Arsyllfa **Wledig** Cymru
Wales **Rural** Observatory

AN ANALYSIS OF THE SOCIO-ECONOMIC IMPACT OF CAP REFORMS ON RURAL WALES
PHASE 6 REPORT
CONCLUSIONS AND POLICY RECOMMENDATIONS

2013

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Section 1 Introduction and Context

FINAL REPORT ON THE RESEARCH PROJECT:

AN ANALYSIS OF THE SOCIO-ECONOMIC IMPACT OF CAP REFORM ON RURAL WALES

PHASE SIX – THEMES AND IMPLICATIONS FOR WELSH GOVERNMENT POLICIES AND INTERVENTIONS

1.1 The overall project

This is the final report on a multi-phase research project commissioned by the Welsh Government [WG]. The research project had the following aims:

1. To explore how farmers might react to changes in their CAP payment.

2. Consider how farmers' reactions might impact on:

- support businesses
- the food processing and retail sectors
- the wider rural economy and society.

3. To identify what these changes might mean for Welsh Government policies and interventions.

4. To inform the Welsh Government's work to develop a new Rural Development Plan for Wales for 2014-20.

The project had five research phases and a conclusion phase. These phases are outlined following this description of project objectives. In undertaking the five research phases the project also explored two cross-cutting themes:

a. To identify what support farm businesses may need in terms of training, business advice and succession planning (and what this may mean for current Welsh Government intervention like Farming Connect).
b. To consider how planning control and housing supply may influence the responses and impacts of farm households, the farm support and food industries and wider rural society.

Outcomes from these phases are captured in three separate reports: the Report on Phases One and Two, the Report on Phases Three, Four and Five, and this Final Report. It should be noted that, while the reports stand-alone, taken together they form an integrated whole. To provide context the contents of the reports are outlined below.

1.2 Outline of the Report on Phases One and Two

This report analyzed and integrated the Welsh Government Income Analysis (Phase One) and the results of a survey of 3,000 farming households in Wales (Phase Two). The report also provided a more detailed exposition of the context and rationale for the overall research project.

Phase One, and the project's starting point, was the financial modelling work undertaken by the Welsh Government's Knowledge and Analytical Services team, which set out the cash impact of predicted changes to CAP. These data were used to examine what difference these changes would make to farm household incomes. Specific attention was paid to geographic and farm sector impacts; the size of specific impacts; and the identification of geographical clusters.

Phase Two addressed how farming households planned to respond to the changes. This was inferred from a survey of farming households. There were two elements to this survey. First, there was a main survey of 2,400 households across Wales stratified at three, priority levels:

- Priority 1: five categories of economic farm size, with a quota in each category
- Priority 2: five categories of farm type, with a quota in each category
- Priority 3: seven agricultural regions, with a quota in each category

This was a random survey of farming households in Wales; consequently the results were able to be generalized across Wales.

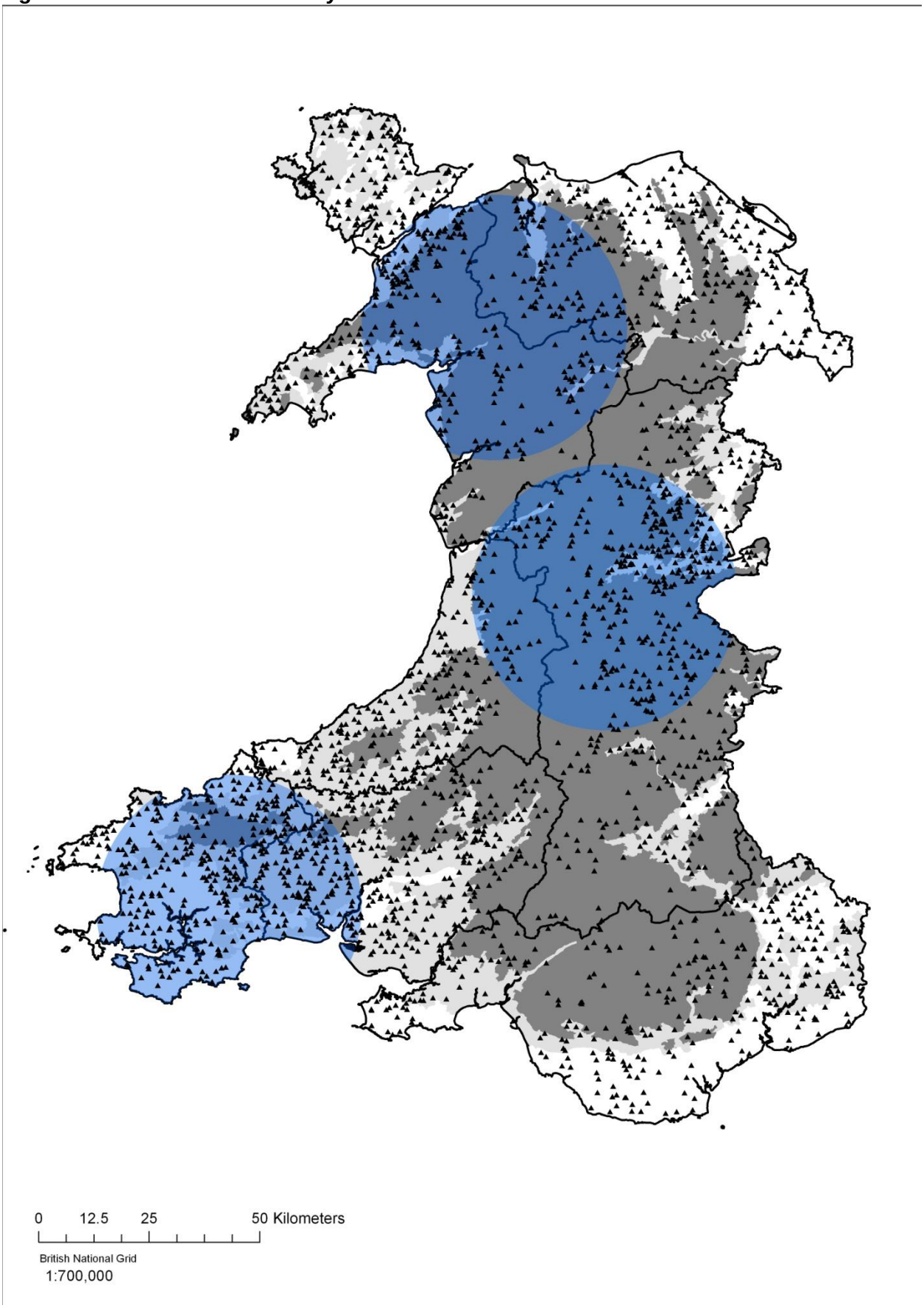
Second, from an analysis of the main survey data, three geographical areas were selected for over-sampling. The three areas selected were drawn at a radius of 30km around these settlements:

- Narbeth in the south-west – predominantly dairy farming
- Blaenau Ffestiniog in the north-west – predominantly hill-farming on SDA and DA land
- Llanidloes in mid-Wales – mixed farming

These three surveys, aggregating the over-sampled interviews and the in-area components from the main survey, constituted a random survey of farms in each area. Thus, the results were able to be generalized within each area. Full details of the survey methods are in the report.

Figure 1.1 shows the three geographical areas and the distribution of the survey interviews in both the three areas and across Wales.

Figure 1.1: Distribution of survey interviews



The survey analysis sought to identify what changes, if any, farming households might make following CAP reform. For example, whether farm households would change their farming practice, expand or contract, leave farming, diversify their farming, or seek alternative or supplementary employment off the farm. Further, where changes to current practice were predicted by the analysis, attempts were made to quantify how farm commodity production and farm employment would be affected. In the report, the Phase Two survey analysis was integrated with the Phase One Welsh Government income analysis.

In addition, the survey data analysis of the three geographical areas provided the basis for the follow-on interviews with farmers – see below in the 'Report on Phases Three, Four and Five'.

1.3 Report on Phases Three, Four and Five

These phases of research explored the potential impacts of CAP reform on rural society and economy. The methods used for Phases Three, Four and Five followed-on from those employed for Phase Two and were based on in-depth interviews with farmers. As mentioned above, these interviews were identified from the survey analysis. The target number of interviews in each geographical area was 10, but in the event nine interviews were conducted in the Llanidloes, Mid-Wales area, 11 in the Blaineau Ffestiniog, North-west Wales area, and 10 in the Narbeth, South-west Wales area, which met the total target of 30 interviews.

It should be noted that for Phases 3, 4 and 5 it was originally envisaged that there would be a series of interviews with representatives of the food-processing and retails sectors. However, arranging these interviews proved to be problematic. Methodologically, the identification of potential interviewees was achieved by 'snowballing'. That is, the names of retailers and service providers where farmers bought, and the food-processors and markets that they sold to, were obtained during the in-depth farm interviews. This pool of potential interviewees was augmented by internet searches. But when it came to arranging interviews there was a widespread and almost total lack of cooperation. WRO researchers spent many hours trying to arrange interviews, to be rebuffed by evasions and outright refusals. For example, in one case a WRO researcher contacted a processor by telephone and was put-through to the appropriate person. First, there was a lengthy, and understandable, interrogation to establish the researcher's credentials and the context of the research project. Then, the researcher offered either a telephone interview, at a time to suit the potential interviewee, or a face-to face interview, again at a time and place to suit the interviewee. The interviewee stated that 'for something like this, I would insist on a face-to-face interview', and asked the researcher to send an e-mail, making a formal request and suggesting some possible dates during the following week. It was also stated by the processor representative that the e-mail would serve as a further 'check' on the researcher's authenticity. The e-mail was duly sent. After some days without reply, the researcher telephoned again to be told by a secretary that 'he will be away for some weeks and he says that he will not have the time anyway'. And 'no – there was not anyone else willing or able to provide an interview'. While this was an extremely vexing example, there were several cases where researchers were asked to ring back or e-mail only to be informed by secretaries that the potential interviewee had decided not to provide an interview. In the event, only one interview, with a business that operated livestock markets in south-west Wales was secured

and this data is integrated with the other interview data in the reports. Following discussions with the Welsh Government, and taking into account the timeline for the overall research project, it was decided not to further pursue this line of exploration but to infer from the data already obtained from farmers, which covers a great deal of this exploration. Farmers were important, and probably the most prominent, constituents of the communities being studied and major contributors to the local economies associated with those communities. In addition, any impacts on the food-processing and retail sectors that might occur due to potential CAP-induced changes to farming household incomes could, to a certain extent, be inferred from the responses to the buying and selling questions in the survey and interview data.

1.4 Final Report: themes and implications for Welsh Government policies and interventions

This final report, as the concluding phase of the project, draws together common and important themes from the five research phases and assesses their implications for Welsh Government policy and interventions. The report considers what forecast changes and responses in totality mean for rural Wales and estimate to what degree, and why, they matter or not.

The structure of this Final report is as follows:

Section 1 Introduction and Context

Section 2 Addressing Project Aims and Objectives

Section 3 Emerging Themes

Section 4 Conclusions and Policy Implications

Section 2 Addressing Project Aims and Objectives

2.1 Project Aims and Objectives

As described in the opening paragraph the project had four aims:

1. To explore how farmers might react to changes in their CAP payment.

2. Consider how farmers' reactions might impact on:

- support businesses
- the food processing and retail sectors
- the wider rural economy and society.

3. To identify what these changes might mean for Welsh Government policies and interventions.

4. To inform the Welsh Government's work to develop a new Rural Development Plan for Wales for 2014-20.

From these aims, the following Objectives were formulated in the Project Specification:

1. To examine the impact of likely CAP changes on farm incomes.
2. To forecast how farms might respond to change in their income.
3. To consider how changes might impact on society and the economy in rural Wales.

The Report on Phases One and Two below addressed Objectives 1 and 2, while the Report on Phases Three, Four and Five, in addition to addressing Objective 3, provided deeper insights concerning Objectives 1 and 2.

2.2. Objective One - To examine the impact of likely CAP changes on farm incomes

Key findings from the Welsh Government income analysis addressed Objective 1. While not wishing to reproduce the entire Report on Phases One and Two, it is useful to show some of the analysis and calculations, which are the basis for the key findings. In the concise description that follows, Table and Figure numbers from the Report on Phases One and Two are shown in parenthesis.

The analysis calculated, using year 2010 data, the average (arithmetic mean) of CAP subsidy payments to farms in Wales (i.e. historical entitlements) and explored how these payments might be redistributed under a flat rate payment system. In 2010 the total area claimed was just over 1.3 million hectares and the available funding was just under €331 million. Holding both the available funding and the total area claimed as constants, dividing the funding available by the total area claimed gave a flat rate payment of just under €248 per hectare. In the analysis this was approximated at €250 per hectare. Further analysis showed that in 2010 a large number of farms received small amounts of subsidy and a small number of farms received large payments. In aggregate, less than 30 per cent of the total number of farms received approximately 70 per cent of the total payments; a distribution that approached Pareto's 80:20 rule.

Table 2.1 (Table 3.2) shows these data by constructing 'entitlement bands'.

Table 2.1 Distribution of farms and entitlement by entitlement received in 2010

Entitlement band	Number of farms	Entitlement (€x000)	Proportion of total farms	Share of total entitlement
Less than €1,000	1,533	877	9%	0%
€1,000 - €4,999	3,751	9,994	23%	3%
€5,000 - €9,999	2,341	17,198	14%	5%
€10,000 - €24,999	4,175	69,905	25%	21%
€25,000 - €49,999	3,009	105,655	18%	32%
At least €50,000	1,572	126,974	10%	38%
All farms	16,381	330,603	100%	100%

These data are illustrated graphically at Figure 2.1 (Figure 3.1).

Figure 2.1 Distribution of farms and entitlement by entitlement received in 2010

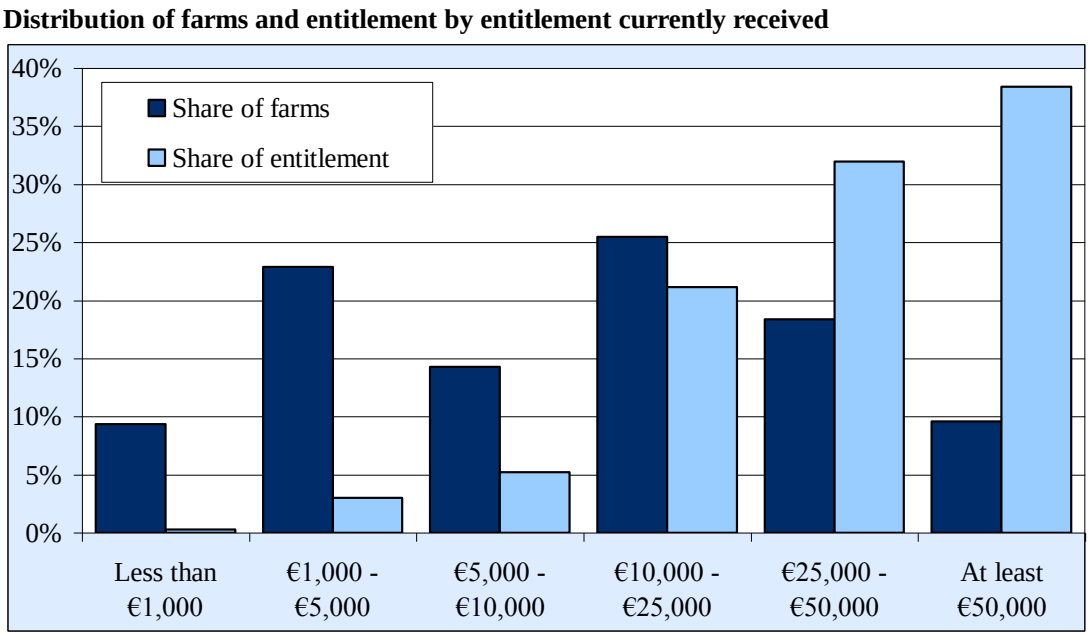


Table 2.2 (Table 3.3) shows the historical entitlement per hectare. Arbitrary bands were constructed around the calculated mean of €250 per hectare.

Table 2.2 Proportion of farms and historical entitlement by historical entitlement per hectare

Entitlement per hectare	Number of farms	Entitlement (€x000)	Proportion of total farms	Share of total entitlement
Under €100	1,867	9,869	11%	3%
€100 – €149	2,042	20,927	13%	6%
€150 –€199	2,597	35,890	16%	11%
€200 – €249	2,817	50,005	17%	15%
€250 – €299	2,510	57,453	15%	17%
€300 – €349	1,791	49,955	11%	15%
€350 – €399	1,085	38,136	7%	12%
At least €400	1,672	68,369	10%	21%
All farms	16,381	330,604	100%	100%

The table shows that 57 per cent of farms received less than the calculated mean of €250 per hectare.

By applying the flat rate per hectare calculated from the total entitlement and total land claimed to the area of land claimed per farm the payments per farm under the flat rate system were calculated. Table 2.3 (Table 3.4) shows the relative changes in payment.

Table 2.3 Relative change in the distribution of payments

Change from historic to flat rate	Number of farms	Entitlement (€x000)	Proportion of total farms	Share of total entitlement
Loss of at least 50%	724	30,335	4%	9%
Loss 30% - 49%	1,922	72,583	12%	22%
Loss 10% - 29%	3,073	81,651	19%	25%
Within 10%	2,720	54,800	17%	17%
Gain 10% - 29%	1,961	32,663	12%	10%
Gain 30% - 50%	1,353	19.136	8%	6%
Gain of over 50%	4,628	39,434	28%	12%
All farms	16,381	330,604	100%	100%

Analysis by farm size (in terms of economic output rather than land area) [1] and farm type showed that in 2010 the "larger" farm types had the majority of their farms receiving more than €250 per hectare. Thus under a flat rate system with a payment of just under €250 per hectare these farms would have a reduced subsidy payment. Moreover, the larger dairy

[1] Economic Size Unit (ESU) farm size categories are: very small, small, medium, large and very large. As explained in the Report on Phases One and Two, the Welsh Government Income analysis used a hybrid typology that combined ESU values and dominant farm activity.

farms had the largest share of farms receiving over €250 per hectare (83 per cent). Nearly 70 per cent of the larger dairy farms received more than €300 per hectare. That is, under the flat rate system, they would be losing at least €50 per hectare. Almost half (49 per cent) of the large dairy farms would lose at least 30 per cent of their current entitlement following the change to flat rate payments. Dairy farms tended to have relatively large historic entitlements, while the very small farms tended to have smaller entitlements. By contrast just under 50 per cent of the small sheep farms would gain at least €50 per hectare under the flat rate scheme. The biggest relative gainers would be the very small farms where in 2010 almost 60 per cent of the farmers received under €200 per hectare. While this summary analysis tends to focus on the extremes of large dairy farms and very small farms, it is important point to note all farm types were identified as being subject to potential change and that a change to flat rate area payments would affect all agricultural sectors. Put broadly, in cash terms, a large number of small farms would gain small amounts of money, which would be paid for by a small number of large farms, which would each lose larger amounts of money.

In summary, the key findings from the Welsh Government income analysis that addressed Objective 1 - To examine the impact of likely CAP changes on farm incomes – are shown below:

- All of the “larger” farm types (in terms of output) had the majority of their farms currently receiving more than €250 per hectare. Thus under a flat rate system with a payment of just under €250 per hectare these farms would receive a reduced subsidy payment.
- Dairy farms generally would receive significantly less funding under flat rate payment than their historical entitlement.
- The larger dairy farms had the largest share of farms receiving over €250 per hectare (just over 80 per cent). Nearly 70 per cent of the larger dairy farms received more than €300 per hectare. That is, under the flat rate system, they would be losing at least €50 per hectare.
- By contrast just under half of the small sheep farms would gain at least €50 per hectare under the flat rate scheme. The biggest relative gainers would be the very small farms where almost 60 percent of the farmers received under €200 per hectare.
- There was a large amount of variation around the trends. There are dairy farms that would gain under the changes and small farms that would lose.
- In cash terms a large number of small farms would gain small amounts of money, which would be paid for by a small number of large farms that would each lose larger amounts of money.

An implication of these key points is that under area-based payments, not only would dairy farms potentially receive reduced CAP payments but farms with larger areas would potentially receive increased CAP payments. Thus, any move towards area-based payments, as predicted for the CAP reforms, would tend to favour the more extensive, in terms of area, hill farms. This analysis supports broadly the hypotheses that (i) dairy farms would receive decreased CAP payments and (ii) hill farms would receive increased CAP payments.

2.3 Objective Two - To forecast how farms might respond to change in their income

In order to address Objective Two the Report on Phases One and Two integrated findings from the Welsh Government Income Analysis and from the survey of farming households. Before exploring farmers' reactions to potential changes in SFP it was necessary to ascertain how aware farmers were of the potential changes.

The survey showed that while CAP reform was the single most important concern for farmers, with 31 per cent of farmers ranking it the most important, only 60 per cent were aware of the potential reforms. Table 2.4 (Table 4.3) shows these data.

Table 2.4 Awareness of the proposed post-2013 CAP reforms – WRO survey

	Number of farms	Proportion
Yes	1,437	60%
No	956	40%
Refused	9	
All farms in survey	2,402	100%

From the survey, 84 per cent (2,015 farms) indicated that they received SFP. Cross-tabulations show that 1308 i.e. 65 per cent (1,308/2,015) of farms in receipt of SFP were aware of the CAP reforms. At 60 per cent of the total survey population and 65 per cent of farmers in receipt of SFP the proportions of farmers aware of the proposed CAP reforms appeared to be rather low in both cases.

Table 2.5 (Table 4.9) shows, for the 84 per cent of farmers who were aware of CAP reform, how aware they were of the specific details of reform.

Table 2.5 Awareness of specific details of the proposed post-2013 CAP reforms

Change to area-based payments	Greening measures	Capping payments	Emphasis on young farmers
85%	67%	74%	73%

In terms of sources of information, approaching 19 per cent of the survey had obtained information about CAP reform from the farming press, the media, TV and the Internet. The figures for the Welsh Government and the NFU were 15 per cent and 12 per cent respectively. While there was the potential for overlap and ambiguity in both the sources and the responses, these data indicated a trend away from traditional paper-based sources of information.

Breakdowns of the awareness of the various aspects of CAP reform by farm type, farm size, age of farmer and tenure are available in Section Four of the Report on Phases One and Two.

Those 1,437 farmers who were aware of CAP reform were then asked how they expected their payments to change. Table 2.6 (Table 4.12) shows these responses, with an additional

column that shows the changes predicted by the Welsh Government Income analysis, which are shown at Table 2.3.

Table 2.6 Expectation of change in CAP-related payments post 2013 CAP reform

Expectation of change	Number of farms	Proportion	Predicted change from Table 2.3
Increase	142	10%	48%
Decrease	863	60%	35%
Stay the same	239	17%	17%
Don't know	172	12%	
Refused	21	1%	
Farms aware of CAP reform	1,437	100%	

The salient point from the table is the small proportion (ten per cent) of farmers who expected an increase in payments, which contrasts with the proportions of change predicted by the Welsh Government Income analysis. In general, then, farmers were unduly pessimistic and expected their CAP payments to decrease. Few expected an increase.

The breakdown analyses in the Report on Phases One and Two suggested that larger dairy farms, who might lose subsidy, were more focused on agricultural production, less dependent on SFP, performed well economically, possessed greater business awareness, and were more realistic and better informed about CAP reform, compared with both the smaller types of farm and sheep and cattle farms, many of whom, especially hill farms, might receive increased SFP. Indeed, the geographic analyses tended to support these hypotheses. To a certain extent farmers in the North-west Wales area, where there were more hill farms, appeared to be aware of their potential gains, as they were the least pessimistic of the three areas: in the South-West Wales area 64 per cent expected a decrease in payments; in the Mid-Wales area the figure was 69 per cent; but in the NW a relatively low 55 per cent expected a decrease in CAP payments.

More broadly, these 'expectation' analyses highlighted a certain degree of uncertainty concerning how the proposed changes to CAP payments might affect farms. This uncertainty was indicated by the undue pessimism and by the relatively high proportions of farmers who did not know what changes to their payments they might expect.

Addressing 'Objective Two - To forecast how farms might respond to change in their income' all 2,402 participants in the main survey were given scenarios for payment change and asked how they would respond to each in turn. The scenarios were:

Payments increase by less than 20 per cent

Payments increase by more than 20 per cent

Payments decrease by less than 20 per cent

Payments decrease by more than 20 per cent

Table 2.7 (Table 4.22) tabulates the responses. Note that participants were allowed more than one response. Also, some categories had low counts and in order to capture these responses, percentages, in this table, are not rounded to whole numbers.

Table 2.7 Farmers' responses to hypothetical scenarios of payment change

	Decrease by more than 20%	Decrease by less 20%	Increase by less 20%	Increase by more than 20%
	%	%	%	%
Business as usual	34.0	52.2	64.3	51.4
Leave farming	20.1	7.0	1.0	0.6
Increase scale of existing agricultural operations	2.2	2.1	5.0	9.0
Reduce scale of existing agricultural operations	8.5	7.6	0.8	0.8
Buy new farm equipment	0.2	0.3	5.0	10.2
Seek more land	0.4	0.4	4.3	9.3
Intensify existing agricultural operations	3.2	3.4	2.4	3.7
Build more farm buildings	0.2	0.2	4.0	7.8
Reduce intensity of existing agricultural operations	5.3	5.5	0.7	0.6
Start new diversification activities	2.8	2.8	1.8	3.5
Give up land	3.5	1.9	0.5	0.3
Expand existing diversification	1.9	1.5	0.9	1.2
Change my type of farming	2.0	1.5	0.5	0.6
Buy more farm inputs and services locally – within 25 miles	0.1	0.2	1.3	2.0
Reduce diversification activities	0.8	0.8	0.1	0.1
Sell more farm products and services locally – within 25 miles	0.3	0.4	0.2	0.2
Buy more farm inputs and services from outside the local area	0.0	0.1	0.3	0.3
Sell more farm products and services outside the local area	0.2	0.1	0.0	0.0

Survey participants also offered other responses. In the cases of decreases, among these other responses were ideas to cut costs and find efficiencies, reduce staffing levels, and take on more off- farm work and alternative non-farming employment. For increases in payments, other responses included ideas to improve the business in terms of better quality livestock and equipment, to invest and grow the business, to employ more staff, to pay-off debts, and to focus on environmental and conservation issues. For all four scenarios the proportions of 'Don't know and refused' was between 13 per cent and 16 per cent of participants.

From Table 2.7 it is clear that while there was a range of responses to 'how farms might respond to change in their income' (Objective 2), the predominant response was to continue with 'business as usual'. The findings concerning 'business as usual' revealed an innate conservatism manifested in a strong apparent desire among farmers to continue business as

usual regardless of the potential financial ramifications of CAP reform, although off-farm income appeared also to be a factor. As some of the other responses indicated, farmers might alter the intensity of their farming, depending on the scale of potential changes in SFP, but not its nature. However, there must be questions about how realistic these plans were in view of the income and profit and loss data from the Welsh Government Income analysis, which showed, for example, that less than half (46 per cent) of farm businesses made a profit, without subsidies and the income from diversified activities. Table 2.8 (Table 4.31) shows the profit and loss data for those 546 farms that intended to continue with 'business as usual' under all of the 'increase' and 'decrease' scenarios: i.e. under any circumstances.

Table 2.8 Profit and Loss – farms opting for Business as Usual [BAU] for all scenarios

Farms opting for BAU	Profit	Break-even	Loss	Don't know	Refused
546	282	99	141	2	22
100%	52%	18%	26%	0%	4%

Similarly to the overall figures, the proportion of farms opting for 'business as usual' that made a profit was around 50 per cent. Although greater proportions of the 'business as usual' subset made a profit than the across the whole survey (52 per cent compared with 46 per cent), this figure still suggests a less than realistic outlook, particularly when more than a quarter (26 per cent) of farms opting for 'business as usual' made a loss. The apparent conservatism appeared to extend to the buying and selling of inputs and produce, with extremely low proportions planning to buy or sell more locally.

To leave farming was the second most dominant response. The proportion of respondents who would leave farming increased sharply with the scale of potential decrease in CAP payments. Faced with a decrease of less than 20 per cent, seven per cent would leave farming but with a larger decrease in excess of 20 per cent, slightly more than 20 per cent of farmers would leave the industry. In total, 497 farmers would leave farming if faced with either of the scenarios for a decrease in CAP payments. These were relatively high proportions of potential 'leavers'. The responses to the change scenarios, which addressed directly Objective Two of the research project- 'To forecast how farms might respond to change in their income', contained potential implications for Welsh Government policy in terms of the resilience and sustainability of the Welsh farming industry.

2.4 Objective Three - To consider how changes might impact on society and the economy in rural Wales

In addition to addressing Objective Two, questions in the survey of farming households addressed elements of Objective Three - To consider how changes might impact on society and the economy in rural Wales. The aspects that these questions were concerned with were: farming partnerships, farm labour and the buying and selling behaviour of farming households.

2.4.1 Farming Partnerships

The large majority of farms involved just one household in the partnership. Table 2.9 (Table 4.43) shows the breakdown of households involved in partnerships by farm size.

Table 2.9 Households in partnership by farm size

			Proportion of WG Farm sizes with 'N' number of households				
Number of Households in partnership 'N'	**Overall Count**	**Overall proportion**	**Very large**	**Large**	**Medium**	**Small**	**Very small**
		%	%	%	%	%	%
1	1895	79	45	46	60	79	89
2	414	17	35	43	34	18	10
3	69	3	16	9	6	2	1
4	12	1	2	1	0	1	0
5	7	0	2	1	0	0	0
DK/Refused	5	0	0	0	0	0	0
Total	2,402	100	100	100	100	100	100

The table shows that while the large majority of farm partnerships (79 per cent) involved one family, there was a significant proportion (17 per cent) that involved two families, and smaller proportions of three, four and five family partnerships. Breaking down the data by farm size, the large majority of medium, small and very small farms partnerships involved one or two families but very large and large farms had relatively large proportions of partnerships that involved two and three families.

2.4.2 Farm Labour

Turning to the composition of the farming labour force, Tables 2.10 (Table 4.44), Table 2.11 (Table 4.45) and Table 2.12 (Table 4.46) show the total numbers and proportions of full and part-time workers, both family and non-family, employed by farms in the survey, and break them down by farm size. Note that casual labour was not included in the analysis.

Table 2.10 Full and Part-time workers

Type of worker	Family Full Time	Family Part Time	Non-family Full Time	Non-family Part Time	Total
Overall Count	2,939	2,264	262	466	5,931
Proportion of total workforce	50%	38%	4%	8%	100%

Table 2.11 (Table 4.45) shows the proportions of each category of worker employed across the different sizes of farms.

Table 2.11 Proportions of Full and Part-time workers employed across all farm sizes

Farm size	Family FT	Family PT	Non Family FT	Non Family PT
Very Large	4%	1%	35%	9%
Large	8%	4%	14%	11%
Medium	18%	11%	19%	20%
Small	41%	35%	18%	31%
Very Small	29%	49%	14%	29%
Total	100%	100%	100%	100%

Table 2.12 (Table 4.46) shows the proportions of each category of worker employed by each size of farm.

Table 2.12 Proportions of Full and Part-time workers employed by each farm size

Farm size	Family FT	Family PT	Non Family FT	Non Family PT	Total workers for each farm size
Very Large	39%	12%	33%	16%	277
Large	57%	21%	9%	13%	403
Medium	58%	26%	6%	10%	915
Small	55%	36%	2%	7%	2,195
Very Small	40%	52%	2%	6%	2,141

Taking Tables 2.11 and 2.12 together, we can see that the large majority of workers (88 per cent) were family members. Looking at the proportions of each segment of the workforce, indicates that medium, small and very small farms were most likely to employ family members, with very large farms employing 44 per cent of non-family workers. These analyses are supported by Table 2.12, which shows that the workforces of small and very small farms were constituted almost overwhelmingly by family members (over 90 per cent in each case). Even so, the workforces of the very large, large and medium farms contained larger proportions of family members than non-family. There are potential implications here for policy. If people were to leave farming following CAP reform, there would be a significant effects on local and family labour markets.

2.4.3 The buying and selling behaviour of farming households

All survey respondents were asked a series of questions concerning the inputs and services that they purchased for their farms. Table 2.13 (Table 4.57) shows the proportions of inputs and services bought and the distances and locations at which respondents bought them. This table shows both the proportions for the overall survey and the proportions by farm size.

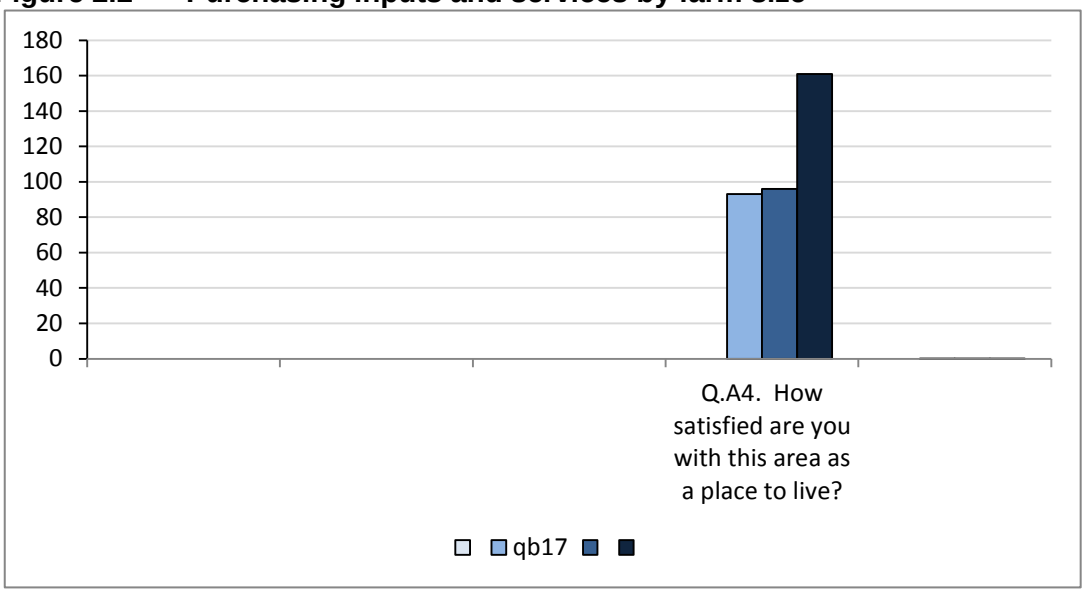
Table 2.13 Purchasing inputs and services by farm size

Location	Overall	Very large	Large	Medium	Small	Very small
The local area – within a radius of 25 miles	82%	58%	62%	70%	80%	88%
Elsewhere in Wales	7%	12%	13%	12%	9%	5%
Elsewhere in Britain	10%	25%	21%	17%	10%	6%
Outside Britain	1%	5%	4%	1%	1%	1%

The table shows that at 82 per cent the large majority of goods and services purchased by farms were bought within the local area. There was a direct relationship between the size of farm and local trade: the smaller the farm the greater proportion it bought locally. Similarly, but with a reverse gradient, purchases from elsewhere in both Wales and Britain and from outside Britain decreased with decreasing farm size. Purchases from outside of Britain by small and very small farms were negligible (0.59 per cent and 0.43 per cent before rounding-up respectively).

Figure 2.2 (Figure 4.3) illustrates these results graphically.

Figure 2.2 Purchasing inputs and services by farm size



While trends for purchasing inputs and services were not as pronounced for farm types as for farm size, it was clear that dairy farms bought less from the local area and more from elsewhere in Wales, Britain and outside Britain than the other types of farm.

The salient point from the analysis was that at 82 per cent the vast majority of farm-related goods and services were purchased in the local area – within a 25 mile radius of the farm. Another important point is illustrated by Figure 2.2, which shows the gradient from larger farms to smaller farms in terms of local buying, with smaller farms buying more locally. Also, dairy farms, which tend to be larger, bought a smaller proportion of their goods and services locally than other farm types. However, this analysis does not show the value of goods and services bought. It might have been that the value of goods bought locally by larger farms exceeded the value of that bought by smaller farms, although the latter's proportion was greater. Conversely, it might be that small hill farms running sheep and beef, if they receive increased CAP payments, would spend more locally.

With regard to selling, the analysis was based on two questions. First, respondents were asked to which types of outlet they sold their produce. Second, they were asked what proportion of their produce they sold to each type of outlet. Table 2.14 (Table 4.58) shows what proportion of the total survey, and what proportions of each size of farm, sold to each type of outlet. Please note that many farms sold to more than one type of outlet. In order to capture some of the smaller proportions, percentages are not rounded to whole numbers in the table.

Table 2.14 Outlets for farm produce by farm size

Outlet	Overall	Very large	Large	Medium	Small	Very small
Milk processing companies	8.6%	81.2%	55.8%	23.7%	2.0%	1.3%
Livestock marts	86.9%	81.2%	86.4%	92.8%	89.7%	83%
Major abattoirs	41.8%	68.8%	61.5%	70.3%	50.4%	21.0%
Minor abattoirs	24.4%	37.5%	39.4%	25.4%	23.3%	22.8%
Direct to public in local area –within 25 miles	17.8%	8.3%	9.6%	10.0%	12.7%	26.5%
Direct to public elsewhere	6.6%	6.2%	1.9%	4.7%	4.3%	10.0%
Shops, hotels and restaurants in local area – within 25 miles	6.3%	6.2%	4.8%	5.7%	5.1%	7.8%
Shops, hotels and restaurants – elsewhere	1.3%	2.1%	1.0%	1.8%	0.9%	1.5%
Supermarkets	2.3%	0%	6.7%	5.7%	2.7%	0.4%
Food processing companies in Wales	4.2%	14.6%	15.4%	7.2%	3.8%	1.8%
Food processing companies elsewhere	2.6%	16.7%	3.8%	7.5%	1.6%	1.3%

Table 2.15 (Table 4.59) shows what proportion of the total survey, and what proportion of each type of farm, sold to each type of outlet.

Table 2.15 Outlets for farm produce by farm type

Outlet	Overall	Dairy	Sheep	Beef	Sheep with beef	Other/mixed
Milk processing companies	8.6%	84.9%	0.6%	1.4%	0.2%	4.7%
Livestock marts	86.9%	87.6%	94.2%	87.9%	94.4%	70.1%
Major abattoirs	41.8%	56.5%	38.6%	37.6%	62.8%	27.4%
Minor abattoirs	24.4%	36.0%	20.6%	24.1%	23.5%	26.2%
Direct to public in local area –within 25 miles	17.8%	9.1%	10.6%	14.8%	8.3%	40.7%
Direct to public elsewhere	6.6%	2.7%	3.0%	5.5%	3.4%	16.2%
Shops, hotels and restaurants in local area – within 25 miles	6.3%	3.8%	3.5%	4.6%	3.7%	14.5%
Shops, hotels and restaurants – elsewhere	1.3%	1.6%	0.3%	0.7%	1.5%	2.9%
Supermarkets	2.3%	2.2%	1.6%	1.8%	4.2%	2.2%
Food processing companies in Wales	4.2%	10.2%	2.3%	2.5%	3.7%	6.3%
Food processing companies elsewhere	2.6%	4.8%	1.0%	1.4%	2.4%	5.3%

Taking the two tables together, while only nine per cent of the total survey sold to milk processing companies, 81 per cent of large farms did so, which suggested that many of the large farms were dairy farms. Unsurprisingly, Table 2.15 shows that 85 per cent of dairy farms sold to milk processing companies. Livestock marts were almost universally used, with usage at 87 per cent across the survey. Sheep and sheep with beef farms were the most likely users of livestock marts, at 94.2 per cent and 94.4 per cent respectively. Other/mixed

farms were the least likely to use livestock marts yet still recorded 70 per cent. Major abattoirs, which tend to be further afield, were used by higher proportions of farms than minor abattoirs, which tend to be more locally situated. There were slightly more than 17 percentage points between the proportions of the survey using the two types of abattoir.

Fewer than 18 per cent of farms sold directly to the local public, within a 25 mile radius. Very small farms had the largest proportion selling directly to the local public at 27 per cent. However, by farm type, 41 per cent of other/mixed farms sold directly to the local public. Few farms sold directly to local shops, hotels and restaurants. Again, very small farms with eight per cent and other/mixed farms with 15 per cent were the most likely to do so. Very few farms sold to shops, hotels and restaurants elsewhere. Notably, other/mixed farms were more likely to. No very large farms sold to supermarkets although large and medium farms recorded the highest proportions at seven per cent and six per cent respectively.

The overall proportions selling to food processing companies in Wales were low at four per cent. Very large, large and dairy farms were relatively high at 15 per cent, 15 per cent and ten per cent respectively. The proportions selling to food processing companies elsewhere were uniformly low, although very large and medium farms were considerably above the overall figure of three per cent at 17 per cent and eight per cent respectively.

The analysis also identified the proportions of farm produce sold to various types of outlet. Across the survey, sales to livestock marts contributed the largest proportion at 59 per cent of total sales. Breaking this down by farm size, medium, small and very small farms sold the largest proportions of their produce to livestock marts. Very large and large farm sold relatively small proportions, which suggests a relationship with the similarly small proportions sold to livestock marts by dairy farms. Sheep, beef and sheep and beef farms sold large proportions of their produce to livestock marts. Dairy farms sold the large majority of their produce to milk processing (63 per cent), livestock marts (19 per cent) and abattoirs (22 per cent). Direct sales to local publics were relatively low at seven per cent of total sales, while sales to local shops, hotels and restaurants approached only one and half per cent of total sales.

Arguably, taking the buying and selling powers of farms together, CAP reform may have greater upstream effects than downstream. That is, farms appeared to spend more locally than they sold locally. But the local downstream effects, particularly on livestock marts and abattoirs should not be ignored. Similarly, there may be wider effects on milk processing.

There were potential policy implications following any changes to CAP payments, particularly the effects on local suppliers and contractors to the agricultural sector and on livestock marts, abattoirs and direct sales to both local publics and local retailers, which would have knock-on effects in the local economy.

The follow-on, in-depth interviews discussed and analyzed in the Report on Phases Three and Four sought to flesh-out these analyses with actual monetary amounts. Again, where figures and tables have been copied from the earlier report the original designations are shown in parenthesis.

2.4.4 Mapping the buying and selling behaviour of farming households

The 30 interviews were semi-structured, and they were recorded and transcribed. During the interviews, responding farmers were asked a series of questions concerning buying and selling goods and services for the farm, including where they bought and sold and how much they spent and accumulated, and what effect changes in CAP subsidy would have on these

buying and selling patterns. Please note that six of the 30 interviewees provided incomplete financial data. Consequently, data for the remaining 24 farms were used in the analysis.

Using the data provided by these questions, three types of graphical representation were prepared.

1. For each of the three study areas, a ‘rose’ diagram showing where the farmers interviewed sold their goods and services.
2. For each of the 24 farms, a ‘rose’ diagram showing where they bought farm inputs and services.
3. Each of the 24 farms was plotted on a graph with axes of ‘local spend’ and CAP/SFP dependency.

The latter graph is shown below at Figure 2.3 (Figure 4.1). It was compiled by combining data from the survey and the in-depth interviews.

a) On the x or horizontal axis the local spending on farm inputs for each of the 30 interviewed farms is plotted. These data were obtained from the in-depth interviews, when interviewees were asked to provide their local spending – the amounts were used to populate the pre-prepared grids mentioned above. The origin of the x axis is the median (i.e. the middle value of the series) spend for the 30 interviewees, which was £33,500 per annum. Farms to the right of this figure are considered to have had a ‘higher’ spend and farms to the left of the origin, a ‘lower’ spend.
b) On the y or vertical axis the proportion of farming household income constituted by SFP for each of the 30 farms is plotted. These data were from the survey. Again the origin of the y axis is the median value: where SFP constituted 20 per cent of household income. Farms above this figure are considered to have a ‘higher independence’ or ‘lower dependence on SFP’ and farm below the origin, a ‘higher dependence on SFP’

Section 4.3 of the report on Phases 3, 4 and 5 contains an interpretive analysis of the buying and selling patterns of these 24 farms, their reactions to the forecast changes in SFP, their relations to local economies, and infers the resilience and vulnerability of each farm. It includes both buying and selling rose diagrams, together with keys. A summary of this analysis is given below.

Figure 2.3 (Fig 4.1) Mapping Local Spending and SFP

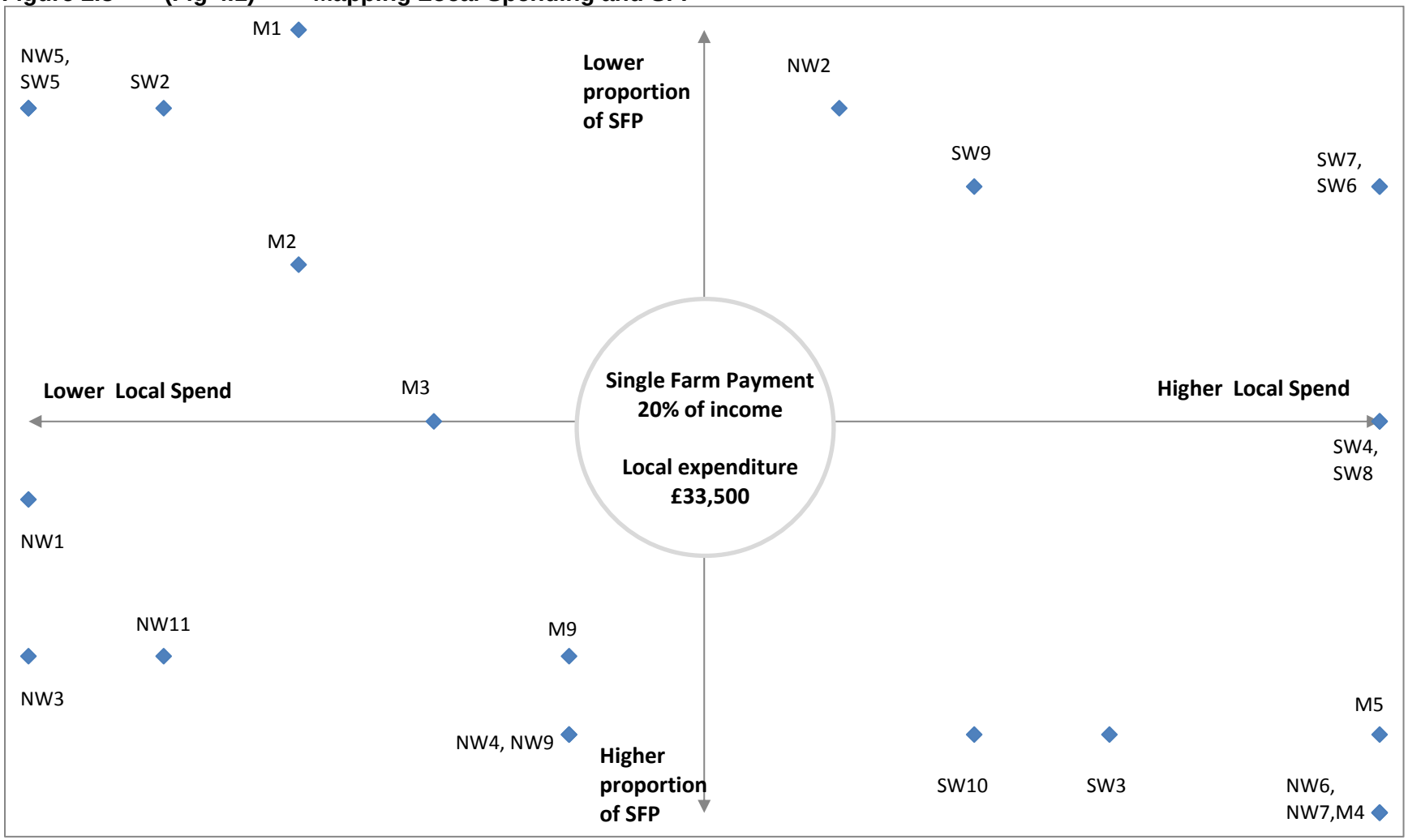


Table 2.16(a) Key characteristics of the farms in the Low Impact/Low SFP Dependence Quadrant of Figure 2.3 (Mapping Local Spending and SFP)

	Size	Type	Tenure Q1	% from Production	% from SFP	% from AgriEnv	% from Div	% from Rent	% from Off farm	TURNOVER Q27	Without subsidy	Q30 HH INCOME
MW1	VS	Sheep and Beef	Owned	9	0.5	0.5	0	0	90	Less than £25k	Even	£31k - 51k
MW2	VS	Sheep	Owned	15	15	15	0	20	35	Less than £25k	Even	Less than £10k
MW3	S	Sheep	Rented	30	20	0	50	0	0	£200k - £249k	Profit	Refused
SW2	VS	Beef	Owned	10	5	5	0	0	80	Refused	Loss	£15.5k - 20k
SW5	S	Other/Mixed	Owned	20	5	0	0	5	70	Less than £25k	Loss	£21k - 30k
NW5	S	Sheep and Beef	Owned	5	5	0	0	0	90	Less than £25k	Profit	£21k - 30k

Summary of the Low Impact/Low Dependency quadrant

From Table 2.16(a), all of the farms in this quadrant were either small or very small and they were predominantly focused on sheep and beef. Farm MW3 barely qualified as 'low SFP dependence', with SFP constituting 20 per cent of household income. Similarly, farm MW2 had a relatively high proportion of SFP at 15 per cent of income. The remaining four farms in the quadrant had very low dependence on SFP. Taken individually, none of these farms had a major effect on the local economy. However, if there were a number of small farms located in the same area and if all were to be similarly affected by changes in SFP the cumulative effect could be potentially significant.

Table 2.16(b) Key characteristics of the farms in the High Impact/Low SFP Dependence Quadrant of Figure 2.3 (Mapping Local Spending and SFP)

	Size	Type	Tenure Q1	% from Production	% from SFP	% from AgriEnv	% from Div	% from Rent	% from Off farm	TURNOVER Q27	Without subsidy	Q30 HH INCOME
NW2	S	Sheep	Rented	88	5	5	0	0	2	£68k - £99k	Even	£15.5k - 20k
SW6	VL	Dairy	Mix	40	10	0	0	0	50	£500k or more	Profit	£52k – 77k
SW7	L	Dairy	Owned	77	10	1	5	0	7	£200k - £249k	Profit	£15.5k - 20k
SW9	Med	Dairy	Rented	90	10	0	0	0	0	£68k - £99k	Profit	Less than £10k

Summary of the High Impact/Low Dependency quadrant

With the exception of farm NW2, a sheep farm and something of an outlier, the farms in this quadrant were dairy farms in south west Wales. While methodologically having a low dependence on SFP, some of the farmers argued that it was very important for their business. As relatively high spenders locally, the types of farms in this quadrant had a high impact individually on the local economy. Where there are large groupings of these types of farm, such as in south west Wales, any changes in SFP payments could have potentially significant impacts on local economies.

Table 2.16(c) Key characteristics of the farms in the High Impact/High SFP Dependence Quadrant of Figure 2.3 (Mapping Local Spending and SFP)

	Size	Type	Tenure Q1	% from Production	% from SFP	% from AgriEnv	% from Div	% from Rent	% from Off farm	TURNOVER Q27	Without subsidy	Q30 HH INCOME
MW4	Med	Sheep and Beef	Mix	25	50	0	0	0	25	£100,000 - £149,999.99	Profit	£31k – 51k
MW5	Med	Sheep and Beef	Owned	60	40	0	0	0	0	£100k - £149k	Loss	£52k – 77k
NW6	L	Sheep and Beef	Owned	20	70	10	0	0	0	£200k - £249k	Profit	£78k or more
NW7	Med	Beef	Owned	20	60	10	10	0	0	£25k - £67k	Profit	Don't know
SW3	Med	Sheep and Beef	Mix	40	40	5	7.5	0	7.5	£68k - £99k	Loss	£21k - 30k
SW4	Med	Dairy	Owned	60	20	0	20	0	0	£100k - £149k	Profit	£10k - £15.5k
SW8	VL	Dairy	Mix	30	20	0	50	0	0	£500k or more	Profit	£78k or more
SW10	S	Beef	Owned	40	40	0	15	5	0	£100k - £149k	Loss	£31k - 51k

Summary of the High Impact/High Dependency quadrant

The combination of high impact and high dependency on SFP makes these types of farms potentially highly significant to local economies. Indeed, having both high impact and high dependency makes them even more significant than farms in the high impact and less dependent quadrant. Although some farmers in this quadrant argued that SFP was relatively insignificant in that it represented a small proportion of business turnover, these farms were large businesses and their impact on local economies would be correspondingly large. Other farms in the quadrant suggested that SFP was very important for their business. As relatively high spenders locally, the types of farms in this quadrant had a high impact individually on the local economy. Again, there appeared to be a grouping of these high impact and high dependency types of farm in south west Wales. Consequently cumulative effects could be potentially significant.

Table 2.16(d) Key characteristics of the farms in the Low Impact/High SFP Dependence Quadrant of Figure 2.3 (Mapping Local Spending and SFP)

	Size	Type	Tenure Q1	% from Production	% from SFP	% from AgriEnv	% from Div	% from Rent	% from Off farm	TURNOVER Q27	Without subsidy	Q30 HH INCOME
MW9	S	Sheep and Beef	Rented	30	28	10	0	0	32	£25k - £67k	Profit	£31k – 51k
NW1	S	Sheep and Beef	Rented	25	25	45	5	0	0	£68k - £99k	Loss	£15.5k - 20k
NW3	VS	Beef	Owned	34	33	0	33	0	0	Don't know	Even	Don't know
NW4	Med	Sheep and Beef	Mix	5	40	5	0	0	50	£25k - £67k	Loss	£15.5k - 20k
NW9	L	Sheep and Beef	Rented	57	40	3	0	0	0	£150k - £199k	Profit	Don't know
NW11	VS	Sheep	Owned	15	30	30	0	0	25	Less than £25k	Loss	£21k - 30k

Summary of the Low Impact/High Dependency quadrant

With the exception of farm MW9 the farms in this quadrant were in north-west Wales. They were all sheep or sheep and beef hill farms and tended to be small or very small. As small farms the value of their farm inputs was not large. Again, however, there are potential cumulative effects on the local economy from groups of farm of the same type.

Overall Summary of the Interpretive Analysis

Table 2.17 summarizes the potential impacts on local spending, taking each quadrant of Fig 2.3 in turn:

Table 2.17 Potential Impacts on local spending

Quadrant	Characteristics	Potential local spend impact	Predominant affected area
Upper right	Lower SFP dependence/Higher spend	Continue at same rate	South –west
Upper left	Lower SFP dependence/Lower spend	Continue at same rate but they spend less	Mid-Wales
Lower left	Higher SFP dependence/Lower spend	Impact but they spend less	North-west
Lower right	Higher SFP dependence/Higher spend	Potential high impact as they spend more	North-west South-west Mid-Wales

In the full analysis in the report on Phases 3,4 and 5, the analysis of farm buying and selling patterns consists of four elements. Firstly, Fig 2.3 (4.1) is an aspatial plot or representation. The figure shows quadrants: low economic impact and low SFP dependence; high impact and low SFP dependence; high impact and high SFP dependence; and low impact and high SFP dependence. Each individual farm in the three geographical areas is removed from its spatial location and positioned in one the quadrants according to its dependence on SFP and its potential economic impact on the local area of the farm. Secondly, there are rose diagrams for each farm showing the magnitude of spending on farm inputs and the distance from the farm of the sources for these inputs. Thirdly, text associated with each farm interprets its position in the quadrants of Fig 2.3 (4.1). These texts are constructed from questionnaire data and interview and observational data. Finally, returning to a spatial mode, there are rose diagrams for each of the three geographical areas (south west Wales, mid Wales, and north west Wales) showing the magnitude of incomes and where the farms in these areas derived these incomes.

The analysis provides insights to how these farms and households operate. For example, the relative importance of the sources that constitute household income; how farmers would react to the forecast potential changes in SFP; their thoughts on diversification, alternative energy and agri-environmental schemes; their relationships with the local economy; their succession plans; the trajectory of the farm; and their longer-term plans. From these data the resilience and vulnerability of the farming household has been inferred.

In terms of economic impact, while noting the caveat that this was a relatively small sample, the analysis shows that there was a tendency for types of farms to form groups: particularly dairy in the south west and smaller hill sheep and beef farms in the north west of Wales. Thus, an important implication is that while some farms individually might have a low impact on the local economy, taken together as a group, the impact could be significant. Where there are groupings of farms that individually are larger spenders, coupled with some with

high SFP dependence, such as the predominant dairy sector in the south west, the effects of changes to SFP payments could be significantly magnified.

2.4.5 Qualitative data from farmers

The final component of the analysis to address Objective Three - To consider how changes might impact on society and the economy in rural Wales, was constituted by the qualitative data from the in-depth interviews.

Taking economy first, the interactions of farming households with other businesses and with local people, in terms of both buying and selling, necessarily depend on the state and health of farm businesses. Broadly, there were two views on how CAP reform might affect farm businesses. The first was that SFP represented too small a proportion of income for changes to have a significant impact or would only affect profits. And secondly there was the view that SFP was an essential component of the farming household's income. Consequently, any changes in SFP would affect farm production, and buying and selling. However, for the large majority of farmers buying and selling would continue to be locally-based, as a key point emerging from the qualitative analysis of the in-depth interviews was the evidence of farmers' embeddedness in the local economy. The reasons adduced for supporting local business were not because prices were lower; apparently they were often higher. Rather, farmers chose to buy locally for other reasons, principally an apparent desire to support the local economy because it was seen as an integral part of the local community. It was argued that it was important to use local suppliers, for quality of service and products, ethically, and for commitment to the local community. There were, however, observations that smaller family farms offered more support to the local economy than larger farms, such as dairy farms, because the latter tended to buy in bulk from non-local suppliers.

With regard to decreases in SFP, there were arguments that any decreases in subsidy could be borne for the first five years just by reducing general costs across the board: e.g. less maintenance and less new machinery. But after five years, farmers would have to consider their position more carefully, as farming was not something one could quickly jump in and out of. It took time to build up stock and as stock levels decreased there would be less to sell. Some farmers argued that as SFP constituted a relatively small proportion of income, losses or gains would have little impact. However, other farmers argued that even small economies would be passed on to local businesses.

In the case of increases in SFP, it was suggested that they would be absorbed by consequent prices rises in lamb, feed, fuel and electricity. Consequently, subsidy increases would be distributed across existing suppliers.

In terms of farming and local society and community, many of the arguments connecting farming with local communities revolved around the local economy; that the principal benefit that the farm brought to the community was economic. Farming was seen to be economically important to rural areas: it provided employment that while appearing to be low wage also had low personal costs, such as travel-to-work.

Non-economic social arguments revolved perceptions that farming was an anchor for Welsh culture; thus it should be supported as it provided jobs for local Welsh people to live and work in rural Wales. Indeed, given that here were many small farms where families had to seek other work, it was argued that these farms kept people in the area and that farming remained an important cultural glue.

Other interviewees observed that there was a community of farmers rather than a farming community and that farmers from different countries had more in common than farmers and

non-farming people in the same country. It was argued that this cultural differentiation was becoming more marked in the local area as more urban people bought rural properties and became the dominant social group in the area. Extending this argument, there were those interviewees who suggested that the link between farming and community was, at best, being stretched towards breaking point, and, at worst, had already been severed. A range of reasons for this apparent loss of community was given. There was the observation that farms had been bought and occupied by non-farming people. Others suggested that the community structure would continue to change over the next decade as farmers aged and their children did not take over the farms. Another argument was that although the farming culture remained, things had changed for the worse and that absent landlords who rented-out land did not help community spirit. The need for many farmers to have off-farm work to supplement incomes was also blamed for an, at best, partial breakdown in local culture. There were, then, varied views on farming and the local community. While there was no discernible pattern, for example geographical or farm type or size, to these views, there was an underlying sense that the traditional farming-community nexus was under strain.

From both the Report on Phases One and Two and the Report on Phases Three and Four, there was, then, evidence that addressed Objective Three - To consider how changes might impact on society and the economy in rural Wales. The evidence suggested that potential changes due to CAP reform would have some effect on the local and wider economy, particularly the farm support industry. Moreover, any decrease in SFP could exacerbate the perceived and growing rupture between farming and a changing rural society.

Section 3 Emerging Themes

In addition to addressing the project aims and objectives, a range of cross-cutting themes emerged from the research. The following sub-sections identify these themes, discuss them and their implications concisely. Please note that while some of these themes emerged in the process of addressing the project aims and objectives and are discussed earlier in this report, it is useful to consolidate them.

3.1 Attitudes to SFP

As discussed earlier there were different views of SFP. For some it was too small as a proportion of income for any changes to have an impact. Some of these farmers suggested that any changes in SFP would only affect profits. Others argued that SFP was essential to the farming household. As such any changes would affect farming practice and have effects on the local economy.

Some farmers also had strong opinions on the fundamental idea of SFP. For example, it was argued that it promoted a 'high input, high cost system'. Others complained about a system that allowed non-farming farmers and farmers who rented-out their land to claim SFP, and which allowed SFP payments to be capitalised into land values. They argued that receipt of SFP should be linked to production of food, energy or environmental services.

3.2 Awareness of CAP reform

Both the survey data and the interview data revealed that awareness of potential CAP reform was low. This was the case even among those farmers in receipt of SFP. Even those who were aware of the potential CAP reforms tended not to have information about specific details such as the greening measures, capping payments and the emphasis on young farmers, and less than a quarter of the entire survey population were aware of the 2014-15 Reference Year, with few having made plans. Given the importance of SFP as an income source to many farmers, this suggested a lack of business awareness, apathy and a degree of fatalism.

3.3 Expectation of income changes

The survey data indicated undue levels of pessimism regarding the potential CAP reforms and consequent changes in SFP. Contrary to the Welsh Government Income Analysis, which predicted that 35 per cent of all farms would experience a decrease under an area-based payments regime, 60 per cent of farmers expected a decrease in SFP, and only 10 per cent expected an increase. Pessimism extended to smaller (in economic terms) hill farms, which the Welsh Government Income Analysis predicted would, in the main, receive increases in SFP. Larger farms, especially dairy farms, tended to be more realistic in their expectations.

Taken together, the findings concerning awareness of CAP reform and the expectation of income changes pointed to a requirement for improved communication and information.

3.4 Responses to potential SFP income change

The predominant response to potential changes in SFP was 'business as usual'. Chiming with the manifest commitment to continue with 'business as usual', the survey respondents, in their future farm management priorities, placed a high value on food production, especially dairy and larger farms. And while dairy and larger farms also tended to place higher values on 'alternative' land use than other types of farm, the majority of farmers envisaged no significant changes in the next five or ten years. However, as discussed in the reports, from the Welsh Government Incomes analysis, only 46 per cent of farm businesses made a profit, without subsidies and the income from diversified activities, and 26 per cent of farm businesses opting for 'Business as usual' made a loss. These analyses must call into question the feasibility of many farms being able to continue with 'Business as Usual', if their SFP was to be decreased.

The second most common response to a decrease in SFP was to leave farming. Salient points emerging from this theme were that farmers in the 45-54 age group were most likely to leave and that those farmers without succession plans were more likely to leave farming. Further to this, 40 per cent of farms did not have succession plans. The implications here for the sustainability of family farms are discussed below under the themes 'Resilience and Vulnerability'.

3.5 Succession, New Entrants and Tenure

The issues of Succession, New Entrants and Tenure were seen to be closely linked in terms of sustaining family farms. At 73 per cent of the survey the large majority of farms were family owned. Very large farms were the least likely to be family owned. Indeed, this category was the only one where family ownership fell below 50 per cent (41 per cent). The proportion of rented farms was relatively constant across both farm sizes and farm types: it ranged between six and 11 per cent.

Some issues with rented farms were revealed by the in-depth interviews. Respondents reported that they had been unable to pursue plans for diversification and alternative energy projects because of issues with leases and objections from landlords, including the National Trust. And farmers who had been born and bred in these areas, who wanted to continue farming, and who wanted succeeding generations to continue farming found it difficult to make plans for rented farms. However, as discussed above 40 per cent of farmers did not have succession plans and there were arguments that succession sometimes led to small farm units, which were too small to be viable.

More generally, it was argued that there was a shortage of farm-land and that land prices were too high for young farmers and new entrants to enter farming. These conditions were attributed to a range of factors including incomers buying farms and letting land; older farmers 'hanging on' and letting farms while claiming SFP; and dairy farms expanding by taking-over smaller farms and by buying land.

3.6 Dairy farms as a special case

The research evidence suggested that dairy farms had a different trajectory to other types of farms. For example, the evidence indicated that dairy farms had a singular farm business focus on dairying and were market driven. Generally, SFP constituted a small proportion of the income of dairy farms, which meant that they would be able to absorb potential changes in SFP. While few dairy farms had diversified, some dairy farmers were in a position to run

totally separate off-farm businesses. In addition, as mentioned above, it was suggested there was a trend towards dairy farms buying-up smaller farms to form larger units.

An issue concerning dairy farming with implications for farming in general was that, apparently, milk processors preferred to service concentrations of dairy farms in an area, for reasons of economies of scale and collection. It was observed that this made business difficult for smaller and more remote dairy farms, and was another factor in the trend towards larger farm units.

3.7 Resilience and Vulnerability and sustaining farming

In terms of Resilience and Vulnerability and the indices developed in the 'Survey of Farming Households' [WRO, 2010], the longitudinal analysis in the Report on Phases One and Two showed that the most Multifunctional and the most Entrepreneurial farms were more likely to be aware of potential CAP reform and that Resilient farms were more likely to be aware of potential CAP reform than Vulnerable farms. Further analysis indicated that the Least Diversified, Least Multifunctional and Least Entrepreneurial farms were the most likely opt for 'Business as Usual' when faced with potential changes to SFP. In addition, Vulnerable farms (i.e. the Least Diversified, Least Multifunctional and Least Entrepreneurial) were more likely to opt for 'Business as Usual' or to leave farming if subsidies were to decrease.

The longitudinal analysis supported the general analysis in that they both identified key factors for sustaining farming in Wales. From the longitudinal analysis it was clear that Resilient farms tended to have Off-farm incomes, Diversification and Alternative enterprises. And the general analysis highlighted the importance of Diversification, Alternative enterprises, Multifunctionality and Off-farm incomes.

3.8 Barriers to Multifunctionality

Respondents identified a number of issues concerning various aspects of multifunctionality. In some areas, it was argued that diversification was not viable due to local market saturation. Others respondents pointed to barriers to diversification and alternative energy projects erected by the National Trust, the National Parks and planning authorities. More generally, it was argued that farming was a long-term business and it was difficult to change direction. It was also argued that alternative energy start-up costs were too expensive and that there was a need for access to research, guidance and support concerning potential returns to diversification and alternative enterprises in general.

3.9 Glastir

Agri-environmental schemes are, of course, another element of multifunctionality and both the survey and the interviews provided evidence of issues with Glastir. It was suggested that entry to Glastir was constrained by too many rules and that the financial incentive to join was insufficient. Further, it was argued that the targeted element would lead to a reduction in labour, which would be bad for the local economy. Resonating with earlier arguments concerning 'non-farming farmers' blocking land and farms, it was suggested that some of these types of farmer had also joined Glastir, in order to secure additional income while not producing food.

3.10 Local Economy and Society

Both survey and interview evidence indicated that farmers were embedded in local economy and society. For example, while there was some bulk buying from outside the local area and livestock was bought and sold both locally and from as far away as Scotland, the majority of farm inputs were bought locally. Farmers showed a desire to support local businesses not only because they were an integral part of local society but because they were seen as more reliable and easier to deal with in terms of after-sales support.

The majority of farmers appeared to be embedded in a farming culture, which embraced a sense of place, history, Welsh nationality and the need to produce food. However, perceptions of the strength of local community varied and there were arguments that community was being eroded by the development of larger farm units and by farms being sold or rented to incomers.

Section 4 Conclusions and Policy Implications

Overall, this research project's aims have been to provide systematic and representative evidence on how farmers might respond to the changes in farming incomes emanating from potential changes in the CAP post-2013, and to assess what these changes and responses may mean for Welsh Government policies and interventions, specifically regarding the likely shape of Pillar 1 and 2 in the future. The Conclusions and Policy implications contained in the Report on Phases One and Two began to meet this aim. Following this, the analysis of the in-depth interviews in the Report on Phases Three and Four provided more evidence and deeper insights, especially into how local economy and society might be affected by the changes implied by potential CAP reform.

For completeness and in order to maintain cohesion, the conclusions from the Report on Phases One and Two, drawn from the Welsh Government Income analysis and the survey, are repeated here. They are then complemented and augmented by the evidence and analysis of the in-depth interviews from the Report on Phases Three and Four. In the text that follows the main results and findings of the Report on Phases One and Two and the Report on Phases Three and Four are not repeated; rather policy implications are drawn from them.

i. A main conclusion is that knowledge of CAP reform, practices associated with it, and the perceptions and **future scenarios of change are not at all aligned**. For example, 40 per cent of farmers were not aware of CAP reforms and this proportion grew on a scale to 60 per cent with descending farm size. Hence there was an apparent lack of awareness and planning for the changes associated with CAP reform. Sources of information were fragmented, such that conflicting messages and policy dissonance could be created. Only 14 per cent absorbed Welsh Government information, well below the 21 per cent listening to the farmers unions. The farming media were overwhelmingly relied upon, together with 'word of mouth'. There was a clear information and knowledge gap about the potential changes to CAP and the benefits and challenges these could bring. Many of the most vulnerable farmers were lacking basic information, which in turn compounded the problems of ineffective business planning. Recent market strengths in beef and sheep might be acting as a 'comfort-zone' for many farmers.

ii. There was also **pessimism about the prospective changes**, with 60 per cent expecting a decrease in CAP payments, skewed towards the larger, especially dairy farms. Larger proportions of smaller farmers and hill farmers were expecting CAP support income to stay roughly the same. From these findings it appears that there is a process of cognitive dissonance appearing with CAP reform expectations, with only 10 per cent expecting an increase in CAP payments and with the non-dairy sector particularly uncertain about future support.

iii. **Family viability and relative social resilience** to changes in CAP and market mechanisms are key factors in the sustainability of Wales's farm population, especially given the predominant family-owner pattern of occupation. Whilst mixed tenure farms were developing in the larger farm categories, with 19 per cent overall, the majority of farms were still family run and only eight per cent were rented properties. The overriding picture is one of at least one or two family household members running the farm business and being variably dependent upon farm-based

incomes. Where two or more households (21 per cent) of farm businesses were running the business, there was more opportunity for extra forms of non-farm income and diversification. Nearly 40 per cent of farm businesses had family members who held 'off-farm jobs', which has important effects on the local and regional economy, on the farm family household and on its relative resilience. The significance of off-farm employment is especially important for the survival of the smaller farms, where it can significantly boost and supplement farm income. For instance, younger and female family members were contributing to significant overall family household incomes in over half those businesses in the highest income categories (over £31,000 per annum).

iv. A picture emerges therefore, where we have (i) **agricultural productivist farms** (especially dairy, and extensive large beef and sheep), which are well attuned to CAP reforms and making rational business planning decisions for the future: (ii) a **significant multi-functional group** (of up to 40 per cent) who are variable in size, but are creating their resilience through combinations of agricultural production and marketing, non-farm income, and diversification strategies; and (iii), as we identified in the previous survey [WRO, 2010], a **severely vulnerable group of smaller farm families** who have little knowledge or means to adapt to market or CAP-induced changes, and who are not planning any form of family succession. By implication from the results of the income analysis in Section 3 of the Report on Phases One and Two, if these farms are dairy, they are likely to be particularly high up the vulnerability escalator.

v. Only 46 per cent of small farmers were **planning succession** compared to 80 per cent of the very large. What we witness here is the differential combination of social reproduction and economic reproduction mechanisms, whereby farm families display different levels of resilience and adaptive capacities according to the varying levels of family commitment to agricultural production and/or multifunctionality. The absence of one or other of these strategies creates greater vulnerability for the family and its business.

vi. A key expression of these variations came **in farmers' responses to scenarios for CAP payment changes**. Multi-functional farms (with off-farm income, diversification and alternative enterprises), or the more productivist farms, were far less likely to see the status quo as an option. Whilst, overall 34 per cent of all farms saw this as a strategy if payments fell by 20 per cent, where there were no off-farm incomes this increased to 65 per cent of farms. These more adaptive farms were also far more likely to buy farm inputs locally, change the type of farming, diversify activities and retain their land.

vii. Whilst the current levels of **alternative enterprise adoption** (e.g. horticulture, alternative livestock, energy crops/ bio-energy, or organic crops were low (less than 10 per cent in all categories), given the strategies identified above, revised CAP policies could encourage much more take-up of these multi-functional activities. There is considerable policy potential, especially though Pillar 2, to encourage more farming capacity in these alternative enterprises, given their current levels of take-up. This could target both small and large farms and farms of different types. More

information and knowledge sharing, as well as extension services are needed in this regard. Up to 10 per cent were seen as considering these options; but they need more incentives and knowledge. These incentives and support structures for more diversification and value-added could be aligned to spatial policies. For instance, some upland areas and groups of farmers could be selected to encourage more diversified rural development, local sourcing and processing and the provision of environmental goods and services. Policies would need to encourage more farmer-to–farmer, and farmer-to-processor and retailer collaboration.

viii. Currently CAP policy reform discussions should consider removing the **'glass-ceiling' with regard to its current diversification and greening**. The experience, up until 2012, and probably since the major reforms of 2002, has been one of experiencing something of a **plateau effect** of below 10 per cent of all farmers. The evidence here suggests this could at least be doubled with a combination of targeted incentives and conditions placed on direct CAP payments. If the hill and sheep and beef farmers are likely to continue to receive viable, if not extra, CAP payments under the area-based Pillar 1 scheme proposed, then there are serious grounds for making this conditional upon (i) adopting diversified and alternative enterprises; and (ii) sourcing and selling more locally and regionally. Whilst traditional diversified activities like farm-based accommodation and providing agricultural services (both just above 10 per cent) may have reached a plateau, there are opportunities for growth in energy, organic and horticultural enterprises, which could also allow farming to contribute to wider rural economy and sustainability goals. There is a need for the Welsh Government to consider the potential policy synergies here between the revised aims of Pillar 1 and Pillar 2 (the RDP). Both if dovetailed together could stimulate more multifunctionality and therefore less dependence in the future on traditional CAP payments for agricultural production per se. Both Pillars need to lubricate the transition to the multifunctional (and more resilient) role of farming in the rural economy by lifting the 'glass ceiling' and plateau currently constraining the development of a wider vector of diversified activities.

ix. For special attention the Welsh Government needs to consider how **rural planning and housing policy** (and the new Planning Bill in particular) could also assist in increasing permitted development rights for such activities. Twenty per cent of all farmers saw opportunities for alternative land use as important for the future. Hence the glass, or 'green ceiling' on the agriculturally-based eco-economy needs to be raised, at least by another 10 per cent over the next CAP period; with all CAP spending being conditional on such stimuli. This also links to **housing policy in rural areas** in that if farmers are allowed to convert redundant farm buildings for housing or tourism purposes, this could not only support their incomes but also begin to alleviate housing shortages and affordable housing needs. Planning and housing policies thus need to be made more flexible and to link farm-based diversification and conversion of building uses to housing and local tourism and amenity development. The RDP is also important in this regard as it could stimulate more farm diversification and conversion of buildings. It is important therefore to see CAP reforms (post 2013) in terms of creating more synergies between planning and housing policies for rural areas and wider rural economic development. They need to further stimulate farm households to consider diversifying both their land and building assets in ways that both create more sustainable farm incomes and local economic development.

x. Smaller and off-farm income farmers are **more locally based in their purchasing**; so if they obtain more CAP funding this is more likely to enhance the local area. While this may follow it clearly does not take into account actual amounts. As we know dairying is less locally based, but in the livestock sector, livestock marts and abattoirs are still very important parts of the farming and food processing local community. These infrastructures could be built upon and stimulated by Pillar 2 funding. The local and regional impacts of CAP-reformed payments should be enhanced and again made a condition for receipt of funding. There has been a 'hollowing out' of food processing in Wales; but in some areas it is reviving. New incentives are needed to encourage local rural and market town business development in Wales regarding food processing and value-adding (see the Report on Phases One and Two, Table 4.58).

xi. Farmers were **sceptical about the current CAP greening mechanisms**, and this is reasonable and not surprising given the new (post-2008) emphasis in the farming media about the need to produce more food. Farmers are seeking a more sophisticated understanding on the part of policy-makers concerning the new equation between greening mechanisms and the new productivism. This needs careful education and extension work.

xii. Many farmers, especially those in the third 'vulnerable' category above, seem to be suffering from a type of **'false consciousness' with regard to CAP changes**. For example, 47 per cent of the survey envisaged no changes over the next five years and we have already seen the dominance of 'business as usual 'expectations; but 13 per cent expected to have left farming in the next decade; and relatively few farmers seemed to have the incentive to break through the diversified 'glass-ceiling'. This may be partly explained by the relatively good recent market conditions in beef and sheep.

xiii. The survey indicated that 22 per cent overall, rising to 25 per cent in the Northwest, were concerned about the availability of training. **Policy support and training packages** for developing entrepreneurial skills in business planning, succession planning, network-building, and Broadband use should be made more available and conditional on receiving CAP payments. There may be a very good argument for top-slicing CAP funding (and regional development funding) for creating these knowledge infrastructures across Wales. The RDP needs to enhance training and advice for farmers with regard to continued reductions in CAP support and the need to develop more resilient and multi-functional enterprises. With 40 per cent of farmers not planning succession, including disproportionate numbers of small and beef and sheep farms, there is an urgent need to develop a succession planning advice and training system. This needs to be a more explicit element of the Welsh Government's offer to the farming population. The Welsh Government needs to consider expanding the role of Farming Connect, and may need to consider other mechanisms and instruments, such as farmer clubs and consortia development, and farming communities of practice (e.g. organic farmers, dairy farmers, and diversified sheep and beef farmers). Clearly, this also needs to prioritise and link to young farmer support, and more cooperation and partnerships with the farmers unions in this regard.

xiv. The data suggest that more emphasis should be placed upon understanding the **relationships between family structures and farm strategies** when considering the sustainability, resilience and adaptive capacities of Welsh farming. Further analysis is needed on the characteristics of the three strategies identified above, as these seem realistic scenarios over and above questions concerning the location of the farm. In short, it is the combination of family occupancy and household characteristics combined with relative skill capacities and degree of agricultural dependence that tends to create a variety of response to both CAP and market changes. If maintaining vibrant family farming is a significant part of Wales agricultural and rural policy, it will be necessary to re-skill and rejuvenate the 20-30 per cent of smaller and more vulnerable farms who are likely to leave the land if CAP payments are reduced by 20 per cent or more. These farmers are made more vulnerable by a lack of alternative forms of income and the social means to achieve this. This rejuvenation towards multifunctionality could create significant benefits for the local economy.

The longitudinal analysis in Section 4.8 of the Report on Phases One and Two reinforces these conclusions in that we can witness the significance of farm family skill sets (for instance, levels of entrepreneurship, multifunctionality) and types of farm family strategy as being important factors in shaping the degree of resilience and adaptability of farms to impending CAP changes. Those farmers displaying higher levels of these factors were less likely to adopt a 'business as usual strategy', and were therefore less vulnerable to CAP change effects. Hence, it needs to be recognised that while static variables like farm type and size provide the broad market and policy parameters for setting the levels of adaptability, the more dynamic features of farm and family strategies are a key feature of sustainability and of the degree of local impact we might expect.

The spatial analysis of the three selected areas in Section Five of the Report on Phases One and Two tends to support the earlier income analysis, with at least some variation of the income gains and losses likely between dairy farms and extensive beef and sheep holdings. This analysis is most valuable as setting a context for the more in-depth surveys on the local impacts of CAP revenue changes. Given that extensive beef and sheep farms are potential gainers from the CAP changes, it would suggest that a stronger emphasis upon more diversification and local multipliers should be a priority in areas like the Northwest. Here 51 per cent of farms were diversified already and this could show a potential for more growth, even though many farmers saw barriers to this strategy. In the Southwest, we can begin to see a different scenario, with more vulnerability associated with less CAP payments on dairy farms, less diversification and multiple- income earning. In these regions, a focus upon how to change the strategy of the smaller dairy farmers would seem appropriate, given they are likely to be the most vulnerable in income terms. These farmers were also the most tied to local dairy processing and livestock abattoirs (see Table 5.25 of the Report on Phases One and Two), which means that if they are vulnerable so are these local processing facilities. This begins to indicate that there could be significant local and regional downstream and upstream effects of the CAP changes, with an overall disinvestment in the dairy dominated areas like the Southwest, and at least the maintenance of local facilities in the Northwest and mid-Wales areas. Also the reliance on local livestock marts in the Northwest and mid-Wales areas is striking; such that we can begin to see a third level of causation of variation in CAP changes, after (i) farm size, type and income; and (ii) farm and family strategy and skill sets. Thirdly, (iii) comes a degree of differential spatial vulnerability and opportunity, which is tied to the different level and type of local and regional embeddedness groups of farms display in their local areas. This is associated with their level of purchasing and marketing, and becomes all that more important as the more diversified and eco-economies of rural regions gather momentum (combinations of food, fibre, energy, and amenity provision - see Kitchen and Marsden, [2009]). It reinforces the points made earlier that any changes in the distribution of CAP subsidies, should also incorporate all three of these levels of variation.

So an emphasis on skill sets and (collaborative) local and regional buying and selling become important areas for policy innovation.

Overall, we see from the spatial analysis that a set of generic factors are affecting the responses of farmers, associated with their farming strategies, their family cycle and position, and their ability to gain off-farm incomes. There are clearly general patterns to adaptability, vulnerability, resilience and multifunctionality. However, distributional changes in CAP revenues will have effects both on these general patterns and strategies, and on the quality and value of local and regional markets and supply chains in different parts of Wales. As Table 5.24 and Table 5.25 of the Report on Phases One and Two indicate, Welsh farmers are major traders in goods and services at the local and regional level, whatever the region or type of farm. However, changes in CAP revenue have the capacity to disrupt or to augment these 'nested' market relationships, with an average of 81 per cent of inputs and services purchased locally.

Turning finally to the in-depth interviews, the analysis in the Report on Phases Three, Four and Five reinforces the findings from the survey. From the insights afforded by this analysis we can begin to see what the knock-on effects of CAP reform and changes in SFP might be on rural society and the economy in rural Wales. Three key, and connected, points stand out.

First is the evidence of embeddeness in the local economy and the relationships between farmers and local communities. As discussed above, the survey in the Report on Phases One and Two shows that farmers in Wales trade, that is buy and to a lesser extent sell, predominantly in the local economy. These findings are supported qualitatively by the interview analysis in the Report on Phases Three, Four and Five. Quantitative evidence is provided by the 'rose' diagrams in the Report on Phases Three, Four and Five, which illustrate farmers' trading patterns in monetary terms. In addition, the graph at Figure 4.1 in the Report on Phases Three, Four and Five (reproduced as Figure 2.3 in this final report) plots 'local spend' against policy dependency in terms of SFP. From these graphical analyses we can see that changes in SFP would have significant and varying local impacts.

The second key point is that across both reports the analysis shows that embeddeness in the local economy and policy dependency on SFP are variable. This variability is shown by the analysis to be a function of the type of farm and of economic size. Given the prevailing distribution of types of farms in Wales, and taking into account the analysis at Figure 2.3, this reinforces the importance of the spatial aspects of the analysis.

This leads to the third key point. Taking the first two key points together and integrating them with the policy observations and recommendations made above at (iii), (iv), (v), (vi) and (vii) concerning the importance of off-farm incomes and the elements of multifunctionality such as diversification, alternative enterprises, eco-economic and bio-economic enterprises and engagement with agri-environmental schemes in building resilience in family farms and sustaining the farming industry, as a producer of food, fibre and fuel, there emerges a varying picture of reliance on SFP and the other key elements of resilience.

In summary, we can say that the potential changes in SFP caused by the shift to area-based payments following CAP reform will have significant local impacts. The key term here is local. These impacts will vary; with variance a function of local conditions in terms of geography, farm size and farm type.