sceptical readers and proponents of the large-scale, industrialised 'efficient' farming systems as simply expected bias from a pressure group. Food First based its arguments on the findings of the US Department of Agriculture's National Commission on Small Farms, published a year earlier. This 1998 report, 'A Time to Act', affirms the public values of small farms:

- **Diversity:** Small farms embody a diversity of ownership, of cropping systems, of landscapes, of biological organisation, culture and traditions. A varied farm structure contributes to biodiversity, a diverse and aesthetically pleasing rural landscape, and open space.
- **Environmental benefits:** Responsible management of the natural resources of soil, water, and wildlife on the 60 percent of all US farms less than 180 acres in size, produces significant environmental benefits for society. Investing in the viability of such farms would bring dividends in the stewardship of the nation's natural resources.
- **Empowerment:** Decentralised land ownership produces more equitable economic opportunity for people in rural areas, as well as greater social capital. This also provides a greater sense of personal responsibility and feeling of control over one's life
- **Community Responsibility:** Land owners who rely on local businesses and services for their needs are more likely to have a stake in the well-being of the community and the well-being of its citizens. In turn, local landowners are more likely to be held accountable for any negative actions that harm the community.
- **Places of nurturing and knowledge:** Family farms can be nurturing places for children to grow up and acquire values. The skills of farming are passed from one generation to another under family ownership structures. When farm children do not continue to farm, farming knowledge, skills and experience are lost.
- **Reconnecting consumers and producers:** Most large-scale food retailing separates consumers from agriculture and food production, breaking their connection with nature and the cultivation of the earth. In contrast, farmers' markets, community supported agriculture, and the direct marketing strategies of small farmers, reconnects consumers with the people growing their food, and with food itself as a product of a farmer's cooperation with nature.
- **Economic foundations:** In several US states, employment provided by small farms and their need for farming-related goods and services are vital to the regional economy.

The Commission concludes with a powerful call to change the policies that have favoured large, corporate-style farms for so long, with consequent costs to rural communities and the environment:

'Having gone through the process of developing this report, we are now even more convinced of the necessity to recognise the small farm as the cornerstone of our agricultural and rural economy. We feel that a sustainable rural renaissance can be anchored in a vibrant, dynamic, small farm sector and we believe that the Commission's recommendations, if implemented, will contribute to this renaissance.'⁷⁷

It's a familiar stereotype that everything is 'bigger' in America. That the continent contains greater extremes of climate and geology than anything over here – and to a significant degree that applies to farming type and technology. The polarisation between the traditional 'family farm', linking back to the pioneers and founding fathers, and the vast corporate agribusinesses now dominating pig, poultry and corn production is greater than anything apparent in the UK:

- Over the last 50 years, over 4 million farms have gone out of business in the US, dropping from 6 million in the 1920s to around 2 million today.⁷⁸
- US beef-lots average 60,000 animals, with each beast putting on about 1.5 kg every day and collectively producing 100,000 tons of manure per year.⁷⁹
- One Californian mega-feedlot is reported to cram 100,000 animals into just 240 hectares - that's over 400 cattle per hectare, about 200 times the stocking rate of beef cattle reared on extensive, outdoor systems in the UK.
- Just 3.2% of US dairy farms – those with more than 500 cows – supply 41.9% of the market. Permission has recently been granted in California for a new dairy development with 47,600 cows on one 6,000 acre site.⁸⁰

This trend was well on its way more than a half-century ago, when Walter Goldschmidt compared areas in California's San Joaquin Valley dominated by large corporate farms with those where smaller, family farms prevailed. Goldschmidt asked:

'What does the growth of large-scale, industrial agriculture mean for rural towns and their communities?'

The answers his research showed was decline in and degradation of social capital:

- Where large corporate farms were dominant, the nearby towns died off;
- Increased mechanisation meant fewer local people were employed;
- Absentee corporate ownership meant that farm families themselves no longer existed

Towns surrounded by corporate farming suffered because the income earned in agriculture was drained off to the companies' headquarters and banks in larger cities,

⁷⁷ www.reeusda.gov/smallfarm/ncosf.htm.

⁷⁸ USDA, 2001, farm size and numbers data, www.usda.gov

⁷⁹ Pretty J., 2002, 'Agri-culture, Reconnecting People, Land and Nature', Earthscan.

⁸⁰ 'Land of Milk and Money? A briefing on the dairy system and reform of dairy policies', 2003 Sustain and also 'The Farmer Milks the Cows, Everyone Else Milks the Farmer', FARM dairy campaign briefing 2004.

whereas in towns surrounded by family farms, the income circulated among local business establishments, generating jobs and community prosperity.

Goldschmidt's study itemised in great detail the stronger social fabric, greater community coherence and civic participation sustained where family farms still predominated:

- more thriving and diverse local businesses;
- flourishing schools, churches, and clubs;
- an active readership for local newspapers;
- overall better provision of public services;
- even down to streets and sidewalks being better maintained.

Studies updating Goldschmidt's original work in the 1970s, 1988 and most recently in 1996 confirm his findings remain true today.⁸¹ One of these produced for US Congress in 1983, provides a damning indictment of the negative impacts of large industrial agriculture on rural communities:

"As farm size and absentee ownership increase, social conditions in the local community deteriorate.

We have found depressed median family incomes, high levels of poverty, low education levels, social and economic inequality between ethnic groups, etc.... associated with land and capital concentration in agriculture....

Communities that are surrounded by farms that are larger than can be operated by a family unit have a bi-modal income distribution, with a few wealthy elites, a majority of poor labourers, and virtually no middle class. The absence of a middle class at the community level has a serious negative effect on both the quality and quantity of social and commercial service, public education, local governments, etc.'⁸²

Another more recent study by Thomas Lyson and Robert Torres, from Cornell University with their colleague Rick Welsh from Clarkson University, considered this factor of engaged and active middle class. The researchers looked to the percentage of those self-employed, the percentage who worked at home and the number of small commercial establishments in the area. To ascertain levels of social well-being, they took the percentage of families in poverty, the rate of unemployment, the percentage of low birth rate and the level of violent crime. After running their

⁸¹ Fujimoto, Isao. 1977. *'The Communities of the San Joaquin Valley: The Relationship between Scale of Farming, Water Use, and the Quality of Life.'* Testimony before the House Subcommittee on Family Farms, Rural Development, and Social Studies, Sacramento, CA, October 28, 1977. MacCannell, Dean. Industrial agriculture and rural community degradation. pp. 15-75 in L.E. Swanson (ed), *Agriculture and Community Change in the U.S.:* The Congressional Research Reports. Boulder: Westview Press. Durrenberger, E. Paul, and Kendall M. Thu. 1996. *'The Expansion of Large-Scale Hog Farming in Iowa: The Applicability of Goldschmidt's Findings Fifty Years Later.'* *Human Organization* 55(4):409-415.

⁸² MacCannell, Dean. *'Agribusiness and the Small Community,'* Background paper to Technology, Public Policy and the Changing Structure of American Agriculture, Office of Technology Assessment, U.S. Congress, Washington, DC. 1983.

statistical analysis based on national census data, they found that 3 of the 4 key welfare indicators were better in those areas with smaller farms:

***'We find that communities in agriculturally dependent counties with a civically engaged populace, in which a high percentage of persons work for themselves and operate small independent businesses, tend to have higher levels of welfare.'*⁸³**

Whilst none of these studies suggest the existence of family farms alone is enough, they do show that a diversity of smaller, family-run farms play a significant role in sustaining the welfare of rural areas.

These US studies demonstrate that a relatively equitable, small farmer-based rural economy can provide the basis for strong regional and national economic development. This "farmer road to development" is often cited as part of the reason why the United States developed more rapidly and evenly than Latin America, with its inequitable land distribution characterised by huge haciendas and plantations interspersed with poverty-stricken subsistence farmers.⁸⁴ The US's independent "yeoman" farmers formed a vibrant domestic market for manufactured products from urban areas, including farm implements, clothing and other necessities.

Recognising this, some States have actually introduced legislation to maintain the structure of family farming. For example, South Dakota passed a Family Farm Act in 1974 which stated:

'The Legislature of the State of South Dakota recognises the importance of the family farm to the economic and moral stability of the State, and ... recognises that the existence of the family farm is threatened by conglomerates...and is jeopardised by downward vertical integration in farming.'

In 1998, the Act was strengthened to read,

***'No corporation or syndicate may acquire, or otherwise obtain an interest, whether legal, beneficial, or otherwise, in any real estate used for farming in this state, or engage in farming.'*⁸⁵**

But the common distinguishing point all three pieces of research from the US make, and which we believe is relevant to the UK is that where there is a reduction in the diversity of the farming sector there is also a reduction in the wider values that farming can offer society.

The Food First and USDA studies confirm that the smaller, family run farms inherently brought with them a range of values and functions beyond straightforward food production.

The Goldschmidt and subsequent, related studies showed that the very large-scale, specialised agribusinesses did not sustain the structures or complex relationships of a thriving community. Reduction in the numbers and diversity of farmer and farming

⁸³ Welsh R. & Lyson T., 2001, *'Anti-corporate farming laws, the Goldschmidt hypothesis & rural community welfare'*, Cornell University.

⁸⁴ De Janvry, A. 1981. *'The Agrarian Question & Reformism in Latin America'*. Baltimore, John Hopkins University Press

⁸⁵ South Dakota Codified Statutes, <http://legis.state.sd.us/statutes/Index.cfm?>

system led to a related reduction in the other goods and services farming can provide as well as outputs of food and fibre.

These studies and their findings are relevant to the UK, because we are experiencing a comparable reduction in the numbers and variety of those engaged in farming and food production. Although we have not yet adopted the intensity of livestock production current in the US:

'Old MacDonald's farm is being absorbed into what might be called New MacDonald's Farms... In other words, farming begins to resemble a fast-food franchise to run a burger-joint or an auto dealership. The operator buys the supplies and equipment from the brand-name company and produces to its uniform specifications.'

The Last Farm Crisis, The Nation magazine, November 2000

Chapter 3. Does the 'family' farm have intrinsic value?

'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

In the preceding chapter, we brought together the evidence of positive values associated with agriculture generally and also specifically with some different models, scales and systems of farming.

When we set out on this research, one of our objectives was to try and tie down the term 'family farm'. Firstly, because 'family farms' are often cited as encapsulating a model, philosophy and system of farming that generally delivers a range of values. Secondly, because the scale of farms under most pressure and going out of business seemed to be those organised around a family unit, on a scale which one family could or had been able to manage and make a living from. If both these assumptions were correct then we would confirm that there was a need for a targeted campaign to 'Save the Family Farm'.

The term has been used as a convenient short-hand communication to building public concern and political campaigns around. There is certainly a rich seam of historic and noble sentiment to draw upon and so encourage sympathy and support from politician and public alike – as Thomas Jefferson's quote above. Writing after the American War of Independence, Jefferson saw family farmers as the foundation of the new republic. Through their commitment to the land, being settled in one place to establish their livelihoods, 'family' farmers represented a stable soil in which to nurture the new Nation's roots and green shoots of democracy.

Similarly, in modern Europe, the 'family farm' has also long been claimed or stated to be a central concern of policy makers. During the formative years of the Common Agricultural Policy (CAP), family farming was seen as the bedrock of European society and rural economy. The Spaak report of 1956, which set out the essential form of the EEC, recognised the importance of the

"social structure of agriculture based on the family farm".⁸⁶

The Stresa Conference of 1958, which established the principles of the CAP issued a general resolution stating that agriculture was both an integral part of the European economy and an essential factor in social life:

'...given the importance of the familial structure of European agriculture and the unanimous wish to safeguard this character, every effort should be made to raise the economic and competitive capacity of such enterprises.'

⁸⁶ Fennell R. 1987. *'The Common Agricultural Policy of the European Community: the institutions and administrative organisation'*. Oxford, BSP professional books.

As in America, family farm agriculture was identified as the 'economic engine' driving rural development, coupled with an important social role. EU Agricultural Commissioner, Franz Fischler declared in 2001 that,

'...the core of our farming system [is] a family-based agriculture'...

However, such rhetorical turns of phrase have not been enough to staunch the haemorrhaging of people out of farming. With no absolute and agreed definition of what a family farm is, those promoting its values have not been able to direct policy makers to providing targeted support to staunch the losses out of farming. Whilst the term sounds benign and positive, such that everyone is 'for family farming', its 'apple pie' general 'goodness' ensures that policy makers do little other than offer romantic rhetoric in support.

In America, as the Food First and USDA reports show, there is a much clearer contrast and polarisation between farms owned and run by individual families and those run by corporations. Therefore in terms of both scale and ownership, the terms 'small' and 'family' are more obviously meaningful. Although the UK pig and poultry sectors are well down the track of the US model and provide some distinction between 'family owned/run' and corporate owned and run:

- Of the UK's 34,000 licensed egg producers under 300 account for 75% of all eggs.⁸⁷

But for most other sectors there is as yet no such clear polarisation of scale and ownership. Hence when the House of Lords Select Committee examined the concept of the family farm in 1990, they concluded that they did not,

'...regard the concept of a 'family farm' as one which is useful for policy purposes, since it can mean more or less anything one wants it to mean. Nor is it clear what benefits the 'family farm' confers on society'.⁸⁸

The proceedings of a symposium organised by the Family Farmers Association and the Centre for Agricultural Strategy in 1993 included a paper from Dr Neil Ward, which admitted,

'Almost all UK farm businesses can be described as family farms in the sense that the principals are related by kinship or marriage, and business ownership is combined with managerial control.'⁸⁹

When the definition of family farm applies so generally, then as the House of Lords said in exasperation, it can

'mean more or less anything one wants it to mean'.

⁸⁷ MAFF stats 1999.

⁸⁸ House of Lords, 1990. 'The Future of Rural Society', London, HMSO, Select Committee on the European Communities 16th Report.

⁸⁹ Ward N., 'Environmental concern and the decline of dynastic family farming', included in Crisis on the family farm: ethics or economics: Centre for Agricultural Strategy, CAS Paper 28

Part of our research brief to Seale Hayne was to review the academic literature to test whether the terms 'family' or 'small' farm could be tied down to less equivocal definitions. Their researches indicated that the term 'family farm' can provide a meaningful and bounded definition, concluding that:

'All farming families are unique, and as with any other family, generalisations must remain just that, a general comment. The lives led by real farming families are their own but we are suggesting that there are some common features of family farming.'

As expanded on in this report, they confirmed some concrete values and outputs specific to family farming:

'We have argued elsewhere that some of these intrinsic characteristics of the farm family business may confer particular benefits to society. For example, the strong commitment to farming and use of family labour may encourage farming families to absorb the costs of economic recession, remaining on the farm in "disguised unemployment."⁹⁰

Like FARM, Seale Hayne researchers recognised the danger of falling into loose, 'romantic' idealism of what a family farm is:

'Although we are accustomed to reading about family farming with a romantic gloss, our model is not based on an idealistic vision of family farming. For some, life on a family farm might be an ideal of happiness. For others it may be a tangled net of obligation to the dead and duty to the unappreciative living.'⁹¹

Writing in Farmers Weekly, farmer Neil Datson bluntly expressed what the earlier quote from the church minister dealing with farm suicides hinted at, that family farms can be claustrophobic, confining places that put intolerable pressures on families and individuals within them:

'There is nothing about the family farm which makes it especially worthy of sympathy...As an institution it is often stultifying, backward looking and myopic. At its worst it is an exploitative and cruel thing, which brings hatreds, blights lives and destroys hope.'

Neil Datson, farmer writing in Farmers Weekly, 1993.

If the term 'family farm' can be indeterminate and provoke such contradictory emotions as those that lie between Thomas Jefferson's encomium and Neil Datson's pessimistic portrayal of family farm life as expressed above, it is slightly easier to define what is meant by a 'small' farm in the UK.

The Small Farmers Association (SFA), formed in 1997, does not restrict its membership on size, but particularly:

⁹⁰ Reed M., Lobley M., Errington A., *'The Contribution of Family Farms to Multifunctional Agriculture'*, Dept. of Land-Use & Rural Management, Seale-Hayne, October 2002.

⁹¹ Reed M., Lobley M., Errington A., ditto.

‘...welcomes ...farmers who farm less than 250 acres’.

However, as the Duke of Buccleuch, founder Patron of the SFA’s predecessor, the Smallfarmers’ Association commented at their conference, ‘Smallfarming and the Nation’ in 1981, small is a relative term depending on region and topography:

‘At this point I must state my own definition of a ‘small farm’. I have in mind a unit large enough to support two members of a family or one member of a family and one employee, possibly part-time, with a standard of living fully comparable to urban occupations, but probably with a higher quality of life whose value is impossible to calculate in material terms. This can of course be any size up to 2000 hectares in parts of Scotland. Personally, I feel we need all types of farms – large and small ‘managed’ farms on private and institutional estates.’

The more we looked into what is or isn’t meant by ‘small’ and ‘family’ the more we realised that coming up with the once and for all definitive definition was not the point. It is not so much that a precise species or sector of farmer and farm-worker is being made extinct, but that as identified in Chapter 1, we are losing vast numbers of farms, farmers and farm-workers across all sectors.

The trend is to fewer, bigger farms, so it is true that it is the smaller and middle-sized working farms, which are predominantly being forced out or amalgamated.

The UK farm sector is being reduced down; its diversity narrowed to fewer, bigger, specialised farms. And with the loss of the diversity of farms goes a loss of a diverse range of values that farming can provide – some of which are peculiar to ‘smaller’ and ‘family’ occupied and run farms.

The previous chapter indicated certain values most particularly associated with certain types of farm and farming. These have had varying success in achieving recognition for their values and policy measures to support them.

One sector that has succeeded in convincing politicians and the public of its ‘values’ is the organic sector. For over 60 years, organic farmers and growers have gone against the grain of mainstream agricultural thinking and practice to develop what was seen as traditional farming relying on rotations rather than chemicals into a thoroughly modern system, using a wide range of new, as well as traditional techniques and knowledge. There are many and complex reasons why organic farming has finally broken beyond the ‘muck and magic’ stereotype it was relegated to by the agricultural establishment, but there are some important factors to consider if we are to understand how to convince policy makers to address other valuable, but neglected systems.

Organic farmers work to a set of clear and mandatory standards which differentiate the sector from other farming systems. The standards prescribe a limited list of off-farm inputs required and govern environmental impacts and animal welfare. These are now enshrined under EU and UK law. Consumers buying organic food know what organic farming and food is and is not. Over time, the organic movement has been able to convert anecdotes and assumptions about the benefits of its way of farming into concrete proven goods. Most obviously in terms of increased biodiversity, although there is also convincing evidence of pollution reduction and improved soil quality. Organic farming organisations, working with others, have been able to put monetary figures onto these benefits. With the support of environmental and conservation organisations campaigning for better protection for wildlife species and habitats, organic farmers have been able to build a broad lobbying front to push politicians into action on their behalf. This has manifested itself as the government’s

Organic Action Plan. Organic farming has clearly also benefited from public concern over intensive farming practices such as the feeding of ruminants to cattle and routine use of antibiotics in intensive pig and poultry units. Public concern over the latter, as well as the issue of pesticide residues in fruit and vegetables, has certainly boosted the market for organic food. Hence the interest of the major supermarkets in supplying organic lines.

With organic food sales amounting to over £1 billion per annum and growing at an annual rate of between 10 – 15%, the government recognises organic farming as a productive and therefore supportable niche.

In short, organic farming has managed to press all the right buttons to get politicians to act:

- Clear definition of what it is;
- Critical mass of campaigners lobbying government from a broad range of supporting groups linking together farmers, environmentalists and consumers;
- Concrete outcomes to measure against government 'Value For Money' criteria;
- Evident market demand and growing part of food economy, reassuring politicians they won't be asking the taxpayer to prop-up a lame-duck.

If we are to persuade policy-makers and the public to support 'smaller' and 'family farmers' then we need to learn from the success of the organic movement.

Small farmers to some extent have a clear definition, but there is the problem of explaining why both a 250 acre farm in Devon and 1000 acre holding in Cumberland both fulfil the criteria. Nevertheless, there are a number of concrete and specific outputs particular to smaller farms. Size does matter and is a criteria that government should take into account. In the past, attempts have been made to tailor subsidy payments such that they do not disadvantage smaller farms (80% of all subsidies currently go to just 20% of farms), but failed. The bigger farms have enjoyed a double advantage over smaller farms: official evaluation of efficiency has been based on yield rather than total outputs (see earlier discussion on this) and the main farming bodies, such as the National Farmers Union (NFU), are dominated by big farming proponents. Small farming organisations have not been able to pull together the wide public support needed to shift political prejudice or indifference. We hope that this report will help build such public support by setting out some of the real values associated with smaller farms.

Family Farm is too generic a definition to drive either public opinion or political change. There are some specific values associated with families on farms – stability, social cohesion and as foundations of learning, but these could be delivered by farming families whether on conventional, organic or small farms. That is not to say that the term is valueless.

What our consideration of farming's values shows overall is that these are delivered by diversity:

- diversity of farming system, scale and sector;
- diversity on each individual farm and of each farmer's approach
- diversity across the countryside

What is also clear is that agribusinesses on the scale of those in the US are clearly neither small nor family farms. The trend towards very large-scale, simplified and

intensive systems represents a reduction in diversity and so a reduction of agriculture's ability to deliver values. Rather it causes costs which we identify in the next chapter.

Diversity is a concept that is understood and valued amongst ecologists and environmentalists. Diversity of wildlife on farms is promoted, but not generally diversity of farms themselves. That is our challenge and one that we need to move on fast, because the predicted and accepted model of agriculture is one that tends towards greater scale and simplification of operation, as the opening quote to this chapter from the Chair of the Countryside Agency, Sir Ewen Cameron pessimistically predicts.

'Outside the farmhouse 'Mechanisation', 'Specialisation', 'Accumulation' were the buzzwords. Young farmers forgot the words of their grandfathers: "Never be owned by the banks" and "Never trust the Government." Utopia seemed to have arrived. You name it and there was sure to be a grant for it.'

50% and more: the changing life of farmers' wives over the last 60 years,
Mary F Moore, 1993

Farming's 'finest hour'

The trend towards fewer, bigger, more specialised farms and away from an inherently diverse system of farming was set in train following the Second World War and farming's response to the shocks and challenges it presented. Before the outbreak of war, farming had produced only about one-third of temperate foodstuffs that could be grown in the UK, relying on its colonies to supply the deficit more cheaply. The German U-boat blockade forced the UK back onto its own farming resources and by the end of the war, production of temperate foods had been boosted to nearly 50% of requirements, rising to 53% by 1953. Farmers from being an ignored sector of society left to their own devices, rose high up in the public's and politicians' esteem, thanks to their efforts on the 'Home Front'.

Acknowledging this and reflecting public gratitude for and willingness to 'support' UK farming, the Government drew up legislation resulting in the 1947 Agriculture Act. The stated objectives of which were to ensure that farming did not fall back into the depressed state it had during the inter-war years and to sustain and increase domestic levels of food production for the reasons of security of supply made so apparent by the U-boat blockade (reducing the balance of payments deficit was another objective):

'By the provision of guaranteed prices and assured markets...'

it was intended to build,

***'...a stable and efficient agricultural industry capable of producing such part of the Nation's food and other agricultural products as is in the Nation's interest it is desirable to produce in the UK, and of producing it at minimum prices consistent with proper remuneration and living conditions for farmers and workers in agriculture and an adequate return on capital invested in industry.'*⁹²**

Farmers would now receive guaranteed prices for what they produced, protected from the vagaries of the weather and the rise and fall of world market prices. The intention was that the stable income coming in from these guaranteed prices would be reinvested by farmers into modernising their farms, machinery and infrastructure. In fact, initially farmers spent their new wealth not on buying, bigger tractors and other farm equipment, but on the plethora of tempting new consumer goods and household items becoming available after war-time deprivations! Government quickly cottoned onto this, introducing grants now specifically linked to purchasing

⁹² The Agriculture Act, 1947.

machinery and fertilisers; the ploughing-up and draining of meadows and removal of hedgerows to enlarge fields and accommodate the new, bigger machinery.

Thus, the broad policy goals to maintain and modernise farming, became more narrowly focused into setting agriculture on the path of intensification and industrialisation. Ironically, if the initial, intended outcomes of the Act and the measures to implement it were meant to be about building food security and bolstering farmers' incomes, it wasn't long before the model and methods of farming that the Act encouraged were achieving the exact opposite.

As former agricultural correspondent of The Observer and farmer, Clifford Selly noted in his astute analysis of farm policy from 1947 through to the UK's entry into the European Economic Community, these measures represented a seemingly logical path, but one that was subtly veering away from farming's proper foundations:

'Already the fine, but very important distinction between the modernisation of agriculture and its industrialisation is becoming blurred.

Modernisation has been going on for a long time. Farmers have gradually come to depend on urban industry to supply most of their needs and perform many of the tasks they used to do for themselves.

But it has generally been assumed that the essential character of the farming operation would remain unchanged. Now, however, industrial pressures are threatening to weaken the biological process on which farming depends and put it at the mercy of interests which have no direct responsibility for the soil and for the countryside.⁹³

The overall policy objectives of rising to the challenge of the wartime blockade and gearing up UK farming to produce a greater proportion of our foodstuffs and to sustain that production post-War were necessary and perfectly reasonable. But the post-War Atlee Government did not pause to consider precisely what had enabled UK farmers to rise to the challenge of the U-boat blockage and boost production from just 30% of all temperate foodstuffs to around 50% in just 6 years.

Had such an analysis had been carried out, it would have shown that the half million farms that had held on despite the years of public indifference and reliance on cheap colonial imports, had done so because they were predominantly mixed-farms, with a range of enterprises and so goods to sell from each farm. So when market demand for one type of produce collapsed, for others demand could still be buoyant, evening out the hard times. Without any other form of public support or payment to rely on, farmers had followed the common-sense practice of,

'not putting all their eggs in one basket'.

Thus farmers retained the independence and self-reliance alluded to in the quote from the farmer's wife at the head of this chapter. They were neither owned by the banks, nor dependent on government grants, nor reliant on the products pushed by agrochemical and machinery reps. This balanced approach meant they could ride the lean times, sustaining an essential infrastructure of farms plus the labour of the

⁹³ Selly C., 1972, *'Ill fares the land, Food, Farming & the Countryside'*, Andre Deutsch.

additional million farm-workers employed on them available to gear up production as demand required.

Additionally, with imported wheat undercutting domestic prices, farmers had turned much arable land over to grass, waiting for the day when it might be worth putting under the plough again. These thousands of acres lying fallow under low-stocked grazing land represented a huge bank of fertility that could readily be converted into productive arable crops when the supply routes for imports were cut and necessity demanded. Despite appearing to be neglected, this national network of farms and farmland was essentially in good heart, resilient and adaptable.

Another agricultural journalist Graham Harvey, goes further than Clifford Selly quoted above, spelling out in his more recent book, 'The Killing of the Countryside', what it was that the post-war Atlee government had failed to learn from farming's wartime resurgence:

'At the start of the last war there were almost half a million farms in Britain including part-time holdings. The majority were small, mixed units of less than 50 acres with cattle, sheep, pigs and poultry as well as some arable crops. Before the age of state protection, farmers needed to grow a range of products for financial security. If the price of any one product collapsed, there were others to buffer them against ruin. Economically this mixed-farm structure was extremely stable. It also happened to produce a vigorous and attractive countryside, rich in wildlife and largely free of pollution...

Never had the British countryside looked so good. Never had it supported a richer diversity of habitat and wild species. Yet it cost taxpayers nothing.

***If the politicians had truly understood agriculture they would have recognized the mixed-farm structure as a national treasure to be nurtured and prized. Instead they set farming on a calamitous dash for intensification that was to put three-quarters of those farmers out of business.'*⁹⁴**

It was the diversity of UK farming overall, the individual mixed-farms with their range of enterprises, and a body of the people with the skills to manage them that had provided the fertile foundations and feedstock from which to gear up production.

Instead of recognising this, post-War policy makers set farmers on a path of intensification and specialisation to their and the nation's long-term detriment. As the system of guaranteed prices for specific products removed the need for mixed farming systems and the insurance policy of a range of products they provided. So the shift began from mixed to specialised farming. As more farmers specialised in particular sectors, be they different livestock or arable sectors, they then put themselves more directly in competition with their neighbours. All and any inputs of technology, in terms of machinery or chemicals that might help individual farmers increase their outputs, cut their costs, shed labour and raise their productivity and profitability were eagerly embraced.

Guaranteed prices also had the effect of raising land prices - between 1939 to 1970,

⁹⁴ Harvey G., 1998. 'The Killing of the Countryside', Vintage.

the price of farmland went up by 87%. The increased cost of this fundamental input, meant that farmers had to increase their returns on investment accordingly. It also made it increasingly difficult for new and young people to enter farming. For the manufacturers and suppliers of machinery and agrochemicals, the farming sector became a goldmine. Guaranteed prices and grants meant farmers had money passing through their hands to spend on inputs. Their increased dependence on having to get the highest returns from just one or two crops and the resulting increased competition between farmers meant that this money flowed quickly out to those manufacturing and supply companies. Farmers found themselves upon a treadmill of purchasing more inputs to raise output to meet decreasing returns.

Some farmers and commentators saw at the time where this would lead farming. Sir George Stapledon, Director of Rothamsted research station for 30 years and knighted for his work on grassland management, warned just ten years on from the 1947 Act of the negative consequences for farmers and society generally,

'Today technology has begun to run riot and amazingly enough perhaps nowhere more than on the most productive farms...'

Man in putting all his money on narrow specialisation and on the newly dawned age of technology has backed a wild horse which given its head is bound to get out of control.'⁹⁵

By the time Stapledon was writing, rationing had ended and the guaranteed prices system adjusted. Imported foodstuffs were once again coming into the UK, partly to balance trade policy where high-value UK manufactured goods were exported in return for some purchasing of the raw produce the less developed countries had to offer and to maintain links and provide some quid pro quo reward for the former and remaining colonial countries that had fought alongside the UK in the war. Although UK farmers were protected against these imports undercutting their produced by deficiency payments that evened out the rise and fall of world market prices, the main beneficiaries were the food processors and retailers who could still source their raw ingredients at world market prices, whilst taxpayers made up the difference.

Entry into Europe & the Common Agricultural Policy

In the 1960s, faced with a rising balance of payments deficit, the Labour Government introduced tighter import controls to further boost UK production. This policy continued under the following Conservative government and then in 1973, Britain joined the European Economic Community, the Common Market and UK farming came into the Common Agricultural Policy (CAP).

Libraries could be filled with reports on the CAP, its pros and cons, and particularly its costs to the taxpayer, consumers, and producers here and overseas. The range, complexity and contradictions of the system dwarfed anything home-grown policy had offered to date. Yet like the UK's 1947 Agricultural Act, the founding principles of the CAP as set out in the 1957 Treaty of Rome sound eminently reasonable:

'To increase agricultural productivity;

- thus to ensure a fair standard of living for the agricultural community;***
- to stabilize markets;***

⁹⁵ Selly C., 1972, *'Ill fares the land, Food, Farming & the Countryside'*, Andre Deutsch.

- **to secure the availability of supplies;**
- **and to ensure that supplies reach consumers at reasonable prices.'**

Article 39 of the original Treaty of Rome

Despite the billions of European citizens' taxes poured into the CAP as production subsidies, improvement grants, intervention payments and export subsidies to shift the embarrassing surpluses of certain commodities the system created, the CAP, like the 1947 Act before it has only succeeded in fulfilling the first of those stated objectives – increasing the productivity of agriculture in simple terms of yields.

Again the overriding emphasis was on intensification and specialisation. For all the rhetoric about multifunctional farming, the mentality of yields dominated over the wider outputs. To some extent, this was also driven by the fact that however much EU taxpayers might provide in subsidy payments to farmers, the processing and retailing companies will source their raw ingredients globally wherever cheapest. With constant price pressure on food commodities and limits on how much taxpayers are prepared to stump up to underpin first world producers' costs against those of farmers in countries where costs and regulations are lower, UK and EU farmers' logical action has been to increase their production, whilst reducing their margins.

Farmers on a treadmill in the UK – as in Canada

This fundamental issue, the one the Policy Commission chose not to address, has been usefully analysed, again by the Canadian National Farmers Union (CNFU), whose research exposing the myths of the policy drive to 'bigger' 'more efficient' agribusiness, we cited earlier. Their earlier report, 'The Farm Crisis, EU Subsidies, and Agribusiness Market Power' is also directly relevant to the UK farming situation, as the CNFU initiated their research in response to claims by politicians that their own farm crisis was due to UK and European farmers receiving subsidies, so forcing down world market prices for grains and undercutting Canadian arable farmers. CNFU's conclusion was rather different. The reason why Canada's farmers could not achieve fair farm-gate prices was due to the concentration of power in the food-chain before and after the farm-gate:

Canada's 270,000 comparatively small farms have to do business with just:

- 3 fertiliser manufacturers;
- 4 seed companies;
- 2 major beef packers;
- 4 millers;
- 4 cereal manufacturers;
- 5 dominant supermarkets.

The power imbalance between farmers who grow the raw ingredients and those who process, pack and retail the fruits of farmers' labour is made plain in their calculation that cereal companies, such as Kellogg's, Quaker Oats and General Mills, are between 186 to 740 times more profitable than the farms they buy their raw materials from.

This imbalance of power between the primary producers and those they sell onto is a global phenomenon. Even were UK farmers to amalgamate to the scale envisaged by Sir Ewen Cameron quoted earlier, of 20,000 acre blocks, they would still not be big enough to secure sufficient returns. Certainly that's been the experience of

Canadian farmers. Without securing sufficient returns on capital invested, farmers are forced on the treadmill of constantly seeking to cut margins, reduce their costs and have no spare capacity to invest in environmental improvements. Constant price pressure means corners are cut and husbandry of soils etc. suffers.

As CNFU observes, governments may seek to counter these negative impacts by inputs of taxpayers' money, such as our own government's proposed Single Farm Payments scheme, but this does not address the fundamental cause, nor given the continuing downward price pressure, is it likely that sufficient and endless public funds can be secured to make up the disparity:

'Government may dole out taxpayers' money to replace farm income dollars snatched by powerful multinationals, but this will be merely a delaying tactic at best.

The Canadian government – if it continues to pursue policies that turn farmers over to unbalanced and dysfunctional markets – will preside over the end of the family farm, the depopulation of rural Canada, and the betrayal of generations of Canadians who worked the land and built the nation.'

Canadian National Farmers Union, The Farm Crisis, EU Subsidies, and Agribusiness Market Power, 17/2/2000

The costs laid at the CAP's door to taxpayers; to the environment; and to the developing countries, whose domestic production has been damaged by 'dumping' of surpluses have driven a series of major recent reforms, starting in 1992 and culminating in those of the Mid-Term Review agreed in 2003, designed to reduce the burden on taxpayers and expose farming to 'real' market forces.

The underlying assumption behind the reforms, certainly in the UK, is that 60 years of subsidy, initially domestically then via the CAP have enabled the most 'efficient' farmers to gear up in scale and technology, so that they are now ready to compete unsubsidized in world markets with the biggest and best of US and Canadian prairie farmers to supply emerging markets such as China at lowest cost. Presumably, these are the 20,000 acre agribusinesses that Sir Ewen Cameron prophesies?

What is left unsaid is that this policy direction will mean a major restructuring of the industry, whereby 1000s more of the middle-ground farms and farmers who cannot gear up to such a scale will go out. The Government is not unaware of this or the probable impacts on the countryside and rural communities it is likely to bring. Therefore, to ease the transition, it is introducing a system of 'Single Farm Payments' (SFP) paid directly to farmers irrespective of what they actually produce, but nominally claimed to be in recognition of the environmental services farming provides. Through this measure, it hopes to balance contradictory policy aims of making UK farmers 'efficient' and internationally competitive at world market prices that are in fact too low for most farmers to survive on alone, but also environmentally responsible, which they cannot afford to be at world market prices.

It is highly questionable how successful and financially sustainable the SFP system will be in juggling these two contradictory objectives. In the short-term, it may keep the exodus out of farming at the current level, masking the fact that many farmers will gradually withdraw from active production.

All the policy measures, grant and subsidy schemes from the 1947 Act to the present

day reforms of the CAP have failed and will continue to fail in their stated objectives to deliver a secure supply of food at reasonable costs to consumers for reasonable returns to the producer without that being at excessive costs to the environment because they are bolted-on to the fundamentally flawed model of industrial scale agribusiness. That model is the result of flawed policy making and a failure of governments to address the reasons as to why sustainable food production doesn't pay.

In many senses, both UK and EU agricultural policy and their system of grants alongside market pressures have maintained UK farming on a wartime footing, prioritizing outputs of food and fibre in the short-term with little consideration for the longer term costs to the environment, our natural resources and wildlife, and farmers themselves. The 'national treasure' of Graham Harvey's quote, has been squandered and massively depleted.

Costs of post WWII model of farming

“The decline of family farming does not just harm farmers. It hurts quality of life in the whole of society. Corporate farms are good for productivity, but not much else.”

Jules Pretty, Professor of Environment & Society, University of Essex
Agri-culture 2002

To Wildlife

The most clearly documented costs of pursuing this model of farming to date have been those borne by our natural environment and its wildlife. The litany of 'destruction', 'change' and general reduction in the diversity of the wildlife and natural features of the farmed landscape will be familiar to many people and painfully so to farmers, who have borne the brunt of media and campaign groups' criticisms for 'wrecking the countryside'.

The 1984 report, Nature Conservation in Great Britain, published by the predecessor to English Nature et al, the Nature Conservancy Council, set out the stark statistics of wildlife and habitat losses in the UK's countryside since 1945:

- over 95% of wildflower-rich lowland meadows;
- 60% of heathland;
- 96% of peat bogs;
- 50% of ancient semi-natural woodland;⁹⁶
- and 140,000 miles of hedgerow.⁹⁷

Environmentalists have used these figures to beat farmers over the head with for the past 20 years. There's no doubt that the NCC's 1984 report accurately recorded the toll the trends towards 'bigger', 'more efficient' farming had exacted upon the UK

⁹⁶ Nature Conservancy Council, 1984. Nature Conservation in Great Britain.

⁹⁷ Countryside Survey 2000. Note: Net losses of hedgerows may have now been halted, due to establishment of new hedgerows. However, older hedgerows—with far greater historic interest and biodiversity value—continue to be lost.

countryside, its wildlife, their habitats, and wider landscape features. But what many green campaigners and the NCC scientists, who compiled the original report, failed to note was the corresponding dire impacts that the push to intensification was having upon farmers, and the losses of diversity of farm type, sector and scale. Indeed, farmers themselves failed to realise that they were driving the engines of their own destruction.

As the trends already set out in Chapter 1 show, but in summary:

- 17% decline in farm numbers over past 30 years;
- 24% decline in farm workers over past 20 years;
- 58.8% decline in farm incomes over past 25 years;
- In 2002, one farmer committed suicide every 5 days;
- In particular, from being a majority of the UK's 500,000 farms at the end of the Second World War, 'mixed farms', have declined to a minority of 12,000 farms in 1998, reducing further to just 10,961 by 2002 (4% of total).⁹⁸

The very system of farming that had created and maintained the patchwork countryside with its small fields, miles of hedgerow and wildflower rich meadows has itself been a victim of the prioritised drive for high-yielding, production-oriented agriculture.

Had the NCC scientists produced such a parallel set of statistics setting out these losses of smaller, mixed farms and the year by year exodus of farmers and farm-workers out of agriculture, they would have produced a report which could have united a significant body of farmers with the conservation and environmental groups – achieving a powerful lobbying front sufficient to challenge agribusiness and force politicians to act to save the best of UK farming and wildlife in one coherent and integrated vision.

Unfortunately this was not the case and farming and the countryside have suffered from 20 years of disjointed, piecemeal policies, involving expensive bolt-on measures attempting to reduce, but not address directly the root causes of this dual destruction of diversity of farmer and wildlife.

To Natural Resources

Whilst the claimed increased 'efficiencies' and 'yields' of this model of agriculture are highly questionable. Its costs to our environment and natural resources are undeniable:

Soil

A crucial measure of the sustainability of any farming system is the health of its soil, the foundation upon which the vast majority of food production still depends. The greatest civilisations from Ancient Greece, Rome to Central America ultimately foundered through lack of care of the mere eight or so inches of humble soil upon which all their remarkable cultures and technological achievements were founded.

The shift towards large-scale farms specialising in a narrower range of crops and greater numbers of livestock per acre, has accelerated soil erosion, through: conversion of pasture to arable; removal of field boundaries and hedgerows; a

⁹⁸ Environment Agency 2004, The State of Soils in England & Wales.

decline in the use of organic and an increase in the use of inorganic fertilisers; compaction of soils by livestock and heavy machinery, and fewer rotations and fallow periods.

Again evidence from the US presages the future scenario in the UK, if we follow their trend and continue the process of making their model of farming, the dominant one here:

- The US drive to become major grain exporter has led to a 40% increase in soil erosion. Currently, 90 percent of US crop land is losing topsoil faster than it can be replaced;⁹⁹
- That same export push caused a corresponding 25 percent increase in average farm size, with the subsequent loss of one third of all American farmers between 1970 and 1992.¹⁰⁰

Similar trends are already apparent in the UK specifically and Europe generally:

- According to the Environment Agency, agriculture was responsible for 95% of the 2.3 million tonnes of UK soil lost between 1995-1998;¹⁰¹
- Across Europe, soil erosion and degradation seriously affects near 157 million hectares (16% of Europe, near 3 times the total surface of France), making it the major environmental problem linked to the shift to intensive agriculture;
- Damage to agricultural soils is calculated to increase production costs by about 25% each year (53 Euros per hectare per year). When off-farm costs are added, the total cost of erosion from agriculture goes up to around 85.5 Euros per hectare of cropland per year.

To Water

In the UK, the Environment Agency has warned of future water shortages – although recent rainfall events where 30% of normal annual rainfall fell in just 3 months may cause farmers to question that assumption. However, under climate change, cycles of sudden downpours, followed by drought are predicted. Sun-baked soils are less able to absorb and hold water from sudden downpours, compared to precipitation spread evenly over the year.

Intensive American arable farmers use 1000 tons of water to produce each ton of grain.¹⁰² As immediate water resources are exhausted, farmers have to invest in financially and environmentally costly irrigation systems, requiring more gallons of diesel to drive the machinery and pumps.

Countries already suffering from extensive groundwater depletion are China, India, and the United States—the three countries that collectively account for about half of the world grain harvest. In China, where acute water scarcity now drains the Huang He (Yellow River) dry before it reaches the sea for part of every year, farmers face heavy cutbacks in irrigation.

⁹⁹ Lappe F.M., Collins J., Rossett P., 1998. *World Hunger: Twelve Myths*, New York, Grove Press.

¹⁰⁰ US Census of Agriculture, 1992.

¹⁰¹ Environment Agency 2004, *The State of Soils in England & Wales*.

¹⁰² World Resources Institute, Lester Brown

To Rural Communities

Whilst the extremes between ‘family’ and ‘corporate’ farms are starker in the US, the findings of Goldschmidt’s and later research as set out earlier are relevant to the UK. Similar negative impacts are already observable here, as a diverse network of a larger number of smaller farms is displaced by fewer, bigger farms. The low levels of employment associated with the trend towards fewer, bigger farms has meant that many rural areas do not have the population densities to support local services:

- Four out of 10 parishes in rural England have no shop or post office, six out of 10 no primary school, and three-quarters no bus service or health clinic.¹⁰³

Research by the New Economics Foundation shows a parallel decline in the diversity of urban areas as the drivers of giantism in farming, the supermarkets, take over and squeeze out all competition in the High Street:

- Between 1997 – 2002, specialised stores such as butchers, bakers, fishmongers and newsagents were closing at the rate of 50 a week.
- General stores were closing at the rate of 1 a week.¹⁰⁴

This catalogue of the costs of the US style intensive agribusiness model of farming and damage it wreaks upon the fundamental resources upon which food production relies should make salutary reading for those pundits and politicians proposing it as the future model for UK farming plc. It also makes it plain that increasing our reliance for food supplies on the current overseas major grain producers and exporters is an unsustainable, unwise and short-term policy.

The purpose of setting the above costs, estimated at amounting to upwards of £2 billion annually, is not to castigate farmers, but to show that the agribusiness model of farming causing them, is out of balance with the biological systems upon which it depends. Those in favour of that model may argue that over the past 20 years in the UK at least, much has been done to reduce its environmental impacts directly, and through mitigating and supplementary schemes, such as Countryside Stewardship. Some may also still think that such costs are tolerable, given the ‘higher yields’ and ‘cheap’ food the model provides in the face of a rising world population and so demand for food.

¹⁰³ Hird V., 2000, *‘A Battle in Store?, a discussion of the social impact on the major UK supermarkets’*, Sustain. Also National Federation of Women’s Institutes, 1999, *‘The Changing Village.’*

¹⁰⁴ New Economics Foundation, 2002 & 2003, *‘Ghost Town Britain I & II.’*

"The world's oil reserves are up to 80 percent less than predicted, a team from Sweden's University of Uppsala says. Production levels will peak in about 10 years' time, they say...."

Oil production levels will hit their maximum soon after 2010 with gas supplies peaking not long afterwards, the Swedish geologists say....."

Professor Alekett said that his team had examined data on oil and gas reserves from all over the world and we were 'facing a very critical situation globally.'"

World oil and gas 'running out', CNN, 2 October 2003

As the last chapter shows, the agribusiness model of farming undermines the resources essential to human survival. Its apparent endless ability to produce greater yields far from ensuring secure food supplies into the foreseeable future is undermining the very foundations of our food security, the natural resources of soil and water.

Further, its much-vaunted efficiency is dependent on excessive inputs of fossil-fuel energy, which is both finite and causing instability in global growing conditions through climate change. This is the greatest challenge facing humanity and agriculture. Farmers responded to the shocks and challenges brought on by war and in the short-term succeeded in delivering the priority values of a sustained and secure food supply to the nation.

However, the dominant model of farming that has developed and been encouraged from that admirable wartime response will not be able to deliver the response and values needed to contend with the current shocks and challenges facing our country and its food security:

Oil/Energy Use

- To produce, process and distribute a year's worth of food for the average American takes 400 gallons of diesel fuel.¹⁰⁵
- On average in the US, 10 calories of fossil-fuel energy go to produce each calorie of food energy.
- For some crops, such as canned corn, the ratio jumps to an incredible 100 to 1.¹⁰⁶
- Even the benefits of yield-boosting fertiliser are questionable, as it requires the energy equivalent of 1.4 to 1.8 litres of diesel fuel to produce each kilogram of nitrogen fertiliser.¹⁰⁷

Such poor returns on 'energy-in' to 'energy-out' undermine intensive agriculture's claims of super- efficiency. The costs to and demands on key natural resources are

¹⁰⁵ Pimentel, D. and Giampietro, M., 'Food, Land, Population and the U.S. Economy', Carrying Capacity Network, 11/21/1994.

¹⁰⁶ Pimentel, D. and Giampietro, M., ditto.

¹⁰⁷ 'Comparison of energy inputs for inorganic fertilizer and manure based corn production', McLaughlin, N.B., et al. Canadian Agricultural Engineering, Vol. 42, No. 1, 2000.

not sustainable. Even less so is its dependency on fossil fuels, because stocks of oil and natural gas are running out faster than anticipated:

Dwindling fossil fuel supplies, plus fiscal measures introduced to curb climate change and stimulate alternative energy sources, are likely to raise the price of oil and so the costs of high fossil-fuel dependent agriculture. There is a real need to reduce agriculture's unsustainable reliance on fossil fuels.

A more diverse, locally focused system of farming can help agriculture reduce its reliance on fossil fuels. For example, through rotations including livestock, the manure from which can reduce reliance on artificial fertilisers and their heavy energy demands to produce - overall fertiliser production and use accounts for 31 per cent of all fossil fuel use in North American agriculture.¹⁰⁸

Studies from the UK showed that organic farming systems required 35% less energy than conventional arable farming and 74% less energy than conventional dairying.¹⁰⁹ Systems utilizing rotations and Mixed cropping would also reduce the use of petrochemical derived pesticides. Single, continuous crops are a magnet for pest and disease attack. In the US, pesticide use has increased 33-fold over the last 20 years, accounting for 5 per cent of petroleum use in agriculture.¹¹⁰

During the last oil crisis of 1973 caused by the Arab-Israeli war, as oil prices rocketed, politicians and economists were forced to consider the costs and efficiencies of our oil-dependence and what if any alternatives there were. Economist, Gerard Leach compared 1950s horse-powered rotational farming systems to 1970s machinery and agrochemical based modern agriculture. He calculated that the horse-based systems delivered a ratio of 200 units of energy gained for every one put in. Modern agriculture, in comparison, seemed vastly superior with an improved ratio of 1000 units out for each one put in. But when the full costs of fossil-fuel usage were factored in - i.e. not just the diesel to drive the tractor, but also to build it, to produce the fertilisers and pesticides to replace the rotations and manure from horses and other livestock, then the ratio dramatically reversed – with modern agriculture running at a negative energy budget requiring two inputs of energy for every single food energy output.¹¹¹

Given falling reserves of oil and the increasing impacts of climate change from burning fossil-fuels, such a poor return on energy in to out can't go on. But as Professor David Pimentel has commented, the solutions are inherent in farming's foundations:

'Agriculture can get off oil without having to look too far for alternatives. Farming was almost exclusively a solar industry until the 1950s, when the "green revolution" applied manufacturing methods to food production and turned farming into a fossil fuels dependent industry. Energy use in agriculture increased four-fold from the 1950s to the 1990s.'¹¹²

¹⁰⁸ 'Comparison of energy inputs for inorganic fertilizer and manure based corn production', McLaughlin, N.B., et al. Canadian Agricultural Engineering, Vol. 42, No. 1, 2000.

¹⁰⁹ Delivering the Evidence, DEFRA's Science & Innovation Strategy, 2003-2006.

¹¹⁰ Delivering the Evidence, DEFRA's Science & Innovation Strategy, 2003-2006

¹¹¹ Leach, G., Energy and food production, 1976.

¹¹² Pimentel, D. and Giampietro, M., 'Food, Land, Population and the U.S. Economy', Carrying Capacity Network, 11/21/1994.

Certainly, something needs to be done before too long, because the crisis in oil supplies isn't centuries away. The crunch point comes not when we have run all the oil wells dry, but when demand outstrips production. A growing number of experts, like Richard Hardman, trustee of the London-based Oil Depletion Analysis Centre and former president of the UK Geological Society are warning that this is likely to happen within the next few years,

"A moment of truth is fast approaching - perhaps sooner than we can prepare for it. The world faces at best a global recession. At worst, war, famine, and mass migration".¹¹³

It may be some time before the worst of Richard Hardman's predictions come true, but the by-products of burning all that oil, the 'greenhouse' gases, are affecting our climate, with serious consequences for how, where and who produces our food.

International food markets rely on vast supplies of cheap oil to remain competitive. The World's major oil supplies lie in the Middle East. Our long-term access to such cheap supplies is far from certain. Even if it were, we know from the analysts and geologists quoted above that reserves are peaking. We know from the climatologists that burning more oil and other fossil fuels will make the impacts of climate change even worse.

Non-fossil fuel 'energy crops', such as biodiesel produced from oilseed rape may offer farmers the promise of growing something on a major scale that both people and the planet need. However, farmers should contain their optimism, as studies to date undertaken for DEFRA indicate that the energy budgets of growing such energy crops on an industrial scale may not be that good, when they take into account the production of the artificial fertilisers needed to grow the crops and the processing into fuel. On a national scale, energy efficiency and conservation are the most productive, immediate ways to cut energy use and reduce carbon dioxide emissions. Whereas biodiesel has been calculated to save between 4 – 5 kilograms of carbon dioxide for each pound spent on its production, insulating household lofts gives a saving of between 478 – 506 kilograms per pound spent.¹¹⁴

Climate change

Climate Change' is now accepted as a real and happening threat by the mainstream, scientific establishment:

"In my view, climate change is the most severe problem that we are facing today - more serious even than the threat of terrorism."

Sir David King UK Government's chief scientific adviser, 19 Jan 2004 Science

Few scientists outside of those sponsored by the fossil-fuel industry question that Climate Change is a real and immediate challenge that will only add to existing pressures on soil and water resources:

- Average global surface temperatures have increased by 0.6°C over the 20th century, with about 0.4°C of this warming occurring since the 1970s.

¹¹³ New Scientist, 2 August 2003.

¹¹⁴ 'Evaluation of the comparative energy, global warming & socio-economic costs and benefits of biodiesel', University of Sheffield Hallam, January 2003.

- 9 out of the 10 of the world's hottest years on record have been during 1990-2002
- Central England has one of the longest temperature records dating back to 1659. This record shows that temperatures have increased by 0.7 °C in the UK since 1659. Of that, a rise of 0.5 °C occurred in the 20th Century. The 1990s was the warmest decade in central England since records began.
- Current climate models predict that global temperatures will rise by a further 1.4 to 5.8° C by the end of the 21st century. (double or even eight times the increases that have been recorded over the past 350 years)
- Global mean sea levels are also predicted to rise by 9 to 88 cm by 2100.
- According to the United Nations Intergovernmental Panel on Climate Change (IPCC), an international body of over 1100 of the world's top climate scientists, this rise in temperature cannot be explained by natural climate variations alone, human emissions of global warming (greenhouse) gases are a significant factor.¹¹⁵

Climate Change sceptics should note that the Thames Barrier built in 1982 and expected to be raised once every 5-10 years is currently relied on 6-7 times a year to prevent London flooding. The predicted level of disruption to global agriculture is going to have significant implications for every nation's food security. Even if the Earth's temperature increases only a few degrees, as in the low end of the IPCC projections, we are likely to see heat waves far more intense than anything we have experienced to date:

- Average annual temperatures across the UK may rise by between 2° and 3.5°C by the 2080s, with the degree of warming dependent on future levels of greenhouse gas emissions.
- Hotter, drier summers will become more frequent. Very cold winters will become increasingly rare.
- The largest relative changes will be in the south and east where summer rainfall may decline by up to 50% by the 2080s.
- Heavy winter downpours will become more frequent - although the amount of snow could decline by 60% - 90% by the 2080s.
- Sea levels will continue to rise and could be between 26 - 86 cm above the current level in south east England by the 2080s.

With 57% of Grade1 farmland below sea level, there are significantly increased risks of flooding, especially in East Anglia and most notably The Fens. Recent analysis suggests that arable farming might become unviable on: 86 % of the Fens; 10 % of the remainder of East Anglia, and 7 % of the North West due to flooding - unless expensive adaptations are made to flood defences.¹¹⁶

The rise in temperatures is expected to bring with it an increase in the frequency of extreme weather events. Hurricanes, floods and powerful storms can be expected to

¹¹⁵ All Climate Change statistics sourced from IPCC and UK Government sources, see FARM briefing on Climate Change impacts on Agriculture, www.farm.org.uk

¹¹⁶ All Climate Change statistics sourced from IPCC and UK Government sources, see FARM briefing on Climate Change impacts on Agriculture, www.farm.org.uk

devastate agricultural regions. Resources of soil and water, already under pressure, will become more vulnerable to damage and depletion from volatile cycles of flood and drought. The unpredictable but increasing destruction of crops will heighten the instability of global food production, driving up food prices globally. It will be difficult if not impossible to predict from year to year what regions can be relied upon to produce which commodities.

Major grain belts in North America and the Ukraine may suffer much reduced productivity, so reducing grain stocks available on international markets:

“Climate models suggest that today’s leading grain-producing areas - in particular the Great Plains of the US - may experience more frequent droughts and heat waves by the year 2030. Extended periods of extreme weather conditions would destroy certain crops, negating completely the potential for greater productivity through “CO2 fertilisation”. During the extended drought of 1988 in the US corn belt region, for example, corn yields dropped by 40% and, for the first time since 1930, US grain consumption exceeded production.”

Information Unit on Climate Change (IUCC), UNEP

Food security

The UK is now less dependent upon agriculture as a % of GDP than any other major nation, a statistic that is beginning to be reflected in its ability to feed itself. Self-sufficiency in indigenous food crops and livestock has dropped from over 80% in 1997 to just over 70% presently. For all foods, self-sufficiency has gone down from just under 70% to just over 60%. As yet, this trend of a decline in our overall self-sufficiency is not seen as an issue of strategic concern by our government.

However, whilst the concept of national food security based on a national food producing industry may not be fashionable with UK policy makers, it has been topically raised by the Head of MI5 when addressing the City of London police on 16th October 2003:

‘TERRORISTS could target UK food supplies, the head of the government security agency MI5, Elizabeth Manningham-Buller has warned.

The food industry "may present an attractive target for terrorists", said Ms Manningham-Buller during her James Smart Lecture delivered at the City of London Police headquarters on 16 October.¹¹⁷

In her speech, the MI5 boss said that the existing risk levels and measures already applied to key sectors, such as communications, transport and energy, should be extended to food and chemicals.

Until recently anyone raising the issue of national food security was dismissed as a scare-monger harking back over 50 years ago to when German U-boats cut off the UK's food supply lines from the former colonies. However, the upsurge in global terrorism following September 11th and the ongoing disturbances in Iraq and across

¹¹⁷ Farmers Weekly, 24th October 2003

the Middle East, make government faith in and reliance on uninterrupted oil supplies, stable international markets and the extended transport routes they depend on seem more of a failure to recognise that the world has changed. The more far-sighted would recognise that the country's experiences during the War offer lessons as to how best to lay the foundations for a truly sustainable and secure national food producing sector.

Food and farming minister Lord Whitty has told farmers that the government does not believe Britain should be self-sufficient in food.

Britain is part of the global economy and farmers should compete on the world market, he told journalists at the Royal Smithfield Show.

"A [self-sufficiency] target is not what drives policy," Lord Whitty said on Monday (25 November). "Being competitive drives policy." The minister made his remarks as Prince Charles prepared to tour the four-day show at Earls Court in London.

The Prince has made it publicly clear that he believes that Britain, as an island, should produce more of its own food.'

Farmers Weekly, November 2001

Despite talking about sustainable food and farming, government ministers like Lord Whitty above, seem to believe that as a nation we can further reduce our self-sufficiency in agricultural produce and rely more, as we did before World War II, on importing our food from international markets. The Government's approach displays an ignorance of or disdain for the lessons to be learnt from the last time we, as a Nation, faced such shocks and challenges. It fails to recognise what the Second World War taught politicians of the time, namely the vulnerability of relying on extended supply lines and running down UK farming. Worse, it fails to see that the dominant farming model emerging from the well-intentioned, but misdirected policies of those post-war politicians has itself over the longer-term done as much damage to our food security as the U-boats. For those few, large-scale farmers that can operate to the margins set by those unstable international commodity markets, it recommends continuing with and intensifying the very model of farming which has brought such high costs.

This inherently unsustainable path of agricultural development is seen by government and many farming leaders as the 'best' and only way forward for UK farming, although they dress it up in more publicly digestible rhetoric. Hence the Government's strategy document, 'A new direction for agriculture', looks to a sector that is:

***'...competitive, diverse and flexible, that must respond better to consumer wishes, that must be more environmentally responsible, and that must play an integral part in the wider rural economy.'*¹¹⁸**

When it comes to selecting titles for its Ministers and advisors on agriculture, the Government displays what is either a fine sense of irony or blithely indifferent ignorance. Appointing a 'Rural Recovery Czar', Lord Haskins who openly talks about '**half of Britain's farmers needing to go**' is cynical enough. But from his comment quoted at the start of this section, 'Sustainable Farming' Minister, Lord Whitty appears way off his brief. Otherwise, how can he not see the policy conflict in

¹¹⁸ MAFF 1999, 'A new direction for agriculture'.

sourcing an increasing proportion of our foodstuffs from half-way round the world, when this 'food swap' not only adds to climate change through the fossil fuels used in their transport, but also undermines the viability of UK produce grown to more exacting environmental and welfare standards?

The combined effect of these two short-sighted strands of government thinking on agriculture is to:

- Encourage a model of farming that is unsustainably dependent on vast inputs of oil and so will increase UK farming's contribution to Climate Change;
- Increase agriculture's other environmental and social costs, whilst decreasing its capacity to deliver wider 'valued outputs';
- Reduce domestic production and increase reliance on overseas producers, whose stability is far from certain, so undermining national food security. Increased reliance on imported produce from international markets will generate even more greenhouse gases from 'food miles'.
- Set UK farmers running on an ever faster speeding treadmill down the wrong path that will continue to drive thousands out of agriculture, diminish farming's capacity to provide a range of wider values to society, and dangerously undermine our national food security.

Our concern over this lack of long-term strategic thinking from Government and dismissal of the issue of food security is mirrored by comments made by the government appointed, but independent Sustainable Development Commission (SDC). In its review of the Policy Commission report on Sustainable Farming and Food, the SDC commends the Policy Commission for acknowledging the relevance of food security, but goes on to make exactly our central point throughout this report that encouraging and sustaining the diversity of our farming and food producing sector increases the resilience of that sector to withstand the shocks and challenges that climate change, oil depletion and global political instability present:

'Resilience. There is an excellent acknowledgement of the importance of food security right at the start (of the Policy Commission report): 'but land and expertise remain available if greater quantities of home-produced food are suddenly needed'.

***But beyond this there is almost no mention of the need for resilience to potential risks from climate change, global resource (e.g. oil) disruption, transport breakdowns etc. Increases in local sourcing and distinctiveness are seen as cultural benefits; shorter supply chains as a way to cut costs. None of them are recognised as prudent ways to increase security through diversity.'*¹¹⁹**

To take on the major commodity producers of the world, such as the very biggest North American prairie farmers, UK farmers would need to operate on the 20,000 acre scale Sir Ewen Cameron has predicted. The reduction in diversity of farmer and farm-type is obvious. The likely increased costs of such intensive operations in terms of energy use and pollution would be completely unsustainable.

Government action and public support will be required if we are to reverse the trend towards fewer, bigger farms, to halt the exodus out of farming, and instead to build

¹¹⁹ 'From Vision to Action': SDC's perspective on the work of the Curry Commission, 26/3/02.

the foundations of a truly sustainable. The narrow model of Agri-business that farming was set on by the 1947 Agriculture Act needs to be abandoned and instead the conditions should be created to allow Agri-culture and the wide range of values that we have shown it brings to thrive.

There is some indication that, unlike Lords Haskins and Whitty, some advisors to Government on agricultural policy like the Sustainable Development Commission have an understanding of what is required and share some of our analysis. A paragraph in the report of the government appointed Policy Commission on the Future of Farming, chaired by Sir Don Curry and convened following the Foot & Mouth Disease outbreak of 2001, also touches on the fundamental issues that we've sought to highlight in this report:

'Farming created the English landscape. The difficulty is that the sort of farming practices that produced it, are often not commercial any more. Farmers used to provide these valued outputs for free as a by-product of an economic activity. That activity does now not pay.'

Policy Commission on the Future of Farming and Food, 2002

The Policy Commission sounds perplexed at this conundrum. It acknowledges that diverse, mixed farming no longer pays, but shies away from considering why – perhaps not surprisingly as the Commission's terms of reference set by Government restricted it from addressing the impacts of increased trade liberalisation and the enlargement of the European Community upon UK farming.

Indeed, farming did used to deliver these 'valued outputs' for free, without any need for public hand-outs or complicated 'agri-environmental' schemes with their attendant raft of rules and regulations. It used to do so when farming was still predominantly based around inherently diverse and mixed-farming systems.

To get farming onto a sustainable and viable footing action and support is needed from Government, from the public, and from farmers themselves.

Actions needed from Government:

- 1. First and foremost the government needs to make the 'farming practices' as indicated in the Policy Commission quote above viable.**

That is a challenging, but achievable and quantifiable policy objective, as types of farm and systems of farming that can deliver those wider values and outputs are still represented in the UK. Mixed-farming is in the minority and we are not naively proposing returning to an 'Old MacDonald' style of farming, but rather learning from and developing the integrated and supporting systems of crop and livestock rotations upon which it relied (Modern organic farming is one existing and thriving manifestation).

That means assessing and supporting farming systems on the basis of their ability to deliver across the range of multifunctional outputs. Government has already signed up to such an objective in principle through Chapter 14 of Agenda 21, the declaration drawn up at the 1992 Earth Summit in Rio, which called for:

"Agricultural policy review, planning and integrated programming [to be carried out] in the light of the multifunctional aspects of

agriculture, particularly with regard to food security and sustainable development."

2. Conduct a risk assessment of UK National Food Security

The Government needs to heed the words of its own Sustainable Development Commission above and understand that the exodus from and running down of UK Agriculture is reducing its resilience and adaptability in the face of the challenges of climate change and oil stock depletion, so threatening our food security.

Therefore, a risk assessment should be carried out of the impact of the exodus out of farming on our national food security and upon the overall sustainability of UK farming, food production and our increasing reliance on food imports.

This is not special pleading from a small sector of society seeking to overstate its importance to the national economy against the 'inevitable' march of progress and market forces. Diminishing oil stocks, Climate Change, and the associated unreliability of overseas commodity producers and global markets are real challenges - as is the threat of disruption of extended food supply routes by political instability from the ongoing 'war on terrorism'.

A long-term strategic risk assessment on the UK's National Food Security and the sustainability of the systems and sources upon which it depends is an urgent matter that should be of concern to all citizens, not just the farming community.

3. Provide a Vision and a Plan for UK Agriculture

Given the ongoing exodus from farming, that means answering the basic question:

'How many farms and farmers does the UK need to sustainably produce its food?'

4. Tackle key issue of farm-gate prices

Government will only succeed in slowing the flow of people out of farming, if it addresses the fundamental issue of farm-gate prices not meeting farmers' costs of sustainable production or providing a viable, livelihood.

According to DEFRA, farmers received 28% less in 2003 of the share of a shopping basket of food than in 1988. In broader terms, it has been calculated that whereas farmers received 50% (10 shillings) of every £1 spent on food fifty years ago, that has now been reduced to just 7.5p of the £1.

Responses to parliamentary questions tabled by Liberal Democrat MP, Andrew George in 2004 reveal the massive disparity between the farm-gate and retail prices of various foodstuffs:

- The price farmers receive for producing beef have gone up 18% over the past 20 years, whilst the shop price of beef has increased by 74%.
- For bacon, farm gate prices have risen 10%, whilst shop prices have rocketed by 139%

- The difference between the farm-gate and shop prices for chicken was 229% in 2002.
- For potatoes, the difference was a staggering 691%.¹²⁰

For some produce, there are understandable processing and packaging costs to account for the difference between what the farmer gets and what the shopper pays, but it's hard to see how some of the above gulfs can be justified.

In France, for a brief period from 1999, a law was introduced where retailers had to display the price they paid for fresh produce (fruit, veg., meat, fish) alongside the selling price. Given the huge disparities above, there would seem plenty of justification for introducing similar again in the UK and across the EU. Indeed, FARM has been running a supermarket sticker campaign in the UK, which provides the farm-gate prices for staples like milk and bread for shoppers to compare to what they're paying.

The Policy Commission put forward numerous recommendations in its report; two are relevant here, albeit in a slightly adapted form. The Commission called for better 'benchmarking' to gain

'a better understanding of costs and efficiencies'.

But their version, or at least how it's being interpreted, appears to be directed more at ensuring UK farmers measure,

'the costs of their operations and their inputs [to understand] how their national and international competitors go about managing their costs.'

So following the flawed mantra that UK farmers must become more 'internationally competitive' and produce raw food even more cheaply to ensure even greater profits for the supermarkets.

FARM would like to see any such benchmarking based on an assessment of what are the sustainable costs of producing different crops and livestock, i.e.:

'What is the minimum price, UK farmers can produce foodstuffs at, whilst fulfilling all the other demands Government and Society puts on them as regards environmental and animal welfare care?'

If such benchmarking were undertaken, then it would seem unlikely that any processor or retailer could claim that it was 'reasonable' to expect dairy farmers to produce milk at 15p a litre. Given that UK dairy farmers saw their incomes fall by 47% over 2002-3, it's not surprising that such pressure gets passed on in terms of animal welfare and environmental costs, as farmers seek to minimize their costs, cutting back on anything other than producing more milk per cow.¹²¹ The EU has calculated that 80% of European dairy farms are causing pollution. The average milking life of a cow has steadily decreased from 7- 8 years to just 3 - 4 lactations.

Such sustainable farming benchmarking could be undertaken on the series of

¹²⁰ Answers to PQs obtained by Andrew George MP as part of 'Breaking the Armlock' Alliance's meeting in 2004 with DTI Minister, Gerry Sutcliffe on supermarket power and pricing.

¹²¹ Agriculture in the United Kingdom, 2003, DEFRA 2004

'Demonstration Farms', as also recommended by the Policy Commission.

5. Regulate the major retailers and create fair and competitive markets

Currently, just 4 major supermarkets control over 75% of all grocery sales. One Tesco accounts for 28% of all grocery sales.

The Competition Commission Inquiry report into supermarket concentration in 2000 observed that when any individual supermarket accounted for over 8% of market share, then the 30 practices they identified as being '**not in the public interest**' came into play.

An immediate first step is to follow the demands of the Breaking the Armlock Alliance and introduce a stronger, legally binding and independently-regulated Supermarket Code of Practice, as recommended by the Competition Commission Inquiry report on Supermarkets.¹²²

Government should take the Competition Commission's findings as a cue to act. At the very least, introducing a statutory and strengthened 'Code of Practice' as above, but if this fails to curb retailer abuse of power and excessive market-control then they should introduce legislation to restrict market share to 8%. That would have the double-effect of reducing the likelihood that those abuses of retailer power over their suppliers and consumers come into play and also open up the food-chain market-place to a wider diversity of food-supplier initiatives.

6. Create space in the market for local food

Such entrepreneurial initiatives include those based around local food production and supply:

- Over 50,000 families receive a vegetable box each week in the UK.¹²³
- In the UK, there were 200 established Farmers' Markets trading on some 3000 market days per year in early 2001.
- In all, it is estimated that the five million customers at these markets each spent £10-15 per visit, putting £50-78 million pounds directly into the pockets of farmers.
- On 26th September 1999, Winchester farmers' market generated sales of £30-35,000. The Stour Valley farmers' market injected between £60,000 and £100,000 into the rural economy in 1999¹²⁴.

But their ability to expand is curtailed by the dominance of the market-place by the major retailers.

If Government is to fulfil another recommendation of the Policy Commission:

'We think that the time has come for locality food marketing to become mainstream in Britain as it has in France and elsewhere',

then it is going to need to address the current gross imbalance in food retailing. Local and regional food initiatives stand little chance of escaping from their niche, unless

¹²² See www.breakingthearmlock.com

¹²³ Friends of the Earth, 1999, '*The Real Food Book*', London.

¹²⁴ Briefing from Ashford Borough Council, 1999.

some space is created in the food market. Restricting any one retailer to 8% market share or less, would open up huge opportunities for a host of new innovative and contributory alternative food retailing schemes. But whilst the major supermarkets hold such a stranglehold over the market-place, few of these can break beyond tiny niches. Government should consider and contrast the contributions to local communities, their economies and social well-being such initiatives can make in comparison to the simplified and homogenous structures provided by supermarkets (see box)

'In Cornwall, £500 million per year is spent on food. 75 per cent of that is imported from outside Cornwall. If we reduce that by just 1 per cent, we have invested £5 million in our local economy'¹²⁵.

Roger Thompson, Business in the Community in Cornwall

Benefits to farmers and regional economies of Local Food:

- 80% of the money spent on food in a supermarket goes on processing, transportation, packaging, advertising and other marketing services. Selling produce directly means producers get 80-90% of the food pound, rather than the usual 8-10% via supermarket outlets.
- A study of the dividend from localised food was conducted by the New Economics Foundation. This found that £10 spent on a local organic box scheme in Cornwall generates £25 for the local economy (a radius of 24 km from the farm), compared with £14 if spent in a supermarket. The research suggested that if every person, tourist and business switched only 1% of their current spending to local goods and services, an additional £52 million would be put into the local economy annually.
- There are 900 food businesses in Devon, including processors, wholesalers, retailers and caterers. About 550 of these are now involved in the local food sector (half have joined in past five years). Devon Food Links project has set up 15 farmers' markets, 18 box schemes, made 19 links with local shops, helped 150 ha of land be converted to organic production, with the result of a net increase of 113 jobs. There have also been job increases on farm, with each producer involved in the local food economy employing on average 3.4 FTEs, compared with a regional average of 2.34 per farm. Some 38% of producers have created new jobs – at an average of 0.5 per farm, resulting in a further 171 new jobs¹²⁶.

Shifting the orientation of food production to regional and local markets would also complement the Government's commitment to curb climate change by reducing the 'food miles' associated with the current global food system. When each farmer only produces one or two crops, these have to travel far to find sufficient markets. Transporting farm produce outside the locality accounts for the 16 per cent of farm energy use. The packaging necessary for long-haul trips, generally plastic and so oil-based, adds to the energy burden.¹²⁷

To reap the benefits provided by such local initiatives, farmers will need to produce a wider range of outputs, which means a more diverse network of farms growing a

¹²⁵ *'How going organic needn't cost the earth'*, article by Anna Ross, Western Morning News, 29 February 2000.

¹²⁶ Policy Unit, Exeter. Devon County Council. 2001, Local Food and Farming Briefing.

¹²⁷ Policy Unit, Exeter. Devon County Council. 2001, ditto.

wider selection of products in smaller batches. Local markets cannot expand to meet public demand without local farmers growing a range of produce. Farmers won't diversify their crops and provide committed supplies, unless more markets with committed demand exist. Therefore, Government and the Regional Development Agencies need to help stimulate demand to create that commitment on both sides.

7. Direct public R&D funding to assess and develop 'modern' sustainable farming systems

DEFRA should assess and seek to develop and promote systems that inherently deliver as many of the identified potential values agriculture can produce in the greatest quality and quantity at the greatest value for money for both consumer and taxpayer.

Strong scientific support is essential, what is required are reinvigorated and modern systems, incorporating the principles of mixed-farming, but making the best use of available technologies – and developing of farming systems that are much less dependent on fossil-fuels.

8. 'Increase security through diversity' by providing more opportunities for more people to work in agriculture

We have seen that less-industrialised models of agriculture require more labour. Therefore, FARM's view is that we are likely to need more, not fewer farmers and farm workers, certainly if we are to develop the model of diverse, mixed farming that we know will deliver the wider outputs society values.

On grounds of sustainability, the maintenance of local & regional rural economies and their communities, bringing more people back into farming makes sense.

Government should prove its commitment to creating a revitalised and dynamic agricultural sector by implementing the New Entrants scheme as available in other EU countries. A recent study from Northern Ireland concluded that there were 'real economic benefits' to be gained from such schemes.¹²⁸

Another obvious route for enabling new, younger people enter farming, who do not have the advantages of private wealth or inheriting an existing farm is via County Council farm holding tenancies, traditionally seen as the 'first rung on the farming ladder. Under the Agriculture Act of 1970, section 39 County Councils are charged to,

'make it their general aim, to provide opportunities for persons to be farmers in their own account by letting holdings to them.'

Government through DEFRA should assist County Councils in sustaining their farm estates and ensuring that they support the Government's long-term vision for a sustainable and viable farming sector.

¹²⁸ NI Assembly commission, 2002, 'An economic study of Farmer Early Retirement and New Entrant Schemes for Northern Ireland', Queens University.

Action needed from the Public:

1. Support UK farming

Whenever possible buy UK-grown and even better locally and regionally grown produce. According to research by the Institute of Grocery Distribution, the third highest priority of consumers after keeping prices steady and 'special offers', was for local food. That expressed interest needs to be translated into real demand to give our farmers the confidence to commit to converting their farms to producing more food for local and regional consumption, rather than continue growing bulk commodities for selling on international markets to be turned into standard, processed foods.

2. Use your consumer power

Each imported apple bought during our apple season brings another UK orchard closer to the chop. Re-learn seasonality and buy in-season, home-grown produce in preference to imported competing produce.

3. Make Food Security an issue

Don't leave food and farming policy to the politicians or even just to the farmers. The security and sustainability of your food supply is your business. Tell your County Councillors, MP and MEP that you want to see a sustainable food and farming sector in the UK that produces good food at fair prices to farmers and consumers, without it damaging our environment.

Action needed from Farmers:

1. Reject the Agri-business Model & embrace Agri-culture

Farmers, their various organisations and leaders should question the vision for UK farming put forward by the likes of Lord Haskins and Whitty, and reject the agribusiness model it sees as 'inevitable', operating on the scale predicted by Sir Ewen Cameron, to meet world commodity market prices.

In doing so, they stand the chance of not only securing developing markets that offer them decent returns, but the even more valuable opportunity to reconnect with and regain the degree of public affection and support that their forebears enjoyed at the end of the Second World War and thousands of years previously:

'And when our ancestors would praise a worthy person, their praise took this form: good husbandman, good farmer; one so praised was thought to have received the greatest commendation.'

Marcus Cato, Di AgriCultura c.200 BC

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Useful/supporting organisations:

Coordination de Paysanne Europeene

Elm Farm Research Centre

Friends of the Earth

GAFF

Family Farmers Association

National Farmers Union CANADA

National Federation of Women’s Institutes

National Beef Association

National Sheep Association

New Economics Foundation

Small Farmers Association

Small & Family Farms Alliance

Sustain

Tenant Farmers Association

The Soil Association