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The State of Farming on Dartmoor 2002

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The State of Farming on Dartmoor 2002

Commissioned by

DARTMOOR NATIONAL PARK AUTHORITY

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Centre for Rural Research, University of Exeter
The state of farming on Dartmoor 2002: summary report

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Foreword and Acknowledgements

Farming on Dartmoor currently faces important challenges from a variety of sources. Maintaining a viable farming industry on Dartmoor requires specific policy support because of the natural handicaps to farming on the moor. It is widely recognised that, in addition to the moor's traditional role in producing food, hill farmers have a key role in maintaining its social and countryside environment. Increasingly, policy aims to ensure that this role is properly rewarded.

Farming on Dartmoor today takes place against a background of change: changing markets for food, changes in the 'food chain', international pressures for the reform of farm support policy and new expectations of farmers as land managers from the public. Moreover, last year's FMD epidemic caused further damage to struggling farm and tourism businesses.

Recognising the need for an independent source of information on the current state of farming on Dartmoor, the Dartmoor National Park Authority commissioned the research on which this report is based. It is hoped that the findings and recommendations will inform the 'Moor Futures Initiative' and assist the future development of Dartmoor farming.

The Centre's research team comprised Donald Barr, Allan Butler, Mark Fogerty, Kaley Hart, Hilary Thomas, Martin Turner and Michael Winter, all of whom made important contributions to the work. The authors acknowledge with sincere thanks the support and assistance of the Authority throughout, particularly Dr Nick Atkinson for defining the study and Phil Markham for his guidance as Project Manager. Nell Cruse provided a valuable input as research assistant and Russell Luscombe also made an important contribution. The staff of DEFRA's Statistics (Censuses and Surveys) Division efficiently provided the sample for the postal survey. The presentation of this report has been the responsibility of Marilyn Wills who has our grateful thanks for a job well done.

However, without the support of Dartmoor's farming community none of this could have proceeded. We especially thank farmers for finding the time to respond to the postal survey at a very busy time of year, and also the fifty farmers who put aside other commitments to take part in the telephone survey. The research was guided by an Advisory Group which comprised, under the chairmanship of Maurice Retallick, Philip Cleave, Bridget Cole and Mike Malseed (Dartmoor farmers), Peter Morris (National Farmers' Union) and staff of the Authority and the Centre for Rural Research. It is our hope that this research will prove to be of significant help in informing policy development, to both the farming community and the Authority, over the coming months and years.

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29 August 2002

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LIST OF ABBREVIATIONS

CAP	Common Agricultural Policy
DEFRA	Department for Environment, Food and Rural Affairs
DNP	Dartmoor National Park
ERDP	England Rural Development Programme
ESA	Environmentally Sensitive Areas
FBAS	Farm Business Advice Service
FMD	Foot and Mouth Disease
HELM	Hill Environmental Land Management (payment)
HFA	Hill Farming Allowance (scheme)
MAFF	Ministry of Agriculture, Fisheries and Food

1. INTRODUCTION

The background to the study

1. Farming on Dartmoor currently faces a number of significant challenges from a wide variety of sources. It has long been recognised that the maintenance of a viable farming industry in upland areas such as Dartmoor requires specific policy support. Dartmoor hill farming faces undisputed natural handicaps because of factors such as relief, climate and, for much of the moor, remoteness.

2. In addition to the commercial commodities produced by Dartmoor farmers for established markets, principally store (and some finished) livestock, hill farming systems have a key role in maintaining the physical, biological and social and recreational environment of the moor. These are regarded as public goods or services and, in the absence of natural 'markets' for such outputs, policy development is increasingly directed towards providing the necessary economic incentives to ensure these public goods are provided.

3. Against a background of changing market requirements and structures in the food sector, declining profitability in agriculture, international pressures to reform farm support policy and developing public perceptions of the role of farming (which is increasingly seen as providing environmental 'goods' in addition to high quality food) hill farming faces a period of considerable uncertainty and change. The recent epidemic of foot-and-mouth disease (FMD) caused further damage, of course, to struggling farm and tourism businesses.

4. The Authority recognised a need to undertake research to provide authoritative information on the current position of hill farming on Dartmoor, linked to the perceptions and aspirations of local farmers. In addition it was important to establish what may be expected of farmer and business-led groupings in taking advantage of new resources available under various rural development programmes such as Objective 2, the England Rural Development Plan and Leader Plus, and from a number of agency and partnership sources.

The aims and objectives of the research

5. The research project was designed to meet both the Authority's immediate needs for better information about Dartmoor's farming economy, and also contribute to an informed understanding of the industry's possible development over time. Thus, the research had two specific aims:

- (a) to establish a sound information base on Dartmoor's farming industry in order to inform the Authority of its current structural and socio-economic position; and
- (b) to explore the possibilities for group and co-operative approaches to a range of development opportunities.

6. In pursuing these aims the research project focussed on a number of specific objectives, which were defined at the outset of the study:

- Identify the key trends shaping Dartmoor hill farming over recent years and, where possible, the principal drivers of those trends;

- Provide a sound statistical database relating to the current state of farm businesses on Dartmoor;
- Explore farmers' current involvement in, and perceptions of, co-operative marketing initiatives relevant to the area;
- Establish a clear understanding of a range of socio-economic indicators related to the future development possibilities of Dartmoor hill farming;
- Assess the need for external agency assistance to support and/or develop new approaches to business development and the economic regeneration of the sector;
- Advise on the most promising areas for Authority intervention - under 'Moor Futures', for example – in consultation with farmers and the Authority.

7. The research undertaken augments information already available from the annual Agricultural Census (DEFRA), the Farm Business Survey (University of Exeter) and other recent studies to provide a definitive review of the current state of hill farming on Dartmoor. It includes analyses of recent trends in the agriculture of Dartmoor and identifies likely developments directly linked with hill farming on the moor. In particular, the research examines in depth the changing policy framework and the principal causes of those changes, considers the perceived impact of changes in policy instruments at farm-level, and reviews the extent and nature of structural change at farm business level over recent years.

8. The primary role of the research on which this report is based, therefore, has been to establish a comprehensive baseline of information relating to the state of farming on Dartmoor in the immediate aftermath of the FMD epidemic of 2002. This comprehensive review of statistical and research sources, policy developments and directions and, importantly, a sounding of the views and aspirations of those who make their livings in farming the moor, provides just such a baseline on which local and regional policy initiatives can be built.

Research methodology

9. The research comprised four distinct components:

1. *A postal survey of 500 Dartmoor hill farmers, stratified by farm size to ensure an adequate representation of all full-time and part-time farmers on the moor;*
2. *A telephone survey, based on a sub-sample of 50 postal respondents, designed to explore key issues in greater depth than would be possible in a postal questionnaire;*
3. *A desk review of all relevant information sources relating to the hill farming sector on Dartmoor, including recent studies and statistical sources;*
4. *Consultation with a range of representatives of Dartmoor hill farmers and other key stakeholders including, for example, English Nature and the Countryside Agency.*

2. THE POLICY CONTEXT OF HILL FARMING

Background

10. It is widely acknowledged that hill farming faces serious economic, social and environmental problems. The natural hardships have long been recognised through providing specific support to hill farming, both through the Hill Livestock Compensatory Allowance Scheme (1975 to 2000) and through enhanced rates under other schemes (principally at present the Sheep Annual Premium Scheme).

11. Although intended mainly for social purposes – to help to maintain the viability of hill farming – these headage-based payments have caused environmental concerns as they have seemed to encourage intensification. The reforms to the Common Agricultural Policy (CAP) in 1999 introduced a new Hill Farm Allowance Scheme with payments now being made on an area basis.

12. The policy focus in the uplands centres around trying to ensure appropriate policy mechanisms to achieve both a financially viable farming industry alongside protecting, maintaining and enhancing the physical, biological and social environment. As farming incomes have declined in recent years so the issue of how to manage and enhance uplands such as Dartmoor as a ‘public good’ has become more pronounced and challenging in the policy debate. Dartmoor is multifunctional and its farm economy provides not only income for farmers and traditional food commodities but a wide range of other goods and services for society as a whole. These include, inter alia:

- agricultural and other employment;
- food security;
- contributions to the local economy and to the social fabric of rural communities;
- the aesthetic value of the built environment and landscape;
- recreation and amenity;
- wildlife and biodiversity;
- water accumulation and supply;
- nutrient recycling and fixation;
- soil formation;
- storm protection and flood control;
- carbon sequestration by trees and soils.

Key issues in the uplands

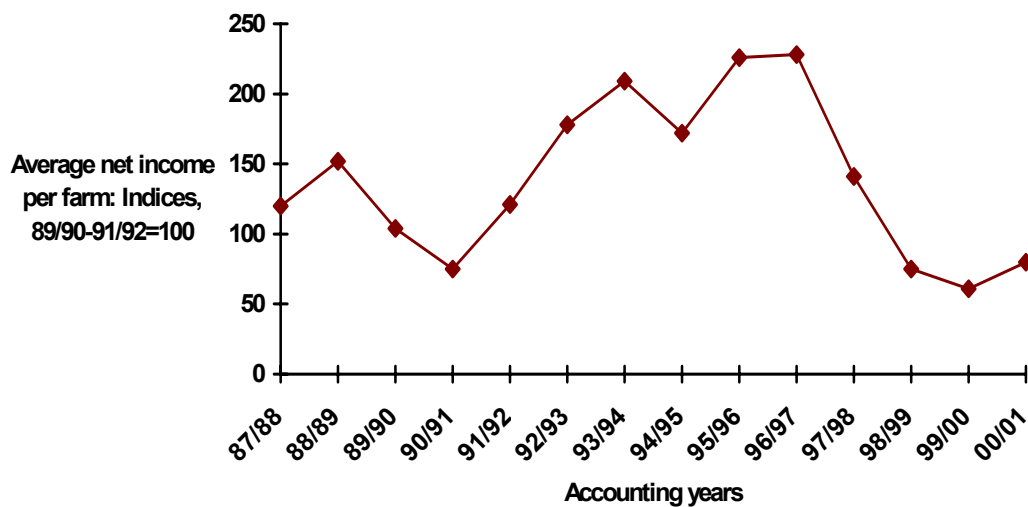
Farmers and farm incomes

13. Farm incomes are extremely low in upland areas and upland farming also suffers from a declining workforce with few new entrants. In an attempt to boost farm incomes, and encouraged by support schemes, farmers have tended to increase flock size to attract larger subsidies. After the introduction of the European Community’s sheepmeat regime in 1980 there was a sharp increase in sheep numbers in the UK – 40 per cent in England alone. Thus when ewe quotas were introduced following the MacSharry reform of the CAP in 1992,

though they helped to stabilise sheep numbers, they did so at historically high and, arguably, unsustainable numbers.

14. However, increased sheep numbers did not provide for sufficient returns to maintain incomes in the hills. The late 1990s witnessed a collapse in incomes for LFA cattle and sheep farms in England, with average incomes between 1998 and 2001 lower than those for any other year since 1987 as illustrated in Figure 1.

Figure 1 Cattle and sheep (LFA): Net farm income in England, current prices



15. Hill farms are dependent for their viability upon direct subsidies, particularly livestock subsidies, HFA payments and, increasingly, agri-environment scheme payments. Devon's Agricultural Strategy shows that for the LFA cattle and sheep sector (the third largest sector in the county and badly affected by BSE and more recently the FMD epidemic) subsidies make up approximately 50 per cent of incomes. The threat to farm incomes has wider social implications, of course. The cultural and social significance of farmers and the role they play within rural communities is increasingly recognised as an important part of the fabric of rural areas.

16. Increasingly, of course, farmers are turning to diversified activities and other sources of external income. Tourism has been well established in LFAs for many years and in the early 1980s it was estimated that 20 per cent of LFA farms in England and Wales were involved in tourism in some sense. The scale of tourist activity on farms appeared to be small, though, with involvement predominantly through the provision of holiday accommodation. Many of the farms on Dartmoor have already diversified, of course. Moreover, although planning restrictions are perceived by some to limit the opportunities for change and/or growth of farm businesses, DNP has a positive record in respect of farm diversification prospects.

Habitat loss

17. In general, the increase in average flock sizes in the UK encouraged more intensive use of moorland and unimproved pastures, and this overgrazing has led to the degradation of semi-natural habitats and a loss of biodiversity in the uplands. Although empirical evidence for this is limited experiments in Wales and elsewhere have established a clear link between heavy grazing and heather decline. The primary cause of overgrazing is high stocking levels, but the timing of grazing, the nature of supplementary feeding and the lack of shepherding are also important factors.

18. The upland heathlands of Dartmoor are one of the region's most valued landscapes. Moreover, Dartmoor's biodiversity is widely regarded as a tremendous asset, giving the National Park its distinctive character. Dartmoor supports a range of species of plants and animals characteristic of both upland and lowland areas. It is estimated that Dartmoor has 11,600 ha of upland heath, 12,000 ha of blanket bog and 4,900 ha of bracken and accounts for a substantial proportion of the total area of upland heath in the South West. On behalf of the Dartmoor Biodiversity Steering Group, DNP recently published *Action for Wildlife: the Dartmoor Biodiversity Action Plan*.

19. Current local initiatives to facilitate entry of common land into ESA agreements may well serve to solve many of the remaining problems associated with overgrazing. These issues are highlighted in the Dartmoor Biodiversity Action Plan which reports the primary causes of habitat loss on Dartmoor as being:

- Heavy grazing and/or frequent and extensive burning – causing upland heath to be replaced by grass moorland;
- Frequent swaling (burning) of areas containing purple moor grass, preventing heather regeneration;
- Bracken invasion;
- Heather beetle damage;
- Human disturbance – recreational activities and military training;
- Nutrient enrichment from atmospheric deposition

20. Despite these records of environmental losses in the uplands, a regional evaluation study of the HLCA scheme in England (1998) showed that farmers in general felt that they were doing 'a reasonable job' contributing to countryside conservation in the hills. In England, this seemed to relate particularly to preserving traditional field boundaries, maintaining traditional buildings and retaining natural vegetation.

Current policy debates

21. In terms of rural policy current debates and options for the future sustainability of upland areas are set within the context of the Government's vision for rural areas, as set out in the Rural White Paper (RWP) in December 2000. In order to achieve this living, working, protected and vibrant countryside the Government has set itself a number of Rural Policy Objectives that aim to '*sustain and enhance the distinctive environment, economy and social fabric of the English countryside for the benefit of all*'. In particular the RWP places increasing emphasis on:

- the importance of community strength - '*prosperous, sustainable and inclusive rural communities*';

- local partnerships;
- community strategies;
- increased co-operative working between farmers and others in the food chain;
- putting environmental and social objectives closer to the heart of farming policy;
- land based businesses and local products as key to continued rural prosperity;
- ‘thriving economies in all rural areas which provide good quality employment opportunities and exploit the versatility, entrepreneurial tradition, and, increasingly local green business potential’.

22. One of the measures introduced as a result of the 1999 CAP reform under Agenda 2000, the England Rural Development Plan (ERDP), is intended to play a role in helping to achieve the objectives of the Rural White Paper and meet the needs of upland areas. Other new schemes were introduced (i.e. the Rural Enterprise Scheme, the Vocational Training Scheme and the Marketing and Processing Grant Scheme) and budgets were significantly increased for agri-environment schemes. Perhaps the most fundamental change for the uplands, however, was the redefinition of the objectives for the uplands at a European level and the changes to upland payments from a headage to an area basis.

23. The Rural Development Regulation redefined the objectives of LFA support to include a clearer statement of the importance of maintaining the countryside and protecting the environment. The objectives are stated as:

- To ensure continued land use and thereby contribute to the maintenance of a viable rural community;
- To maintain countryside; and
- To maintain and promote sustainable farming systems which, in particular, take account of environmental protection requirements.

24. Opportunities for aiding the survival of farmers and the landscape of upland areas in the South West, both at county and regional level centre around a number of common themes. These include:

- continuation and expansion of environmental management payments to enhance the quality of farmland landscapes and habitats;
- promotion of high quality local food and drink including organics;
- promotion of training to raise the skills base of the food and farming workforce;
- reconnecting farmers and food producers with local communities;
- support for diversification, where appropriate (such as tourism, farmers markets etc);
- looking at ways of making the planning system meet the dual aims of protecting the landscape while allowing for sustainable regeneration of rural areas.

Environmental management

25. The Government is currently consulting on the future of agri-environment schemes. There seems to be a good deal of consensus about the general direction they should take from both farming and environmental organisations. Key messages that come through include:

- a basic broad and shallow scheme needs to be introduced which is applicable to all farmers nationally;
- a combined ESA/Countryside Stewardship scheme to target environmental management;

- the need to strengthen the links between Agri-Environment Schemes and other rural development initiatives;
- provision of integrated business and environmental advice;

26. The Government's Task Force for the Hills, which reported in 2001, recommended the introduction of a Hill Environmental Land Management (HELM) payment available to all farmers within the LFA which would be based on compliance with specific environmental criteria. Their vision is for 'a four tier environmental payment system in the LFA, with HELM providing the basic management payment above Good Farming Practice: a new, more appealing basic stewardship scheme providing widely available agri-environmental and rural development payments; ESA/Countryside Stewardship Scheme as a higher tier for what is special either locally or nationally; and a top tier of special payments, like English Nature's Wildlife Enhancement Scheme, for the most special sites and species.

27. It is generally agreed that whatever is put in place needs to be delivered through a single delivery point to enable integration with other rural development support available. The need to strengthen rural development links and to integrate business and environmental advice in the hills has been recognised as essential for the long-term sustainability of hill farms.

Quality local food and drink

28. South West Quality Meat uses the traditional, extensive grass based rearing methods as a marketing tool to give livestock products from Devon and Cornwall a competitive edge over other parts of the country. While production methods may give the region a competitive advantage, other aspects, including the cost of inputs, distance to markets and processing centres as well as the scale of production and ability to adapt to new techniques put the region at a disadvantage.

29. The development of the organic livestock sector in upland areas is something that has been proposed by a number of commentators. Research into organic beef production in Wales, but applicable to hill farms generally, has suggested that increased awareness is needed of the opportunities and practicalities of converting to organic in order to boost the numbers of organic holdings and thereby increase the scale of production. However, markets for organic produce also need developing and there needs to be more co-ordination between both producers and the marketing initiatives already in existence. This issue needs further research and reflection before firm guidance for policy can be given.

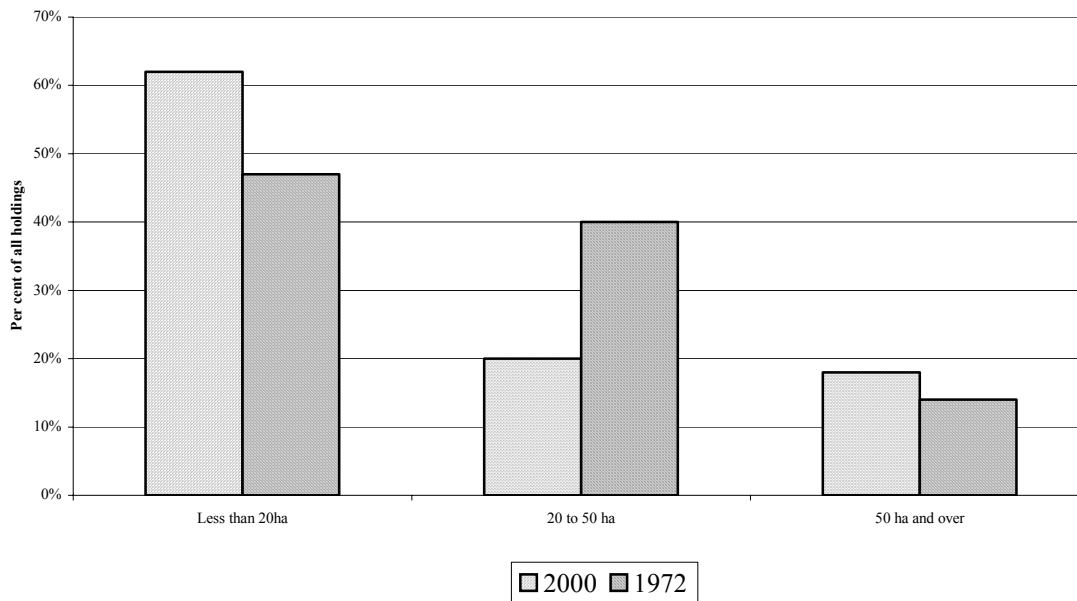
3. FARMING CHANGE ON DARTMOOR

30. Farming has an extremely long history on Dartmoor and its historical heritage is internationally recognised. The moor is famous for the extensive features of Bronze Age agriculture, with the remains of field systems and land boundaries testifying to its former use in agriculture.

31. The most significant recent influence on the farming systems of Dartmoor was its designation in 1994 as an Environmentally Sensitive Area (ESA). This scheme was introduced by MAFF in 1987 to encourage farmers to farm in ways which help to safeguard the natural environment and the historical features of the landscape. The influence of the ESA scheme over time will ensure further change in the pattern of farming on Dartmoor over coming years.

32. Over the last thirty years there has been significant change in the structure of Dartmoor farms, as Figure 2 illustrates. There is now a much greater proportion of small holdings (less than 20 ha) and a proportionately greater role for larger holdings (50 ha and over). Detailed statistics from DEFRA's Agricultural Census for 2000 are given in the Appendix.

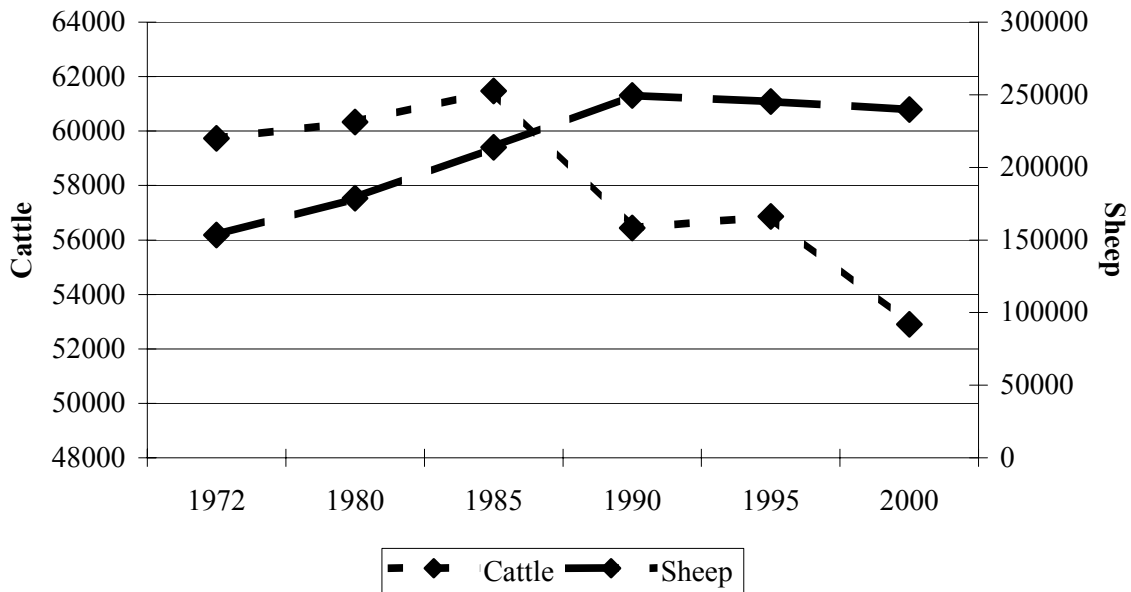
Figure 2 Changes in the size structure of Dartmoor farms: 1972 and 2000



Source: Authors' estimates based on data for the annual Agricultural and Horticultural Census (MAFF/DEFRA).

33. There have been some quite dramatic changes in livestock numbers over the past thirty years as Figure 3 shows. The total number of cattle and calves on Dartmoor farms continued to grow well into the 1980s, but since then has declined and numbers are now lower than in 1972. Sheep numbers, however, are very substantially higher than thirty years ago, with a significant increase occurring during the 1980s after the establishment of the CAP's sheepmeat regime. However, numbers peaked in the early 1990s and there have been steady reductions since then.

Figure 3 Trends in livestock numbers on Dartmoor farms: 1972 to 2000



Source: Authors' estimates based on data from the annual Agricultural and Horticultural Census (MAFF/DEFRA)

4. THE STATE OF FARMING ON DARTMOOR: FULL-TIME FARMS

34. This section is based on the findings of the postal survey. According to the Agricultural Census there are 425 full-time farms on Dartmoor, and the postal survey contacted 337 of them. Nearly two out of three replied and there was a usable response of 60 per cent, which is very good for a survey of this type.

Land tenure and farm structure

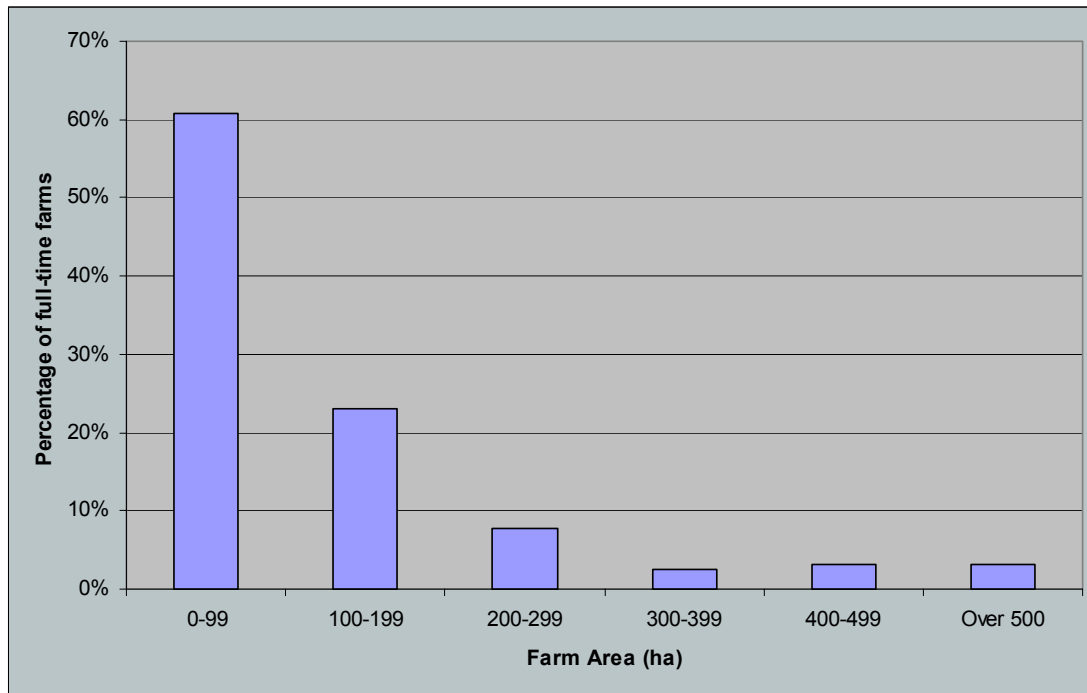
35. An indication of the structure of full-time farms on Dartmoor is given in Table 1. A key finding is that more than one in three farmers are responsible for at least some land outside the National Park. Overall, the proportion of land located outside the Park but farmed in conjunction with holdings on the moor amounted to more than ten per cent of their farmed total, a figure which is not insignificant in itself. However, for those farmers with land in that category it represented a very significant part of their business, covering 22 per cent of the total area farmed.

Table 1 Average farm size, its location and tenure: full-time farms

	Average area (ha)	As % of total area
Within the DNP	110.2	89
Outside the DNP	13.4	11
Total	123.6	100
<i>Of which</i>		
Owned	63.3	51
Tenanted	49.9	40
Grass keep	10.4	8
	123.6	100

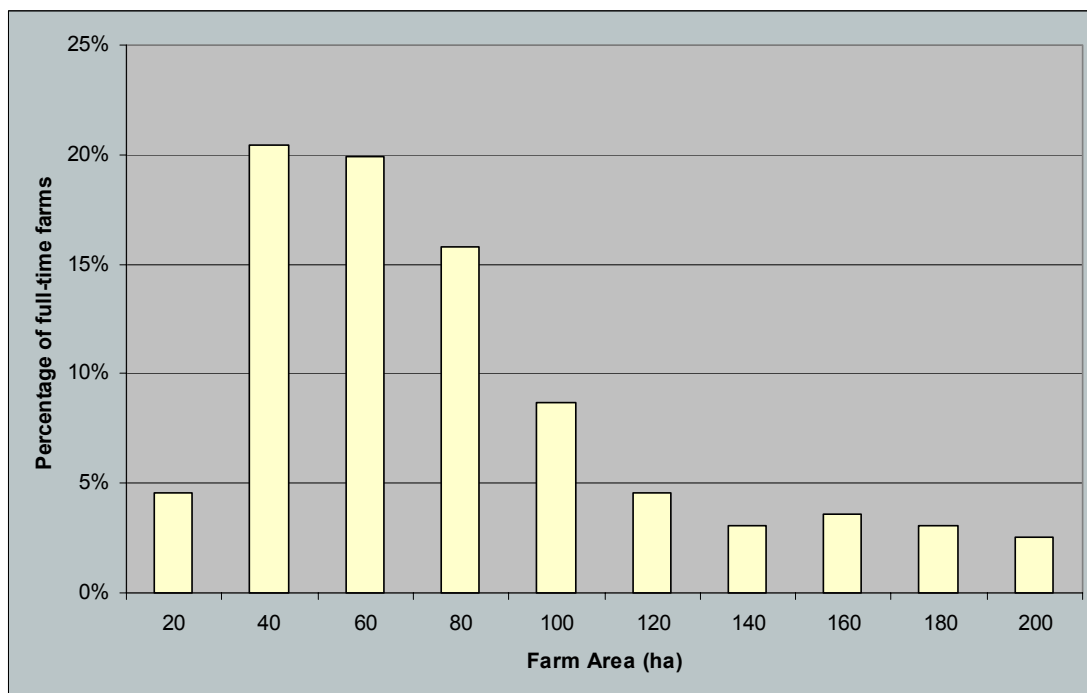
36. The distribution of respondents' farms by average farm size is illustrated in Figure 4. Clearly this shows that smaller holdings – those comprising less than 100 hectares - are dominant in the Park, this group accounting for 61 per cent of all respondents. Furthermore, over 90 per cent of holdings are less than 300 hectares.

Figure 4 **Distribution of farms by farmed area**



37. A more detailed breakdown of the two smaller size categories - farms less than 200 hectares – is provided in Figure 5. Analysing the distribution of farmed area more closely shows that farms that are between 40 and 80 hectares comprise half of those in the Park.

Figure 5 **Distribution of farms, 200 ha and under, by farmed area**



38. The postal questionnaire asked farmers about whether or not their holdings had increased in size in recent years and what changes in size they anticipated for the future. The key findings were:

- larger farms were most likely to have increased their area in recent years;
- smaller farms were most likely to have reduced their area;
- fewer farms of any size category expect to expand in the future;
- the 120 to 250 hectare group is by far the most inclined to expand (27 per cent);
- most farmers (75 per cent) anticipate no change in the size their holding *within* the Park before 2005;
- 40 per cent expect there will be no change in the area of land they farm outside.

The use of commons grazings

39. The issue of the use of commons grazings is complex since the nature and degree of use of commons grazings is at the heart of the ‘farming and the environment’ debate. The key findings were:

- 66 per cent of farms with cattle made no use of commons grazings;
- the overall proportion of farms making any use of commons grazings was 48 per cent;
- the proportion of farmers planning to reduce their use of common grazings over the next few years is greater than the proportion which increased their use over the last few years.

Away wintering as a farming practice

40. On the basis of the postal survey it is clear that the ‘away wintering’ of cattle and/or sheep is not carried out by the majority of holdings in the Park. Indeed, 90 per cent of farmers with breeding cattle and 82 per cent with breeding sheep indicate that no away wintering takes place on their systems. Most farms which do off-winter livestock do so for less than 20 per cent of their animals, but there is a small percentage of farms on which *all* their animals are removed. The survey also found that the present pattern of away wintering is unlikely to alter much over the next few years.

A review of farming systems

41. The survey looked at the detailed systems on Dartmoor. Of those farms with hill-type livestock, some 60 per cent produce store cattle or sheep, while 37 per cent produce finished livestock. Farms which have at least some lowland-type livestock produce a higher percentage of finished stock, at 48 per cent. Although there are other farming systems found within the Park boundary, including both dairy and arable, these are of minor significance only. Note that details of Dartmoor’s farming drawn from the agricultural census are given in Appendix 1.

42. In terms of change in farming systems, the survey found that 30 per cent of farmers with breeding cattle and 19 per cent with breeding sheep reported that they had increased their livestock numbers over recent years, while fewer reported a reduction. However, during the period to 2005 there is a clear switch expected in the balance between the ‘expanders’ and the ‘contractors’: twice as many farmers of breeding cattle expect to *reduce* their cattle numbers compared to those planning to increase them. The switch is even more marked for breeding sheep, strongly suggesting an overall reduction in total sheep numbers.

43. Changes with regard to the numbers of livestock sold as finished were considered. The survey found that over recent years there has been a steady increase in the proportion of Dartmoor farms selling some finished cattle and sheep, and this trend seems likely to continue although at a slower rate. While few farmers expected to stop producing finished stock, it appears that some farmers are considering reducing the proportion of stock taken through to finishing.

The significance of environmental payments

44. The survey confirms that the vast majority of farms in the Park receive some kind of environmental payments. Over three-quarters of farms are in receipt of either the extensification premium or the HFA while two-thirds receive payments for land that they have entered into the Dartmoor ESA scheme. Far fewer farms currently gain from ESA payments in respect of common land, although it is possible that this will change over time. With regard to the future of agri-environment schemes, nearly half of all farmers expect no change in environmental payments in the future.

45. When agri-environment payments are examined in relation to the area farmed, it is seen that variation by farm size is not significant but that the proportion of farms participating in agri-environment schemes rises with increasing farm size. It is interesting, however, that even the smallest farms have a participation rate as high as 72 per cent. Nearly half of the farmers surveyed expect no change in agri-environment payments over time.

Non-farming business activities

46. Overall more than two thirds of the farmers reported some sort of non-farming economic activity, with off-farm income being both the most commonly cited and the most frequently regarded as being 'crucial'. Diversified activities that are regarded as 'very important' or 'crucial' on at least one in ten of Dartmoor farms include 'processing and retailing', 'tourist accommodation', 'rents from properties not connected with tourism' and 'contracting'.

Table 2 Farm diversification: non-farming economic activities and their importance in the business

	Any activity	Importance		
		Not very	Very	Crucial
Processing and retailing	23%	7%	10%	6%
Tourist accommodation	18%	8%	6%	4%
Rents other than tourism	24%	8%	12%	4%
Recreation	7%	4%	3%	0%
Rural crafts	3%	1%	1%	2%
Contracting	21%	11%	6%	4%
Forestry	4%	2%	3%	0%
Off farm income	34%	6%	10%	18%
Other	7%	1%	5%	2%

47. Looking to the future, although the majority expect no change in the level of non-farming activity a significant proportion (25 per cent) expect to receive an increase in their income from non-farming activities. Moreover, although smaller farms tend to have a higher dependence on external earnings than larger ones, a very significant proportion of the larger farms are also highly reliant on external income.

The employment pattern on Dartmoor farms

48. The survey found that principal farmers and their spouses provide two thirds the workforce on the farms in the Park, while only 15 per cent of the total labour force is provided by regular paid workers and managers. Regular, unpaid family workers provide a further 6 per cent. There are several other important findings:

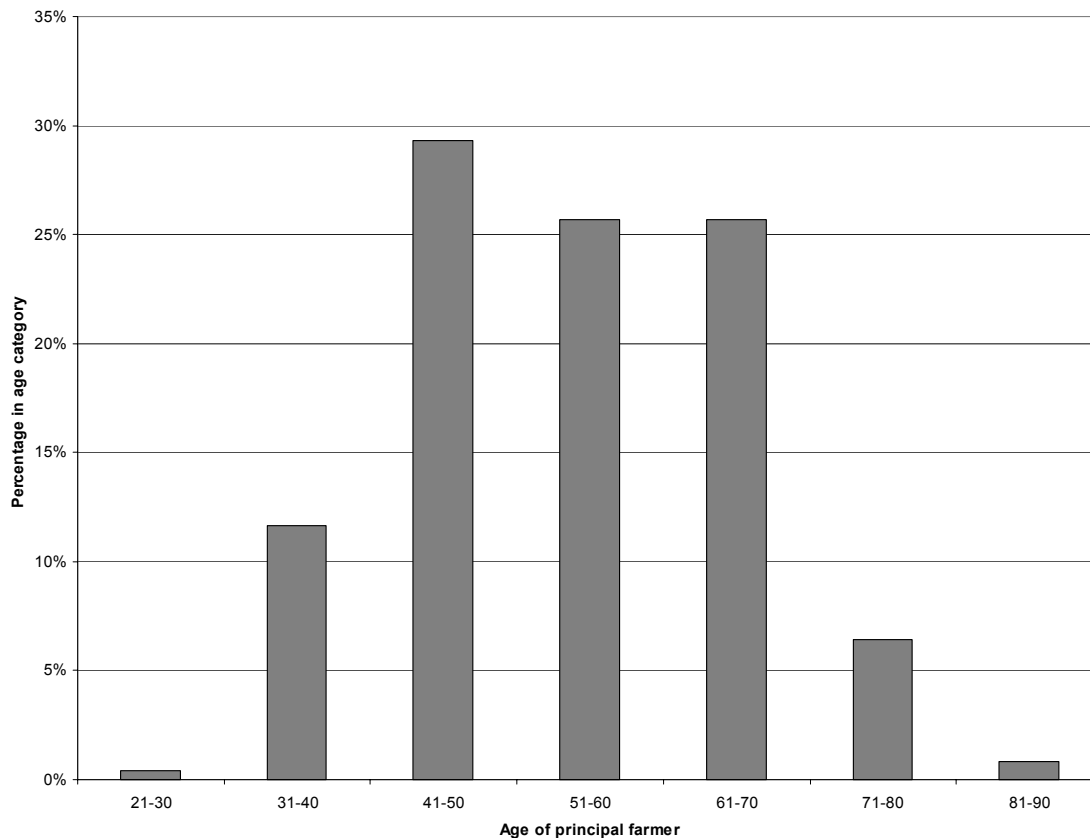
- Approximately 10 per cent of all farmers, partners and directors, and their spouses, have remunerative work off the farm;
- A further 5 per cent are involved, often on a full-time basis, with diversified business activities on their farms;
- Some 8 per cent of the total workforce (including family members, regular and casual workers) are involved in diversified activities on the farm;
- Just over half of the total 'farm' labour force is employed on a full-time basis in agriculture, with about 48 per cent working for a greater or lesser proportion of their time in diversified activities or, indeed, off the farm.

These figures serve to highlight the central role of the farm family in the operation of Dartmoor's farms, and the importance – in terms of providing employment - of supplementary economic activities both on and off-farm.

49. When changes in the use of labour and contractors between 1995 and 2000 are compared it can be seen that while 10 per cent of farms increased their use of labour during this period, on 30 per cent total employment declined. There appear to be several factors involved in this change. On about a quarter of farms there was an increase in the use of agricultural contractors, compared to only 11 per cent of farms making less use of contractors. Moreover, structural adjustment as a proportion of Dartmoor farms get bigger can be expected to reinforce such changes in the pattern of employment. Looking to the immediate future, fewer farmers expect to reduce their labour but the trend towards an increased use of contractors looks set to continue, albeit at a lower rate than in the last few years.

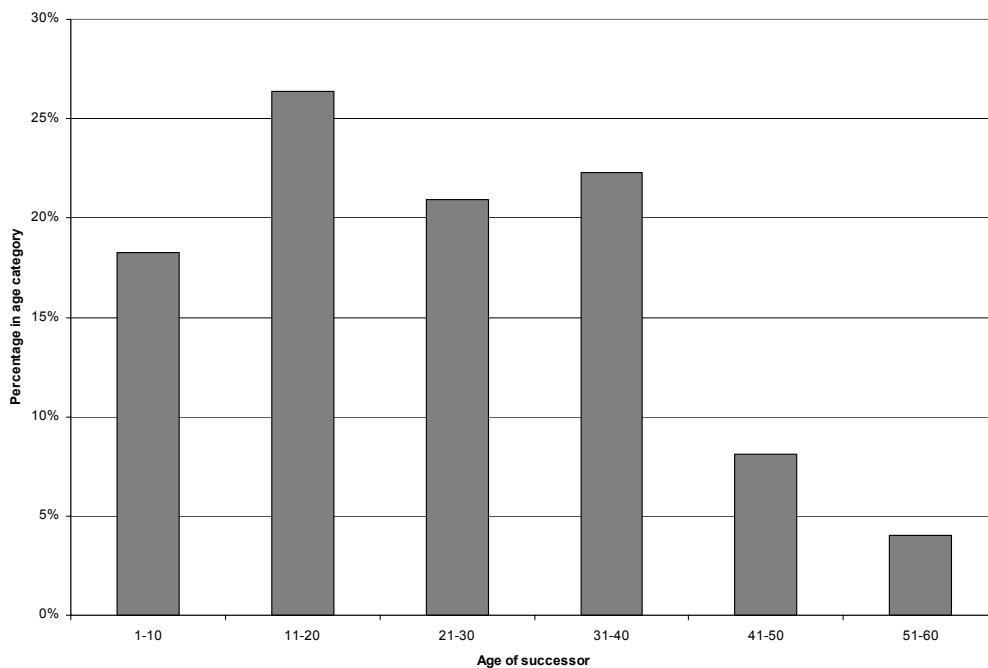
50. The question of 'the average age of farmers' is of continuing interest but, as has been pointed out elsewhere, any statistic which relates to the age of the *principal* farmer may rather overstate the position since at least some businesses will have successors who are actively involved and on track to assume full control at some future date. The current position for Dartmoor is that most *principal* farmers are aged between 41 and 70 years, with the average age being 55 (Figure 6).

Figure 6 The distribution of the ages of principal farmers, by age band



51. The postal questionnaire looked at the issues of succession and established that about half of the surveyed farms have a potential successor aged between 20 and 50 years. The average age of potential successors was twenty-four, while 54 per cent of farms reported having at least one successor (Figure 7).

Figure 7 The distribution of the ages of farming successors, by age band



Involvement in group or co-operative activities

52. Overall the survey found that 42 per cent of Dartmoor farmers are involved with at least one group or co-operative activity. The most popular form of such activity is participation in one or more discussion groups, for either or both the farming and non-farming sides of their business, at 23 per cent and 9 per cent respectively. Collaborative activities which require a higher degree of commitment, however, are notably less popular: only 10 per cent are involved with a selling or marketing group, 9 per cent with labour sharing and 8 per cent with the sharing of machinery.

53. Recent and prospective changes in farmers' shared use of machinery, and in other group activities, were examined in detail and two important points emerge. First, during the period 1995 to 2000, there was a very low rate of change in collaborative action of the sort discussed above. Secondly, it would appear that respondents expect only marginal increases in either of these activities by 2005. This issue is returned later in this report.

The role and potential of livestock markets

54. Farmers' views of the current and potential future role of livestock markets were gathered. Livestock markets are seen as providing vital information on the price of store stock with 95% of farmer agreeing with this statement, and to a slightly lesser extent markets are valued with respect to the prices of finished stock. In addition, the majority of farmers also look on livestock markets as serving an important social function as well as, to a lesser degree, providing a forum for discussing new agricultural developments. These findings confirm that livestock markets are of considerable continuing significance to farmers in the Park.

Farming and countryside management

55. Given the importance of countryside management in preserving the character of the farmed landscape of Dartmoor farmers were asked to identify the issues they regarded as barriers to the implementation of more countryside management activities. The key findings were:

- not surprisingly, given the continuing agricultural recession, farmers consider inadequate financial returns from farming to be the greatest single restriction to more and better countryside management (83 per cent);
- the (lack of) availability of appropriate grants (52 per cent);
- the (insufficient) availability of labour (46 per cent);
- the availability or cost of appropriate advice (28 per cent);
- the availability of the necessary skills (23 per cent);
- 71 per cent of farmers consider they have, or have access to, the necessary skills for countryside management;
- 62 per cent do not regard the availability or cost of appropriate advice as a barrier.

Dartmoor ponies and farming

56. A total of nearly one in five of the postal respondents on full-time farms keep ponies. However, *most* farms anticipated no change over the coming years. 23 per cent expect to reduce their pony numbers and a further 9 per cent suggest that they will no longer keep ponies by 2005.

57. Since ponies are considered an integral characteristic of the Park, the opinions of all farmers, whether or not they currently keep ponies, is of important and Table 4.29 reports the surveys findings on this. Encouragingly, it shows that more than three quarters of Dartmoor's farmers regard ponies as providing a positive image of the moor. However, 68 per cent of farmers consider that the breeding of ponies should be improved. As might be expected, farmers' opinions on whether or not subsidies should be paid for the keeping of ponies differ between farms that keep them and those that do not! Over half of the farmers who keep ponies support the idea that subsidies should be paid, compared to less than a quarter of farmers that have no ponies.

5. THE STATE OF FARMING ON DARTMOOR: SPECIALIST FARMS

58. Of the 1,122 agricultural holdings in the National Park more than a quarter (311) are classed as either ‘specialist grass and forage’ or ‘specialist horses’. Although these holdings may be involved in *some* agricultural activity, it is not at a level sufficient to allow classification into one of the main livestock (or crop) farm types. Many are occupied by retired, or semi-retired, farmers, while others are run as part-time activities. These holdings were included within the survey because of their commercial significance on Dartmoor.

59. With the exception of a small number of *commercial* equestrian enterprises, the survey found that much greater proportions of respondents on both specialist farm types are dependent on non-farming sources of income – 47 and 42 per cent respectively identified such income as ‘crucial’, with a further 25 and 20 per cent respectively regarding it as ‘very important’. However, substantial proportions of both groups reported no other business activity.

60. The essentially part-time nature of many of these holdings can be seen in that only a fifth are operated on a full-time basis. Few have any hired workers. There are quite marked differences with full-time farms in respect of attitudes to countryside management issues. Respondents on these specialist holdings consider themselves to be much less restricted in fulfilling their countryside management intentions, although nearly two thirds of those on ‘specialist horses’ holdings recognise inadequate financial returns from farming as a barrier to better countryside management.

61. In terms of their attitudes to Dartmoor ponies, occupiers of both of these farm types are, in general, more ‘pro-pony’ than full-time farmers. It will not be surprising that respondents on nearly half of the ‘specialist horses’ holdings support the suggestion that subsidies should be paid to encourage the keeping of Dartmoor ponies (only 28 per cent of full-time farmers agree with this).

6. FACING THE FUTURE: THE TELEPHONE SURVEY

62. The research included structured telephone interviews with fifty full-time Dartmoor farmers who had responded in the postal survey. The interviews explored (a) the factors which have driven recent changes on the moor; (b) farmers' attitudes to collaborative activity; and (c) farmers' views of the strengths and weaknesses of their farms, and the opportunities and threats which they face.

Changes over the last five years

63. Roughly, a third of the interviewees fall into each of the following categories: no change, increased activity and reduced activity. From these, the most frequently cited reasons for change are:

Increased activity

Response to fall in farm incomes (54%)
Acquisition of additional land (52%)
Increase in off-farm activity (39%)

Reduced activity

Contraction prior to retirement (32%)
Response to fall in farm incomes (23%)
Moving to environmentally friendly farming (23%)

Collaborative activities

64. Respondent farmers hold quite mixed views ranging from 'essential' to 'impossible.' The most popular views on collaborative activities are:

- Allows farmer involvement in the supply chain (46 per cent);
- A good idea if agreement can be reached (31 per cent);
- Farmers are too independent (22 per cent); and
- Essential to balance the power of buyers (21 per cent).

Aside from those concluding that collaborative activities offer no attraction at all (34 per cent) their principal draw is seen to be the economic advantage they may offer (42 per cent) and the access to knowledge and experience (14 per cent).

Help needed in running businesses

65. Three areas of potential additional help needed in running their businesses were explored, namely staff training needs, management needs, and access to rural development funds. The findings are as follows:

- About a quarter of the interviewees said they have staff training needs, with over half of the cases in relation to the use of computers;
- About a quarter of the interviewees said they require help with business management. Alongside use of computers, areas identified include managing diversified enterprises and marketing;
- Those who feel that they are able to access rural development funds see these mainly as relating to environmental issues or schemes;
- DEFRA is the most frequently suggested agency for assisting with rural development funds (30 per cent) closely followed by 'not sure' (28 per cent).

State support for farming

66. The view that current policy needs refining to better target support is widely held (47 per cent) along with backing for the move to area payments (21 per cent) and modulation / rural development (14 per cent).

67. Participation in agri-environment management agreements is also explored:

- Four fifths of those interviewed are participating in agri-environment schemes;
- Nearly all believe that the schemes have helped *sustain* the environment, in particular hedges (49 per cent), field boundaries (17 per cent) and biodiversity (14 per cent);
- Sixty percent feel the schemes had *improved* the environment, principally in the same areas;
- One quarter identify some negative impact on their businesses, in particular through the loss of flexibility in production and the restriction of stocking levels.

Strengths, weaknesses, opportunities and threats

68. The main strengths, weakness, opportunities and threats identified by the telephone sample of Dartmoor farmers are summarised below.

Strengths	Weaknesses
Quality livestock product (30%) Family labour (25%) No borrowings (20%)	Small farm size (23%)
Opportunities	Threats
Diversification (20%) Direct marketing (15%)	More regulation / gov't policy (60%) Imports / world trade (38%) Disease (20%) Supermarket control (18%)

Level and sources of income

69. The telephone survey enquired about the levels (in broad terms) and sources of farmers' incomes. Of those who answered this question:

- Over sixty percent of those who gave an answer to this question reported pre-tax profits from farming of £10K or less, with the great majority of these falling into the £0-£5K band;
- Nearly half report having either off-farm income or income from non-farming activities on the farm, or both;
- Off-farm and non-farming on-farm activities are equally prevalent at about thirty per cent of respondents but profits from off-farm activities are three times as likely to exceed £10K as those from non-farming activities.

Impact of the FMD crisis

70. Although 20 per cent of the interviewees report no ongoing FMD-related problems other are still concerned about:

- The volume of paperwork (35 per cent);
- Difficulties with the 20 day standstill (25 per cent); and
- Bio-security at markets (20 per cent).

7. RECOMMENDATIONS FOR FUTURE ACTION

71. Participation in the ESA scheme is very high at about two thirds of full-time farmers, which reflects well on all concerned with implementing the scheme as well as on the community of Dartmoor farmers. The research has found, moreover, that Dartmoor farmers are generally very positive about environment-friendly farming (providing they can make a reasonable living) and about the impact of the ESA on their businesses. Negotiations are currently underway to extend the take up of the ESA on the commons of Dartmoor.

The 'Moor Futures' initiative should consider ways in which these findings can be used (a) to strengthen the extension of ESA take up on the commons and (b) to encourage further uptake among the third of farmers still not involved. Particular attention should be given to knowledge transfer activities such as demonstrations and farmer discussion groups.

72. The research has provided further evidence, if any were needed, that the Dartmoor farming community is ageing at the same time as economic pressures are encouraging further reductions and 'casualisation' in the workforce with greater reliance on contractors. The continuing lack of involvement in labour sharing schemes and machinery rings seems hard to explain, therefore, other than in terms of a lack of appreciation of their potential role.

The 'Moor Futures' initiative, therefore, should explore ways in which it could co-ordinate and develop such schemes on Dartmoor, using a pilot project backed up by good dissemination of the experience gained.

73. The research focussed particularly on group and collaborative activity among Dartmoor farmers. While the findings show that, to date, this is not a common practice among Dartmoor farmers (only one in four respondents involved in any sort of Discussion group, for example), it is clear that there must be considerable potential for improvement. As an objective of the 'Moor Futures' initiative this could make a very significant difference to the adaptation to the changing economic and policy environment in which Dartmoor farmers will increasingly find themselves over the coming years, through strengthening mutual support in the farming community.

Our recommendations cover several different aspects:

- *Co-operation needs to start with bringing farmers together. It appears that the Dartmoor Hill Farming Discussion Group is not entirely open and, in any case, it probably has a large enough membership. The possibilities for facilitating new groups should be actively pursued (e.g. through PROSPER or SWARD; or setting up a group for younger farmers).*
- *Such a group(s) will need the continuing support of a suitable facilitator, for which funding will be required. Ideally such a person will not be too closely associated with any formal organisation. We are aware of excellent (even pioneering) work being done by staff at the Duchy College in establishing farmers discussion groups (funded by Objective 1 and by the MDC), and by the Exeter Diocese of the Church of England. The advice of Duchy staff and the Diocesan Rural Officer should be sought.*
- *There is an evident need for a co-ordinated approach to the provision and uptake of training. The research found a widely recognised need for training in computing for example, and a perception that this isn't readily available, yet we understand that there is a range of potentially suitable courses available.*

- There may be a potential role for developing the future range of functions at livestock markets serving the moor. Given the need to foster group activity and co-ordinate training, and markets' traditional role as a meeting place and opportunity for social contact, the possibility of improving links with training provision and of initiating group activity is worth exploring. In this context the involvement of the auctioneers KVN on Bodmin Moor is noted.

74. The possibility of Dartmoor farmers making effective applications for ERDP funds is not strong, because of a great lack of understanding about their purpose (and potential value in farming) and the application criteria and method. This may be contrasted with farmers' relative familiarity with agri-environment schemes, for example. This situation should be remedied as soon as possible.

The 'Moor Futures' initiative should be pro-active in examining the potential for greater use of the ERDP in furthering the economic development of the moor. Its most useful role needs further discussion, but one possibility is to facilitate Dartmoor's access to this funding through a 'pump-priming' approach.

75. The SWOT analysis identified a widely held perception of the high quality of Dartmoor livestock and of the potential for an increased involvement in direct marketing. Clearly, there are only so many opportunities for successful lone farmer-initiated enterprises of this kind; but, equally clearly, there is considerable potential for the development and commercial exploitation of the Dartmoor product. An initiative which is researching the market potential is already underway, and there are other similar initiatives elsewhere in the Southwest.

In conjunction with existing regional initiatives, 'Moor Futures' should encourage, if not actively make possible, the co-ordination of a Dartmoor meat marketing initiative with the aim of identifying the best way forward in this very competitive market.

76. There are a number of the **recommendations made by the Task Force for the Hills** which this research has identified as of continuing relevance for Dartmoor:

- Number 1 (short term) – explore the local impact of Hill Farm Allowance payments in terms of winners and losers;
- Number 7 (short term) – encourage the uptake of the ESA scheme as the best way to enhance both farming and the environment;
- Number 10 (medium/longer term) – reward for the production of environmental outputs;
- Number 13 (short term) – investigate the local application of ERDP funds for farming infrastructure;
- Number 18 (short/medium term) – support business and environmental appraisal funded by the FBAS;
- Number 20 (short term) – appraisal (under FBAS) of farm business viability and its interface with farm diversification;
- Number 21 (short term) – re-examine the scope for funding public sector involvement under the ERDP;
- Number 26 (medium term) – delegated grant funds to a 'first stop shop' advisory service;

- Number 27 (short/medium term) – encourage the SWRDA to take on (as a matter of urgency) the regeneration of the Dartmoor economy;
- Number 33 (short/medium term) – the broader development of auction markets;
- Number 34 (short/medium term) – assist in developing more collaboration between farmers!

As part of the 'Moor Futures' initiative each of these recommendations should be addressed in the context of the current state of farming on Dartmoor. Through both pro-active and reactive input into policy development, through lobbying, and in the facilitation of specific direct action, 'Moor Futures' has an important role in the pursuit of all the foregoing recommendations arising from this research.

APPENDIX I
STATISTICS ON DARTMOOR'S AGRICULTURE, 2000

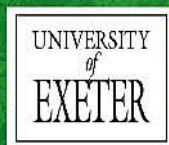
**DARTMOOR NATIONAL PARK:
AGRICULTURAL STATISTICS¹, JUNE 2000**

	No. of holdings	Hectares		No. of holdings	Number
Land use			Cattle		
Land rented	280	17157	Dairy herd	56	3173
Land owned	1031	29502	Beef herd	444	18192
Total crops and fallow (tillage)	217	2523	Breeding herd replacements (cows and heifers over 1 year for breeding)	409	6936
Recent and temporary grassland (< 5 years)	216	3341	Other cattle over 1 year	442	9202
Permanent grassland (> 5 years)	929	26345	Cattle and calves under 1 year	468	15396
Rough grazing (sole rights)	282	11622	Total cattle and calves	547	52899
Woodland	362	1622			
Set-Aside	34	302			
All other land	452	687			
Cereals			Pigs		
Wheat	27	586	Breeding sows and gilts in pig (breeding herd)	31	336
Winter barley	43	440	All other pigs	53	3009
Spring barley	39	329	Total pigs	61	3345
Oats	31	129			
Other cereals (excluding maize)	9	44			
Total cereals (excluding maize)	93	1529			
Arable			Sheep		
Potatoes (early and maincrop)	22	32	Breeding ewes (breeding flock)	460	125947
Sugar beet (not stockfeed)	0	0	Lambs under 1 year	437	108766
Hops and other arable	6	44	Other sheep	400	5217
Turnips, Swedes, kale, cabbage, savoy, Kohl rabi and rape	55	148	Total sheep	498	239930
Fodder beet, mangolds and other crops	30	47			
Horticultural crops	78	77			
Field beans	***	***	Goats		
Peas for harvesting dry	9	59	All goats	46	400
Maize	18	121			
Oilseed rape	***	***			
Linseed	13	229			
Bare fallow	14	119			
Horticulture			Labour force		
Peas and beans	***	***	Farmers, spouses, partners and directors – full-time	475	657
All other veg and salad	***	***	Farmers, spouses, partners and directors – part-time	567	779
Total vegetables grown in the open	21	16	Salaried managers – full-time	***	***
Area under glass or plastic	11	1	Salaried managers – part-time	***	***
Top fruit	49	31	Male employees – full-time	67	113
Small fruit	9	1	Male employees – part-time	75	91
Total fruit	54	33	Female employees – full-time	14	16
Hardy nursery stock	14	28	Female employees – part-time	35	46
Bulbs and flowers grown in the open	***	***	Casual workers	106	163
			Total labour	874	1880
Holdings by tillage and grass area			Holdings by EC farm type		
0 < 5 hectares		404	(Based on Standard Gross Margins)		
5 < 20 hectares		298	Cereals		***
20 < 50 hectares		223	General cropping		***
50 < 100 hectares		132	Horticulture		38
100+ hectares		78	Pigs and Poultry		28
			Dairy		41
			Cattle and Sheep (LFA)		393
			Cattle and Sheep (lowland)		168
			Mixed		38
			Other types		412

*** To prevent disclosure of information about individual holdings the number of holdings has been suppressed and the data averaged over a wider area.

¹Excluding minor holdings.

Source: *Agricultural and Horticultural Census*, DEFRA



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