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Northumberland National Park: Farming Situation and Outlook, 2011

Northumberland National Park

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June 2011

Executive Summary

- This report examines the farming situation and outlook for agricultural businesses operating wholly or partly within Northumberland National Park (NNP) in 2011. It follows on from two earlier reports on farm businesses within NNP conducted in 1973 and in 1999/2000.

- The report draws on data from ten Farm Business Survey (FBS) co-operating farms at least partly in NNP. The FBS provides information on the physical and economic performance of farm businesses in England, to inform policy decisions on matters affecting farm businesses. It is conducted on behalf of, and financed by, Defra. Since the FBS sample is drawn according to a stratified grid of the total population of farm sizes and types, it is generally representative of the whole population. In addition a survey of fifty farms within the Park was completed in 2010/11. This involved a twenty two page questionnaire on farmer experience, conditions, aspirations and expectations.

- The work was commissioned by Northumberland National Park Authority (NNPA) and completed with the assistance from the staff from the Authority.

Economic Performance and Contribution

- Farms in the Northumberland National Park (NNP) perform better as business enterprises than their peer group of hill farms in the North East, which in turn perform somewhat better than the national English average for hill farms. However, hill farms generally perform poorly compared with lowland farms. There is also very substantial variation around the average figures on business performance.

- On average, sales of farm products generates about 50% of total farm revenues, the rest being accounted for by Agri-Environment (AE) and support payments.

- The 10 FBS recorded farms in the NNP earned respectable rates of return on their capital in 2009/10. Despite this good average performance, 2 of the 10 farms made economic losses (failed to cover all their actual and opportunity costs) in 2009/10.

- Since 2004, the share of farm output and AE payments in total returns has increased at the expense of conventional subsidies (the Hill Farm Allowance, headage payments and the Single Farm Payment).

- NNP hill farms generate some £6.8m (±£5.3m) in revenues from farm output, and receive £2.1m (±£1.8m) in environmental payments and a further £4.2m (±£1.5m) in Single Farm Payments. These estimates can be compared with the NNPA's own data (from Natural England), that NNP farms received £4.1m in environmental stewardship payments between April 2010 and March 2011.

- Farmer businesses spend £8.8m (±£4.8m) on their costs, at least some of which will be earned by local businesses, and earn £2.3m (±£0.7m) for themselves, again at least some of which will be spent with local businesses as family living expenses.

- More than half the survey respondents reported that their profitability is at least acceptable, if not better, and are generally optimistic that the next five years will be at least as good. Only 38% provided answers to similar questions about their diversified incomes, and their responses indicated generally rather lower profitability of these enterprises than the farm business.

Farm Business Management

- The majority of NNP farms surveyed were tenanted rather than owner-occupied, and tended to be somewhat larger than the national average for hill farms.

- Although average total stocking rates have been reduced by 20% on a grazing livestock unit (GLU)/ha basis since 2000, this reduction largely reflects a fall in suckler cow numbers rather than a reduction in the sheep flock.

- NNP farms are typically traditional family farms. 50% of farmers surveyed had been farming their holding for more than one generation, with an average tenure of 2.7 generations. They have generally been rather stable in terms of both land area and employment patterns over the last ten years.

- Although total breeding sheep and cattle numbers have fallen by some 25% in the Park (according to Defra's June Survey) over the past 10 years, more than one quarter of our sample of 50 farms actually increased their stocking rates over this period. For the sample as a whole sheep numbers have been practically constant, while suckler cow numbers have fallen by 15%.

- According to farmer reported expectations, the recent de-stocking has now reached its limit – few expect to reduce further in the future, while nearly one third expect to increase their stocking levels.

- The average extent of winter and lambing housing of stock has increased over the last ten years, with some also intending to increase their housing in the future.

- Farms are generally using less fertilizer now than 10 years ago, and the expectations are that this trend will continue in the future.

Farming in a National Park

- Although evenly divided on the balance of advantage/disadvantage of farming in the Park, farmers are impressed with the services offered to farmers by the NNPA (scoring 1.3 on a scale 1= excellent to 5 = poor), and are almost unanimous that the service be at least continued if not better resourced.

Outlook

- More than three quarters of farmers hope that there will be a family successor to their business.

- The traditional character of farming in the Park is reflected in farm business aims. More than a half report that 'survival' and continuity are the major aims.

- Farmers see the major threats to their survival as: 1) future rises in output prices and input costs 2) policy change and 3) lack of capital.
- In terms of policy change, when faced with a caricature of the European Commission's three options for the future of the CAP beyond 2013, the most severe in terms of reductions in support, generated the most pessimistic response –50% saying that under these conditions they would have to give up and seek something else to do.
- In comparison with the survey of 1999/2000, this survey suggests remarkable stability and continuity. Resilience is a major feature of this group of family businesses, and is also a major strand of sustainability.

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[Note: The Summary results according to the survey questionnaire are available as a separate Excel file]

1. Introduction & Methods

The Northumberland National Park Authority needs reliable information about the current state and future prospects of farming within the Park. Specifically, the Authority seeks an understanding of the changes in upland farming since 2000, as a basis for the development of policies and approach to supporting land management. The Authority has its own surveys from 1973[1] and 1999/2000[2], but needs to make use of external sources for current information and understanding.

Defra's annual June Survey (previously a census) records aggregate data on land use, livestock numbers and farm characteristics (size and labour force) for the National Park. In addition, Defra commissions an annual Farm Business Survey which covers approximately 1900 farms in England, classified by enterprise type and by Government Office region, with hill farms (Less Favoured Area grazing livestock farms) being one of the robust farm types. We have 10 cooperating hill farms within the NNP participating in this annual Farm Business Survey (FBS). Although a small fraction of the 130 or so commercial hill farms in the Park (see below), the sample is stratified across the total farm population, which ensures that the sample is statistically reliable as a reflection of the total population. These data provide a detailed history of the farm accounts for these farms, and provide a range of business performance indicators. For confidentiality reasons, we need to present these data as averages and ranges, to conceal the identity of the specific farms and farmers. However, because they are part of a statistically representative sample, these data can be extrapolated from individual farm conditions and characteristics to represent reliably the conditions for the whole of the Park's area.

Part 2 of this report provides some general background on the condition of hill farming in England and in the North East Region, against which to compare the NNP farms. Part 3 outlines the recent history and present (2009/10) condition of farming in the NNP in particular, as reflected in the June Survey and detailed in our FBS records, illustrated/documented on the basis of the "Average NNP Hill Farm".

Part 4 of the report is based on structured interviews with 50 individual farmers about their attitudes to and aspirations for their businesses and livelihoods, their expectations for the future, and about the critical factors and conditions affecting their future plans and strategies. The interview questions were based on the previous (1999/2000) NNP farm survey for comparability. The total sample size of 50 was determined as the largest number that present resources would permit. The sample farms were picked from those who had participated in both the 1973 and 1999/2000 NNP surveys. This population was then spilt according to location in the NNPA's current northern and southern operational areas. Within each of these sub-categories, the farms were then split into groups based on their size as currently recorded on the NNPA's Geographic Information System (GIS). The size thresholds were: 1) farms under 101ha; (2) 101ha to 250ha; (3) 251 to 500ha (4) 501 to 1000ha (5) over 1000ha.

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1 "The basis for future management", Northumberland National Park, November, 1973

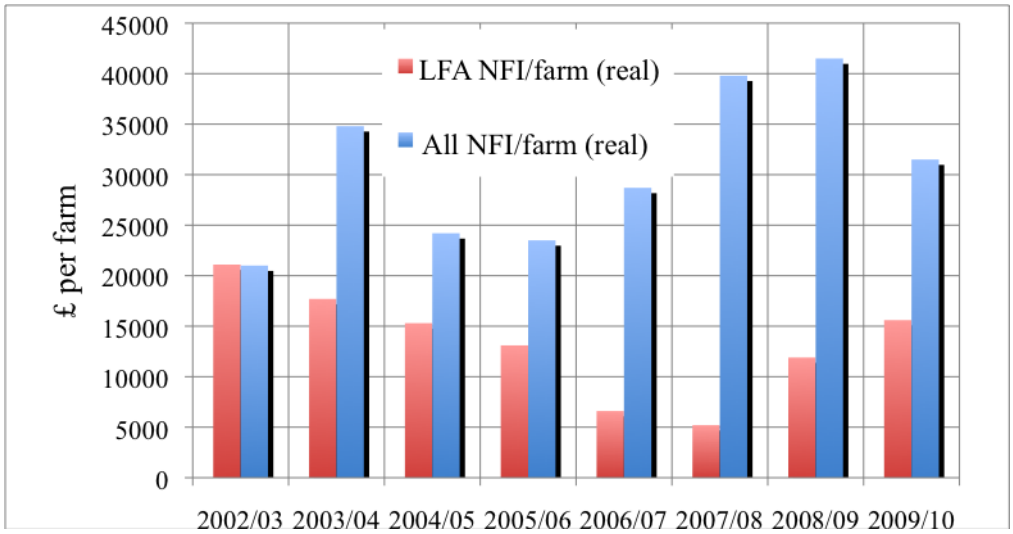
2 "Farming in the Northumberland National Park: Findings of the 1999/2000 farm survey", CRE and Department of Geography, Newcastle University and the NNPA, Sustaining a Living Landscape project.

These size groups were the same as those used in the 1999-2000 survey, to enable comparison. The percentage of all NNP farms falling into each of these subgroups provided the number within each subgroup to be included in the current survey. The appropriate number of farms were selected at random from within the size subgroup for both the northern and southern operational areas.

2. The national and regional context.

The vast majority of farms in the Park are hill farms, otherwise known as Less Favoured Area (LFA) farms. The Farm Business Survey team (at Newcastle University) produce an annual summary of the FBS data relating to these hill farms in the whole of England – Hill Farming in England – the most recent of which relates to the 2009/10 accounting year, from which the following data and commentary are taken. The recent comparative business performance of LFA farms across the whole of England is illustrated in Figure 1, which compares the Net Farm Income (NFI) per farm earned by the LFA grazing farms and by all farms in the England FBS sample over the last eight years. Net Farm Income represents the returns to the farmers' own labour, tenant's capital and management, on a consistent basis for both owned and tenanted farms.

Figure 1. LFA[a] v. All FBS Farms' NFI, real[b] terms, England (2002 – 2009)



Source: Farm Accounts in England, 2009/10, Defra,

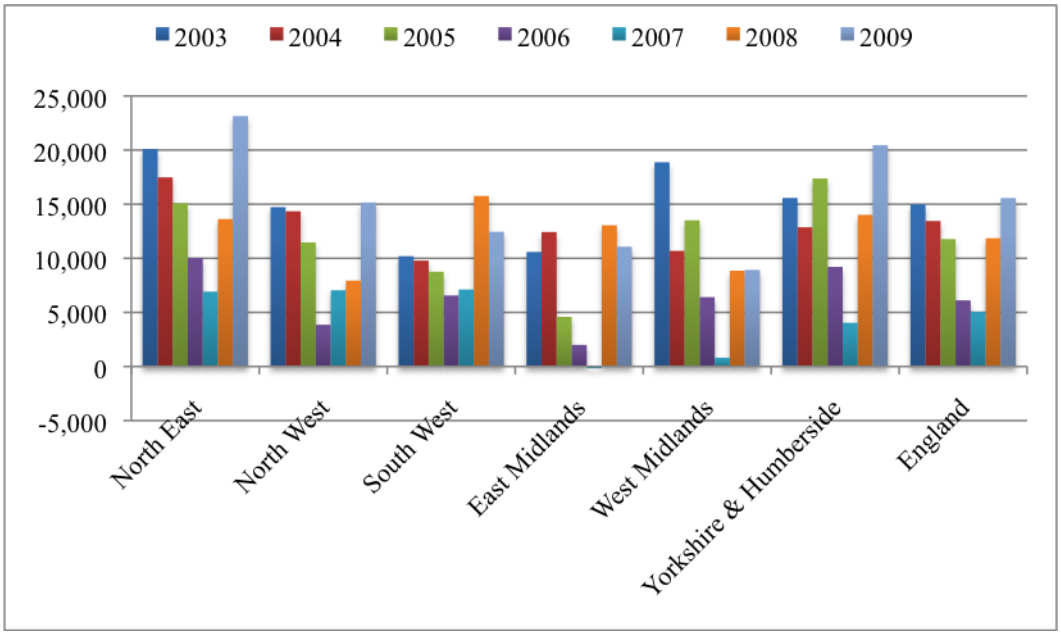
Notes: a: defined as Upland Grazing Farms, b: Real terms = deflated by RPI (all items).

As can be seen, with the exception of the peak year for LFA farms (2002/03)[3], the upland farms continually under-perform relative to their peers elsewhere in the industry in terms of income per farm. Furthermore, while the average farm generally has shown variable income performance over the last five years in real (purchasing power) terms, peaking in 2003/04, and again in 2008/09, their upland counterparts experienced a five year decline in real incomes per farm between 2002/03 and 2007/8 albeit that 2008/09 and 2009/10 show some reversal of this trend. Despite the improvements in profitability over the past two years, LFA farm incomes still remain at 50% of the national average.

3 This peak followed the extensive cull of grazing livestock during the FMD outbreak, with consequent improvement of livestock prices, which have subsequently returned to more normal levels.

As Figure 2a illustrates, hill farms in the North East, including those in the NNP, tend to perform rather better than their counterparts elsewhere in the country, partly because they tend to be larger. Nevertheless, there is both substantial variation in income between years, and also very substantial variation between farms (Figure 2b)

Figure 2a LFA Net Farm Income per farm, by region (2002/3 to 2008/9)



Source: - RBR, Farm Business Survey

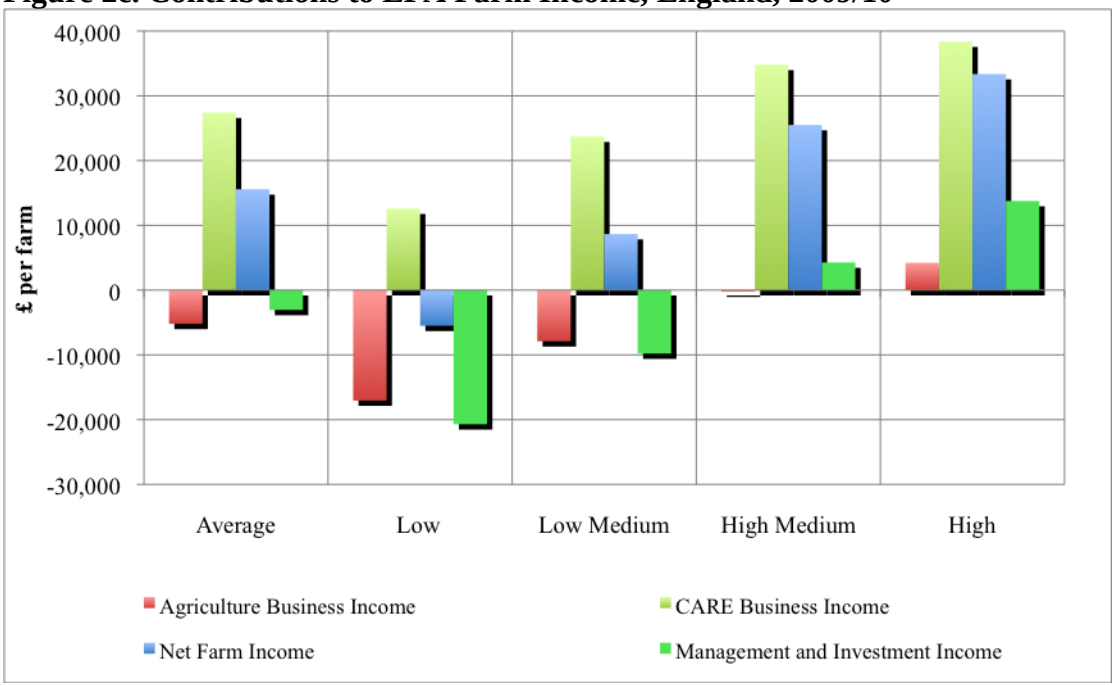
Figure 2b shows the constituent elements of the LFA farm's Net Farm Income for the average English LFA farm, and also for each of the business performance quartiles – by which the full English LFA FBS sample of 238 farms is ranked according to their Farm Business Income (see below) earned per Grazing Livestock Unit. Whereas the poorest performing farms in the sample do not manage to earn a positive net farm income (it is costing them money to continue farming), the best performing 25% (top quartile) are earning more than twice the average NFI per farm (£33.3k versus £15.5k). These high performing farms manage to earn larger gross margins (all farm revenues minus variable costs such as feed, fertilisers, fuel etc.) at £76.8k per farm versus the average of £56.9k per farm. However, their fixed costs (hired labour, rent, capital maintenance etc) are generally about average, at £34.8k per farm, so that their Farm Business Income (FBI - gross margin minus fixed costs) is more than twice the average at £42.6k per farm versus £22.2k per farm. However, this Farm Business Income has to pay the (typically unpaid) family labour and also the rent (including an imputed rent for owner occupiers, to maintain comparability). Net Farm Income (NFI) is the result of deducting an allowance for unpaid family labour and actual or imputed rents from the FBI. Here, again, the best performers win versus the average farm, implying that tenanted farms perform at least as well, if not better than, their owner-occupied peers.

Figure 2b. Elements of NFI by performance group (England) 2009/10

Source: RBR Hill Farming in England, 2009/10

Figure 2c shows some further detail on the sources and distribution of LFA farms income.

Figure 2c. Contributions to LFA Farm Income, England, 2009/10



Source: RBR Hill Farming in England, 2009/10

The Agricultural Business Income figure shows the returns generated by the farming business excluding all support (SFP and HFA) and environmental (ELS etc.) payments, and shows that only the best performers manage to earn a positive return (albeit very small) on their farming business alone. The CARE Business Income includes all the support and environmental payments (CARE = conservation, amenity, recreation and environmental), which again increase as the performance ranking improves. Management and Investment Income (M&II) is the 'bottom line' for these

farms, being the income remaining when the value of the farmer's own labour (including that of the spouse), valued at the going agricultural wage rate, is deducted from Net Farm Income. M&II thus represents the return to the occupiers' managerial effort and to their (tenant's) capital investment in the business, having paid a rent to reflect the return to land. As can be seen from Figure 2c, only the higher performers manage to earn a positive return on their own management and investment. On average and for the poorer performers, the M&II return is negative – these farmers would be financially better off as farm labourers (ignoring tax and other considerations).

3. Farming in Northumberland National Park

3.1 Defra's June Survey of The Northumberland National Park

According to Defra's June Survey, in 2009 there were 256 holdings located wholly or partly within the NNP (of about 800 in Northumberland as a whole). Of these 189 were larger than 5ha. The June Survey also records that there were 174 full time farmers and a further 145 part time farmers in the Park. Of the total of 256 holdings, 144+[4] are classed as "commercial"[5]. Of these, 131 (90%) are classed as LFA grazing holdings, with 10% being classed as 'other'. Although Defra's methodology for this survey excludes very small holdings (e.g, grazing farms with less than 20 sheep, holdings of less than 5ha.)[6], the survey still includes a number of 'uncommercial' holdings (with an annual labour requirement of less than half a person). Removing these holdings results in an estimated 126 'potentially viable' hill holdings. Holdings are not the same thing as farms – some farms comprise more than one holding[7]. It is clear from these data that an apparently simple question – how many farms are there in the NNP – admits a wide range of answers.

99% of the land area of the Park (100,006ha) is classed as a Severely Disadvantaged Area (SDA). 54% is SDA Moorland according to the NNPA's data. Of this total area, the June Survey records 68,723ha as being farmed (i.e. located on agricultural holdings). The apparently large discrepancy between the NNPA's figure of the total land area of the Park and that recorded by the June Survey is probably a reflection of the aggregation of individual holdings data recorded under the June Survey. Whilst the NNPA figure is an accurate area figure from GIS data, the June Survey figure is an estimate from aggregations of farm (holding level) data by parish (administrative boundaries) with some more or less arbitrary demarcation between those holdings within and not within particular parishes, and also about whether particular parishes are within or outside the Park boundaries.

The main LFA farm types are classed as: Specialist Sheep; Specialist Beef; Mixed Grazing. The distribution of the holdings amongst these main farm types within the Park is shown in Table 1. They comprise 126 holdings. This excludes very small holdings (of less than 0.5 Standard Labour Requirement). The 126 holdings account for more than 98% of the total sheep and cattle in the Park according to the June Survey.

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4 Excluding those cells on the main farm type by Standard Labour Requirement size group matrix for which there are too few holdings to disclose "to prevent disclosure of information about individual holdings"

5 "Commercial" excludes very small holdings, market gardens, etc. A full definition of the excluding criteria can be found on the Defra June Survey web site.

6 This exclusion apparently removes 12 LFA "holdings", since the National Park summary of the June Survey (which deals with all holdings but does not identify the size distribution) records 164 LFA Grazing holdings in the Park in 2009.

7 Particularly during the 2001 FMD crisis, farmers were allowed (even encouraged) to declare disconnected parts of their farms as separate holdings, to avoid the unnecessary slaughter of stock which, although on the same farm were effectively isolated from potentially infected stock.

Table 1: Main Farm Types and distribution of Livestock (GLUs)

	No. holdings	Cattle	Sheep	Total GLU
Specialist Sheep	73 (58%)	25%	64%	52%
Specialist Beef	9 (7%)	22%	4%	10%
Mixed	44 (35%)	53%	32%	38%
Total	126 (100%)	100%	100%	100%

The livestock in this table are summed as Grazing Livestock Units (GLUs). A GLU converts different types of livestock (sheep, lambs calves, cattle etc.) into a common unit – equivalent in grazing requirements to one dairy cow. As can be seen, the bulk of the sheep in the Park are kept on specialist sheep or mixed grazing holdings, although the cattle are more evenly distributed over the main farm types. Again, according to the June Survey, the total number of suckler cows and breeding ewes have declined substantially since 2000, by more than 25% in each case, from 8,033 suckler cows in 2000 to 5,977 in 2009, and from 144,560 breeding ewes in 2000 to 105,837 in 2009. Over this period, there has been a substantial concentration in farm (holding) sizes, with a substantial reduction in the numbers with less than 100ha (by almost 60% for the 20 – 50 ha size group, by 40% for the 50 – 100ha group and by 20% for those holdings with between 5 and 20ha). While there were, according to the June Survey, 55 farms with more than 100ha in the Park in 2000, there are now (2009) 128 holdings of this size. At the same time, there has been an increase in the number of very small holdings (less than 5ha.) from 61 in 2000 to 67 in 2009.

However, for hill farms especially, total area is often not a useful classification of size, given the highly variable quality of hill land. In drawing the stratified sample of farms for the Farm Business Survey, Defra uses the distribution of farms by size of holding in terms of *standard labour requirements*, which classifies farms according to the labour requirements associated with their farm type and enterprise mix. This distribution, in proportional terms, for the 126 commercial farms in the Park is shown in Table 2. While 40% of these holdings (farms) are not large enough to require 2 full time people (with SLRs < 2), these farms only account for 17.4% of the total livestock, which largely determine the landscape and environmental character of the Park. 38% of the 126 farms (48 farms) carry more than 60% of the Park's livestock.

Table 2: Distribution of Livestock (GLUs) by farm type & size (SLR)

Farm Size by Standard Labour Requirements

	≥0.5, <1	≥1 < 2	≥2 <3	≥3 <5	≥5	Total
Specialist Sheep (%)	1.6	8.6	9.2	12.8	20.0	52.3
Specialist Beef (%)	0.8	0.0	2.7	0.0	6.1	9.6
Mixed Grazing (%)	0.6	5.9	8.5	18.4	4.8	38.2
Total (%)	**2.9**	**14.5**	**20.4**	**31.3**	**30.9**	**100.0**
No. of Holdings	15	34	29	29	19	126
% distn. Holdings	**12%**	**27%**	**21%**	**23%**	**15%**	**100%**

3.2 The Average NNP Farm – from the Farm Business Survey

The FBS team at Newcastle University survey 10 farms within or mostly within the Park. Given the distribution of all commercial farms by size (SLR) and type (specialist beef, sheep and mixed grazing farms) in the Park, it is possible to assign weights to each of these 10 individual farms which reflect their representation of the

total Park population of farms. As a result, the weighted average NNP farm can be taken to be a reliable statistical representation of the Park's farm population

On average, the FBS NNP farmer is 56 years old (±16). The land tenure in the Park, as recorded in the June Survey, shows that the Park's land is 70% rented. The average NNP farm, as recorded in the FBS, is 73% rented. Figure 3 shows the land use in the Park, of a total agricultural area of 68,723ha while Figure 4 shows the land use on the average NNP farm, over a total of 353ha, showing a very similar land use pattern for the (weighted) average farm and the Park as a whole .

Figure 3: NNP Land Use

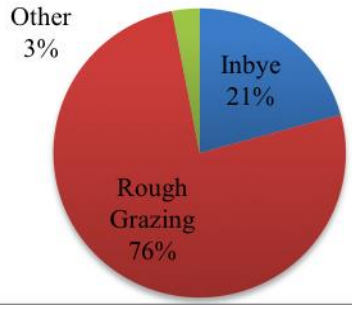
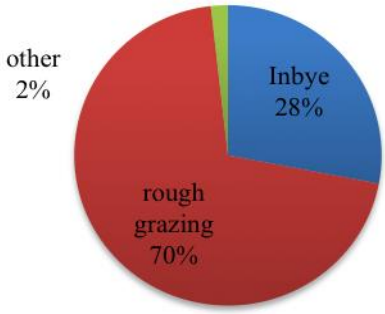


Figure 4: NNP Ave. Farm Land Use



The Average Farm's livestock numbers are shown in Figure 5, in comparison with the June Survey data on livestock numbers throughout the Park, Figure 6. Although the NNP Average Farm appears to have substantially fewer 'other sheep', and a correspondingly larger breeding flock (Figure 5) than the Park as a whole (Figure 6), these numbers are not strictly comparable. The FBS records stock numbers according to the whole year picture for the farm, whilst the June Survey, as its name implies, is a snap-shot taken at a time when most of the lamb flock will still be on the farm. Given this *caveat*, the Average Farm is again a reasonable reflection of the Park as a whole.

Figure 5: Average FBS NNP Farm's Livestock numbers.

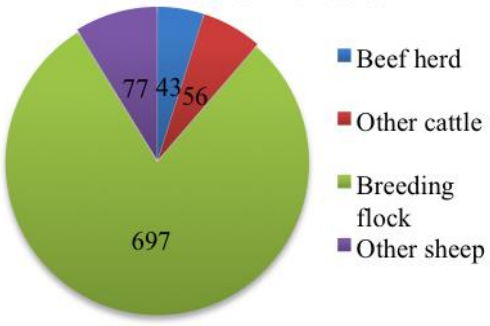
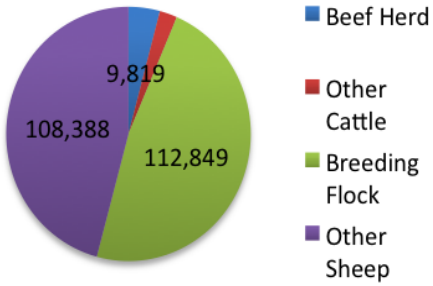


Figure 6: NNP Livestock Numbers (total)



The financial performance of the NNP Weighted Average farm is summarised in Figure 7 and Table 3. The dependence of these farms (as illustrated by the average) on both environmental payments and on the support payments (Hill Farm Allowance and Single Farm Payment) is apparent from Figure 7 and Table 3. Sales of farm output account for less than 50% of total revenues; Environmental payments account for 15% while the support payments (HFA and SFP) together account for almost 37%. From this year (2010/11), the HFA no longer exists – it is to be replaced by the

Uplands Entry Level Stewardship (UELS) scheme. However, the translation of the old HFA to the UELS is neither automatic nor exact. Farmers need to apply for the UELS scheme, and a substantial number of farmers are thought to have not yet done so.[8] Furthermore, any particular farmer's UELS payments are not likely to be the same as their old HFA payments – some might be greater, others lower, depending on the land type. However, since there are no area limits on UELS, as there were for the HFA,[9] larger farms will benefit. Compared with the average LFA farm in all England, (RBR/Defra, 2011, *op cit.*), the performance of the Average NNP farm is very good. The Average English LFA farm earned a negative Management &Investment Income (M&II) of -£3,000 per farm in 2009/10, whilst our Average NNP farm earned £20k, representing a respectable 8.1% return on tenant's capital. However, the wide variation around this average should be noted (Table 3) – one third of the total population of farms are likely to earn an M&II of 90% less than this average.

Figure 7: Financial Performance of NNP Average Farm

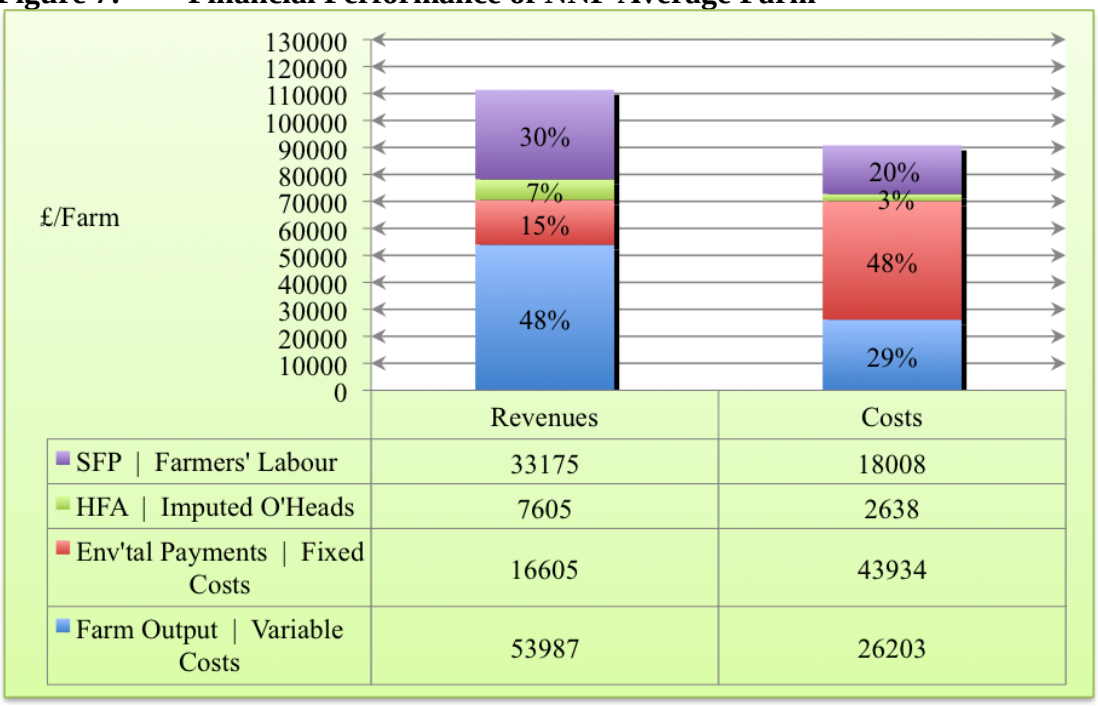


Table 3: NNP Weighted Ave. Farm	**£/Farm**	**Coeff. Var***
Farm Business Income FBI (Total Revenues - Variable - Fixed Costs)	41235	104%
Net Farm Income NFI (FBI - Imputed Overheads**)	38596	92%
Management & Investment Income M&II (NFI - Farmers' Own Labour)	20588	137%

* Coefficient of Variation = Standard deviation as % of average. Assuming a normal distribution of performance per farm over the population, approximately 2/3 (68.2%) of the population will lie within ± the cv of the average.

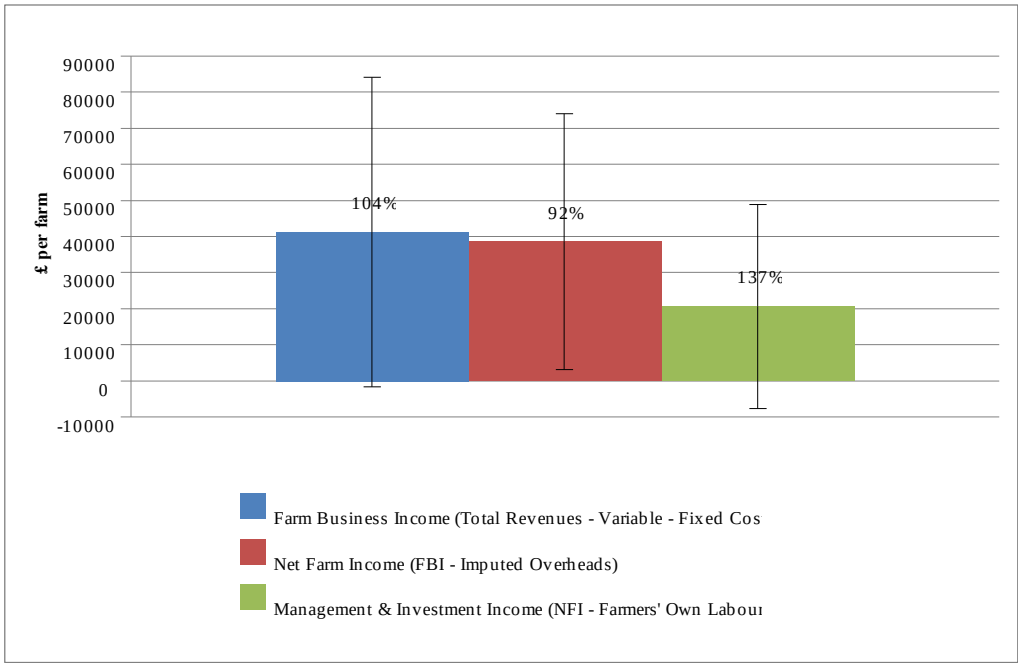
** Imputed Overheads include the notional cost of unpaid family labour, imputed (market) rents on owned land and net interest payments.

8 Farmers wishing to receive UELS payments for this accounting year needed to have applied by July 2010. Furthermore, eligibility needs approval -a minimum number of points is required from a suite of land use and management practice requirements.

9 HFA was only paid at the full rate per hectare on the first 350ha, and at ½ rate for the next 350ha with no payment made on any land above the 700ha limit.

To emphasise the variation around these estimated commercial performance measures for the average NNP farm, Figure 7a shows the estimates from Table 3 with their error bars.

Figure 7a. Variation of major Performance Measures: NNP average farm



Indeed, two of the ten farms in our NNP sample earned negative M&II in 2009/10 – they did not earn enough to cover the imputed earnings of the farmer's (and partner's) own labour, charged at the average farm worker's wage rate. In other words, these farmers would have been financially better off working for someone else as farm workers rather than farming on their own account (ignoring any tax or other considerations). Of course, many farmers, perhaps especially hill farmers, clearly receive a great deal of satisfaction from their way of life, and simple commercial or financial considerations cannot possibly tell their whole story.

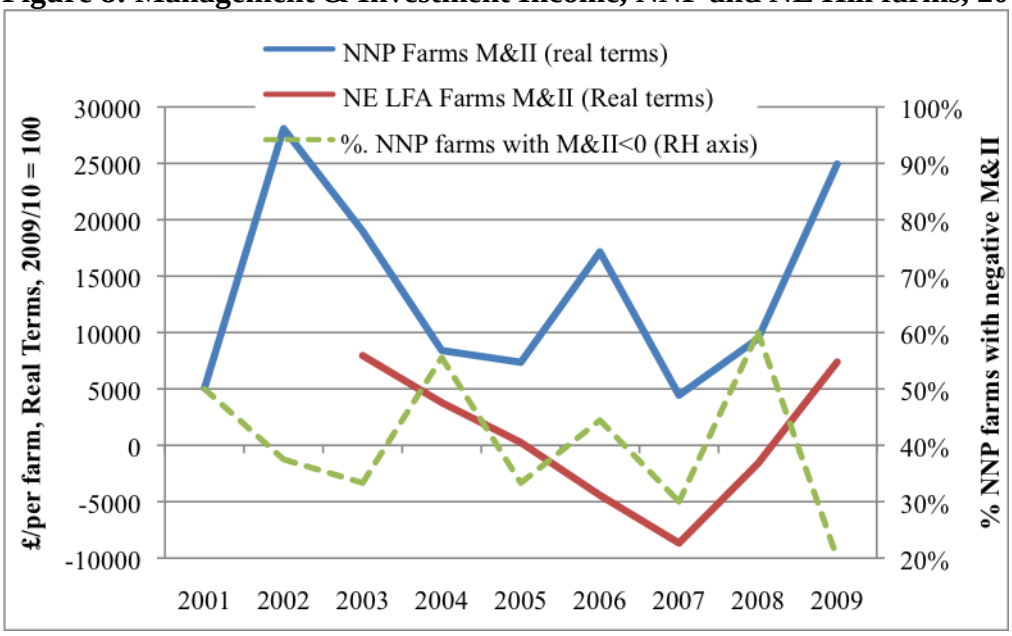
3.3 The recent history of the NNP average farm.

The current performance of the average NNP farm can be put in context by considering the recent history of this performance. We first compare the NNP average farm with its North East counterpart (i.e. including other hill farms in the region but outside the Park). We then consider the recent history of the average NNP farm using the 8 farms who have been in the Farm Business Survey continuously since 2002.

Figure 8 shows the historic performance of our NNP average farm versus the North East Region average farm, in terms of their M&II. Again, this figure illustrates the variation between farms in the sample, both as the difference between the performance of the NNP average farm versus its regional peer average, and also

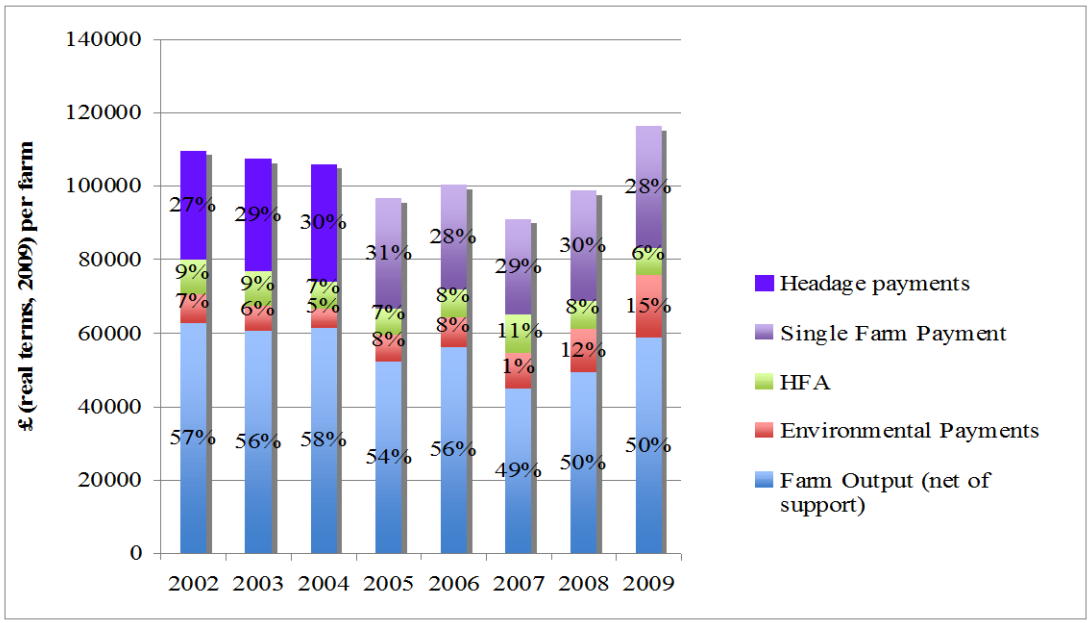
(green dashed line/RHS axis) the proportion of the (10) NNP hill farms earning negative M&II over this period. This was 60% in 2007/8.[10]

Figure 8: Management & Investment Income, NNP and NE Hill farms, 2001 –09.



Of the 10 farms in the FBS within the NNP in 2009/10, 8 have been recorded continuously since 2002. The history of the average 'constant panel' farm over this period is shown in Figures 9 and 10.

Figure 9: Constant panel Average NNP farm: Revenues (Real Terms)*



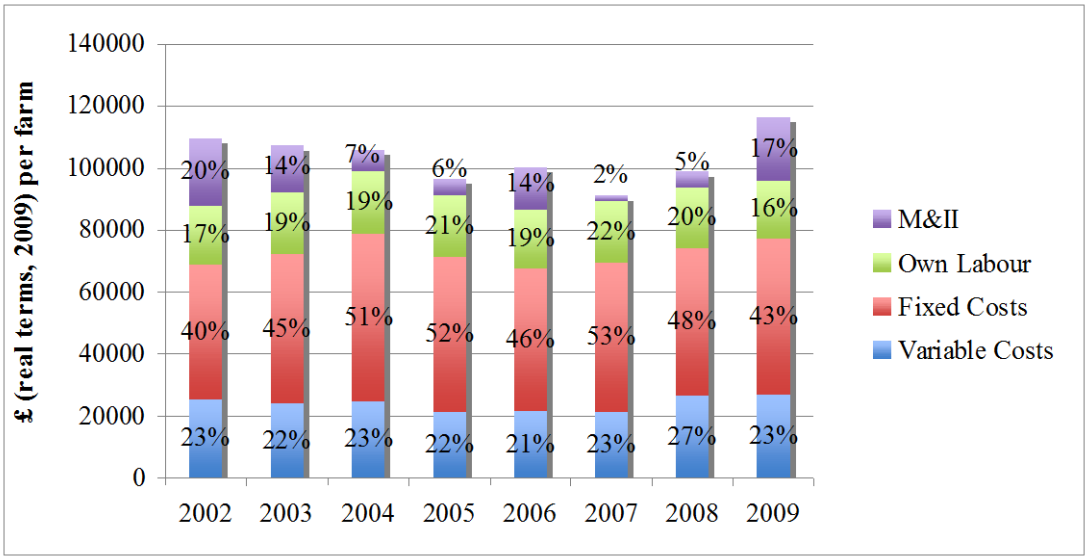
* Deflated by the RPI (all items) to common 2009/10 purchasing power.

10 Not all 10 farms cooperating with the FBS in 2009/10 have been in the FBS since 2001/2. The number of NNP farms in the FBS varies over this period between 6 and 10.

The revenue streams for the NNP hill farm have changed considerably since 2005 (Figure 9), declining substantially in 2007 because of the movement and sales restrictions following the FMD outbreak in August 2007. This movement ban affected these farms particularly badly, since it happened at exactly the time of the most important sales and livestock movements for these farms. The effects on farm performance were more severe than the major FMD outbreak of 2001, largely because of the timing of the event. The circumstances were exacerbated by the increased cost of bought-in feed during the autumn of 2007, following the escalation of international grain and feed prices, and since then by exchange rate movements. These have not helped prices or EU funded support payments. The proportional contribution of farm output (net of any support payments) to total revenues has tended to decline, though maybe showing signs of weak recovery since the 'crisis' year of 2007/8. As a corrolary, environmental payments (including Countryside Stewardship and ELS payments) have become proportionately much more important to these farms, as have the Single Farm Payments (SFPs). The HFA payment has been fairly constant (as would be expected for the same farms).

Notwithstanding this change in revenue streams, the average NNP farm has managed to cope remarkably well. The immediate casualty from a collapse in revenues, as happened in 2007, is that the Management and Investment Income (M&II) disappears, while the variable and fixed costs tend to remain relatively stable. However, underlying this impact response is an apparent tendency to reduce fixed costs, including (according to these estimates) own labour. The end result is that, despite only slowly recovering revenues, the average farm has managed to recover to a fairly healthy M&II position by 2009/10. The variability of total revenues is amplified in the variation in Management & Investment Income (M&II). The quite respectable rate of return in 2009/10 (8.1% on tenant's capital) can be seen to be the second best return of the last 8 years, while this average farm earned next to nothing in 2007/8.

Figure 10: Common panel average NNP Farm: Costs & Returns, Real terms*



* Deflated by the RPI (all items) to common 2009/10 purchasing power.

3.4 Stocking rates and land use by the average NNP farm.

The total livestock on this average farm have declined from 129 GLU in 2000/01 to 113 GLU in 2009/10, and the raw stocking rate (ignoring any allowance for the differences in productivity of in bye and rough grazing land) has declined from 0.36 to 0.29 GLU/ha (a decline of 21%). This decline is universal amongst the FBS sample and remarkably constant with a coefficient of variation of only 10%. The decline in stocking rates has been the result of both increasing areas of land being used by the average NNP FBS farm, and of declining livestock numbers. On this constant panel NNP average farm, both the areas of in bye and rough grazing have increased over the 2002-2009 period by 23% and 8% respectively, while the numbers of breeding ewes and suckler cows have declined by 7% and 12% respectively. The indicative stocking densities have declined from 2 breeding ewes per ha. rough grazing to 1.7 and from 0.7 suckler cows per ha. in-bye land to 0.5. The adjustment to the dramatic change in the support system for the uplands has been substantial, and relatively rapid – though there are still more sheep and cattle in the English uplands and in the Park than some would have expected following the introduction of the SFP.

3.5 Implications for the Park's Economy

Finally, it is possible to extrapolate from the NNP Average Farm results to consider the implications for the Park as a whole. However, given the wide variation in the farms (see Table 3 above), any extrapolations can only be regarded as indicative, if not simply illustrative. In the following, the figures in brackets represent the 95% confidence intervals round the central figure. The NNP hill farms generate some £6.8m (±£5.3m) in revenues from farm output, and receive £2.1m (±£1.8m) in environmental payments and a further £4.2m (±£1.5m) in Single Farm Payments. They spend £8.8m (±£4.8m) on their costs, at least some of which will be spent in local businesses. Farmers earn £2.3m (±£0.7m) for themselves, again at least some of which will be spent in local businesses as family living expenses.

These estimates can be compared with the NNPA's own data (from Natural England), that NNP farms received £4.1m in environmental stewardship payments between April 2010 and March 2011 (which is approximately within the confidence interval of the FBS based estimates, though clearly much higher than the mean estimate above). In addition, according to Natural England, NNP farms received about £1m for HLS capital works and £0.34m from Countryside Stewardship schemes.

4. The Northumberland National Park Farm Survey

4.1 Land Use and Stock Numbers

Figures 11 and 12 show the land use and stock levels (respectively) of the FBS sample of 10 farms within the NNP, and the 50 farms surveyed specifically for this study.[11]

Figure 11: Land Use of the Sample farms

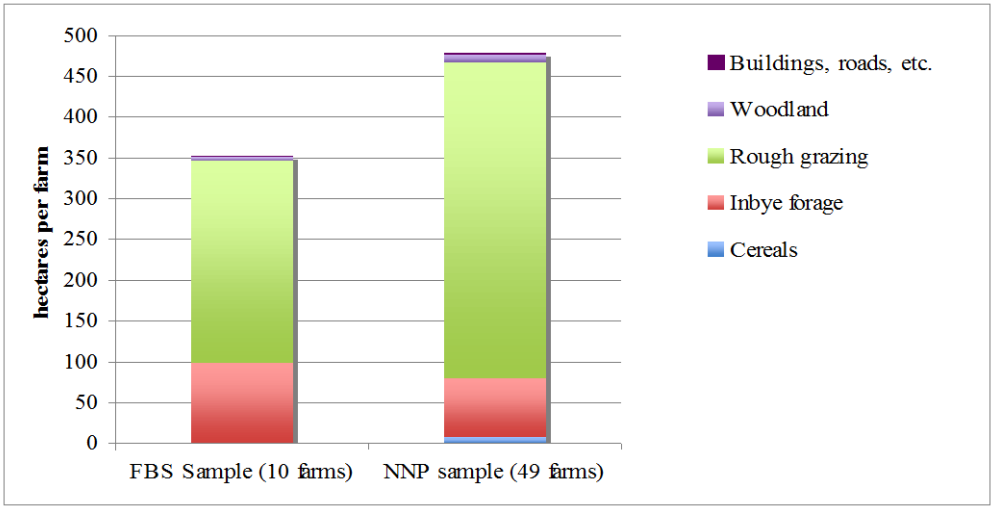
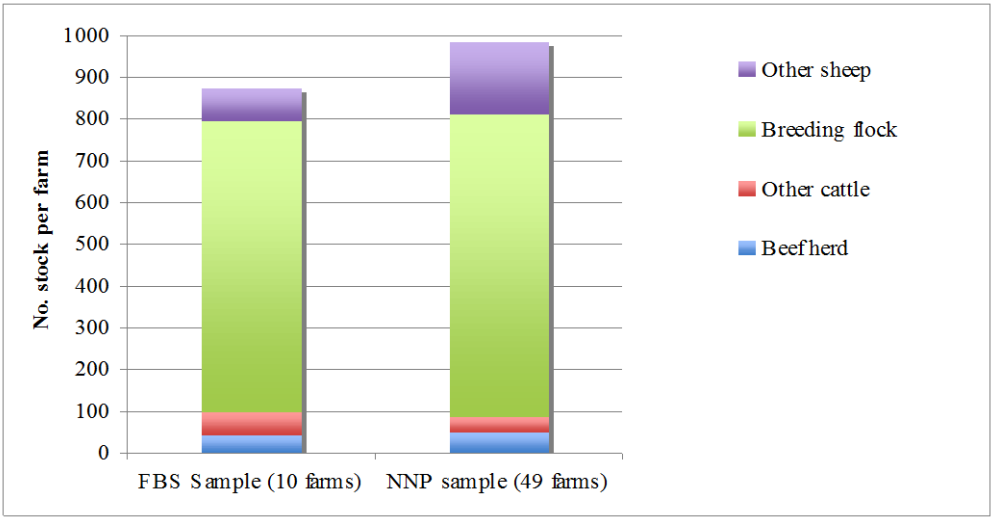


Figure 12: Stock Numbers of the Sample farms



As can be seen, the (unweighted) average of the NNP survey sample is a slightly larger farm both in terms of area, especially of rough grazing, and of stock numbers

11 Although 50 NNP farms were surveyed, 1 did not provide any area or stock number information and 4 did not provide sufficient information to allow their farm business management account to be constructed, and hence are excluded from this analysis.

than the FBS (weighted) sample average. The raw stocking rate for the NNP survey sample is considerably lower at 0.25 GLU/ha than the FBS average farm of 0.35 GLU/ha. When the rough grazing is converted to its adjusted[12] area equivalent the stocking rate difference is less marked at 0.71 GLU/adjusted ha and 0.75 GLU/adjusted ha respectively.

However, with respect to the numbers of breeding ewes and suckler cows on each of the surveyed farms, there has been a wide variation in the changes recorded for these farms between 2000 and 2010. On average, over these 49 farms, the numbers of ewes has marginally increased (by 1.5%) while the number of suckler cows has decreased over this period by 15%. The coefficients of variation around these average changes are large (± 74% for ewes and 284% for cows). Almost half the survey respondents reported reductions over the last 10 years, although 14% have actually increased their stock numbers over this period (Figure 13). The indications for the future, however, are that any recent reductions in stock numbers have now reached their limit (Figure 14). Only 8% anticipate further reductions in their stock numbers, with almost 70% reporting that their stock numbers were likely to be unchanged in the future, and 30% saying that they expected to increase their stock numbers in the next ten years.

Figure 13: How have stock numbers changed in last 10 years?

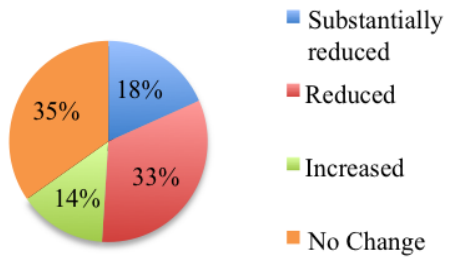
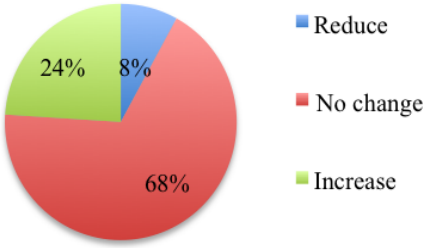


Figure 14: How will stock numbers change in next 10 years?



4.2 Commercial Performance

Figure 15 compares the two samples on the main dimensions of their financial performance, and shows that the NNP average farm is commercially larger than the FBS weighted sample average, but generates a similar Management and Investment Income (M&II) in proportional terms, while the shares of costs in the total revenues are also similar.

The surveyed farmers' views on profitability of the agricultural business of the past five years, and over the next five years respectively, are shown in Figures 16 and 17 below. Almost three quarters (72%) consider that their profits have been at least stable over the last five years, although 9% (4 farms) report no profit over this period,

[12] The actual rough grazing area is converted to an equivalent "adjusted" area on the basis of its stock bearing capacity.

and 15% report that their profits are "low" (not shown in the figure). Three did not respond to this question.

Figure 15: Commercial performance of the Sample farms

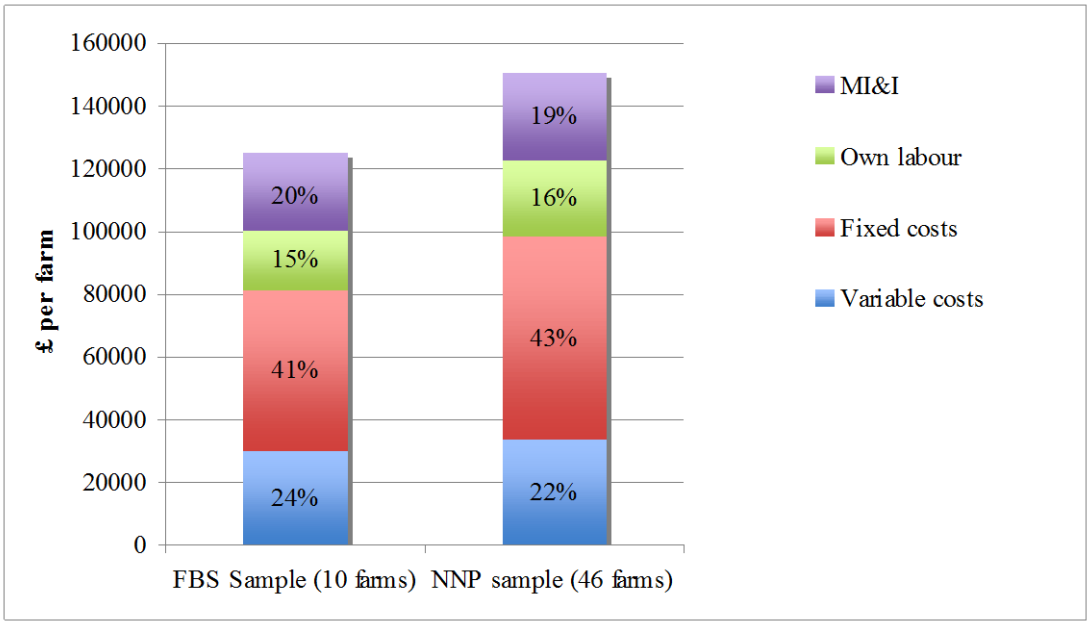


Figure 16: Farm Business Profitability (last five years)

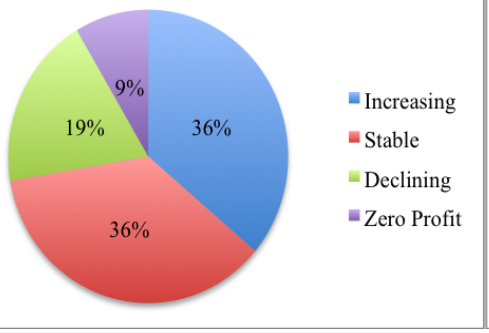
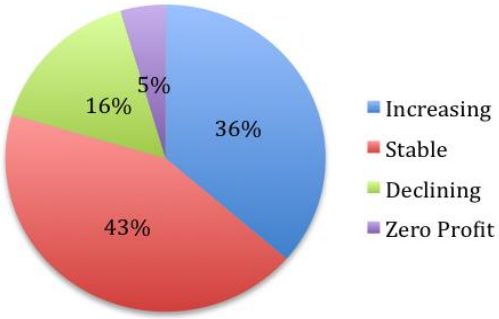


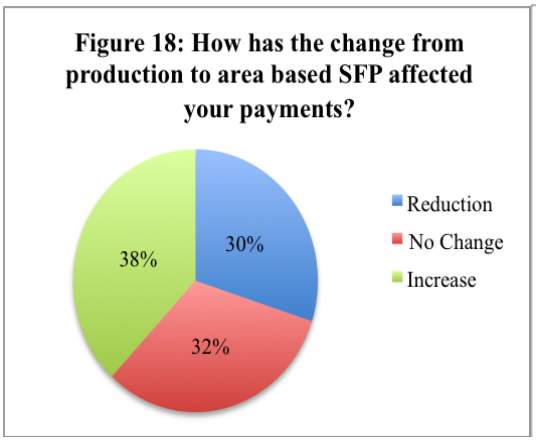
Figure 17: Farm Business Profitability (next five years)

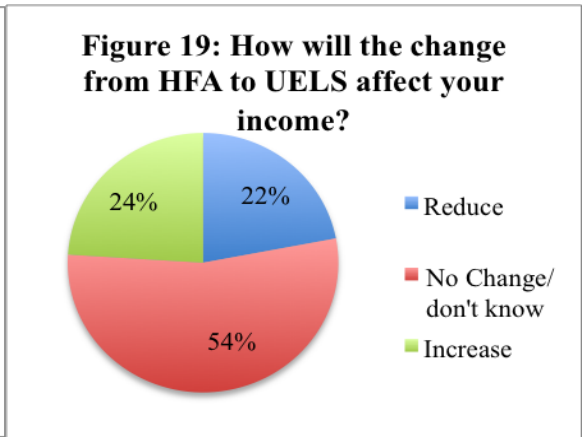


On the whole, the NNP survey sample is more optimistic about farm profitability over the next five years than in the recent past (Figure 17). 79% (of the 42 farms responding to the question) expect profits to be at least stable in the future, while the proportion viewing profitability as declining or worse falls from 28% to 21%, with only 2 farms expecting no profit in the next five years.

Similar questions were asked about diversified enterprise profitability, though only 18 farmers answered these questions. Of these, less than half (44%) felt that their diversified incomes have been at least acceptable over the last five years, though 50% (of the 16 answering the question about the future of these enterprises) expect them to be at least acceptable over the next five years. The 2 farms reporting that their diversified enterprises have not been profitable in the past also report that they expect these to be substantially better in the future. Other farmers report growth in the past but are more pessimistic about growth prospects in the future.

Figures 18 and 19 show the responses to the questions about how changes in the support payment basis have affected their income. As can be seen, a third feel that the change in the basis of the Single Farm Payment from production to area has reduced their support income, while a further third consider that this change has been to their advantage. Just over one quarter of these farmers think that the elimination of the Hill Farm Allowance (HFA) in 2010, and the effective substitution of the Upland Entry Level Scheme[13] will reduce their income (Figure 19). Responses suggest that more than half (51%) of the sample is already signed up the UELS and that a further 22% expect to be in the future. Apparently, the remaining 27% have not yet thought about this.





Only 1 farm reported that the debt burden on the family business is a critical factor influencing their business decisions, with just over half (51%) reporting either no debt or very minor levels and a further third replying that their loans were easily manageable and not a major factor in their business decisions. They report a variety of capital improvements over the last ten years. By far the most predominant is investment in fencing. Nearly half reported an average investment of almost £10k each in new fences in the last 10 years and 6 farms (12%) have plans to invest in fences in the future. The only other future investment plans reported to any substantial extent are for drainage (8%) and new buildings (14%). 3 farms report investments in alternative power (a biomass boiler and 2 wind turbines). Restrictions on these plans are mostly related to profitability and availability of funds, with some citing planning restrictions and tenancy conditions, and one on health grounds. 63% rely mainly on family advice and support for their business decisions,[14] while 45% rely on bank managers, accountants or consultants for this advice and support.

4.3 Farming Experience, History and Labour Use

On average these farmers have been running their business since 1991, and have been on their farm for an average of 29 years (±60%). Although some of the farms have both their own land and also some rented land, the approximate distribution of land tenure over the sample is shown in Figure 20, below.

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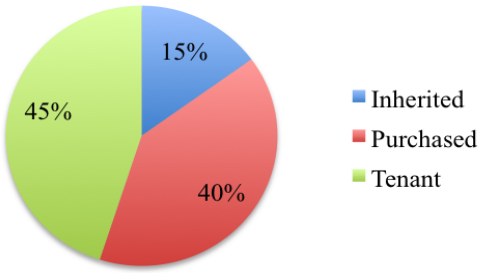
13 Defra have now guaranteed acceptance of all hill farms into the UELS.

14 Of a total of 66 responses, since multiple answers to this question were admitted.

More than half the sample (28 farms) has had their farm for more than one generation, either as an owner occupier or tenant, averaging 2.7 generations of occupancy. One quarter of the sample have added an average of 59ha to their farms in the last 10 years, while 7 (14%) expect to increase their farm area in the next 10 years. Three (6%) expect to reduce the size of their farms.

Figure 20: Land Tenure of the NNP sample

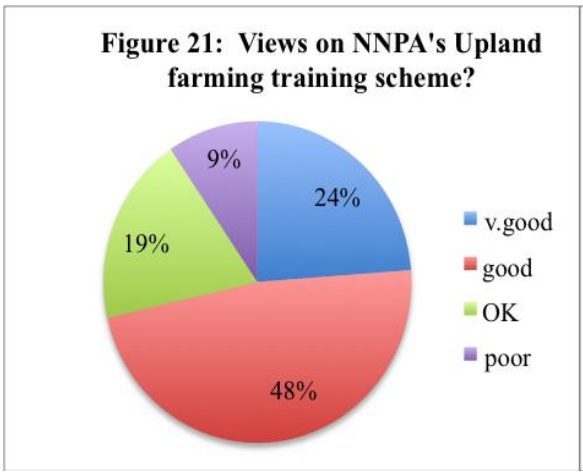


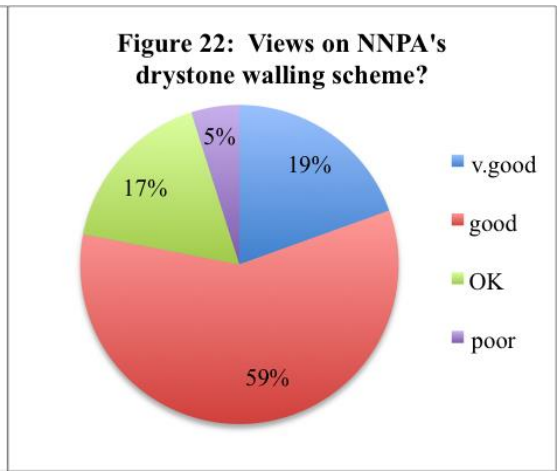
These farms have between 1 and 7 adults (ave. 2.6) and between 0 and 5 children (ave. 2) 'dependent on the farm', with an average of 1.4 full time people employed on/by the farm (including own labour). Almost half (47%) recorded an average of 1.3 part time people on the farm. Less than 5% recorded any seasonal or casual labour. There has been virtually no change in this employment pattern over the last 10 years (only 4 farms recording any change, either up and down). 10% of farms expect to reduce full time labour over the next ten years by an average of 1.2 people per farm, while 18% expect to reduce part-time labour, by an average of 0.7 people. However, 4 farms (8%) expect to increase their seasonal labour (with 1 farm expecting to reduce seasonal labour), and 5 farms expect to change their casual labour employment over the next ten years (2 decreasing, and 3 increasing their requirements).

Approximately two fifths of farm households have an average of 1.5 full time people working off the farm and 30% have an average of 1.3 people working part time off the farm. More than two thirds of the farms have had a household member trained in one of a variety of agricultural skills in the last five years, with nearly third having had 2 such skill training courses, and 14% having three. One third have had a household member trained in one non-agricultural skill, while less than 10% have had two or more such training courses in the last five years. Less than a quarter responded that they needed more training in any particular skill – and those that did mostly felt that they needed financial, IT, accounting and bookkeeping skills. 40% felt that there is a shortage of good staff or contractors for farm related tasks, being predominantly concerned about shepherding skills (18%, lambing, shearing and gathering) or about drystone walling skills (10%).

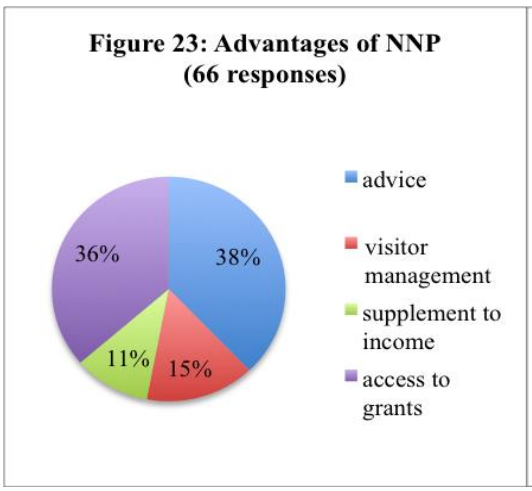
4.4 NNPA Services & Experience in the Park

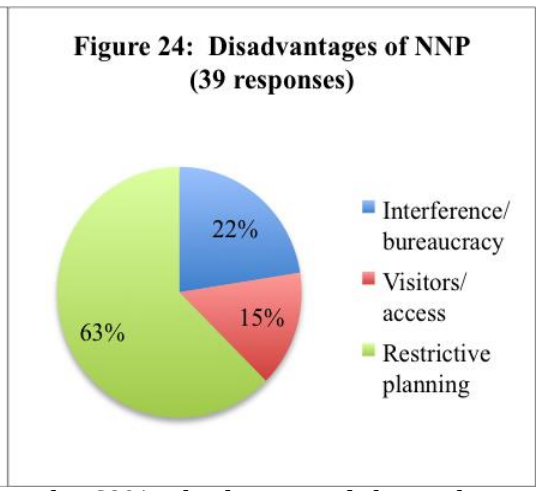
Most respondents were complimentary about the NNPA's training schemes for both Upland Farming and Drystone Walling (Figures 21 and 22 below). However, many respondents commented that there could be a problem in finding trainees of suitable quality for the Upland Farming scheme. 95% agreed that it is important for farmers to help educate the general public about farming and the countryside, and more than 25% reported actual involvement in educational activities either on or off their farms.





Figures 23 and 24 show the responses to the questions about the advantages and disadvantages of farming and living in the Park. The preponderance of responses to the question about the advantages of the Park over those for the disadvantages suggests that on balance farmers think that the advantages outweigh the disadvantages. However, the sample split almost exactly down the middle when asked the question about the balance of advantage over disadvantage (53% responding favourably and 47% unfavourably). Of the 14 farmers (29%) responding to the question of whether their views about the Park had changed over the last 10 years, 6 replied that their views had changed for the better. Others complained about more bureaucracy and a greater 'urban' bias, with more restrictions.





The 69% who have used the Park services tend to rate the quality of the service highly (averaging 1.2 on the scale 1 = excellent, 5 = poor). Of the 51% responding to the invitation to suggest how the farming team's services could be improved, almost all replied that the farming team should definitely be continued if not strengthened, expressing concern about the potential reductions in this service. 55% have used other Park services, and rate them on average as 2.4 on the same scale as above. The Planning service on the whole does not get a favourable reaction, but the Park rangers and volunteers/trainees are viewed very favourably.

These farmers as a group are rather more inclined to consider themselves farmers rather than landscape managers, responding to the question of whether livestock production is the only reason for farming (=1) or whether livestock are simply a tool of landscape management (=10) with an average score of 3.07. 62% returned a score of between 1 and 3 on this scale, but 32% responded with a score of 5 – both aspects are important, with only 4% reporting a score of more than 5.

71% have noticed environmental changes on their farms in the last 10 years, though no particular pattern emerges from their responses. These include both the reduction and increase in farm land birds, river bank erosion and 'wilder/rougher' hills, more ticks, better hill vegetation and more flooding. As already noted, 51% are already signed up to the UELS, with 59% in the Entry Level Stewardship scheme, and 86% in either the HLS or the Countryside Stewardship schemes. 24% expect to join the HLS in the future. 90% of sample responded to the question about the positive aspects of these schemes (with the predominant aspect being 'financial/investment'). 71% identified negative aspects, mentioning grazing restrictions, paperwork, labour reductions and rougher hills. Two noted that the landlord, rather than the tenant, was getting the payments. Less paperwork and fewer (or more sensible) restrictions are the most common suggestions for improvement of these schemes. For advice on applying for these schemes, the sample strongly favours the NNPA (40%) followed by their land agent (29%) with Natural England at 10% and consultants at 13%. A similar pattern applies to sources of advice on these schemes once they are set up – with the NNPA being the most widely used source (35% of responses), followed by land agents at 21%, Natural England (16%) and consultants 12%.

61% would be interested in planting new native woodland, with a preference for mixed (48% of the positives) and native broadleaved (42%) rather than conifers. The factors which determine whether or not they will plant trees are, in priority order: grants available; income from the trees; shelter; environmental improvement. 19 farmers (39%) already have actively managed woodland on their farms, though only 8 manage this themselves, the landlords (or representative) manage the remainder. Of the 24 with coniferous plantations or shelter-belts on their farms, many of those who have control of these assets plan to fell them and re-plant with broadleaved trees.

90% of farmers surveyed have not experienced any impacts from the 'right to roam' legislation. The remaining 10% were mostly concerned about gates being left open, dogs and livestock (especially cattle), and also motorbike usage.

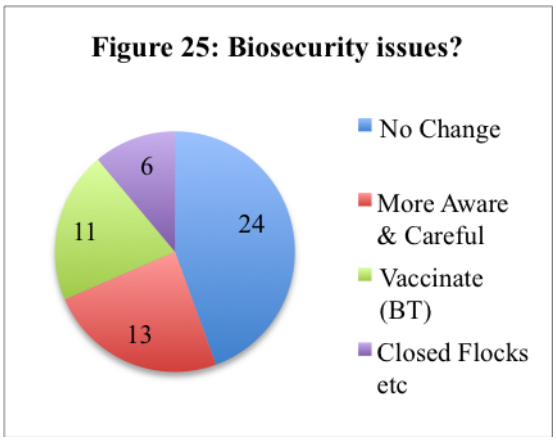
78% report having broadband access (almost entirely through land lines, with only one using a satellite service), and 88% report at least some mobile phone coverage over at least some of their farms (average 62%). Only one in 5 report any crime directly affecting them, mostly thefts of fuel or tools.

4.5 Livestock management

Although the last ten years has seen a number of outbreaks of animal disease, especially the FMD outbreaks, the increase in bio-security measures by the NNP sample has been relatively modest over the last 10 years (Figure 25)[15]. 24 of the 50

[15] Multiple answers were admitted for this question, hence responses sum to more than 50.

farmers report that they have not changed their bio-security practices in the last 10 years. One inference is that these farmers already consider that they are and always have been vigilant over bio-security (as some reported).



Most of the stock (breeding, store and finished) are sold through auction marts, with only a limited proportion of farmers selling through agents or privately, and none reporting that they sell through marketing groups. Although there are no common grazings in the Park, 26% of the farms report that they run their sheep on unfenced hefts (with an average of 75% of their flocks on such unfenced hefts). 35% run their sheep on fenced hefts, with an average of 83% of their flock on such hefts. The extent to which these flocks are regularly raked varies enormously, from twice a day to not at all. Only 15% of the farmers report that their sheep management has changed over the last ten years, mostly because of agri-environment scheme conditions, and mostly to become more extensive.

Although 41% have not changed their parasite control methods over the last ten years, 38% have tended to move away from dips to pour-on practices, citing both the expense and the difficulty of disposing of used dip as the most frequent reasons for the change. Many farmers (30%) are using pour-on prophylactics in combination with dipping. On average dipping is only practiced once a year (as traditionally), while pour-on solutions are used twice a year. The introduction of sheep EID is practically universally regarded as a waste of time, money and effort, with only 3 farmers (8%) expressing any favourable impressions of the scheme.

Almost 80% of farmers house at least some of their stock, especially during the winter for cattle and lambing for sheep. 17 farmers have changed their housing policy in the last ten years towards more winter housing, although 12 farmers (31%) report that they have not changed their practice over this period. About half do not expect any further changes in housing practice in the foreseeable future, but 15% (6 farms) do expect to change towards more housing in the future, mostly associated with moves towards younger herds, more finishing and, less frequently, changing breeds.

Only 2 farmers (5%) say they are using more fertiliser now than 10 years ago, versus 56% who either have not changed their fertiliser use or are now using less. Of the 7 farmers responding to the question of how fertiliser practice might change in the future, all responded that they will probably use less.

4.6 Farm Diversification

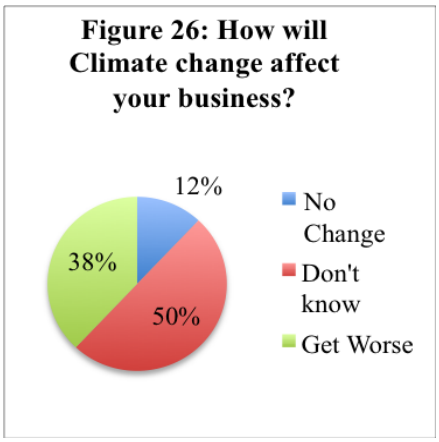
Thirteen farms have started diversified enterprises during the last 10 years (two thirds of which were B&B or holiday cottages, and 3 starting sporting activities). One in five have expanded existing diversified activities in the last ten years, where contracting predominates (5 of the 8 farms reporting expansion). Only 5 (13%) say they expect to start (or stop) any of these activities in the next ten years, with almost half (46%) saying no to this question.

Appendix 1, Table A1, reports the responses to questions about the proportions of family income derived from different sources, in the past, now and expected in the future. The picture is complex, of course, since all farm households are different in their own ways. Nevertheless, the proportion of income earned from farming is high at 70%+, in the past, now and expected in the future.

Not surprisingly, the responses to these rather personal questions are incomplete (the "No." column in Table A1, which reports the number of responses in this line), and it is difficult to see any clear pattern in the responses. There has been some increase in the share of income derived from diversification in the last ten years, from an average of 28% to an average of 42% for those farms recording shares under these headings, with an increase in the number of farms reporting such income sources from 5 to 11. However, this average share is expected to fall again to 30% in the next ten years and with a fall in the number expecting such income in the future to 7. On the other hand, there seems to be some tendency amongst this sample for off-farm income to be of declining importance – 16 farms reporting that this source accounted for 50% of their income in 2000, while only 7 expect this source to be important (at 41% of their income) by 2020.

4.7 Hopes and Expectations for the Future

4.7.1 Climate Change and Energy Conservation/Alternatives



As Figure 26 shows, half these farmers do not know what effects climate change will have, and more than a third expect that the effects will be for the worse. Few have any ideas about how to adapt to climate change as it happens (65% saying they don't know or don't have any idea). Of the remainder, the most common suggestion is for more winter housing of stock.

53% (26 farms) would be willing to help the NNPA monitor climate change and 10 would be interested in having a carbon audit/footprint of their farm. 7 have already had such an audit done on their farm. 76% have taken some actions to reduce energy consumption and/or make their use more efficient, with the most common measures being insulation, double glazing, low energy light bulbs and a few with wood burning stoves. 5 have wind turbines (average 2.6 kW), and 5 have solar panels for electricity (average 1.2kW). There are also examples of ground source heat pumps (10kW), solar thermal units (5kW) and biomass boilers (17kW).

4.7.2 Succession, Business Aims and Future Options.

Of the 50 farmers, 38 responded that they are hopeful of family succession to their business and way of life. When asked how likely it is that their farm would pass on to a family successor (on a scale of 1 to 5), 27 (58%) responded that this is at least probable, and none answered that their farm would definitely not be passed on (Figure 27). Of the 'not sure's', most think that it is likely that the farm will be sold,

amalgamated, taken in hand or re-let when they retire. We asked these farmers to sum up their aims for their farm businesses over the next five years. Their responses can be summarised under 6 major headings, as shown in Figure 28. Most of these farms are seeking to "survive" ('keep going', 'stay the same' 'continue as now'), rather than expand. Both figures 27 and 28 paint a picture of rather typical and traditional family farms in the National Park.

Figure 27: How likely is family succession?

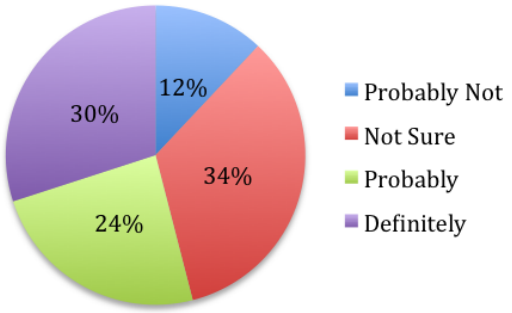
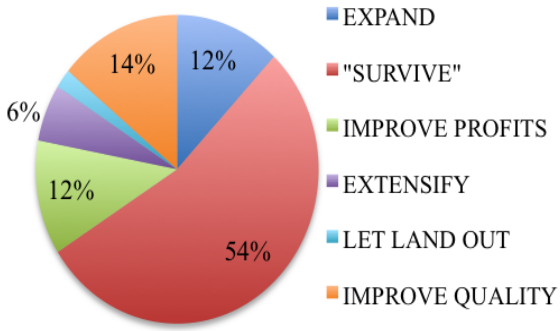
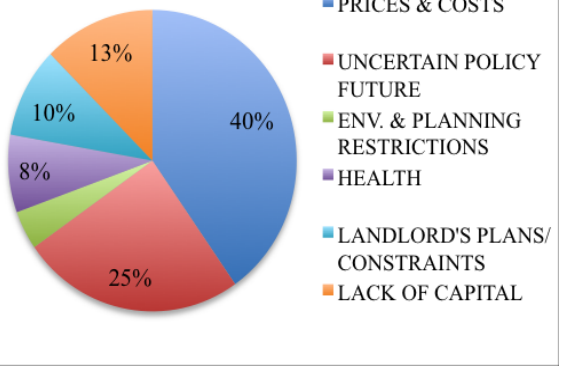


Figure 28: Aims of Farm Business?



Similarly, Figure 29 summarises the responses to a question asking what posed the biggest threats to their future plans. The most commonly articulated threats to their continued existence and survival are future output prices and input costs. Policy uncertainty, including the continuation and levels of the SFP and environmental payments, comes a strong second as a threat to these farms. The remaining threats include 'environmentalists' and planning restrictions, health, landlord's plans and constraints and lack of capital or non-farm income.

Figure 29: Threats to future plans? (72 responses)



The response to potential future policy scenarios confirms the impression that these farms' principle objective is survival. We posed three hypothetical and highly stylised future policy options and asked what would be their most likely response to each option. In each case, more than one response was permitted, and the following figures summarise all the responses, though most participants offered only one response.

Option 1 (Figure 30) was defined as: a reduction of SFP by 30%; no change in the current Agri-Environment schemes; an increase in Rural Development schemes (Pillar 2, Axes 1 and 3) of 20%. Figure 30 shows the responses to this option, with the majority struggling on (the light blue segment), and only 1 in 5 considering reducing or stopping farming altogether (the amber segment).

Options 2 (Figure 31) and 3 (Figure 32) represent successively tougher future policy conditions. As the policy scenarios become tougher for present farming systems and their traditional levels of support, so more farmers are likely to give up trying (Figures

31 and 32, amber segments) and find something else to do. Reflecting the perceived severity of the successive policy options, the proportion of the sample willing to go on trying to survive (light blue segments) shrinks from 3 in 5 (Figure 30, Option 1) to only just over 1 in 4 (Figure 32, Option 3)

These responses have been categorised from free-form unscripted responses to the invitation to speculate on their responses to these stylised policy options – expressed as perhaps extreme caricatures of the three options for reform outlined by the European Commission in their November communication to the Council and European Parliament. Multidimensional responses are included – so that extensification coupled with more off-farm income and struggling on are all counted in these figures. It is clear from the responses that the policy options outlined here (with the implicit presumption that market prices and costs would be independent of these changes) that the scope for survival becomes progressively smaller as the traditional support (SFP) is withdrawn.

As and when this traditional support is reduced, it seems possible that the strong family traditions being exhibited by these farm families (their traditional family farm structure and strong sense of succession) will be heavily tested. Who might take over their farms if these rather restrictive policy options do come to pass, and these farmers really do give up and find something else to do? This survey, of course, cannot answer that question. But if and when significant changes in land ownership and management do take place in the Park, then it is

Figure 30: Option 1: SFP - 30%; AE payments, no change: RD +20%

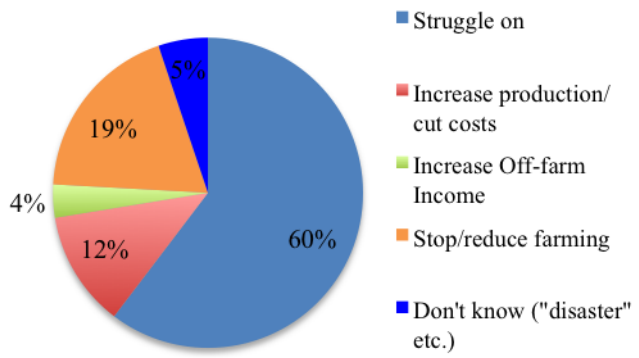


Figure 31: Option 2: SFP -60%; AE Payments +10%; RD +20%

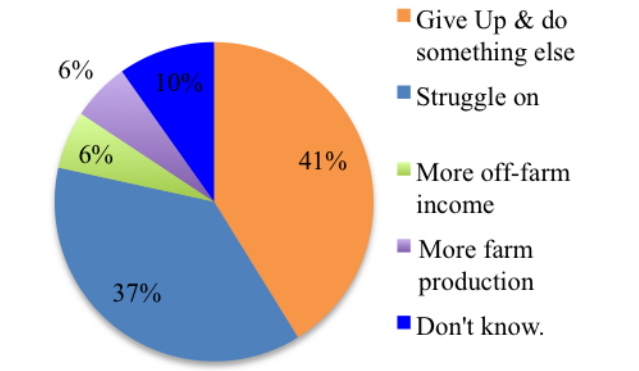
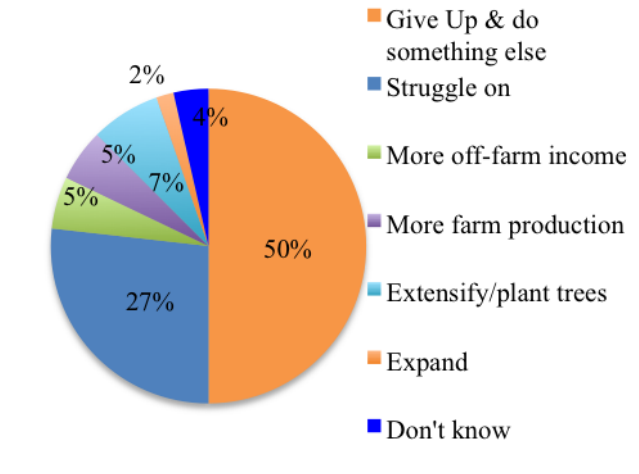


Figure 32: Option 3: No SFP; AE up 20%; RD up 20%



likely that responses and behaviours affecting the landscape and environment will also change.

5. Conclusions and Comparisons

In comparison with the results of the NNP survey of 1999/2000, this survey shows remarkable stability. By and large the farming structure and pattern has not changed dramatically over the last decade, other than a reduction in stock levels and an increase in environmental payments and activities. Farm gate prices have risen sufficiently to offset the decline in stock numbers, albeit continually challenged by rises in farm costs.

Farmers seem slightly less convinced of the overall balance of advantage to farming within the Park (rather than outside) than in 2000, but are generally more impressed with the farming service provided by the NNPA. In contrast to the 2000 findings, farmers' views of the NNPA have generally improved over the last ten years.

As in 2000, most continue to hope for a family successor, and seem now to be rather more optimistic about these chances than in 2000.

The 2000 report ended with a question about whether the 2001 FMD crisis and aftermath might trigger a more dramatic change in this farming community "that has been surprisingly resilient to its changing fortunes over the last three decades". It appears that it will take rather more than a dramatic, but temporary, crisis to seriously threaten these farmers demonstrated capacity to survive and persist. In fact, as far as these farms are concerned, the FMD movement ban in 2007 turned out to be substantially more damaging than the 2001 crisis.

Despite farmer perception, there is room to wonder if even a substantial fall in traditional subsidy income would be sufficient to undermine many of these farmers' demonstrated capacity for surviving. Resilience is a major strand of sustainability, and these farmers continue to demonstrate resilience in spades. The question remains as to what effect this has on their personal and family well being and the health of the farming community.

Appendix 1.

Table A1: Relative importance of income source.	**% of household income**		
Income Source:	***No.***	***2000%***	**C. of Var.**
On-farm (agricultural production)	*37*	*75*	40%
On-farm diversification activities not counted earlier	*3*	*10*	50%
Off-farm diversification not counted earlier	*2*	*18*	20%
Off-farm employment	*16*	*50*	69%
Off-farm private income, e.g. child benefit, tax credits, keep	*8*	*10*	53%
Off-farm private income, e.g. pensions, savings	*7*	*53*	66%
Total	*49*	*100*	
		2010 %	
On-farm (agricultural production)	*39*	*72*	43%
On-farm diversification activities not counted earlier	*9*	*24*	102%
Off-farm diversification not counted earlier	*2*	*18*	101%
Off-farm employment	*13*	*51*	56%
Off-farm private income, e.g. child benefit, tax credits, keep	*9*	*11*	44%
Off-farm private income, e.g. pensions, savings	*10*	*40*	88%
Total	*49*	*100*	
		2020 %	
On-farm (agricultural production)	*29*	*75*	38%
On-farm diversification activities not counted earlier	*6*	*20*	69%
Off-farm diversification not counted earlier	*1*	*10*	
Off-farm employment	*7*	*43*	76%
Off-farm private income, e.g. child benefit, tax credits, keep	*3*	*15*	58%
Off-farm private income, e.g. pensions, savings	*9*	*40*	76%
Total	*49*	*100*	