

The 'Big Freeze' of 1962–63: the loss of livestock, the issue of fodder supply and the problem of the commons in two upland hill-farming regions in England and Wales*

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Abstract

This article explores the impact of the extreme winter of 1962–63 on two upland hill-farming areas: the Cambrian Mountains area of Breconshire, Radnorshire and Montgomeryshire in mid-Wales, and Dartmoor in Devon and parts of south-west England more generally. Based on the detailed study of Ministry of Agriculture, Farming, and Fisheries (MAFF) files held at the National Archives, supplemented with material from the National Meteorological Library and Archive, *Hansard* (Parliamentary Debates) and the farming press, it provides a detailed analysis of the impact of the winter showing how it adversely affected these two upland areas and provoked political debate. The way in which the effects of the winter contrasted with the previous extreme winter of 1946–47 is considered. It argues that, by 1962–63, upland farmers were better equipped to deal with the effects of extreme winters and the Government had learnt important policy lessons from previous experiences.

After a winter as severe and unforeseen as that of 1962–63 there should be no difficulty in convincing Englishmen of the ability of the weather to disrupt the most highly organized society. That winter was a reminder, and it may be feared a timely one, that we do not yet control and cannot truly predict the weather.¹

Although we live in an age of climate change, global warming and increasing international food insecurity, the impact of previous instances of extreme weather events, such as drought, floods, storm events and unusually high or low temperatures in Britain has received relatively

* This paper is an outcome of the project: 'Spaces of experience and horizons of expectation: the implications of extreme weather events, past, present and future', funded by the Arts and Humanities Research Council (grant number AH/K005782/1). See J. P. Bowen, 'Spaces of experience and horizons of expectation: the implications of extreme weather events, past, present and future,' *Rural History Today* 27 (Aug. 2014), pp. 4–5. John Martin would also like to acknowledge the award of a MERL (Museum of English Rural Life) Fellowship in 2010–11 to investigate 'Extreme weather and agriculture from 1947 to 1976'. We would like to thank David Stead, Mark Riley and Angus Winchester, who commented on an earlier draft of this article, the editor of the *Review* and the two anonymous reviewers who commented on the article.

¹ E. L. Jones, *Seasons and prices: The role of the weather in English agricultural history* (1964), p. 14.

little consideration by rural and agricultural historians. The impact of weather on agricultural productivity and prices has attracted more attention in other countries, particularly in the United States where seasonal weather patterns can have a much more profound impact on agricultural output and prices.² Traditionally historians concerned with weather and climate in Britain have focused on its impact on arable cultivation rather than its effect on pastoral agriculture.³ Jones' classic study, *Seasons and prices*, was the first to consider the effect of weather on national agricultural production and was published the year after the 1962–63 winter.⁴ Local case studies are invaluable given the implications of extreme weather for the productivity and economic viability of agriculture, an issue which is particularly evident in respect of isolated and marginal upland areas which are at acute risk from extreme winters.⁵

The impact of the winter of 1946–47 on the agricultural sector has received limited attention from historians. For example, while Fyrth in his edited volume, *Labour's High Noon*, stresses the significance of 1947 as a turning point, the chapter specifically on agriculture by Chase, which argues that Labour's agricultural policy was 'Nothing less than a revolution', makes no more than a passing reference to the impact of the 1947 winter.⁶ In a similar vein, Zweiniger-Bargielowska's *Austerity in Britain* pays little attention to the disruption to the rural sector caused by the winter of 1947.⁷ The most detailed account is Robertson's *The Bleak Midwinter 1947*, although this focuses primarily on the origins of the coal crisis and its relationship to the problems of post-war reconstruction.⁸ The importance of the 1947 winter has also been largely ignored in specialist studies of the agricultural sector such as Holderness's *British agriculture since 1945* and Martin's *The development of modern agriculture*.⁹

Amongst agricultural historians there is a growing appreciation of the economic impact of extreme weather on agriculture and the response of policy makers.¹⁰ They have considered

² M. Atkin, *Agricultural commodity markets* (1989). The United States Department of Agriculture (USDA) provides daily reports on the impact of the weather on agricultural productivity to the farming community see www.usda.gov/wps/portal/usda/usdahom, accessed 10 Nov. 2015.

³ For example see W. G. Hoskins, 'Harvest fluctuations and English economic history, 1620–1759', *AgHR* 16 (1968), pp. 15–31; D. Stone, 'The impact of drought in early fourteenth-century England', *EcHR* 67 (2014), pp. 435–62; L. Brunt, 'Weather shocks and English wheat yields, 1690–1871', *Explorations in Economic History*, 57 (2015), pp. 50–5. There is a lack of historical accounts that focus on post-war British agriculture (with the exception of specific studies addressing themes such as changes in government policies, rural electrification, output and technical change, and the farm management survey), highlighting the need for an *Agrarian History of England and Wales IX* covering the period 1939–1990. For the Agricultural Act of 1947 and post-war agricultural policy see J. K. Bowers, 'British agricultural policy since the Second World War', *AgHR* 33 (1985), pp. 66–76.

⁴ Jones, *Seasons and prices*.

⁵ *UK Climate Change Risk Assessment: Government Report* (2012).

⁶ M. Chase, 'Nothing less than a revolution? Labour's agricultural policy', in J. Fyrth, *Labour's High Noon: Government and the economy, 1945–51* (1993), pp. 78–95.

⁷ I. Zweiniger-Bargielowska, *Austerity in Britain: Rationing control and consumption, 1939–1955* (2002).

⁸ A. J. Robertson, *The bleak midwinter, 1947* (1987).

⁹ B. A. Holderness, *British agriculture since 1945* (1985); J. Martin, *The development of modern agriculture: British farming since 1931* (2000). For the development of British agriculture during the Second World War and its legacy in the post-war period see: B. Short, C. Watkins and J. Martin (eds), *The front line of freedom: British farming in the second world war* (2006).

¹⁰ J. Martin, 'The bleak midwinter of 1947', *Rural History Today* 18 (2010), pp. 1, 8; J. Martin, 'Long hot summers revisited', *Rural History Today*, 19 (2010), pp. 1, 8; D. R. Stead, 'Irish agriculture and agricultural policy during the hot, dry summer of 1976', *AgHR* 62 (2014), pp. 314–36. C. A. Jones, S. J. Davies and N. Macdonald,

some aspects of the winter of 1946–47, but less attention has been paid to the effects of subsequent severe winters such as 1954–55, 1962–63 and 1978–79, all of which deserve investigation. The extreme winter of 1963, also known as the ‘Big Freeze’, was one of the longest and coldest winters on record in the United Kingdom. The Central England Temperature series compiled by Manley, which extends back to 1659, records that only the winter of 1683–84 was significantly colder, and that the winter of 1739–40, known as the ‘Great Frost’ – which affected Europe more widely – was only slightly colder than 1962–63.¹¹ Booth’s snow survey of Great Britain for the 1962–63 season and the Meteorological Office’s ‘Monthly Weather Reports’ provide a detailed month-by-month account of the winter.¹² To summarize, the beginning of December 1962 was very foggy, with a short wintry outbreak bringing snow on the 12–13 December. Towards the end of the month (22 December) a high-pressure system moved to the north east of the British Isles, having formed over Scandinavia. This was accompanied by a cold easterly wind from Russia. A belt of rain over northern Scotland on the 24 December turned to snow as it moved southwards. The snow reached southern England on 26 December and remained over the country resulting in snowfall of up to thirty centimetres in depth. Subsequently a blizzard on the 29 and 30 December across Wales and south-west England caused snowdrifts in a number of localities up to six metres deep. There was widespread disruption, with roads and railways blocked, telephone lines brought down and many villages cut off for days.¹³ The snow lay for the next two months and more continued to fall. Whilst there was sunshine, the lack of cloud cover meant that temperatures at night remained low.¹⁴ Throughout England and Wales, the long, bitterly cold spell caused lakes, rivers and even the sea to freeze. In much of upland England, motorized access remained difficult and hay had to be carried to livestock by hand (Figure 1). The coldest winter for more than two hundred years in England and Wales finally abated in early March, and with the thaw came flooding, although not on the scale of the 1947 floods.¹⁵

This article seeks to address this comparatively neglected winter with two regional case studies of its impact on upland hill-farming areas in England and Wales.¹⁶ It compares and contrasts the experiences of the Cambrian Mountains area encompassing the counties of

Note 10 *continued*

‘Examining the social consequences of extreme weather: the impact of the 1947 winter in upland Wales, UK’, *Climatic Change* 113 (2012), pp. 35–53.

¹¹ G. Manley, ‘Central England temperatures: monthly means 1659 to 1973’, *Quarterly J. Royal Meteorological Society* 100 (1974), pp. 389–405.

¹² R. E. Booth, *Snow survey of Great Britain, season 1962–63* (1963), repr. in Meteorological Office, *British Rainfall 1963* (1971), pp. 9–14. *Monthly Weather Reports of the Meteorological Office* (1963) consulted at The National Meteorological Library and Archive, Exeter.

¹³ For a blog exploring the impact on the extreme winter of 1963 on the railways in Britain see blogs.nottingham.ac.uk/weatherextremes/2015/05/04/the-effects-of-weather-extremes-on-the-railways-of-britain-past-present-and-future/, accessed 1 Oct. 2016.

¹⁴ In January 1963 the mean earth temperature was -5°C and the mean air temperature -3°C ; in February the mean earth temperature remained below freezing and whilst in March the number of hours of bright sunshine had increased to 2.5–4.0 hours per day, the mean earth temperature had only risen to $-2.5^{\circ}\text{C}/-3.0^{\circ}\text{C}$.

¹⁵ R. E. Booth, ‘The severe winter of 1963 compared with other cold winters, particularly that of 1947’, *Weather* 23 (Nov. 1968), pp. 477–9.

¹⁶ The files consulted are held at The National Archives (hereafter TNA), MAF 112/1151 (Losses of sheep during the winter of 1962/63) and MAF 114/689 (Animal welfare and feeding problems: winter 1963). Also consulted was T 311/52 (Economic consequences of severe weather conditions in winter of 1962–3) and AN 183/130 (Lessons of winter 1963–4).



FIGURE 1: Two farmers carrying bales of hay to feed livestock at Frongoch, Bala, Merionethshire, Wales on 1 February 1963. The Geoff Charles (1909–2002) Photographic Collection. By permission of Llyfrgell Genedlaethol Cymru/National Library of Wales.

Breconshire, Radnorshire and Montgomeryshire in mid-Wales with those of Dartmoor and the south west of England. The rationale for focusing on these two case studies is that they are broadly representative of upland areas in Britain. The impact of the winter on the farming community and animals was severe in both of them, and there is an abundance of relevant primary source material that has hitherto not been extensively utilized. These case studies provide pertinent historical examples that can be used to enhance our understanding and inform wider discussion about the influence of extreme weather on British agriculture. Our discussion focuses on the potential and actual losses of livestock, the critical issue of fodder supply and the need for supplementary feeding. The latter can be viewed in relation to the apparent problems which common land presented and debates at the time concerning the need for commons registration. Developments were also linked to debates regarding discussions about the payment of hill sheep and hill cow subsidy and the role of politicians and the National Farmers Union (NFU) in campaigning on behalf of upland hill farmers. In this way, the article contributes to the wider discussion about the government's involvement with the agricultural sector.¹⁷

¹⁷ J. Murdoch and N. Ward, 'Governmentality and territoriality: the statistical manufacture of Britain's "national farm"', *Political Geography* 16 (1997), pp. 307–24; D. Harvey and M. Riley, "'Fighting from the fields": developing the British "national farm" in the Second World War', *J. Historical Geography*, 35 (2009), pp. 495–516.

We also note that 1963 constituted a major watershed in British politics. In addition to the bad weather, the Profumo scandal and the Great Train Robbery both contributed to the declining popularity of Harold Macmillan's Conservative government and its replacement after the 1964 general election by a Labour administration headed by Harold Wilson.¹⁸ Given these challenges, the Conservative government was more preoccupied with maintaining its reputation for competence and less concerned about appearing partisan by assisting farmers who were traditionally noted for their support for the Conservative party. In passing we will consider several pertinent questions about the government's performance. For instance, is it fair to criticize central government, the county agricultural committees and farmers for insufficiently preparing for extreme winter conditions? Was the winter of 1963 handled well by government and could the policy responses have been more effective? Were the interests of farmers prioritized over those of taxpayers, and to what extent did the winter intensify the need for legislative reform regarding the registration of common land?

I

The agricultural statistics for England and Wales show the long-term relationship between cattle and sheep numbers, with cattle, which were generally less profitable, declining at the expense of sheep.¹⁹ The shift to sheep had been encouraged by the headage payments made under the Hill Farming Act of 1946: more sheep led to increased income for the individual farmer. Headage payments, which were guaranteed, meant that there was less emphasis by owners on trying to ensure that the maximum number of lambs were born and reared. This encouraged an increase in stocking rates resulting in overstocking thereby making the dangers of an adverse winter even greater. Indeed, Crowe has argued that subsidies of this type were counterproductive, failing to promote either efficiency improvements or viable holdings, being least effective on upland hill farms, where headage payments delayed the rationalization of the industry. In her view, headage payments were, in effect, a form of social welfare.²⁰ As a result of the increase in the size of individual flocks, farmers had more sheep to look after, and saving them in bad weather by digging them out of snowdrifts before they either starved or froze to death was problematic at a time when the amount of labour available had also declined.²¹ It is also important to note that cattle were more resilient to periods of bad weather and food shortages. A similar point applies to wethers – the so-called 'policemen of the hills' – which were normally more likely to survive adverse weather than breeding ewes.²² It can, therefore, be argued that changes in the type of livestock kept on upland farms made the effects of the winter even worse than it otherwise might have been.

¹⁸ R. C. O. Matthews, C. H. Feinstein and J. Odling-Smee, *British economic growth, 1956–1973: The post-war period in historical perspective* (1982). The winter featured in a Pathe Newsreel Review of 1963: www.youtube.com/watch?v=7io7pIUdIz8, accessed 18 Dec. 2015.

¹⁹ MAFF, *Agricultural Statistics, 1945–70*.

²⁰ For hill sheep subsidy see: H. Crowe, 'A wasteful

use of national resources? Farm subsidy in the uplands 1947–1970' (unpublished MPhil dissertation, University of Cambridge, 2010), pp. 35–44.

²¹ An indication of the significant increase in the average size of the individual flock is illustrated in Tables 7 and 8.

²² A. W. Ashby and I. L. Evans, *The agriculture of Wales and Monmouthshire* (1944), p. 40.

Winter fodder supplies often determined the stocking capacity of many upland farms, as most did not retain a surplus from previous years as insurance in case of an abnormally bad winter. Indeed, following favourable summers, which allowed them to build up their stocks of hay for the winter, they would often increase their stocking. This could take a variety of forms including retaining replacement ewe lambs on the farm rather than sending them to more fertile lowland farms for their first winter. The cost of away wintering was increasing rapidly at this time and it was one way in which financially hard-pressed upland farmers could economize.²³ And, whilst the hay crop in 1962 had in general been gathered in good condition, it was very light as a result of the cold dry spring, which had delayed grass growth.²⁴ This meant that fodder production had been comparatively low and most upland farmers went into winter with a shortage or deficit of winter fodder from that year and little or no reserves from previous years. Farmers were essentially gambling on the winter being relatively mild, allowing the animals to forage naturally. If this involved a degree of risk, then their luck ran out in the winter of 1962-63.

II

Our first case study comes from central and mid-Wales. The extreme winter of 1962-63 resulted in significant losses of sheep and lambs there and was the subject of questions in the House of Commons (which forced the Ministry to take a continuing interest in events) and extensive reports in the farming and local press.²⁵

Once the scale of the Christmas and New Year snowfall had become apparent, it was quickly realized that large numbers of livestock in Wales were at risk. Estimates were made within the Ministry in the first days of January of the likely shortfall in the supply of fodder assuming that the weather remained cold without any thaw. These estimates serve to define the area of crisis. Denbighshire, Anglesey, Pembrokeshire and most of Cardiganshire were largely unaffected, but about 100,000 cattle and one million sheep in Wales were estimated to be at risk in the worst affected counties (Table 1). They were not expected to survive the winter without fodder being brought in from neighbouring areas.²⁶ Calculating the likely need may well have been prudent, but the worst fears of government seem not to have been realized. It is actually quite hard to establish exactly what the mortality of sheep was in the first months of 1963 and the Ministry's own papers show some uncertainty, as well as a tendency to downplay local difficulties. Press reports were, however, more lurid in their descriptions of the crisis.

²³ E. A. Attwood and H. G. Evans, *The economics of hill farming* (1961), p. 97; M. McG. Cooper and R. J. Thomas, *Profitable sheep farming* (1965), p. 93.

²⁴ The monthly mean air temperature anomaly for 1962 indicates that the month of March (-2.0°C), April (-0.5°C), May (-0.9°C), June (-0.6°C), July (-1.0°C), August (-1.2°C) and September (-0.9°C) were below the long-term mean. Rainfall was not heavy with the following monthly anomaly recorded for each month

January (87 mm), February (-24 mm), March (-68 mm), April (73 mm), May (28 mm), June (-49 mm), July (-35 mm), August (65 mm), September (72 mm). We are grateful to Amy Lennard for providing this data.

²⁵ See for example 'Winter's tales' and 'The Icy Backlog', *Farmers Weekly* (hereafter *FW*), 22 Feb. 1963, pp. 43 and 47.

²⁶ TNA, MAF 114/689 (1), Letter from J. Morgan Jones to Humphrey-Davies, 11 Jan. 1963.

TABLE 1: Estimates of livestock at risk and fodder deficiency in Wales by county, 11 January 1963

County	Livestock at risk		Estimates (tons of hay) of fodder deficiency assuming bad weather conditions continue non-cumulative totals		
	Cattle	Sheep	1 February 1963	1 March 1963	1 April 1963
Caernarfon	3000	100,000	500	1150	2000
Merioneth	500	1000	100	350	1500
Camarthenshire	3000	83,000	1000	1890	1890
Glamorgan	18,000	96,000	400	500	100
Monmouth	13,000	130,000	300	500	200
Montgomery	22,000	208,000	800	1200	2500
Brecon	19,000	202,000	100	1200	2300
Radnor	23,000	150,000	200	600	1000
Totals (thousands)	101.5	1175.0	3.4	7.5	11.6

Source: TNA, MAF 114/689, Animal welfare and feeding problems: winter 1963, Letter from J. Morgan Jones to Humphrey-Davies, 11 January 1963.

Nationally, the loss of livestock in 1963, whilst high in some localities, was less than the scale of losses which occurred during the disastrous winter of 1946–47. During that winter an estimated total of 1½ million hill and lowland sheep had been lost, mainly due to the snow, amounting to 20 per cent of the national sheep flock.²⁷ In 1946–47 the cold spell had been prolonged and uninterrupted, with death from exposure and starvation the main hazard on the hills. In 1963, the number of livestock deaths in the affected upland areas was not immediately reflected in the national agricultural statistics, masking crucial local and regional variations (Figure 2). In part this was because these upland areas produced breeding and store stock rather than fat stock to be sold for slaughter. As a result of this, the effects of these localized losses was not in the short term obvious from the number of fat stock sold.²⁸ Indeed, it is not necessarily easy to distinguish between losses due to the extreme weather and those that occurred every winter, and from reductions in flock numbers due to other causes, for example, outbreaks of diseases like worms, liver fluke (fasciolosis), clostridial diseases and pasteurella pneumonia.²⁹ Of course bad weather and malnutrition might be a predisposing cause for the spread of disease like infectious kerato-conjunctivitis (known colloquially as snow blindness) which is caused by high winds and driving snow, and also twin lamb disease which is a metabolic disease caused by energy deficiency in late pregnancy. As the name suggests twin lamb disease was most prevalent in ewes carrying twin lambs. However, multiple births were not encouraged in the uplands as the ewes had difficulty in rearing a single lamb.

²⁷ Robertson, *Bleak midwinter 1947*, p. 128.

²⁸ The agricultural data is from the June 4 census for England and Wales published annually by MAFF.

²⁹ Cooper and Thomas, *Profitable sheep farming*, pp. 115–35.

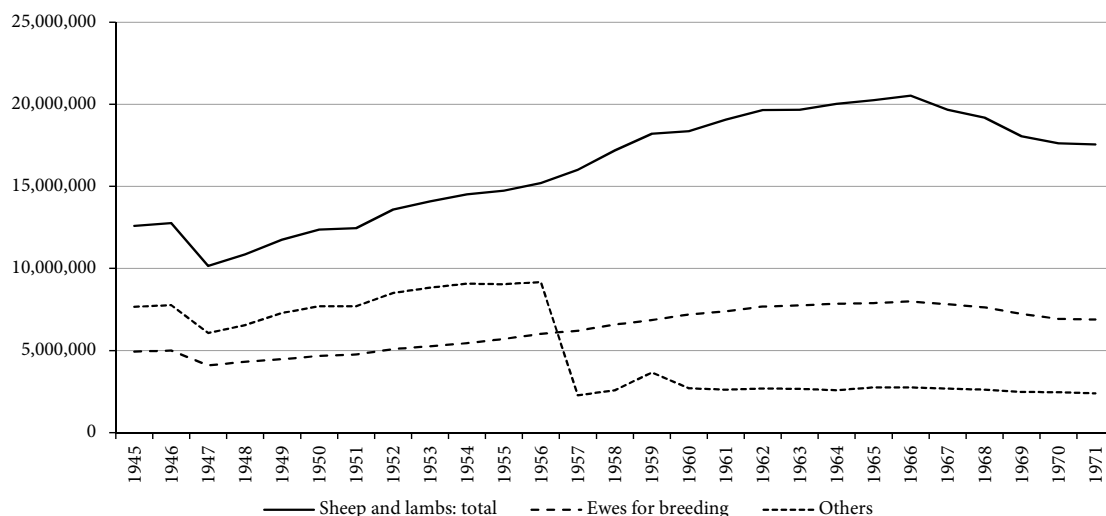


FIGURE 2: Sheep and lamb statistics for England and Wales between 1945 and 1971.

Source: MAFF Agricultural Statistics.

Nevertheless, a picture emerges from the statistics that some districts were particularly severely hit by the effects of the 1962–63 winter, for instance, the Elan Valley in mid-Wales.³⁰ County-level agricultural statistics for Breconshire, Cardiganshire, Montgomeryshire and Radnorshire show a marked decrease in the total number of sheep and lambs between June 1962 and 1963, although by the following year numbers had recovered and were increasing (Table 2). For example, in the case of Breconshire, the county most badly affected, the total number of sheep and lambs decreased by nearly 10 per cent, from 707,825 in June 1962 to 658,617 in June 1963, but quickly recovered with 705,617 recorded in June 1964.³¹ This implies a rapid recovery at least in terms of livestock numbers. Analysis of the unpublished parish summaries of agricultural returns, which were compiled by the Agricultural Census Branch of the Ministry of Agriculture, Fisheries and Food, for sample parishes, reveals the impact of the extreme winter at a local level. Table 3 illustrates the impact of the winter on the parishes of Llanwrthwl (Brecknock), Yspytty-Ystwyth (Cardiganshire), Llangurig (Montgomeryshire) and Llansantffaed Cwmdeuddwr (Radnorshire). Together these parishes constituted the Elan Valley. The returns for these four parishes have been examined for the years 1946–49 and 1962–64. They show that the winter of 1947 had a dramatic impact, the decrease in the number of ewes kept for breeding and the total number of sheep and lambs ranged from 45 per cent to 69 per cent. By contrast the losses in 1963 were comparatively smaller. The decline in the number of ewes kept for breeding was slight, with the exception of Llanwrthwl, and in the

³⁰ For the Elan Valley see Clwyd-Powys Archaeological Trust, 'The making of the Elan Valley Landscape', www.cpat.org.uk/projects/longer/histland/elan/evintr.htm, accessed 18 Dec. 2015. C. P. Rodgers,

E. A. Straughton, A. J. L. Winchester and M. Pieracini, *Contested common land. Environmental governance past and present* (2010), pp. 137–61.

³¹ MAFF Agricultural Statistics, 1962–4.

TABLE 2: Sheep recorded in the June agricultural census, selected Welsh counties, 1962–64

<i>Wales</i>		<i>Breconshire</i>			<i>Cardiganshire</i>		
		1962	1963	1964	1962	1963	1964
Sheep and lambs: total		707,825	658,617	705,617	439,225	428,963	464,118
One year and over:	Ewes for breeding	273,590	266,068	284,805	186,489	186,794	196,959
	Two-tooth (shearling) ewes to be put to the ram	88,526	84,778	80,526	41,642	40,454	39,963
	Rams kept for service	7709	7251	7252	5335	5296	5332
	Draft and cast ewes	16,744	14,836	14,194	10,662	10,283	11,409
	Wethers and others	34,091	29,125	29,174	9111	7085	6455
Under one year		287,165	256,559	289,210	185,986	179,051	204,000
		<i>Montgomeryshire</i>			<i>Radnorshire</i>		
		1962	1963	1964	1962	1963	1964
Sheep and lambs: total		805,534	793,292	816,627	557,527	549,575	575,834
One year and over:	Ewes for breeding	298,082	304,101	314,062	196,380	199,074	211,333
	Two-tooth (shearling) ewes to be put to the ram	91,190	91,147	85,701	72,070	71,465	67,723
	Rams kept for service	9044	9065	8887	5460	5462	5638
	Draft and cast ewes	30,966	29,773	28,815	12,102	12,225	11,969
	Wethers and others	14,910	16,751	13,456	25,935	28,378	25,886
Under one year		361,342	342,455	265,706	245,580	232,971	253,285

Source: MAFF Agricultural Statistics.

cases of Llangurig and Llansantffaed Cwmdeuddwr actually increased. Nevertheless the impact of the winter is apparent in the total number of sheep and lambs with Llanwrthwl seeing a marked decrease of 46 per cent, mirroring the loss of breeding ewes, whereas the parishes of Yspytty-Ystwyth and Llansantffaed Cwmdeuddwr lost 29 and 21 per cent respectively and Llangurig saw only a 2 per cent decline.

The farming press reported heavy losses.³² Newspaper headlines from March included: 'The grim winter takes its toll', 'Sheep farmers fear very heavy losses', and '3,000 sheep died in freeze-up'.³³ In April, May and June newspaper headlines focused on the sheep losses and the need for subsidy, for instance, 'Flockmasters fear heavy losses among North Wales flocks'; 'Sheep have died in thousands', 'Subsidy help for hill farmers', 'Interim payment of hill sheep

³² 'South digs into fodder stocks', *FW*, 25 Jan. 1963, p. 47.

³³ 'The grim winter takes its toll', *Welsh Farm News*, 2 Mar. 1963; 'Sheep farmers fear very heavy losses',

Welsh Farm News, 2 Mar. 1963; '3,000 sheep died in freeze-up', *Cambrian News*, 15 Mar. 1963, all in TNA, MAF 112/1151 (3, 4, 6).

TABLE 3: Agricultural returns for the parishes of Llanwrthwl (Brecknock), Yspytty-Ystwyth (Cardiganshire), Llangurig (Montgomeryshire) and Llansantffraid Cwmdaeddwr (Radnorshire) for the years 1946-9 and 1962-4

		4 June 1946	4 June 1947	4 June 1948	3 June 1949	4 June 1962	4 June 1963	4 June 1964
Llanwrthwl (Brecknock)								
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	6905	3035	4365	4143	7611	4127	6394
	Two tooth ewes (shearling ewes or gimmers)	2445	1093	993	1315	2855	1542	2509
	Rams kept for service	309	98	164	227	289	143	207
	Draft and cast ewes					665	398	600
	Wethers and other sheep 1 year old and over	5525	3126	2868	2489 (male) 866 (female)	5056	2358	3992
	Ram lambs kept for service under 1 year old	107	63	89	219			
	Sheep and lambs under 1 year old	5610	1389	3735	4143	6144	3631	5674
	Total sheep and lambs	20,901	8804	12,214	13,402	22,620	12,199	19,376
Yspytty-Ystwyth (Cardiganshire)								
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	5809	1821	2716	2919	5502	4286	5773
	Two tooth ewes (shearling ewes or gimmers)	1585	666	504	872	1445	1034	1104
	Rams kept for service	192	67	89	108	216	139	179
	Draft and cast ewes					142	82	94
	Wethers and other sheep 1 year old and over	1922	622	1076	535 (male) 734 (female)	1233	395	940
	Ramb lambs kept for service under 1 year old	59	27	31	35			
	Sheep and lambs under 1 year old	4127	964	2646	2979	3575	2616	4875
	Total sheep and lambs	13,694	4167	7062	8182	12,113	8552	12,965

continued overleaf

TABLE 3: *continued*

		4 June 1946	4 June 1947	4 June 1948	3 June 1949	4 June 1962	4 June 1963	4 June 1964
Langurig (Montgomeryshire)								
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	18,182	9935	12,715	13,697	20,311	20,472	21,521
	Two tooth ewes (shearling ewes or gimmers)	7328	5295	4429	5499	8423	8199	8148
	Rams kept for service	592	402	441	483	658	643	648
	Draft and cast ewes					1698	1753	1973
	Wethers and other sheep 1 year old and over	4359	2866	2955	2040 (male) 2899 (female)	2972	3319	2666
Ramb lambs kept for service under 1 year old		189	217	219	274			
Sheep and lambs under 1 year old		16,581	7244	13,377	14,934	22,375	20,779	23,399
Total sheep and lambs		47,227	25,959	34,136	39,826	56,437	55,165	58,355
Llansantffaed Cwmdeuddwr (Radnorshire)								
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	13,039	5130	7211	7283	11,040	10,684	11,220
	Two tooth ewes (shearling ewes or gimmers)	4672	2329	1647	2293	4459	2888	2774
	Rams kept for service	627	231	351	438	477	321	457
	Draft and cast ewes					945	397	550
	Wethers and other sheep 1 year old and over	12,347	7192	7525	6541 (male) 1355 (female)	8782	7494	8033
Ramb lambs kept for service under 1 year old		184	103	198	147			
Sheep and lambs under 1 year old		10,759	2610	6328	7425	9536	5727	9168
Total sheep and lambs		41,628	17,595	23,260	25,482	35,239	27,511	32,202

Source: The National Archives (TNA), Kew, London MAF 68 as follows: Brecknockshire, MAF 68/4810, 4861, 4912; Cardiganshire, MAF 68/4188, 4227, 4264, 4299, 4808, 4859, 4910; Montgomeryshire, MAF 68/4190, 4227, 4264, 4301, 4808, 4859, 4910; Radnorshire, MAF 68/4190, 4227, 4264, 4301, 4808, 4859, 4910.

subsidy', 'Interim payment of hill sheep subsidy because of exceptional conditions', 'Extra aid for farmers urged', 'Big sheep losses bring call for better subsidy', 'Freeze-up may have cut flocks by half', '3,000 dead sheep found in Rads', 'NFU plans to seek aid for winter ravaged sheep farmers' and 'Welsh sheep losses five-year set-back'.³⁴ The *Times Gazette* of 18 July 1963 led with the headline 'Report on Heavy Sheep Losses', specific reference being made to sheep losses in the Elan Valley due to the extreme winter weather conditions.³⁵ Surviving film footage shot during the winter of 1962–63 shows Birmingham Corporation staff loading bales of hay into a RAF helicopter that landed in the field between the Elan Valley Hotel and Upper Llanfadog and was used to distribute fodder on the hills for the sheep.³⁶ It was reported that Corporation staff had buried 3000 sheep carcasses and that the lambing rate was unlikely to reach 15 per cent compared to the usual rate of 70 per cent. Some farmers estimated their losses at between 50 and 70 per cent although it is not clear whether they refer to the actual number of ewes that died, or lambs, or the potential loss of production.³⁷ The sheep stock books or flock ledger books of the Elan Valley Estate covering the period 1893–1989 (Table 4; Figure 3) confirm the scale of losses of lambs, wethers and ewes, and a reduction in the lambing rate as a result of extreme winters in the twentieth century.³⁸ Losses were considerably higher among breeding ewes than wethers.

An analysis based on the official agricultural returns does not substantiate the claim that there was a 50 per cent reduction in flock size. In a similar way the national and county-level statistics do not support the claim that the winter had led to a five-year set-back, although, as Table 4 shows, in the Elan Valley it took several years for the number of sheep to return to the pre-1963 winter level. It is evident that there is more than a degree of press exaggeration in these figures. *Farmers Weekly*, which contained numerous articles in January and February covering the impact of the winter throughout England and Wales, provided a more measured

³⁴ 'Flockmasters fear heavy losses among North Wales flocks', *Welsh Farm News*, 6 Apr. 1963; 'Sheep have died in thousands', *Welsh Farm News*, 13 Apr. 1963; 'Subsidy help for hill farmers', *Cambrian News*, 19 Apr. 1963; 'Interim payment of hill sheep subsidy', *Radnor Express*, 18 Apr. 1963; 'Interim payment of hill sheep subsidy because of exceptional conditions', *Denbighshire Free Press*, 20 Apr. 1963; 'Extra aid for farmers urged', *Western Mail*, 8 May 1963; 'Big sheep losses bring call for better subsidy', *Times Gazette*, 30 May 1963; 'Freeze-up may have cut flocks by half. 3,000 dead sheep found in Rads', *Wellington Journal*, 1 June 1963; 'NFU plans to seek aid for winter ravaged sheep farmers', *Radnor Express*, 30 May 1963; 'Welsh sheep losses five-year set-back', *Western Mail*, 27 June 1963 all in TNA, MAF 112/1151 (27, 29, 31, 33, 34, 38, 43, 44, 45, 47).

³⁵ TNA, MAF 112/1151 (68), 'Report on heavy sheep losses', *Times Gazette*, 18 July 1963.

³⁶ The National Screen and Sound Archive of Wales National Library of Wales, Aberystwyth, 'Elan Village Scenes' [motion picture] title no: 4485388.

³⁷ There was a need to keep sufficient numbers of ewe

lambs to replace the number of breeding ewes which died, or had had to be culled due to a broken mouth (having lost some of the front teeth) or being infertile. Retaining 6% of female lambs each year was insufficient to maintain the numbers of breeding sheep. Even retaining all the ewe lambs as replacements it would take several years before the number of breeding ewes was restored. For example, if the lambing percentage reduced to 40% (40 lambs born per 100 breeding ewes), only 20 of these would be female and it would take 2–3 years before they were tupped and produced lambs of their own. Life expectancy of breeding sheep on the hills was probably only about 5 years.

³⁸ Elan Estate Sheep Stock Account Books held by the Elan Valley Estate Office. We are grateful to Mr Alec Baker, Land and Estates Manager, Welsh Water Elan Trust for allowing access to the books.

³⁹ 'The Big Lift', *FW*, 11 Jan. 1963, p. 37; 'Snowbound', *FW*, 11 Jan. 1963, p. 77; 'Blizzard chaos sweeps the north', *FW*, 25 Jan. 1963, p. 47; 'North and West Again Paralysed', *FW*, 8 Feb. 1963, p. 52; 'Winter's Tale', *FW*, 22 Feb. 1963, p. 43.

TABLE 4: The size of sheep flocks on the Elan valley estate as recorded at shearing time between 1945–69

<i>Year</i>	<i>Number of lambs</i>	<i>Number of four year old wethers</i>	<i>Stores (Ewes and Wethers where two numbers are given)</i>	<i>Total</i>	<i>Culls</i>	<i>Total</i>
1945	7122	1518	20,679	29,319	331	29,650
1946	7033	1892	21,678	30,603		
1947	999	1213	10,255	12,467		
1948	3677	1788	8957	14,422		
1949	4677	1999	10,286	16,962		
1950	5836	1536	12,821	20,193		
1951	4904	1044	15,797	21,745		
1952	6547	1257	17,529	25,333		
1953	5614	1672	19,293	26,579		
1954	5795	1912	18,806	26,513		
1955	3717	1776	17,947	23,440		
1956	6337	2089	16,737	25,163		
1957	7064	2041	18,565	27,670		
1958	5694	1857	20,088	27,639		
1959	7445	1520	20,388	29,353		
1960	4868	1695	21,026	27,589		
1961	7410	1711	20,553	29,674		
1962	6409	1589	21,979	29,977		
1963	2607	1388	16,379	20,374		
June/July 1964	6635	1363	16,576	24,574		
June/July 1965	5675	1156	18,155	24,986		
June/July 1966	5528	1122	18,967	25,617		
June/July 1967	8199	904	21,019	30,122		
June/July 1968	6208	1065	22,626	29,899		
June/July 1969	4659	1197	20,891	26,747		

Note: crisis years are in bold.

Source: Elan Estate Office, Sheep Stock Account Books, Vol. 3 1943–63, Vol. 4 1963–83. Complete figures covering the period 1893–1989 can be supplied by the authors.

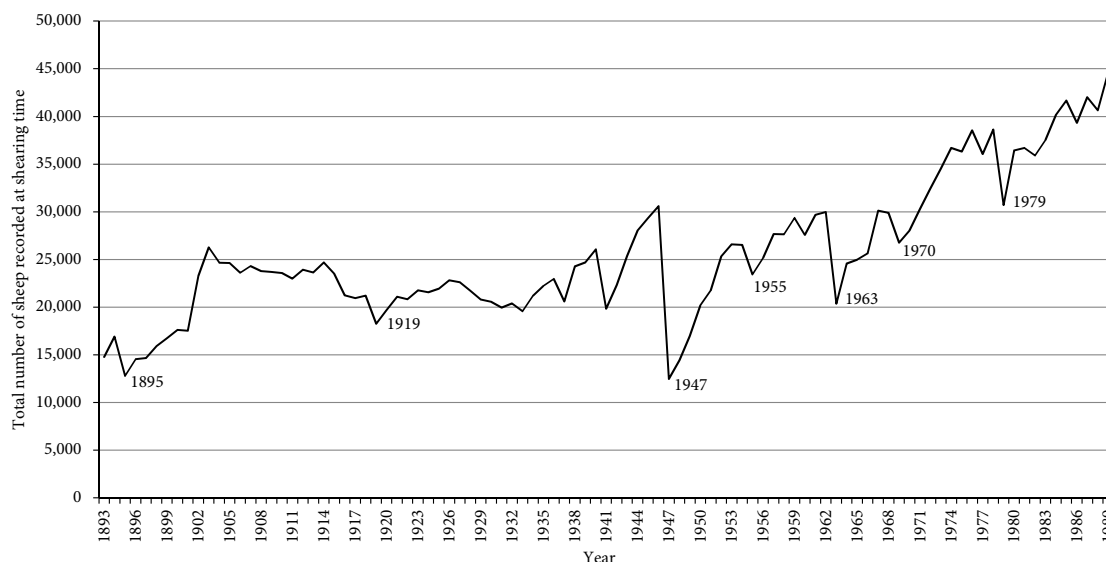


FIGURE 3: The total number of sheep as recorded in the Elan Estate sheep stock account books between 1893 and 1989 and the relationship with extreme winters.

assessment of the extent of the losses.³⁹ A survey conducted by the local NFU branch found a loss of 'breeding stock' of 15.8 per cent between December 1962 and shearing time in 1963, compared to 2.78 per cent over the same period 1961–62, suggesting an excess mortality of 13 per cent.⁴⁰

Because a question about the scale of the losses was asked in the House of Commons (answered on 8 July) by Tudor Watkins, the Labour member for Brecon and Radnor, the Ministry had to gather what information it could on the scale of losses.⁴¹ Table 5 reproduces the Ministry's own internal estimates of the losses of ewes and lambs in the winter and spring of 1963 for Radnorshire. In the case of the hill flocks that grazed the sheep walks of the Elan Valley area, the lambing rate was reduced from 70 per cent to 15 per cent and the ewe mortality increased from 10 per cent in a normal year to 25 per cent. Bad winters led to many ewes dying before they lambed. Those that survived produced small lambs, among which there was a high level of mortality. Clearly the extreme winter of 1962–63 had an immediate impact in terms of adult sheep losses, but an even more profound effect on the lamb crop.

In October 1963, in response to an internal query as to whether better data was now available, Miss O. G. Tanner of the Agricultural Economic Division reported that the excess losses over the usual deaths of ewes in Wales were approximately 2–2.5 per cent in the early months of 1963, totalling 65,000 ewes.⁴² About one third of these losses were in Brecon, which had

⁴⁰ MAF 112/1151 (75) 'Winter Increased Sheep Feeding Costs by 275 p.c.', *Liverpool Daily Post*, 3 September 1963.

⁴¹ MAF 112/1151 (42) to (61).

⁴² TNA, MAF 112/1151 (77), Letter from Miss O. G. Tanner to Mr. D. B. Davies, 23 October 1963; (97B), Sheep losses, General Note by Welsh Department in response to Parliamentary Question 6308.

TABLE 5: The losses of ewes and lambs in the winter and spring, 1963
for the county of Radnorshire, Wales

<i>Lambing percentages</i>		<i>Ewe mortality</i>	
Normal %	1963 %	Normal %	1963 %
Lowland flocks			
150	150	3	3
Marginal flocks			
120	120	5	5
Hill flocks (the Elan Valley areas only, about 12,000 ewes)			
70	15	10	25
Other hill flocks (excluding the Elan Valley Mountain area representing 50,000 ewes)			
85	70	5	5

Source: TNA, MAF 112/1151 Losses of sheep during the winter of 1962/63 (46) Losses of ewes and lambs winter and spring, 1963.

the highest mortality rate of all counties, being about 10 percentage points over the average. There were also high losses of about 10,000 in the counties of Monmouth, Montgomery and Radnorshire; Merionethshire experienced losses of about 3 per cent of the ewe flock (about 8000 ewes), whilst Glamorgan largely escaped additional sheep losses. Table 4 shows that excess losses were usually in the region of 10 percentage points for hill flocks in the Elan Valley area. It was reported that the lambing rate for the whole of Wales was only slightly over 80 per cent compared with an average of nearly 85 per cent in the recent years preceding the winter. This included many lowland flocks, which had a significantly higher lambing percentage. Thus the reduction in the total excess loss of lambs and sheep in Wales was about 140,000, of which 55,000 could be attributed directly to loss of ewes. The remainder of the reduction represented a lower lambing percentage and heavier neonatal mortality. E. L. Jones, Regional Livestock Husbandry Officer for Wales, agreed that the estimates were an accurate assessment and moreover, he observed that generally the losses in 1963 were 'small' and that sheep numbers had recovered. Nevertheless, he pointed out that individual farms and certain localities had sustained very severe losses, in particular the Elan Valley in mid-Wales.

In its public statements though, the Ministry sought to minimize the scale of difficulties and obfuscated the discussion of local problems by citing national figures.⁴³ In the response to the question laid by Watkins, and answered on 8 July 1963, the Parliamentary Secretary to the Ministry, Scott-Hopkins, said: 'Some special inquiries made in the first quarter of the year suggested that, in Brecon and Radnor as elsewhere, ewe losses among hill flocks had been rather above average, and that lamb losses almost certainly would be'. The extent of the losses would not be precisely established until the results of the 4 June census were available in about

⁴³ Sheep and Lambs, Brecon and Radnor (Losses) Hill Sheep Subsidy, HC Deb 24 Feb. 1964 vol. 690, c12W; TNA, MAF 112/1151 (60) (61), parliamentary question, 8 July 1963; (66) Royal Welsh Show, Note for Parliamentary Secretary (Commons), losses of sheep and lambs, winter 1962/63.

a month. Even then Scott-Hopkins maintained that it was not feasible to provide really reliable estimates particularly for ewes on a county basis. This served to minimize the gravity of the situation in mid-Wales and the much more detailed figures compiled by the Ministry were not shared with Watkins. Scott-Hopkins further noted that no individual representations about financial losses had been received by the Minister, but he had taken account of the effects of the exceptionally hard winter when he announced on 3 April an interim payment of the hill sheep subsidy.⁴⁴

There was a difficulty in distinguishing the loss of livestock due directly to the extreme weather conditions, from the losses that occurred annually, as well those resulting from other extraneous factors. Some of the effects of the adverse winter were delayed rather than immediately obvious, as in the case of a reduced lambing rate during the spring. Clearly, such factors undermined the accuracy of the earlier enquiries into the number of losses. Hence it was acknowledged internally by MAFF officials that the March 1963 census provided only an estimate because it was based on a sample of one-third of holdings. Moreover, not all ewe losses were known by the census date (4 March) and spring lambing had hardly begun, so it was not possible to gauge precisely the impact of the extreme winter. This was particularly evident in terms of the long-term effects of malnutrition on the breeding ewes. But a comparison between the March census and that of the previous December suggested, at a rough approximation, that the excess loss of ewes might perhaps have been 15-20,000 out of a total ewe population for the two counties of over 500,000.⁴⁵ Census returns for the counties of Breconshire and Radnorshire for the years 1961-62 and 1962-63 (December and March), based on a one-third sample of holdings at both censuses showed a reduction in the number of ewes kept for breeding and shearling ewes ('gimmers' or 'tegs') by 19,300 (544,300 to 525,000) and 40,300 (561,800 to 521,500) respectively.⁴⁶

Whilst there were certain localities and individual farms within these areas where exceptionally high or very severe losses were experienced, the Ministry continued to maintain that on the basis of evidence available, overall losses were very small in relation to the total number of flocks that had been deemed at risk (Table 1). A note by the Welsh Department stated that the total number of sheep and lambs in England and Wales, as ascertained by the June 1963 census was 19,664,000, compared with 19,650,000 at the June 1962 census, showing a small increase. In Wales and Monmouthshire the total number of sheep and lambs at the June 1963 census was 5,635,000 compared with 5,704,000 at the June 1962 census, a reduction of less than 1.2 per cent.⁴⁷ The MAFF newsletter for November 1963 recorded that for the first time since 1947, the provisional figures from the annual 4 June census showed a reduction in the total sheep population of Wales.⁴⁸ Compared with 1962, the total number of sheep and lambs was down from 5,704,000 to 5,605,000, a reduction of 99,000 (1.7 per cent).⁴⁹ Breeding ewes

⁴⁴ The correspondence and papers generated by this question, and the decision to withhold the data that the Ministry had at its disposal, can be traced through MAF 112/1151 (60)-(76).

⁴⁵ Ibid.

⁴⁶ TNA, MAF 112/1151 (97A) Sheep losses: response to

Parliamentary Question 6308, 24 Feb. 1964.

⁴⁷ Ibid.

⁴⁸ TNA, MAF 112/1151 (92A) MAFF Newsletter, 22 Nov. 1963.

⁴⁹ Ibid. There seems to be some disparity between the figures given in the sources. See footnote 62.

were down by 4100 (0.1 per cent), wethers by 12,000 (8.3 per cent) and lambs under one year old by 83,000 (3.4 per cent).⁵⁰ This would imply that wethers bore the brunt of the losses. It is possible that in some instances financially hard-pressed farmers reduced numbers by selling more wethers than usual in late spring, before the 4 June census, although market returns are insufficiently detailed to fully substantiate this point.⁵¹ The number of rams kept for service and draft and cast ewes remained virtually unchanged. It was, nevertheless, conceded that the statistics did not reveal the full impact of the winter of 1962–63. The 1947 winter had reduced the national sheep flock of Wales from 4,049,701 to 2,815,708.⁵² These losses had been recovered by 1952, when the figure stood at 4,235,300.⁵³ Over the following 10 years the sheep population of Wales increased by an annual average of 3.4 per cent to 5.7 million in June 1962.⁵⁴ There is evidence that this trend continued into early 1963, as the returns for 4 December 1962 showed that total sheep and lambs had increased to 3,971,720 as compared with 3,817,781 in December 1961, an increase of 4 per cent.⁵⁵ This increase included an additional 58,707 breeding ewes and ewe lambs retained for breeding. The key point is that to the decrease of 99,000, shown by the returns for 4 June 1963, should be added the underlying long-term increase in the numbers of sheep and lambs which had been taking place annually since the late 1940s.

The June returns show a varied pattern throughout Wales. In some counties sheep numbers were down, but in the counties of Cardiganshire, Carmarthenshire, Denbighshire and Flintshire, which had a much higher proportion of lowland flocks and which had been less affected by the bad weather, numbers increased. It is reasonable to assume that the increase would have been greater but for the severe winter which was more prolonged than that of 1946–47. The full effect of the spell of bad weather was felt most severely in mid- and south-east Wales, particularly in the area where the counties of Brecon, Radnor, Montgomery and Cardigan converge. A survey of a number of flocks carried out in this area at shearing time revealed that the number of ewes and wethers in 1963 was 19,790 compared with 26,636 in 1962, a reduction of 25 per cent.⁵⁶ There was also a 60 per cent reduction in the number of lambs, which had declined from 7,291 to 2,929.⁵⁷ In these areas it is evident that the limited area of in-bye land – the part of a farm used for mainly arable and grassland production and which was separated from hill and rough grazings by a fence, dyke or hedge – meant that, given the longer-term increase in stocking levels and the increased size of flocks, farmers were less able than in the past to bring the flocks down to lower ground.⁵⁸ This was also evident in other changes in husbandry practice including wintering young replacement ewes at home rather than sending to lowland farms for their first winter. This put greater pressure on the in-bye land and forced a reliance on common grazing.

When representations were made by the Breconshire Agricultural Executive Committee in

⁵⁰ Ibid. The number of wethers was undergoing a long-term decline due to a growing taste for lamb as opposed to mature mutton and the decreasing value of the wool crop.

⁵¹ TNA, MAF 112/1151 (92), Sheep stocks: response to Parliamentary Question 6308. FW, market reports for Mar., Apr., and May 1963.

⁵² Ibid.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ R. Muir, *Landscape Encyclopedia: A reference guide to the historic landscape* (2004), pp. 135–6; A. J. L. Winchester, *The harvest of the hills. Rural life in northern England and the Scottish borders, 1400–1700* (2000), pp. 52–5.

September 1963, the Welsh Department was informed that the overall figures for England and Wales showed that losses were only three per cent higher than usual and that there was no dramatic reduction in sheep numbers as a result of the winter.⁵⁹ Furthermore, in England hill sheep farmers had themselves provided some indication that losses were not generally very serious, in that only 29 per cent of applicants for the hill sheep subsidy in 1963 took advantage of the Ministry's offer to pay up to half the value of their claims as an interim payment – which was comparable with a similar figure for Wales.⁶⁰

The case for some financial assistance for the worst-affected farmers was pursued by Tudor Watkins. He asked the Minister of Agriculture, Fisheries and Food in Parliament on 24 February 1964 whether he had information as to the losses of sheep during the winter months of early 1963 for the counties of Brecon and Radnor. In particular he requested that the minister respond to representations for some financial assistance towards such losses, as had occurred in 1947.⁶¹ Under the Agricultural (Emergency Payments) Act of 1947, payments of hill sheep subsidy were made on the basis of census numbers from the previous December; however in 1963, these powers were no longer available to ministers, although presumably emergency legislation could have been passed if the government so desired.⁶² Watkins requested that farmers who had sustained serious losses during the early part of 1963 should have their payment of hill sheep subsidy based on either their December 1962 or 1963 flock numbers.⁶³ In response Christopher Soames, Minister of Agriculture (1960–64) dismissed Watkins' request on the grounds that MAFF had already made allowance for ewe losses in December 1962 when paying the 1963 subsidy.⁶⁴ Any further financial losses due to a reduction in the lamb crop, wool clip and total income would have to be considered in discussion between government officials and the NFU with respect to the scale of the hill sheep subsidy for 1964. Nevertheless, he made the point clearly: 'But it is a principle, from which I would not be justified in departing in this instance, that the Government does not guarantee farmers against the hazards of severe weather'.⁶⁵ This ruled out any form of national aid for sheep farmers. But, as he admitted, 'The only occasion on which we have departed from that principle was following the disastrous winter of 1947, when legislation was introduced to waive the provisions of the Hill Farming Act, 1946, that subsidy payments in any year must be based on the number of ewes in the flock in the immediate preceding December'.⁶⁶ Where 1963 differed from 1947 was in part the food shortages of that year, when nutritional levels were worse than even those which had been experienced during the Second World War, hence the need to provide assistance.⁶⁷

By contrast, in 1962, when food surpluses prevailed, there was less political will to assist

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Sheep (Losses), House of Commons Debates [hereafter HC Deb.], 24 Feb. 1964, vol. 690, c14W.

⁶² TNA, MAF 112/1151 (97).

⁶³ Hill Sheep Subsidy, HC Deb, 24 Feb. 1964, vol. 690, c12W.

⁶⁴ ODNB, 'Soames, (Arthur) Christopher John, Baron Soames (1920–1987)'.

⁶⁵ Hill Sheep Subsidy, HC Deb, 24 Feb. 1964, vol. 690, c12W; TNA, 112/1151 (108), 'Farmers cannot be

guaranteed against Weather Hazards', *Radnor Express*, 5 Mar. 1964.

⁶⁶ For the Hill Farming Act and post-Second World War legislation regarding the agricultural industry see: Martin, *Development of modern agriculture*, pp. 269–72.

⁶⁷ Zweiniger-Bargielowska, *Austerity in Britain*, pp. 125 and 218.

⁶⁸ J. Martin, 'British agriculture in transition; food shortages to food surpluses, 1947–1957' in C. Martin, J. Pan-Montojo and P. Brassley, *Agriculture in Capitalist Europe, 1945–1960* (2016), pp. 120–1.

farmers to maximize their productivity at a time when budgetary cuts were being imposed on all other forms of government expenditure.⁶⁸ Upland sheep farmers deemed by officials to be at best sub-marginal producers did not have the political clout to influence government policy in the way other sections of the agricultural sector could.⁶⁹ There was recognition from the minister that, whilst there were heavy losses of livestock in some localities and regions and correspondingly lower lambing figures, nationally the scale of losses had been only slightly higher than normal. He stated that, 'Much as I sympathise with the individual farmers whose flocks suffered badly in 1963, the effects of the winter were not so disastrous or widespread that I would feel justified in recommending similar action to the House today'.⁷⁰ This view was persuasively supported by James Scott-Hopkins, MP for North Cornwall and Parliamentary Secretary to the Ministry of Agriculture, Fisheries and Food who explained that the additional loss of ewes attributable to the severe weather in early 1963 for England and Wales as a whole, including lowland sheep, was estimated at the time as little more than fifty thousand or half a per cent of the national flock. The inclusion of lowland sheep obscures what was primarily an upland problem and can be interpreted as deliberate political spin.

Although no formal representations were made by the farmers' unions or individuals in Wales about sheep losses or the need for special assistance for those farmers affected, the NFU did make general representations to the Ministry about the financial position of hill farmers arising mainly from their heavy expenditure on fodder. These seem to have had an effect, leading to discussions about the arrangements for the interim payments of hill sheep subsidy in 1963. At the time there was much debate as to the date when the number of eligible sheep was to be assessed especially in Wales.

Regarding the hill sheep and hill cow subsidy scheme, J. Morgan Jones, Welsh Secretary, Welsh Department, Aberystwyth stated on 6 September 1963:

The minister has considered whether, in view of ewe losses during the past winter, legislation should be made to enable hill sheep subsidy to be paid in respect of flock numbers in December 1962. Much as he sympathised with individual farmers who have sustained very heavy losses, he would not feel justified in departing from the general principle that the Government does not guarantee farmers against the weather hazards that are inherent in agriculture and which may cause severe losses, especially on hill farms.⁷¹

In effect the government did not perceive it as their responsibility to subsidize farmers' management of risk. Moreover, specific reference was made to the 'relevant day' – 'the date which determined the number of eligible sheep, and which must under the terms of section 13 of the Hill Farming Act, 1946, be a December day in the year preceding the payment of subsidy'.⁷² By focusing on an individual designated day, this snapshot picture of flock counts did not incorporate subsequent purchases and sales as well as losses. In September 1963 the

⁶⁹ 'Low Profit Farms are "Beyond Help"', *FW*, 8 Feb. 1963, p. 65.

⁷⁰ Hill Sheep Subsidy, *HC Deb*, 24 Feb. 1964, vol. 690, c12W.

⁷¹ TNA, MAF 112/1151 (83), Letter from J. Morgan Jones regarding hill sheep and hill cow subsidy, 6 Sept. 1963.

⁷² *Ibid.*

Breconshire Agricultural Executive Committee submitted representative figures of livestock losses and urged the Ministry to make arrangements for the continued payment of hill sheep subsidy based on numbers recorded in December 1962.⁷³ These representations, which were considered by Ministry headquarters, were regarded as 'internal', and thus did not carry the same weight or influence as representations by the NFU. The government's decision not to amend the date when headage payments were determined indicates that the lobbying of these local MPs representing rural areas had little influence on the government's policies. The consequence must have been a sharp reduction in the incomes of some upland farmers.

The additional loss of lambs, including any arising from the death of ewes prior to lambing, was estimated at being in the order of 450,000 in Wales, although it was stated that estimates at county level were not available as it was impossible to account for animals sent to slaughter, the drafting of livestock out of a county and the marketing of ewe lambs.⁷⁴ The last were animals that under normal circumstances the farmers would never sell. The sale of ewe lambs, which were normally retained as flock replacements and breeding ewes would not only undermine the farmers' future livelihood but would bring little profit. The malnourished sheep would be of little value as they lacked finish and carried insufficient meat to fetch a good price at market.⁷⁵ Most of the sheep were breeding ewes and could not be quickly replaced on commons by bought-in animals, having had to be born and bred in the locality. The instinct of upland breeds like the Herdwick or Welsh mountain of voluntarily restricting themselves to a certain heft (a small local area) throughout their lives allows different farmers in an extensive upland landscape such as the fells of the Lake District or moorland areas to graze different areas of common ground without the need for fences, each ewe flock remaining on their particular area. Offspring learn their heft from their mothers.⁷⁶ Very few lambs were retained for winter fattening in these areas with the exception of wethers, numbers of which had been declining since the late nineteenth century and replacement ewe lambs ('tegs' or 'gimmers') which were to become part of the breeding flock. However, even if this drastic last resort of slaughtering breeding sheep had been contemplated, it would have been unfeasible in the crisis months as snow-blocked roads made it virtually impossible to transport sheep to abattoirs and markets.

No evidence of the impact of the winter on farm incomes has yet been found, but one must assume that many farmers were caught between the need to buy in fodder (if they could), a shortage of animals and wool to sell in 1963 and, thereafter, a reduction in their headage payments. A survey by the NFU local committee, whose results were announced in September, found that feeding costs had gone up by 275 per cent (although 'these figures hide very much because in some instances the losses were more serious than the figures indicated'). It was also suggested that the wool clip would be diminished by a third.⁷⁷

⁷³ TNA, MAF 112/1151 (97), Response to Parliamentary Question 6308. For the continuation of county agricultural executive committees in the post-Second World War period see B. Short, *The battle of the fields: Rural community and authority in Britain during the Second World War* (2014), pp. 269-400.

⁷⁴ TNA, MAF 112/1151 (109), Reply by Mr Scott-Hopkins to PQ 6308 from Mr Tudor Watkin.

⁷⁵ Market reports published in *FW* during Jan. to Mar. 1963 support this view.

⁷⁶ For example in the Lake District areas of open fell common were allocated to farms by the traditional practice of hefting, Winchester, *Harvest*, pp. 111-13.

⁷⁷ MAF 112/1151 (75) 'Winter Increased Sheep Feeding Costs by 275 p.c.', *Liverpool Daily Post*, 3 September 1963.

II

The problems of the Elan Valley and mid-Wales generally were well reported locally and in the farming press, but drew little comment nationally. Our second case study demonstrating the impact of the extreme winter of 1962–63 on upland hill farming is provided by the example of Dartmoor in Devon and parts of the south west of England more generally including Dorset and Somerset. Conditions on Dartmoor became a matter of public comment and debate, in part because of the publicity-seeking activities of the Royal Society for the Prevention of Cruelty to Animals (RSPCA), which was able to exploit pre-existing local concerns about the management (or lack of management) of the moor.⁷⁸ Historically the ‘alluring uplands’ of Dartmoor have provided a valuable pastoral resource.⁷⁹ In the medieval and early modern periods livestock grazing was seasonal, with livestock being grazed during the summer months as part of a system of transhumance. However, by the twentieth century, livestock were grazed on Dartmoor all the year round; hence the effects of bad weather would be more acute. The commonable animals were cattle, sheep and Dartmoor ponies.⁸⁰

As with all other hill areas in the west of England, Dartmoor was subject to the full force of the severe cold spell and the period of heavy snowfall, which commenced there on 26 December 1962 and continued throughout January, February and March.⁸¹ It was the severest winter experienced in the West Country for over 200 years. Blocked roads and remote, inaccessible land meant that it was necessary to introduce special measures to supply additional fodder to farms or to distribute within farm boundaries. This was done by road as far as possible, but also by air, with perhaps the most dramatic response to the extreme winter of 1962–63 being the organization of an airlift programme which started on 1 January 1963. Fodder had previously been airlifted during the bad winters of 1947 and 1955.⁸² The Ministry of Agriculture arranged to pay the cost of aircraft supplied by the Royal Air Force and the

⁷⁸ There is a suspicion that the RSPCA was initially interested in the welfare of the Dartmoor ponies. For the longer history of Dartmoor, which puts this episode in context, M. Kelly, *Quartz and feldspar. Dartmoor, a British landscape in modern times* (2015).

⁷⁹ H. S. A. Fox, *Dartmoor's alluring uplands: Transhumance and pastoral management in the middle ages* (2012).

⁸⁰ W. G. Hoskins and L. Dudley Stamp, *The common lands of England and Wales* (1963), p. 187.

⁸¹ A day-by-day account of weather conditions during the winter of 1962–3 by the headmaster of Princetown County Primary School refers to the closure of the school, the weather conditions, emergency measures, damage and repairs undertaken. Devon RO, 1184C/ESZ/1.

⁸² TNA, MAF 196/49 (Winter keep 1954–55: emergency plan, ‘Operation Snowdrop’), (60A) During the winter emergency of 1955 the R.A.F. undertook 15 sorties between 25 Feb. and 14 Mar. from RAF Abingdon and Lyneham using Avro Lincoln bombers and

Hastings aircraft of Transport Command. They made a total of 34 individual drops, distributing 681 bales of hay in the Cheviot and Alston Moor area. In the process of emergency planning for a similar blizzard to 1947, it was estimated that the Air Ministry would be required to lift between 500–700 tons of hay. The RAF estimated that 50 tons per day could be dropped. With reference to the 1955 winter, it was noted the RAF ‘did a magnificent job in dropping over 40 tons of hay to isolated farms. In two cases they also dropped coal. With typical service humour the operation was known, unofficially, as Exercise Haywire; but there was nothing haywire about the way in which it was carried out. The accuracy with which the snowbound farms were located and supplied is a great tribute to the skill of the pilots and their crews. It is no easy task to manoeuvre a four-engined aircraft in steep hill country and to drop supplies from 150 ft. Bad weather frustrated the determined attempts to reach one farm but the fourth effort was successful and the much needed hay was delivered’.

TABLE 6: The number of airlifts by helicopter in the South West of England to 6 February 1963

	<i>Dartmoor</i>	<i>Exmoor (Devon)</i>	<i>Exmoor (Somerset)</i>	<i>Devon (other parts)</i>	<i>Dorset</i>
Internal farm lifts	38	3	59	1	0
Fodder supply lifts	57	10	72	20	4
Total	95	13	131	21	4

Note: A distinction was made between internal farm lifts and fodder supply drops undertaken and sourced from outside the immediate area.

Source: TNA, MAF 114/689, Animal welfare and feeding problems: winter 1963 (9B), Brief concerning the present emergency on Dartmoor by P. Holmes, County Advisory Officer, 6 February 1963.

Royal Navy to transport animal feedstuffs to any farm where an essential need was identified and there was no alternative method of supply available. Between 1 and 22 January there were 182 airlift enquiries of which 178 were undertaken, three were refused and the RSPCA carried out one. The number of farms assisted included 52 on Dartmoor (Devon), eight on Exmoor (Devon), 78 in Somerset (Exmoor and the Quantock Hills), 39 in other parts of Devon and one in Dorset.⁸³ Of the 178 enquiries for assistance with the transport of fodder, 45 were carried out by army lorries brought in to assist local feed merchants. Whilst the government covered the costs of distribution, it was a condition that the farmer agreed to pay the supplying merchant for any fodder acquired.

By the end of January the number of airlifts by Ministry of Defence helicopters in the south west of England totalled 264, including both internal farm lifts and fodder supply lifts as summarized in Table 6.⁸⁴ One airlift was also carried out by a large Beverley transport aircraft which dropped supplies to the village of Wiveliscombe in Somerset.⁸⁵ In total, 40 tonnes of hay and 31 tonnes of concentrates were transported by air.⁸⁶ In addition the army had conducted by road an estimated nine movements in Somerset and 112 in Devon, although no road transport assistance was provided in the Dartmoor area due to the conditions and terrain. The majority of farmers on Dartmoor and elsewhere made their own arrangements. The operation in Devon was managed from the Exeter divisional office by the County Advisory Officer and the Divisional Executive Officer. The emergency airlifts continued until the end of the winter. At the outset, there was consultation with stakeholders. For example, arrangements were made with the Dartmoor Commoners' Association (which had been founded in 1953) that the supply of fodder and its transport to stock on Dartmoor commons would not be undertaken by the Ministry without the agreement of the Association, and that the latter would be responsible for demands and payments.⁸⁷ Lifts for the Dartmoor area were organized from fodder assembly centres set up at the towns of Okehampton and Tavistock and the village of Yelverton. Operations at the latter are shown in the Pathe newsreel,

⁸³ TNA, MAF 114/689 (9B), Brief concerning the present emergency on Dartmoor by P. Holmes, County Advisory Officer, 6 Feb. 1963.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ TNA, MAF 114/689 (9B), Brief ... by Holmes, 6 Feb. 1963.



FIGURE 4: Still image from 'Snowbound Animals', 1963. British Pathe.
www.reading.ac.uk/adlib/Details/archive/110289477.

'Snowbound animals'. It shows people loading bales of straw into helicopters. A farmer boards the helicopter with his sheepdogs. It then takes off and flies over the snow-covered countryside. The helicopter lands, the farmer and his dogs disembark and they go off to find the sheep. This is then repeated with the helicopter being loaded a second time and a farmer transported with the hay to his sheep.⁸⁸

The newsreel also shows a very prominently placed (and marked) Royal Society for the Prevention of Cruelty to Animals (RSPCA) van at the helicopter loading site (Figure 4). The charity independently organized and paid for its own airlifts.⁸⁹ In an internal MAFF report it was noted that the RSPCA made no attempt to contact either the Ministry or individual farmers in difficulty. Instead of making fodder drops to individual farms, it scattered fodder

⁸⁸ British Pathe news reel 'Snowbound Animals, 1963' see www.britishpathe.com/video/snowbound-animals, accessed 18 Dec. 2015.

⁸⁹ TNA, MAF 114/689 (9B), Brief ... by Holmes, 6 Feb. 1963.

indiscriminately across Dartmoor without charge to farmers, very few of whom, if any, had asked the Society for assistance. Other well-meaning individuals and groups helped without being asked, but in doing so may have made the situation worse. At times the RSPCA used the same fodder assembly centres at which helicopters were based operated by the Ministry of Defence. Despite this, there was a lack of coordination, with the charity being criticized for failing to prioritize need, but instead entering into competition with the Ministry for the use of available aircraft. Indeed, there was some hostility locally to the RSPCA's endeavours, with threats of actions of trespass against the charity if they did it again.⁹⁰ The sources are, therefore, suggestive of what appears to be an effective lack of inter-agency coordination. At a meeting regarding Dartmoor on 14 February 1963, it was recorded that the supply of fodder and concentrates by air had contributed to the welfare of livestock, but recognized that in future closer coordination between voluntary organizations and MAFF was essential should such an operation be necessary again.⁹¹ That said, the Dartmoor Commoners' Association was reluctant to cooperate with the RSPCA until a more radical society, the Dartmoor Livestock Preservation Society, dedicated to protecting Dartmoor livestock, was founded later in 1963.⁹²

It is possible that not only the effects of bad weather, but also the weakness in strategic planning exacerbated the effects of the extreme winter, as the dumping by airlift of emergency fodder supplies in specific locations encouraged the sheep to congregate in these locations and overgraze the natural vegetation. The situation could have been made worse when the airlift stopped or moved to other areas, as the sheep would have become reliant on the delivered fodder. Hay and particularly concentrates were considerably more nutritious than the rough winter grasses and mosses the sheep usually survived on. The problem was that in snow the sheep had difficulty in gaining access to their natural forage and the extreme cold weather and wind chill meant that they required even more food to survive.

County-level agricultural statistics for Cornwall, Devon, Dorset and Somerset show that there was no substantial decrease in the total number of sheep and lambs (normal losses were in the order of 3 per cent) which contrasts vividly with the situation we found in mid-Wales and suggests that the airlift programme was a major factor in the alleviation of heavy losses.⁹³ Agricultural returns for a selection of Devon parishes in Table 7 show that the worst-affected parishes were on the western side of Dartmoor, for example, the hamlets around Okehampton (which correspond with the location of the fodder assembly centres), although even here the scale of losses was not as great as those in mid-Wales (Table 3).

⁹⁰ Kelly, *Quartz and feldspar*, p. 383.

⁹¹ TNA, MAF 114/689 (21), Press notice Dartmoor – Meeting in House of Commons, 14 Feb. 1963; Kelly, *Quartz and feldspar*, pp. 383–5.

⁹² The Dartmoor Livestock Preservation Society was established on 14 Oct. 1963. TNA, MAF 114/689 (54),

minutes of the inaugural meeting, 21 Oct. 1963. They published a booklet, *The Scandal of Dartmoor*, a copy of which is in TNA, MAF 114/689 (58). See also Kelly, *Quartz and feldspar*, pp. 385–6.

⁹³ The agricultural data is taken from the 4 June census data for England and Wales published by MAFF.

TABLE 7: Agricultural returns for the Devon parishes of Okehampton (hamlets), Ashburton, Widecombe in the Moor, Bovey Tracey and Ugborough for the years 1962–64

		4 June 1962	4 June 1963	4 June 1964
Okehampton				
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	7117	5779	6261
	Two tooth ewes (shearling ewes or gimmers)	1669	1268	1238
	Rams kept for service	184	191	176
	Draft and cast ewes	246	179	201
	Wethers and other sheep 1 year old and over	265	294	
Ram lambs kept for service under 1 year old				
Sheep and lambs under 1 year old		5924	5188	5820
Total sheep and lambs		15,358	12,870	13,990
Ashburton				
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	2372	2270	2372
	Two tooth ewes (shearling ewes or gimmers)	442	535	442
	Rams kept for service	80	63	80
	Draft and cast ewes	75	18	75
	Wethers and other sheep 1 year old and over	561	198	
Ram lambs kept for service under 1 year old				
Sheep and lambs under 1 year old		2934	2075	2934
Total sheep and lambs		6101	5522	6101
Widecombe in the Moor				
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	2005	2056	2227
	Two tooth ewes (shearling ewes or gimmers)	814	640	777
	Rams kept for service	58	72	63
	Draft and cast ewes	31	3	38
	Wethers and other sheep 1 year old and over	222	105	
Ram lambs kept for service under 1 year old				
Sheep and lambs under 1 year old		2036	1795	2304
Total sheep and lambs		5118	4788	5514

		4 June 1962	4 June 1963	4 June 1964
Bovey Tracey				
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	1410	1727	1649
	Two tooth ewes (shearling ewes or gimmers)	622	157	98
	Rams kept for service	42	44	38
	Draft and cast ewes	40	33	
	Wethers and other sheep 1 year old and over	250	125	
Ram lambs kept for service under 1 year old				
Sheep and lambs under 1 year old		1203	1615	1737
Total sheep and lambs		3402	3826	3647
Ugborough				
Sheep one year old and over	Ewes kept for breeding (excluding two-tooth ewes)	2589	2820	3226
	Two tooth ewes (shearling ewes or gimmers)	797	893	766
	Rams kept for service	73	79	81
	Draft and cast ewes	130	103	55
	Wethers and other sheep 1 year old and over	98	144	
Ram lambs kept for service under 1 year old				
Sheep and lambs under 1 year old		2300	2714	3338
Total sheep and lambs		5971	6707	7610

Source: TNA MAF 68 as follows, MAF 68/4769 part 1, 4770 part 2, 4820 part 1, 4821 part 2, 4871 part 1, part 2.

IV

National level political discussions of the extreme winter began with questions about government expenditure on funding emergency airlifts but developed into an attack, probably inspired by the RSPCA, on farming on Dartmoor and the Dartmoor farmers. The charge was led by Marcus Lipton, MP for the Brixton division of Lambeth, who did not have a farming background but, according to his obituary in *The Times*:

had a reputation as a performer in a distinctive, if somewhat limited role in the Commons as a politician with an acute instinct for the newsy and the topical. He was quicker off the mark than most of his colleagues to spot the sort of subject which was bound to make headlines and to raise it in debate, or, more commonly, to ask a question about it in that deep gravelly voice.⁹⁴

⁹⁴ Obituary, *The Times*, 23 Feb. 1978.

He placed successive parliamentary questions on 23 and 30 January 1963.⁹⁵ The first, to the Minister of Agriculture, Christopher Soames, asked what steps the Ministry was taking to recover the costs of helicopter flights from the farmers assisted. Soames replied that a decision had been taken that the government would stand the costs and a supplementary vote would be sought when the final cost was known. Lipton then banged his drum:

Does the Minister realise that these commoners turn out their livestock for the winter without caring how the animals will survive – [HON. MEMBERS: ‘Nonsense’] – without caring how the animals will survive, and then expect Service helicopters and voluntary organisations to come to the rescue without themselves making any contribution towards the very expensive costs of the helicopter services? Why should the taxpayer continue to subsidise these people in this way after they have been proved guilty of the grossest possible neglect?

Soames answered:

What the Hon. Member has said is not at all fair. As he knows, it is rare to have a cold spell as severe as this and lasting so long as this. This was a humanitarian action, the cost of which is out of proportion to the value of the animals. However, if we had not carried out this airlift there would have been even more severe losses.⁹⁶

Lipton returned to the fray a week later with a question to Peter Thorneycroft, Minister of Defence.⁹⁷ Lipton asked which service department had organized helicopter sorties to help animals in distress on Dartmoor; how many sorties were made; and what expense was incurred. The minister replied that the RAF and RN had flown an estimated 241 helicopter sorties, at a cost of £26,000 to the taxpayer.⁹⁸ Whilst Lipton praised the efforts of the helicopter crews for their efforts, he made a sharp attack on the ‘callous and mercenary farmers in Dartmoor’ who, he suggested, were exploiting the ‘humane instincts of the public in efforts to minimize the appalling suffering caused by the selfishness and negligence of these farmers’.⁹⁹ Thorneycroft gave him no quarter (‘I do not know what farming conditions in Brixton have been like, but they have been rather rough on Dartmoor’). Undeterred, Lipton returned to the fray with a rather tame question on the numbers of animals lost on Dartmoor on 18 February, which was brushed away by Soames.¹⁰⁰

There can be no doubt that press reportage of the crisis on Dartmoor in these weeks was hostile – if also uncomprehending – to the farmers and did their reputation a great deal of harm, although the circulation of newsreels showing the conditions they had to deal with might have served as a form of rebuttal.

On 26 February Lipton took the opportunity to launch an adjournment debate in which he spoke at length and was answered by the MP for Tavistock, Sir Henry Studholme and James Scott-Hopkins, Joint Parliamentary Secretary to MAFF, who stated that during the emergency

⁹⁵ Extracts of Hansard are in TNA, MAF 114/689 (18), (19). 1963, vol. 670, cc919–20.

⁹⁶ Livestock, Dartmoor (Helicopter Services), HC Deb 23 Jan. 1963, vol. 670, cc58–9.

⁹⁷ Dartmoor (Helicopter Sorties), HC Deb 30 Jan.

⁹⁸ Ibid.

⁹⁹ Ibid.

¹⁰⁰ Severe Weather Conditions (Losses), HC Deb 18 Feb. 1963, vol. 672, cc8–9.

the number of sorties undertaken in the south-west region had increased to 616 with 199 on Dartmoor alone.¹⁰¹ Lipton commended the helicopter crews and the 39 RSPCA inspectors who had carried out rescues for 58 days, coming to the aid of 50,000 sheep, cattle and ponies. He attacked the MAFF civil servant, W. J. Bricknell, Ministry Divisional Executive Officer for Devon, who had been quoted in *Farmers' Weekly* as dismissing the complaint about the ill-treatment of animals on the moor as 'frivolous and ill-informed', although this was perhaps the Ministry's view of Lipton's campaign.¹⁰²

The substantive debate centred on whether the pasturing of livestock on Dartmoor as practised in 1963 was sustainable. Lipton drew on the views of numerous local correspondents who condemned the poor standard of sheep husbandry that had resulted in an apparent crisis in the welfare of livestock. Hence he demanded reform along the lines of the Report of the Royal Commission on Common Land published in July 1958. Given that the costs of the helicopter flights had been met by the Government, Lipton argued 'that the taxpayer has some interest and to some extent is a shareholder in the livestock which still survives on Dartmoor'. Discussion focused on the need to close the moor to livestock from December to March (winter months) in the future and the necessity for farmers to adhere to the principle of levancy and couchancy which stipulated that commoners could not graze more livestock than they could over-winter on their holdings.¹⁰³ There had been continuing debates about animal welfare and the need for the regulation of grazing. It was argued that hill cow and sheep subsidies had encouraged farmers to increase the size of their herds and flocks, resulting in the moor being overstocked. Lipton blamed the Ministry for not enforcing the condition that those receiving subsidy were to use up to 40 per cent of it to improve the land, although in reality, given that the moorland was common land, there was little if any benefit for farmers in improving it.

There were obvious tensions between Lipton and Studholme, the latter staunchly advocating that the rules proposed by the Dartmoor Commoner's Association to the Royal Commission on Common Land in 1956 should be adopted, thereby highlighting the need for legislation to be enacted to set up an organizing body to allow for the registering of common rights. Scott-Hopkins reiterated that, contrary to press speculation, the farmers and commoners of Dartmoor were concerned about the welfare of their livestock, a view which the RSPCA shared. He pointed out the problems associated with the efforts of well-intentioned people, for example, in terms of the hand-feeding of livestock brought down to villages and the incidences of helicopters frightening sheep, which ran downhill and in one case drowned in the River Taw. He also refuted the point made about the role of subsidy and argued that the moor was not overstocked, concluding that the Government should accept the recommendations of the Royal Commission, which called for the registration of common rights and common lands throughout England and Wales, a process he suggested could take five years rather than the twelve recommended by the Commission.

¹⁰¹ Livestock, Dartmoor, HC Deb 26 Feb. 1963, *FW*, 25 Jan. 1963, p. 47.
vol. 672, cc1200-26.

¹⁰² *Ibid.*; 'Dartmoor Farmers refute cruelty charges', 101-6.

¹⁰³ G. D. Gadsden, *Law of commons* (1988), pp. 20-1,

V

The wintering of sheep was a problem faced by all upland farmers: it limited the expansion of their farm output. For the reasons noted before, little provision had been made in the Dartmoor area, for example, to hold fodder in the event of winter emergencies. In contrast, at the Ministry of Agriculture's experimental husbandry farm at Pwllpeiren, Aberystwyth, Dyfed, on the edge of the affected area, the losses were only just above average and the lambing rate of 78 per cent was only slightly lower than normal. This was because the flock had been brought down to the lower slopes early where it was possible to give them supplementary feed hay and concentrates.¹⁰⁴ The losses in 1963, whilst heavy, were very much less than in 1947.

Overall though, the central issue was whether or not to provide supplementary feed, by providing not only hay but also cereals or concentrated feeding stuffs. Some farmers were opposed to supplementary feeding, claiming that it reduced the willingness of sheep to forage for themselves. A series of tests in Northumberland reported by H. G. Clark revealed that supplementary feeding increased the percentage of ewes lambing and the survival rate of ewes.¹⁰⁵ The Ministry of Agriculture gave widespread publicity to the need for the supplementary feeding of flocks and the maintenance of an adequate supply of winter keep. A MAFF article entitled 'Fodder – will it last?' by J. R. Lloyd, regional nutrition chemist of the National Agricultural Advisory Service in Wales stationed at Trawscoed, Aberystwyth, referred to the rationing of fodder stocks and the need to purchase extra food, either hay or cereal.¹⁰⁶ It highlighted the fact that, if ewes were unable to obtain their normal intake of food by grazing because of the snow, the type and quantity of supplementary feeding required was dependent upon the weather and grazing conditions of a locality. The highest nutritional demands of ewes were in the last six weeks before lambing, in late February and March: the prolonged snow in 1963 had particularly affected upland flocks in this respect.

Of course, the buying of supplementary feed was an option, but this was a cost that not all farmers were able to afford. Simple laws of supply and demand meant winter fodder prices were inflated and access to the upland areas was difficult, if not impossible, when roads were blocked with snow. The necessity to purchase more fodder than usual, and at quite a heavy cost, was given by Soames in response to a parliamentary question as one of the reasons for the granting of an interim payment to each regular applicant who applied, of up to half the face value of his claim for hill sheep subsidy in 1963.¹⁰⁷ There were also calls for the revival of the Agricultural Goods and Services Scheme (Emergency feeding stuffs), which had lapsed with regard to goods and services in 1961 and 1962 respectively.¹⁰⁸ It had been employed during

¹⁰⁴ TNA, MAF 112/1151 (92A), Sheep stocks.

¹⁰⁵ H. G. Clarke, 'Cake for the hill ewe', *Farmer and Stockbreeder*, 23 Sept. 1958.

¹⁰⁶ TNA, MAF 114/689 (6A), J. R. Lloyd, 'Fodder – will it last?'.

¹⁰⁷ Hill Sheep Subsidy, HC Deb 3 Apr. 1963, vol. 675, cc48–9W; TNA, MAF 112/1151 (25), MAFF Press notice regarding the interim payment of hill sheep subsidy.

¹⁰⁸ The Goods and Services (Emergency feeding stuffs) scheme authorised by section 103 of the Agriculture

Act, 1947 enabled the Minister of Agriculture and Fisheries 'by reason of abnormal circumstances due to climatic conditions, to procure the supply of any or sufficient feeding stuffs for consumption or use' on the application of an occupier. The Minister or committee was allowed to 'make such reasonable charge as he or they think fit in respect of the supply and delivery of feeding stuffs'. All charges were to be paid by occupiers within one month after receipt of costs and the agreement stated that if the occupier failed to pay, grants

the 1947 and 1955 winters and in recent years had been used on a small scale in response to the damage caused by the flooding of agricultural land and the inadequacy of land drainage, for example, in 1958 when 20,000 acres of land in Lincolnshire, Yorkshire and other parts of Eastern England were flooded, waterlogged and subject to storm damage. It was estimated that damage to crops in flooded areas totalled £200,000.¹⁰⁹ Replying to a letter from the Welsh Secretary of 11 January 1963 regarding special assistance to Welsh farmers, J. S. W. Henshaw of MAFF said that the scheme could be resurrected quite quickly for a limited objective and not 'for the purpose of promoting efficiency in agriculture or facilitating food production' as the Agriculture Act of 1947 specified.¹¹⁰ It was argued that if the scheme was extended it was not likely to have great impact, as farmers seeking credit from the Ministry of Agriculture for the increased costs of fodder, were required to show that they were unable to acquire credit from their bank or merchant, and furthermore that the Ministry had to be satisfied they could repay the loan. It was pointed out that exploring all of these points was time-consuming and could not be undertaken quickly in response to the extreme winter.

VI

Aside from the immediate problem of fodder supply, the impact of the extreme winter of 1962-63 intensified debates about the regulation of common lands. In the background was the report of the Royal Commission on Common Lands, set up in 1955, the members of which included figures such as L. Dudley Stamp, famed for his contribution to the Land Utilisation Survey of Great Britain, and W. G. Hoskins.¹¹¹ Research on the history of common land in England and Wales has outlined its importance as an agricultural resource that was often enclosed and sometimes improved in the eighteenth and nineteenth centuries. Some commons nevertheless survived, the management of which was debated in the twentieth century by stakeholders with conflicting interests, primarily those concerned with their use for agriculture and recreation.¹¹² It has been shown how the framework of modern environmental governance emerged with commons registration, an objective of which was the sustainable management of common land.¹¹³

The Ministry considered what factors other than the weather might have contributed to the crisis conditions. One such factor, which is discussed in the MAFF files, is the problem posed by common land, and in particular the year-round grazing of commons and the lack of effective regulation that resulted in widespread overgrazing which in turn made fodder shortages progressively worse.¹¹⁴ It was, however, recognized that efforts to minimize the losses of livestock in extreme winters could not be confined to Dartmoor or common land in general,

Note 108 *continued*

or subsidies would be retained by the Minister. TNA, MAF 196/49 (81).

¹⁰⁹ Agricultural Land (Flooding), HC Deb 28 July 1958, vol. 592, cc938-9.

¹¹⁰ TNA, MAF 114/689 (2), Letter from J. S. W. Henshaw, 15 Jan. 1963.

¹¹¹ W. G. Hoskins and L. Dudley-Stamp, *The common*

lands of England and Wales (1963). For the 'Dartmoor Commons' see pp. 185-190. PP 1958, Cmnd. 462, Report of the Royal Commission on Common Land.

¹¹² Rodgers, *et al.*, *Contested common land*.

¹¹³ Commons Registration Act 1965. For the legal definition of common land see Gadsden, *Law of commons*.

¹¹⁴ G. Hardin, 'The tragedy of the commons', *Science* 162 (1968), pp. 1243-8. TNA, MAF 114/689.

as it extended to private freehold land in upland hill-farming areas. Whilst the snow was still lying, Sir Henry Studholme had observed in the House of Commons that losses might have been higher on enclosed land ('where the drifts were worse') rather than on open common.¹¹⁵

The problems of feeding sheep on the moor in the winter of 1963 focused attention on longstanding problems of how Dartmoor was managed. A meeting was arranged by the three local MPs (Sir Henry Studholme, Percy Browne, MP for Torrington and Raymond L. Mawby MP for Totnes) on 14 February 1963, to discuss the state of the Dartmoor commons. Briefs produced by the Ministry outlined its concern regarding commons legislation, as well as the nature of livestock husbandry and the current emergency. It was recognized that one of the main reasons for the crisis was the radical change which had taken place in animal husbandry. Whilst the Dartmoor commons, which extended to between 150 and 200 square miles, had been primarily used for summer grazing for less hardy stock from the surrounding lowlands, livestock were now grazed year round. It was estimated that 20,000 breeding ewes were pastured on the moor except at tupping, lambing and shearing times and a further 30,000 sheep, 5,000 cattle and 2,000 ponies were now pastured on the moor.¹¹⁶

Officials explained that both sheep and cattle kept on the moor were generally of the hardy mountain type, namely, the Scotch Blackface (90 per cent) and the Border Cheviot and other hill breeds such as Swaledale and Exmoor Horns and were, therefore, suited to upland hill farming. Indeed, they argued that to bring such a breed of sheep down to rich lowland pastures in early winter, clearing the moors for the three months of December, January and February, or alternatively January, February and March, could result in metabolic and digestive upsets. Conversely, returning the sheep to the upland commons in the early spring from rich to comparatively poorer pastures could be even more dangerous, as it was, in effect, returning the sheep to poor pastures at the time when the greatest nutritional demands were placed on the breeding ewe. Cattle, mainly of the Galloway breed were usually brought down to in-bye land and the fringes of the moor so that they could be fed easily during the winter months. The officials accepted that the type of animals, both sheep and cattle, which were kept on the moor, were, generally speaking, well-suited to the upland environment and this type of farming.

Conditions here were contrasted with those in Scotland and parts of northern England where sheep were grazed on clearly demarcated farms or enclosed moors. Here they were herded in such a way that all the ground was regularly grazed and the sheep were not allowed to concentrate on some areas and neglect others.¹¹⁷ When storms appeared to be imminent, sheep were routinely shepherded to a safer part of the farm. Such provision for livestock in extreme weather was difficult to arrange when grazing took place on extensive areas of open common land like Dartmoor. Officials acknowledged claims made in Parliament and elsewhere that Dartmoor was overstocked and calls for the moor to be cleared of livestock during the winter months but they did not consider that this allegation could be substantiated. Nor did they accept that the hill sheep subsidy had encouraged farmers to overstock the moor.¹¹⁸ However,

¹¹⁵ Livestock, Dartmoor (Helicopter Services), HC Deb 23 Jan. 1963, vol. 670, cc58–9.

¹¹⁶ TNA, MAF 114/689 (12), Brief for Parliamentary Secretary (Commons) regarding meeting 14 Feb. 1963.

¹¹⁷ TNA, MAF 114/689 (34A), Plans to minimize losses of livestock on Dartmoor: Winter 1962/3.

¹¹⁸ Ibid.

TABLE 8: Hill sheep subsidy: applicants using grazings in the Dartmoor area

<i>Year</i>	<i>Number of applicants</i>	<i>Number of ewes applied for</i>	<i>Number of ewes paid for</i>
1949–50	195	26,703	26,345
1959–60	227	41,261	37,625
1960–61	200	40,310	37,873
1961–62	201	42,133	37,729

Source: TNA, MAF 114/689, Animal welfare and feeding problems: winter 1963 (9B), Brief concerning the present emergency on Dartmoor by P. Holmes, County Advisory Officer, 6 February 1963, Appendix A.

TABLE 9: Hill cow subsidy – applicants using grazings in the Dartmoor area

<i>Year</i>	<i>Number of applicants</i>	<i>Number of cows applied for</i>	<i>Number of cows paid for</i>
1955	227	3028	1934
1957	199	3451	2566
1960	186	4763	3557
1961	183	5180	3732
1962	182	5896	4559

Source: TNA, MAF 114/689, Animal welfare and feeding problems: winter 1963 (9B), Brief concerning the present emergency on Dartmoor by P. Holmes, County Advisory Officer, 6 February 1963, Appendix A.

contrary to the official view, Tables 8 and 9 for the Dartmoor area show the number of sheep and cows applied for and granted payment under the hill sheep and cow subsidy system continued to increase.

Nevertheless, this raises an important point about the stocking densities in upland England and Wales. Agricultural statistics for the period 1945–65 and the figures for the Elan Valley shown in Figure 3 illustrate the dramatic long-term rise in the numbers of upland livestock, particularly sheep, since the early 1950s, reflecting an underlying effort to increase productivity and output. This was the result of the state-directed agricultural expansion programme identified by Brassley and others taking place between 1945 and 1965.¹¹⁹ This meant that upland areas such as the Cambrian Mountains and Dartmoor were under tremendous pressure, with overgrazing being compounded by changes in winter feeding which encouraged sheep to concentrate in those localized areas where supplementary feed was provided. As a result, there was a danger of a Hardinesque ‘tragedy of the commons’ scenario.¹²⁰

¹¹⁹ P. Brassley, ‘Output and technical change in twentieth-century British agriculture’, *AgHR* 48 (2000), p. 76; Martin, *Development of modern agriculture*, pp. 88–91.

¹²⁰ Hardin, ‘Tragedy’. This contrasts with E. Ostrom, *Governing the commons: The evolution of institutions for collective action* (1991). This upward trend of stocking

densities in the uplands of England and Wales continued until the 1990s when agri-environmental schemes placed grazing restrictions on areas which were designated for their ecological significance, for example, as Sites of Specific Scientific Interest (SSSIs). Rodgers *et al.*, *Contested common land*, pp. 30–1.

The brief went on to note that concerns about the welfare of livestock on Dartmoor, as well as other open moorland areas, had previously been voiced in the spring of 1962 when there was a shortage of grass. However, generally speaking, the welfare of animals pastured on the moors had not attracted national attention, although the condition of moorland and mountain ponies had been the subject of representations from animal welfare societies like the Horses and Ponies Protection Association, which had led to the Ministry's veterinary field team attending the annual autumn sale.¹²¹

The County Advisory Officer for Devon, P. Holmes, made a series of personal observations on husbandry problems in a memorandum of 6 February 1963.¹²² He remarked that he considered the existing hardy hill breeds of sheep and cattle needed to be maintained under the current husbandry system if optimum output was to be obtained from Dartmoor as a whole. The livestock, he wrote, were capable of living on the moor in normal winter weather conditions and he suggested that additional hand feeding practices over and above the existing arrangements had limited value. Land improvements could only be achieved by the erection of internal fences and phosphate dressing, although he recognized the difficulties of undertaking such work as large areas of the moorland were strewn with rocks, or were steep or boggy, all conditions which prevented the utilization of orthodox methods of fertilizer application. Significantly, he criticized the existing antiquated free-for-all system, advocating that it should be replaced by a form of commons registration. Whilst acknowledging that the Dartmoor Commoners' Association had taken an active interest in livestock and land improvement, he explained that they could not put their proposals into practice because of legal problems and the lack of any effective power to control access to the commons. They had drawn up a nine-point plan which he believed formed an 'excellent basis for overcoming the present husbandry problems and weaknesses, and every encouragement should be given to enable the following improvements to become effective'.¹²³ Holmes then turned to attempts to mitigate the effects of bad weather. He identified the need for the adequate provision of winter keep in the form of hay and concentrates for sheep, especially the more vulnerable ewe hogs, as whilst there was some evidence of in-wintering through agistment, it was acknowledged that fodder was expensive and there were management problems such as the issue of containing hill sheep in small enclosed lowland fields which hampered such efforts.¹²⁴

Whilst recognizing that the tors and steep valleys provided adequate protection in many areas, Holmes nevertheless advocated the establishment of fodder banks at selected sites on or near the open moor to act as permanent reserves for emergencies and the planting of shelter belts of trees to give livestock cover in bad weather.¹²⁵ Moreover he commented that it was

¹²¹ TNA, MAF 114/689 (21), Press notice, Dartmoor – Meeting in House of Commons, 14 Feb. 1963.

¹²² TNA, MAF 114/689 (9B), Brief ... by Holmes, 6 Feb. 1963.

¹²³ Ibid.

¹²⁴ In the two upland areas examined there is no evidence of the use of silage. Farmers seem to have continued to use primarily hay and additionally concentrates as winter feed. For silage in Britain see: P. Brassley, 'Silage in Britain, 1880–1990: the delayed

adoption of an innovation', *AgHR* 44 (1996), pp. 63–87 and M. Riley, "'Silage for self-sufficiency'? The wartime promotion of silage and its use in the Peak District', in Short, Watkins and Martin (eds), *Front line of freedom*, pp. 77–88. Agistment is the movement of animals to summer grazings, usually areas of high ground. Winchester, *Harvest*, pp. 29, 32, 81, 93–8, 109.

¹²⁵ The Ministry of Agriculture veterinary staff subsequently pointed out that more sheep had died as a result of a lack of water than a lack of food in the

felt that there was a genuine desire on behalf of the Dartmoor Commoners' Association, the Duchy of Cornwall, and the landowners to further improve their contribution to the 'national larder.' As Holmes concluded:

I am confident that all parties would follow any lead which can be given to them, and that they would effectively organize their own affairs with the help of all interested parties, including our Ministry. The co-operation given by Dartmoor farmers to the National Agricultural Advisory Service in their advisory work, has always been of the highest order.

G. W. Ford of the Ministry's south-west regional office, Bristol, also penned a note at the beginning of February.¹²⁶ He stressed that the previous month had been the worst January experienced in the West Country for a century and that Dartmoor and Exmoor had both suffered more extreme conditions than the wider region. Exmoor had experienced snowdrifts up to 30 feet deep, but did not have a significantly higher than usual mortality rate of sheep resulting directly from the snows, although the indirect losses at lambing were higher because of the increased pressure on the commons. Rather than being critical of farmers, he was sympathetic to their plight explaining that: 'No prudent farmer with exposed lands could be expected to have anticipated and planned to meet the weight of trouble that he had to encounter'. The winter conditions had set in a week or two earlier than usual. The main reason for keeping sheep was the need to produce lambs for sale, a process which required them to take care of and look after the sheep. No farmer kept sheep on Dartmoor simply for subsidy. He criticized the RSPCA for their response to the crisis on the ground and in the media, which 'did put the backs up of some of the farming community, who were in the midst of frightful conditions battling to keep themselves and their livestock alive'.¹²⁷ Certainly aspects of the RSPCA's operation, for example, the indiscriminate dropping of bales of hay amongst sheep and the presence of their inspectors, had annoyed farmers.

VII

Whilst the winter of 1962-63 has not received the level of attention from historians given to 1946-47, it is clearly deserving of more detailed investigation. This article has shown that whilst the exceptionally hard winter of 1962-63 caused localized problems for agriculture in upland hill-farming areas, at a national level it did not have the widespread effects of the winter of 1946-47. Changes in livestock husbandry, especially the increase in stocking densities and the decline of wethers, meant that the effects of the winter were worse than they could have been. Our findings support Crowe's assertion that marginal upland areas were acutely susceptible to a 'hard winter or dry summer'.¹²⁸ Immediate policy responses in the form of supplying fodder to farms either by road or air appears to have been generally effective and prevented

Note 125 *continued*

emergency and that future arrangements should be made for sheep to have access to water when brought into feeding centres. TNA, MAF 114/689 (34), Summary of a talk given by the County Advisory Officer, Devon, G. W. Ford, 8 Aug. 1963.

¹²⁶ TNA, MAF 114/689 (9A), Note by G. W. Ford, 7 Feb. 1963.

¹²⁷ Ibid.

¹²⁸ Crowe, 'A wasteful use of national resources?', p. 47.

losses of animals on the scale of 1946–47. Indeed an impression emerges that policy makers had learnt valuable lessons from previous extreme winters. Reference is made in the files to the emergencies of 1947 and 1955, and show that measures were already in place to counter any recurrence.¹²⁹ The interim payment of hill sheep subsidy may have been a help to farmers, but overall no extra funds were forthcoming. It was simply not possible to resolve the crisis by acquiring fodder from other regions due to the difficulties of transporting fodder on roads that were snowbound. It is also evident that farmers' traditional opposition to supplementary feeding had changed between 1947 and 1963 and that this factor accounted in part for the lower levels of mortality. They were, therefore, better equipped to deal with extreme weather. Yet the immediate effects included a reduction in the lambing rate and a decrease in the size of the national sheep flock for the first time since 1947.

This regional analysis of the winter of 1962–63 illustrates the complex way in which extreme weather impacts on the agricultural sector. A general point can be made that the weather was a major factor in determining the productivity of sheep flocks as indicated by the significant yearly fluctuations that were the result of extreme winters. It is not a simple linear correlation, of the worse the weather the greater the impact, but that there is a tipping point which can have a long-term disastrous effect on particular upland areas. The national data which covers both lowland and upland areas obscures the impact on the latter, estate and parish level data revealing the plight of particular localities such as the Elan Valley and Dartmoor, highlighting the inherent tension between micro- and macro-level studies.

The extreme winter should also be viewed in its wider political context. In Dartmoor provision was made for a second hard winter in 1963–64 but none came, perhaps proof of how exceptional conditions in 1963 had been.¹³⁰ In national terms, the government's attitude to the winter emergency marked the continuation of a traditional, non-interventionist approach towards British agriculture where the state declined the responsibility for compensating farmers for weather-induced risk. As illustrated by the case study of Dartmoor, the winter highlighted on-going debates about the need for the formal regulation of common land. Also apparent are the tensions between campaigners concerned for the welfare of livestock, and farmers, who were criticized for a lack of preparedness; unfairly it seems, given the exceptional circumstances. The crisis in Dartmoor probably vindicated those who before the winter emergency questioned the (over-) stocking of the high moorland: it may perhaps be argued that the RSPCA were the only winners from these exceptional circumstances.

¹²⁹ TNA, MAF 196/49.

¹³⁰ Kelly, *Quartz and feldspar*, p. 385.