



Comisiwn Coedwigaeth Cymru
Forestry Commission Wales

PUBLIC OPINION OF FORESTRY 2007: WALES

Results from the Wales 2007 Survey of Public
Opinion of Forestry, carried out on behalf of the
Forestry Commission

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Executive Summary

2007 survey

In 2007, four separate public opinion of forestry surveys were undertaken - across the UK (around 4,000 interviews, including a sample of 188 interviews in Wales), Wales (950 interviews), Scotland (1,000 interviews) and Northern Ireland (1,000 interviews).

This report presents results of the survey in Wales and compares, where appropriate, with the Wales 2005 and 2003 surveys and the UK 2007 and GB 2005 surveys. It highlights any differences in opinion amongst adults in Wales by geographic region and socio-demographic variables (e.g. gender and age).

Questions that were asked in the UK survey but not in the Welsh survey are summarised in Appendix 1: UK survey: results for respondents from Wales, comparing results for the Wales sub-sample (188 interviews) with total UK results.

Some of the questions asked in the 2007 Wales survey were the same as those asked in 2005 (and in earlier years); however, a number of new questions were asked on topics such as the relationship between forestry and climate change.

Separate reports provide similar results for England, Scotland and Northern Ireland.

Benefits of forestry

Around 90% of respondents stated that they received substantial benefit from the following potential benefits of woodlands:

- Knowing that Welsh woodlands will be there for future generations;
- Knowing that there are trees and woodlands in Wales;
- Knowing that Welsh woodlands provide a place for wildlife;
- Seeing trees or woods from where you live;
- Seeing trees and woodlands as you undertake your daily activities.

In addition there was strong overall agreement with a series of statements presented to the respondents regarding their views on the purpose and potential uses of woodlands; over 90% of respondents strongly agreed or agreed that:

- Woodlands play an important role in children's and young people's outdoor learning experience;
- Woodlands in Wales are an important part of the country's natural and cultural heritage;
- Woodlands allow families to learn about nature.

Changes to woodland

4% of respondents had been consulted about plans for creating, managing or using woodlands and 43% of respondents would like to be consulted in the future.

Almost four-fifths of respondents either agreed (52%) or strongly agreed (27%) that 'it is important to have a say in what happens in your local woodland'.

Climate change

43% of respondents believe that climate change will have a large impact on Wales and a further 41% believe there will be a slight impact.

There was a high degree of agreement with a set of statements regarding the ways in which forests and woodlands can impact on climate change, for example almost three-quarters of respondents agreed that 'Trees are good because they remove carbon dioxide from the atmosphere and store it in wood'. However, 47% of respondents incorrectly agreed that 'Wales could offset all its greenhouse gas emissions by planting more trees'.

A set of statements was presented to the respondents to ascertain their views on the way in which Welsh forests should be managed in response to climate change. The responses received reflect a belief that forestry is a method that can be used to mitigate the effects of climate change. For example, 86% of respondents agreed that 'A lot more trees should be planted' while only 18% agreed that 'There is nothing that anyone could do that would make any difference'.

Wood as a fuel

6% of respondents said that they used wood as a fuel in their home, either on its own, or with other fuels. Of these, 65% classified themselves as an occasional user, while 19% use it as the main fuel for heating their home.

Awareness of Forestry Commission Wales

Of the 80% of respondents who said that they had heard of Forestry Commission Wales, 57% correctly identified it as a government department or agency.

Most respondents who had heard of Forestry Commission Wales showed a fairly good awareness of its range of activities. Over 90% were aware that Forestry Commission Wales lets the public walk in its woodlands and improves woodland habitats for wildlife. Fewer respondents were aware that Forestry Commission Wales gives grants to private woodland owners (38%).

On a scale from '1 (very good)' to '5 (very poor)', 54% of respondents who were aware of the Forestry Commission rated its performance in managing/protecting FC woodlands as '1 (very good)' or '2'. Similarly, 35% rated the Forestry Commission as '1 (very good)' or '2' at encouraging other landowners to protect and expand Britain's woodlands and at responding to the threat of climate change.

Woodland recreation

Respondents in 2007 (79%) were more likely than those in 2005 (69%) or 2003 (62%) to have visited woodlands in the last few years.

The proportion of Welsh survey respondents stating that they had visited woodlands in and around towns was 64% in 2007 (up from 50% in 2005). Around four-fifths of respondents said that they had visited woodlands in the countryside in 2007 (81%), similar to the 2005 result (79%).

The main reasons respondents gave for not visiting woodlands were that they had 'other personal mobility reasons' (26%) or were 'not interested in visiting' (25%).

1 Introduction

Background

The Forestry Commission has conducted similar biennial surveys of public attitudes to forestry and forestry-related issues since 1995 though the surveys have evolved since then:

- In the initial surveys, a representative sample of 2,000 adults across Great Britain (GB) was surveyed;
- In 2001, with more interest in country-level results within GB, additional questions were asked of representative samples of 1,000 adults across Scotland and Wales;
- In 2003, the main survey was extended to include Northern Ireland in the 4,120 adults interviewed and separate surveys of 1,000 adults continued in Scotland and Wales;
- In 2005 and 2007, the need for separate surveys in each country was confirmed, with the increased interest in country-level and regional information. However, the requirement for continued high-quality coherent information for GB/UK as a whole means that four separate surveys were undertaken each year:
 - A representative sample of 4,000 adults across GB (2005) and across UK (2007)
 - A representative sample of 1,000 adults across Scotland
 - A representative sample of 1,000 adults across Wales
 - A representative sample of 1,000 adults across Northern Ireland

Some questions were asked in all four of the surveys conducted in 2007, but an increasing number are survey-specific.

This report

This report presents results from the 2007 survey in Wales and compares, where appropriate, with the 2005 and 2003 Welsh surveys, with the UK 2007 survey and with the GB 2005 survey. It also highlights any differences in opinion amongst adults in Wales by geographic region, degree of rurality, deprivation and socio-demographic variables (e.g. gender and age). Questions that were asked in the UK survey but not in the Welsh survey are summarised in Appendix 1: UK survey: results for respondents from Wales, comparing results for the Wales sub-sample (188 interviews) with total UK results.

A full set of tables, reporting the results of each question by geographic and socio-demographic variables are available upon request and will soon be available on the Forestry Commission website alongside this report¹.

Separate reports present the results from the surveys undertaken in England, Scotland and Northern Ireland, as well as one for the UK as a whole (which compares the 2007 results with previous surveys).

Survey design

The Welsh results presented in this report are taken from the Beaufort Research Omnibus survey carried out from 9th to 17th March 2007 on behalf of the Forestry Commission. The survey was based on a representative sample of around 950 adults (aged 16 or over) across Wales. More details of the sample method are given in Appendix 4: Beaufort Research sampling method. The 2005 and 2003 Welsh results, presented for comparison, are taken from similar Beaufort Research Omnibus surveys.

¹ <http://www.forestry.gov.uk/forestry/infid-5zyl9w>

The GB 2005 and UK 2007 data presented in this report are taken from the RSGB General Omnibus and TNS CAPI Omnibus surveys respectively, both conducted by TNS. These surveys were based on representative samples of around 4,000 adults (aged 16 or over). More details on the UK 2007 sample methods are given in Appendix 5: TNS Omnibus Random Location Sampling Method.

All results are subject to the effects of chance in sampling, so a range of uncertainty (confidence interval) should be associated with any result from the survey. The confidence intervals take into account the effects of clustering, weighting and stratification in the survey design (see Appendix 4: Beaufort Research sampling method and Appendix 5: TNS Omnibus Random Location Sampling Method for more details).

- For questions asked to the whole 2007 Wales sample of around 950, the range of uncertainty around any figure should be no more than +/-4.8%.
- For responses of subgroups, i.e. questions not posed to the whole sample of respondents, the range of uncertainty is correspondingly higher. For example the uncertainty for statistics broken down by gender should be no more than $\pm 6.9\%$; the Cardiff and South East region accounts for 25% of the sample (239 respondents), so the uncertainty should be no more than $\pm 9.5\%$, and the Mid/West region accounts for 17% of the sample (163 respondents), so the confidence interval around results should be no more than $\pm 11.6\%$.
- For questions asked to the whole UK 2007 and GB 2005 samples of around 4,000, the range of uncertainty around any figure should be no more than +/- 2.3%.
- For questions asked to the whole samples, differences of more than 5.3% between the Wales 2007 and GB/UK surveys, and differences of 6.7% or more between the 2007 Welsh survey and previous Welsh surveys, are statistically significant.

Results are shown as percentages. These have been individually rounded so may not always total to exactly 100.

Regression analysis

One of the main differences between this report and the preliminary report published in June, is the addition of multivariate regression analysis, reported in the 'socio-demographic comparisons' and 'geographic comparisons' sections throughout the report. Further details on the variables used, including the geographic regions, are given in Appendix 2: Cross breaks used in analysis and Appendix 3: Correlation matrix of variables used in analysis.

The multivariate regression analysis examines the relationship between responses and socio-demographic and geographical attributes. The model attempts to identify a set of explanatory variables (socio-demographic and geographic variables) that account for a large proportion of the variance of the response variable in question. The model originally includes all variables and sequentially removes the variable that has least effect on the variance, leaving only the most significant variables.

The geographic and socio-demographic sections only report results derived from the regression models. Each region was input into the model as a separate variable, therefore only the results from those regions identified as significant in the model are reported (e.g. if Mid/West Wales was shown to be significant, the results from other regions are not highlighted). Conversely, the rural/urban and deprivation variables were each input as single variables in the analysis, and therefore all possible variable values are reported (e.g. urban 15%, small towns & fringe 24%, village 26%).

Unless otherwise specified, those respondents who answered 'Don't know' have not been included in the regression analysis.

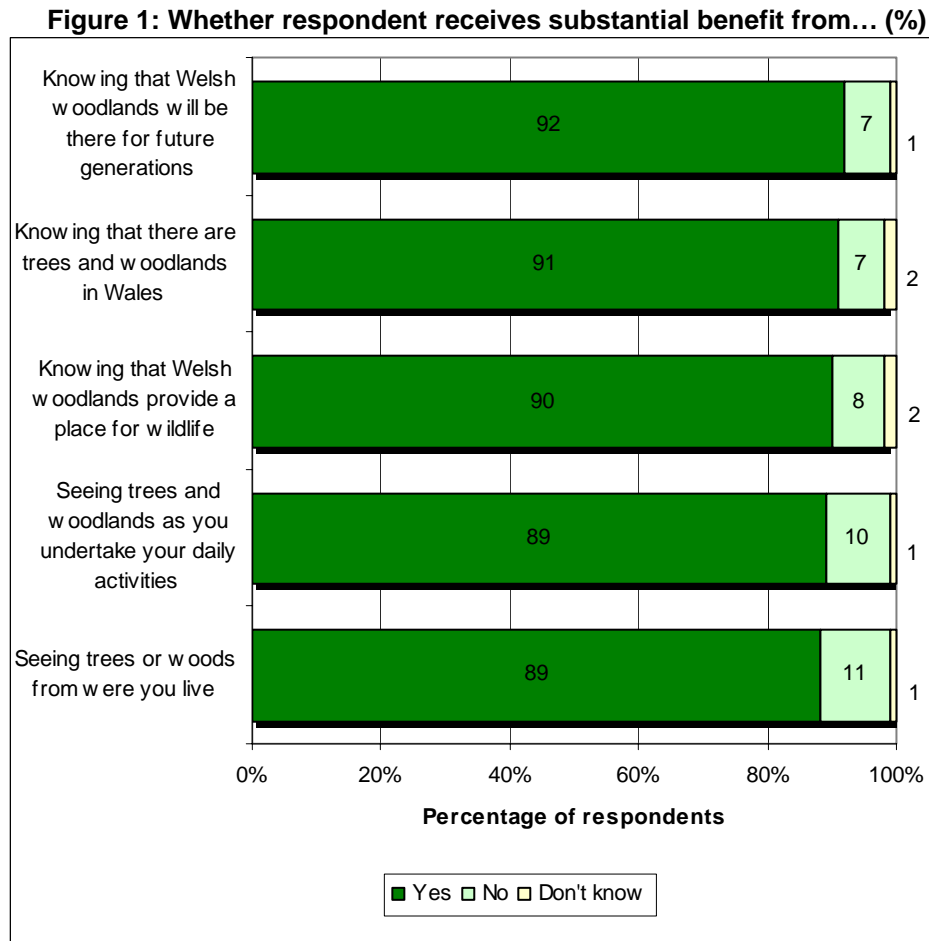
Some of the variables found to be significant in the regression results may not have seemed significant in the initial analysis because another correlated variable may have been influencing results in the opposite direction. For example, there is a strong correlation between age and having any children in the household; the initial differences for those with and without children in the household may have appeared significant, but the regression may have shown this to be better explained by age.

2 Benefits of forestry

2.1 General public benefits

The Welsh Assembly Government funds forestry in many ways. Respondents were presented with a series of statements regarding some of the potential benefits of woodlands and asked to indicate whether they received substantial benefit.

Figure 1 reveals a high level of agreement, with around 90% of respondents agreeing with each of the statements.



Base: All respondents (953)

Geographic comparisons

Table 1 shows that in each region the vast majority of respondents receive substantial benefit from all of the potential benefits presented.

Analysis shows that those living in the West South region (97%) were the most likely to agree that they benefit from '*Knowing that there are trees and woodlands in Wales*':

Those living in North Wales (87%) and Cardiff & South East Wales (85%) were least likely to receive benefit from '*Seeing trees or woods from where you live*'.

Table 1: Whether respondent receives substantial benefit from..., by region(%)

	North Wales	Mid / West Wales	West South Wales	The Valleys	Cardiff and South East Wales	Wales
Knowing that Welsh woodlands will be there for future generations	92	94	94	89	91	92
Knowing that there are trees and woodlands in Wales	91	94	97	87	90	91
Knowing that Welsh woodlands provide a place for wildlife	89	91	88	89	90	90
Seeing trees and woodlands as you undertake your daily activities	88	92	92	84	89	89
Seeing trees or woods from where you live	87	95	90	90	85	89
Receiving benefit from at least one	96	98	98	95	97	97

Base: All respondents (953)

Those living in urban areas (87%) were less likely to receive benefit from 'Seeing trees and woodlands as you undertake your daily activities' than those living in 'town and fringe' (90%) or 'village, hamlet or isolated dwelling' (94%).

Socio-demographic comparisons

For each part of this question, those socio-demographic variables shown to be significant in the analysis have been highlighted below:

'Knowing that Welsh woodlands will be there for future generations', Wales overall 92%:

- **Age group** - aged 16 to 34 87%; aged 35 to 54 93%; aged 55 and over 95%;
- **Visited woodland** - visited forests or woodlands recently 94%; not visited 84%.

'Knowing that there are trees and woodlands in Wales', Wales overall 91%:

- **Age group** - aged 16 to 34 (87%); aged 35 to 54 93%; aged 55 and over 94%;
- **Social grade** - ABC1 96%; C2DE 88%;
- **Visited woodland** - visited forests or woodlands recently 94%; not visited 83%.

'Knowing that Welsh woodlands provide a place for wildlife', Wales overall 90%:

- **Age group** - aged 16 to 34 86%; aged 35 to 54 87%; aged 55 and over 95%;
- **Social grade** - ABC1 93%; C2DE 86%;
- **Visited woodland** - visited forests or woodlands recently 91%; not visited 83%;
- **Welsh language** - Welsh speakers 93%; non-Welsh speaker 88%.

'Seeing trees and woodlands as you undertake your daily activities', Wales overall 89%:

- **Age group** - aged 16 to 34 85%; aged 35 to 54 88%; aged 55 and over 93%;
- **Visited woodland** - visited forests or woodlands recently 91%; not visited 80%.

'Seeing trees or woods from where you live', Wales overall 89%:

- **Age group** - aged 16 to 34 82%; aged 35 to 54 91%; aged 55 and over 92%;
- **Social grade** - ABC1 93%; C2DE 85%;
- **Visited woodland** - visited forests or woodlands recently 90%; not visited 83%.

2.2 Views on the role and use of woodlands

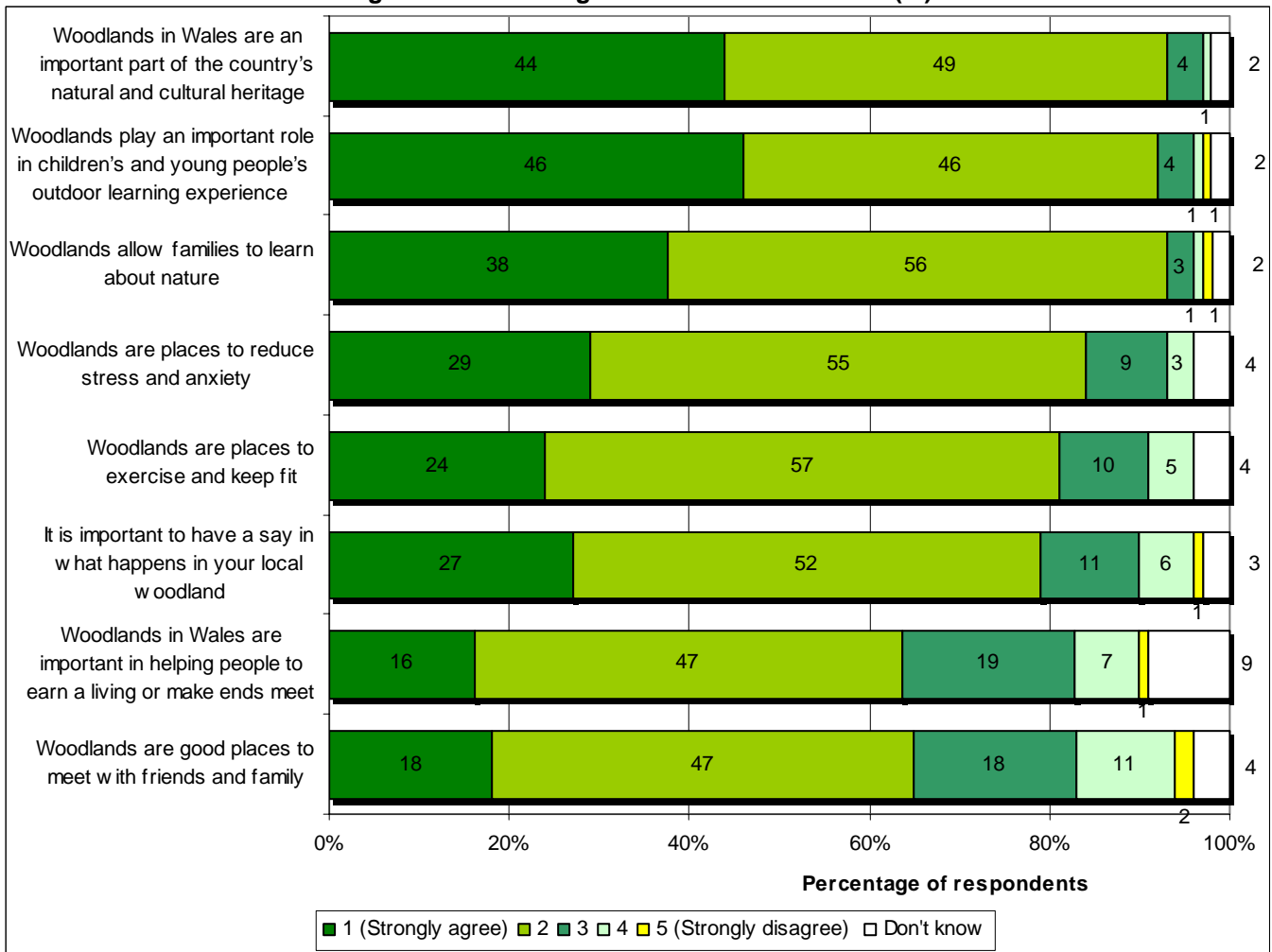
There was strong overall agreement with a series of statements presented to the respondents regarding their views on the purpose and potential uses of woodlands.

Over 90% of respondents strongly agreed or agreed that:

- Woodlands play an important role in children's and young people's outdoor learning experience;
- Woodlands in Wales are an important part of the country's natural and cultural heritage;
- Woodlands allow families to learn about nature.

The lowest levels of agreement were with the statements, 'Woodlands in Wales are important in helping people to earn a living or make ends meet' (63%) and 'Woodlands are good places to meet with friends and family' (66%).

Figure 2: Level of agreement with statements (%)



Base: All respondents (953)

Note: Where the areas are too small to display the percentages on the bars, they are displayed below.

Geographic comparisons

Figure 3 presents the proportion of respondents by region (of those who gave an opinion) who either strongly agreed or agreed with each statement.

For each part of this question, the geographic variables shown to be significant in the analysis are highlighted below; in the following statements, the proportion 'agreeing' refers to those respondents who answered either 'strongly agree' or 'agree':

Respondents agreeing that 'Woodlands are places to reduce stress and anxiety', Wales overall 87%:

- **Regional** - West South Wales 90%.

Respondents agreeing that 'Woodlands are places to exercise and keep fit', Wales overall 84%:

- **Regional** - North Wales 91%;
- **Rural/urban** - urban 82%; small town & fringe 79%; village 72%.

Respondents agreeing that 'Woodlands allow families to learn about nature', Wales overall 95%:

- **Regional** - West South Wales 98%.

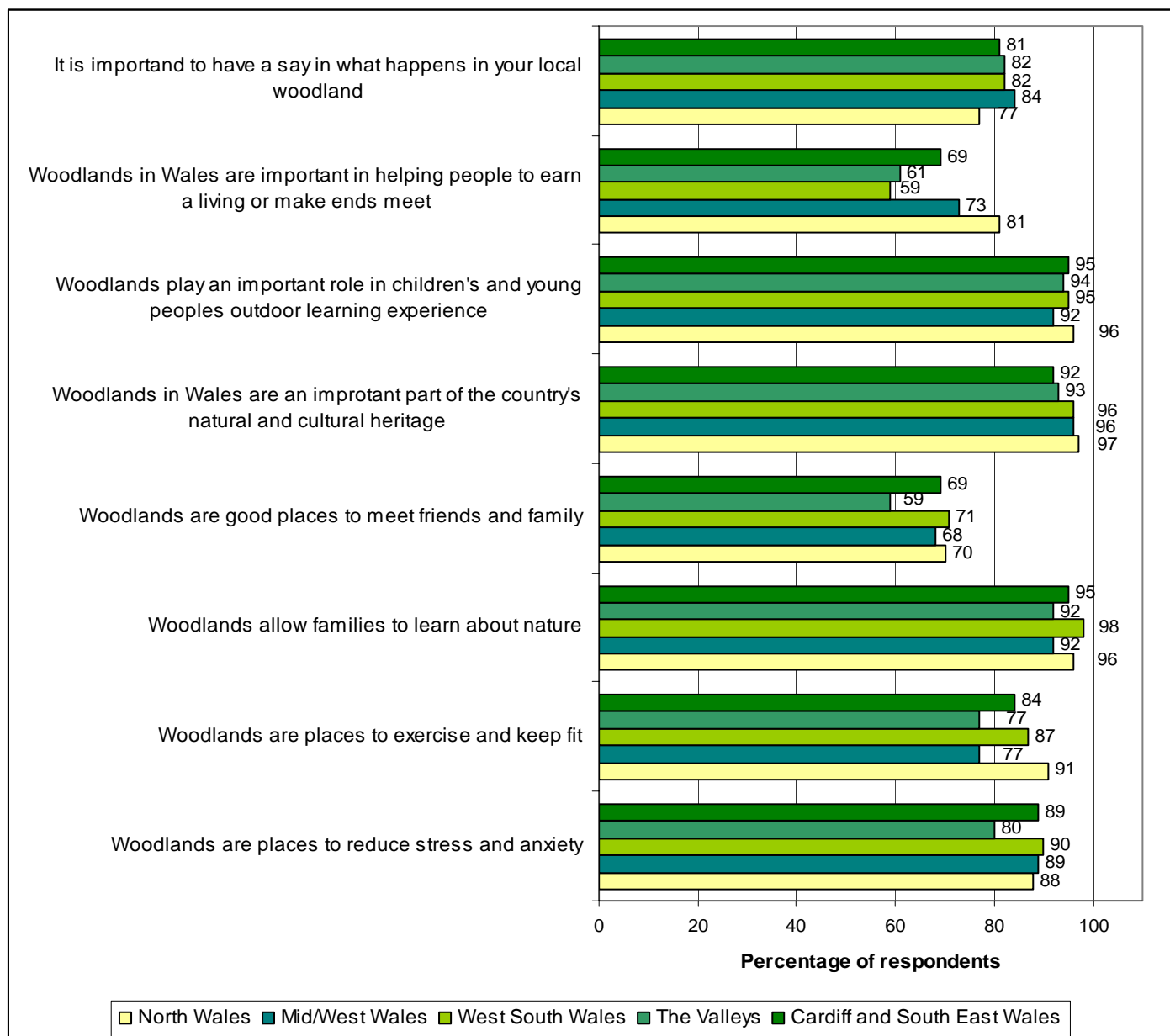
Respondents agreeing that 'Woodlands are good places to meet with friends and family', Wales overall 68%:

- **Deprivation** - least deprived areas 71%; most deprived areas 55%.

Respondents agreeing that 'Woodlands in Wales are important in helping people to earn a living or make ends meet', Wales overall 70%:

- **Regional** - Mid/West Wales 73%; North Wales 81%.

Figure 3: Level of agreement with statements about woodlands, by region (%)



Base: Respondents who gave a rating (ranging from 863 for 'Woodlands in Wales are important in helping people to earn a living or make ends meet' to 935 for 'Woodlands allows families to learn about nature')

Socio-demographic comparisons

Respondents agreeing that 'Woodlands are places to reduce stress and anxiety', Wales overall 87%:

- **Age group** - aged 16 to 34 81%; aged 35 to 54 92%; aged 55 and over 89%;
- **Visited woodland** - visited forests or woodlands recently 90%; not visited 57%.

Respondents agreeing that 'Woodlands are places to exercise and keep fit', Wales overall 84%:

- **Age group** - aged 16 to 34 80%; aged 35 to 54 85%; aged 55 and over 87%;
- **Visited woodland** - visited forests or woodlands recently 87%; not visited 71%.

Respondents agreeing that 'Woodlands allow families to learn about nature', Wales overall 95%:

- **Age group** - aged 16 to 34 91%; aged 35 to 54 96%; aged 55 and over 97%;
- **Visited woodland** - visited forests or woodlands recently (96%); not visited (89%);
- **Welsh language** - Welsh speakers (96%); non-Welsh speaker (94%).

Respondents agreeing that 'Woodlands are good places to meet with friends and family', Wales overall 68%:

- **Age group** - aged 16 to 34 65%; aged 35 to 54 67%; aged 55 and over 72%;
- **Social grade** - ABC1 74%; C2DE 63%;
- **Visited woodland** - visited forests or woodlands recently 72%; not visited 54%.

Respondents agreeing that 'Woodlands in Wales are an important part of the country's natural and cultural heritage', Wales overall 95%:

- **Visited woodland** - visited forests or woodlands recently 97%; not visited 87%;

Respondents agreeing that 'Woodlands play an important role in children's and young people's outdoor learning experience', Wales overall 94%:

- **Age group** - aged 16 to 34 91%; aged 35 to 54 95%; aged 55 and over 96%;
- **Visited woodland** - visited forests or woodlands recently 96%; not visited 86%;
- **Welsh language** - Welsh speakers 96%; non-Welsh speaker 94%.

Respondents agreeing that 'Woodlands in Wales are important in helping people to earn a living or make ends meet', Wales overall 70%:

- **Age group** - aged 16 to 34 61%; aged 35 to 54 70%; aged 55 and over 76%;
- **Illness or disability** - with long-term illness or disability 77%; without 67%;
- **Social grade** - ABC1 73%; C2DE 67%;
- **Visited woodland** - visited forests or woodlands recently 72%; not visited 61%.

Respondents agreeing that 'It is important to have a say in your local woodland', Wales overall 81%:

- **Visited woodland** - visited forests or woodlands recently 84%; not visited 71%;

3 Changes to woodland

'Woodlands for Wales'² states that the Welsh Assembly Government aims to provide opportunities for communities to have their say in the management of woods close to where they live. The UK Forestry Standard³ encourages woodland owners to involve local communities when making decisions about changing the look or the use of woodlands.

3.1 Public consultation over woodland change and use

This section reports on questions concerning public consultation. Respondents were asked whether they had ever been consulted, and would like to be consulted in the future, about plans for creating, managing or using woodlands in their area.

4% of respondents in the 2007 Welsh survey said that they had been consulted about plans for creating, managing or using woodlands in their area, the same proportion as in 2005.

The Wales 2007 survey respondents (43%) were more likely than Wales 2005 survey respondents (19%) to say that they would like to be consulted in the future. The proportion of the Wales 2007 survey respondents who would like to be consulted in the future was similar to the proportion of GB 2005 respondents.

Table 2: Public consultation about plans for creating, managing or using woodlands in your area, by region (%)

	GB 2005	Wales 2005	Wales 2007
Have ever been consulted	6	4	4
Would like to be consulted in the future	42	19	43

Base: All respondents - Wales 2007 (953), Wales 2005 (1,001), GB (4,000)

These questions were not asked in the UK 2007 or Wales 2003 surveys.

As already seen in section 2.2, one of the new additional questions asked respondents whether or not they agreed that 'it is important to have a say in what happens in your local woodland'. Figure 2 reveals that almost four-fifths of respondents either strongly agreed (27%) or agreed (52%) with this statement.

² FC Wales (2001): Wales woodland strategy, woodlands for Wales <http://www.forestry.gov.uk/forestry/infd-53vh7e>

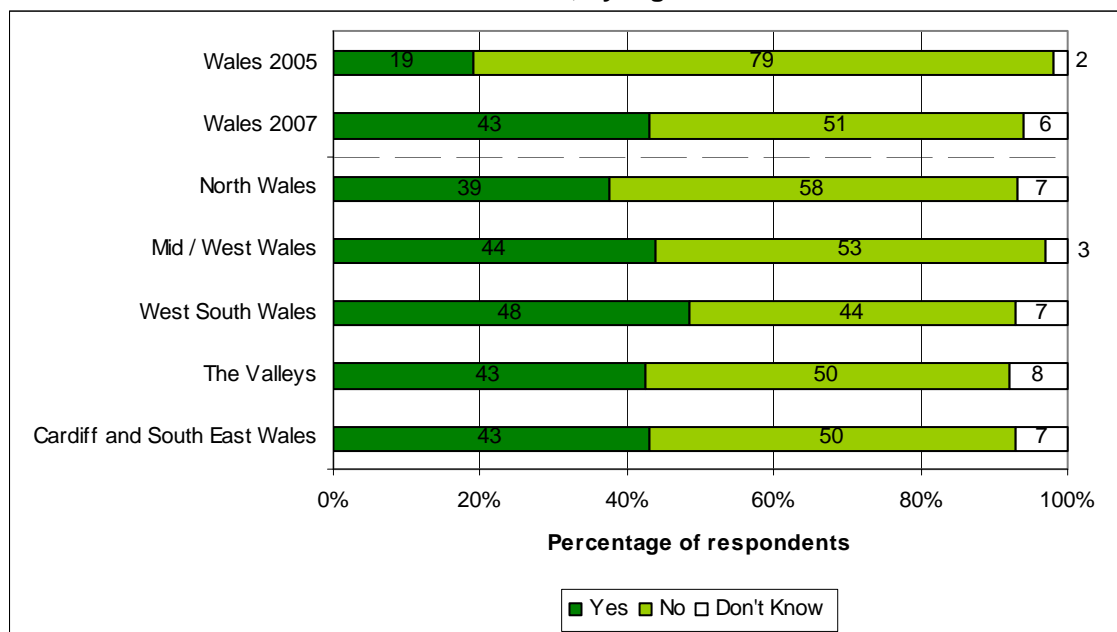
³ FC (2004): The UK Forestry Standard (2nd Edition); the government's approach to sustainable forestry, Forestry Commission, [http://www.forestry.gov.uk/PDF/fcfc001.pdf/\\$FILE/fcfc001.pdf](http://www.forestry.gov.uk/PDF/fcfc001.pdf/$FILE/fcfc001.pdf)

Geographic comparisons

There was no significant difference in the responses received from Welsh regions, or similarly, by degree of rurality or deprivation, regarding desire to be consulted about plans for creating, managing or using woodlands.

Respondents in North Wales (39%) were less likely than those from other regions to want to be consulted in the future about plans for creating, managing or using woodland in their area (Figure 4).

Figure 4: Whether respondent would like to be consulted (again) about plans regarding woodland in their area, by region



Base: All respondents (953)

Socio-demographic comparisons

For each part of this question, those socio-demographic variables shown to be significant in the analysis are highlighted below:

Respondents who had been consulted about plans for creating, managing or using woodlands in their area, Wales overall 4%:

- **Illness or disability** - with long-term illness or disability 7%; without 3%;
- **Social grade** - ABC1 6%; C2DE 3%;
- **Visited woodland** - visited forests or woodlands recently 5%; not visited 2%.

Respondents who wished to be consulted more often in the future about plans for creating, managing or using woodlands in their area, Wales overall 46%:

- **Aware of FC** - are aware of FC 48%; not aware of FC 35%;
- **Illness or disability** - with long-term illness or disability 49%; without 44%;
- **Visited woodland** - visited forests or woodlands recently 51%; not visited 23%.

4 Climate change

The Welsh Assembly Government believes that climate change is one of the biggest challenges facing the world, that we need to tackle its causes by reducing emissions of greenhouse gases and we need to adapt to the impacts of unavoidable climate change.

Globally, forest ecosystems play a key role in addressing climate change by absorbing carbon dioxide from the atmosphere and storing it in growing vegetation and soil. Deforestation caused by the unsustainable harvesting of timber and the conversion of forests to other land-uses leads to significant emissions of this stored carbon back to the atmosphere. Forests and woodlands can also be managed as a sustainable source of wood – an alternative energy source to fossil fuels, and a low-energy construction material.

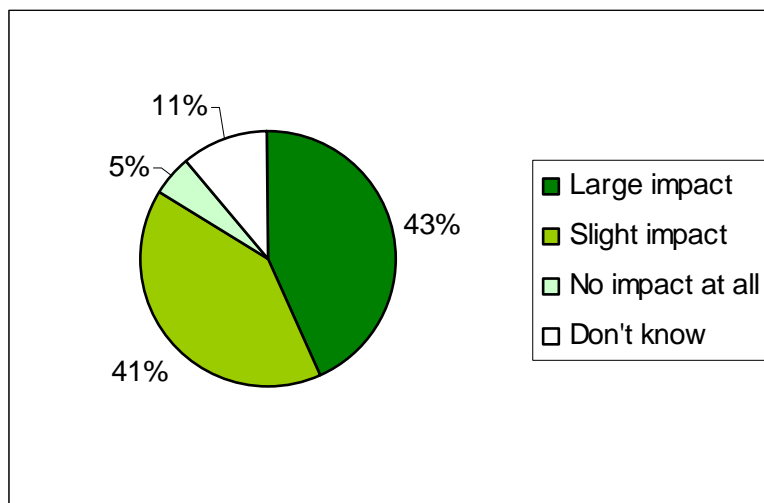
Although, on a world scale, they cover a small area (13.7% of the land area in Wales in 2007), the forests and woodlands in Wales have a role to play too.

A new section of questions on this issue was added to the 2007 survey. Section 6.4 of this report notes that when asked about Forestry Commission Wales' performance in responding to the challenge of climate change, just over a third of responses (35%) were positive and 6% were negative. Sections 4.1 to 4.3 report the results of the other new questions on this topic.

4.1 Impact of climate change

The vast majority of respondents believe that climate change will have an impact on Wales, with the largest proportion believing that there will be a large impact (43% of all respondents).

Figure 5: Impact on climate change (%)

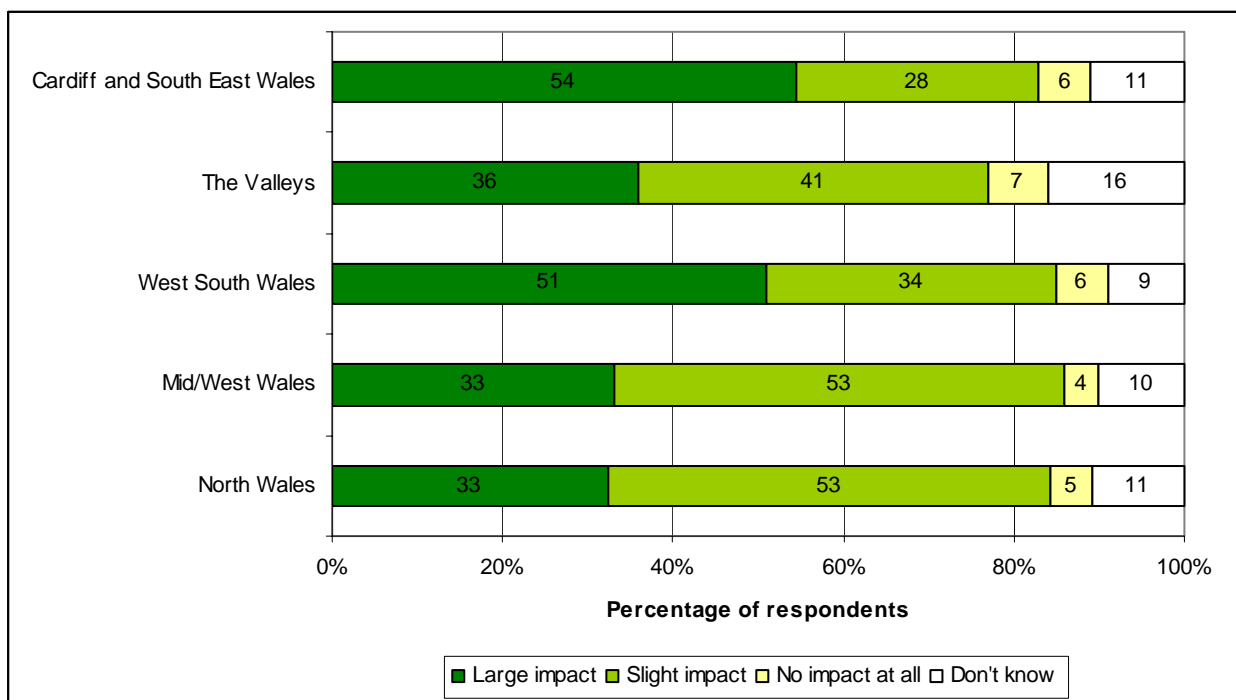


Base: All respondents (953)

Geographic comparisons (including those who responded 'don't know')

Figure 6 shows the breakdown of response by region. Respondents living in West South Wales (51%) and Cardiff and South East Wales (54%) were more likely than those elsewhere to believe that climate change will have a large impact on Wales.

Figure 6: Impact on climate change, by area (%)



Base: All respondent (953)

Socio-demographic comparisons (including those who responded 'don't know')

The socio-demographic variables shown to be significant in the analysis have been highlighted below. The percentage in brackets is the proportion that believed there would be no impact at all; excluding those who didn't provide a response, the overall result for Wales was 5%:

- **Employment** - respondents who were employed 4%; not employed 6%;
- **Gender** - male 7%; female 4%;
- **Visited woodland** - visited forests or woodlands recently 4%; not visited 8%;

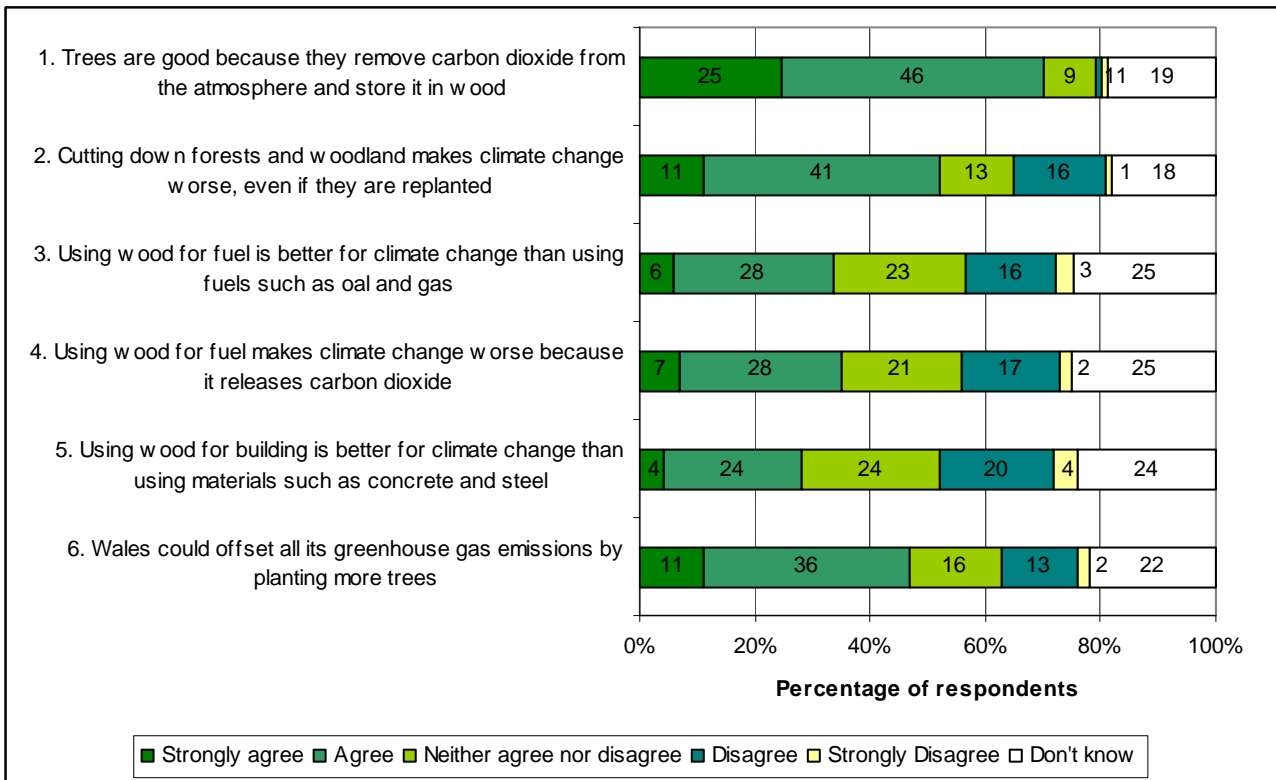
4.2 Woodlands impact on climate change

In an attempt to gauge both the beliefs and knowledge of the public on the relationship between forests and climate change, respondents were asked about their level of agreement with a set of statements regarding the ways in which forests and woodlands in Wales can impact on climate change.

Figure 7 reveals a high level of agreement with each of the statements, with more respondents agreeing (selecting '1 strongly agree' or '2 agree') with each statement than disagreeing (selecting '5 strongly disagree' or '4 disagree').

The highest level of agreement, almost three-quarters of respondents, was with the statement that 'Trees are good because they remove carbon dioxide from the atmosphere and store it in wood'. Around half of respondents believe that 'Cutting down forests and woodland makes climate change worse, even if they are replanted' and that 'Wales could offset all its greenhouse gas emissions by planting more trees'.

Figure 7: Ways in which forests and woodlands can impact on climate change (%)



Base: All respondents (953)

It is helpful to consider the numbered statements shown above in Figure 7 alongside the following common expert opinion⁴:

⁴ Statements and principles from the Forestry Commission 'Forestry and climate change' website: <http://www.forestry.gov.uk/forestry/inf-d-6umkar>

1. In general, it is believed that forests and woodlands have a key role to play in mitigating the effects of climate change. Forests and woodlands do help to stabilise atmospheric carbon dioxide by sequestering and storing carbon in trees, vegetation and soils.
2. In the short term, cutting down forests and woodlands does make climate change worse, as carbon stocks are released, but in the longer term this is countered by replanting. However, this harvesting and replanting should not be confused with deforestation, which implies a change in land cover from forest to non-forest land, whereas sustainable wood production involves cyclical harvesting and growing.
3. Wood and other materials derived from plants have an important contribution to make towards our future energy needs. Wood can be used as a low-carbon renewable energy source to substitute for fossil fuels.
4. Carbon released by burning woodfuel in modern, efficient systems is re-absorbed by growing trees in a cycle that reduces the amount of carbon released into the atmosphere. The long-term effect of tree planting, good forest management practices and burning woodfuel in efficient systems should be almost carbon neutral, however, such forests would of course not offset other emissions.
5. Wood products can be used as low-energy alternatives to materials such as concrete and steel, which involve high-energy use in their production. The biomass in wood products is also a carbon stock in its own right, just as much as biomass in living trees.
6. Afforestation makes an important contribution by sequestering carbon, but it is not feasible for the UK to become 'carbon neutral' through afforestation alone. It is estimated that to do this would require creation of some 50 million hectares of forest – approximately twice the land area of the UK. The same principle is of course also valid for individual countries such as Wales, where an impractical level of afforestation would be required.

Geographic comparisons

Figure 8 presents the proportion of respondents by region (of those who gave an opinion) who either strongly agreed or agreed with each statement.

There were no significant rural/urban or deprivation results.

Those regions shown to be significant in the analysis are highlighted below; in the statements below, the proportion 'agreeing' refers to those respondents who answered 'strongly agree' or 'agree':

Respondents agreeing that 'Trees are good because they remove carbon dioxide from the atmosphere and store it in wood', Wales overall 86%:

- **Region** - West South Wales 95%.

Respondents agreeing that 'Cutting down forests and woodlands makes climate change worse, even if they are replanted', Wales overall 63%:

- **Region** - West South Wales 71%.

Respondents agreeing that 'Using wood for fuel is better for climate change than using fuels such as coal and gas', Wales overall 45%:

- **Region** - North Wales 41%.

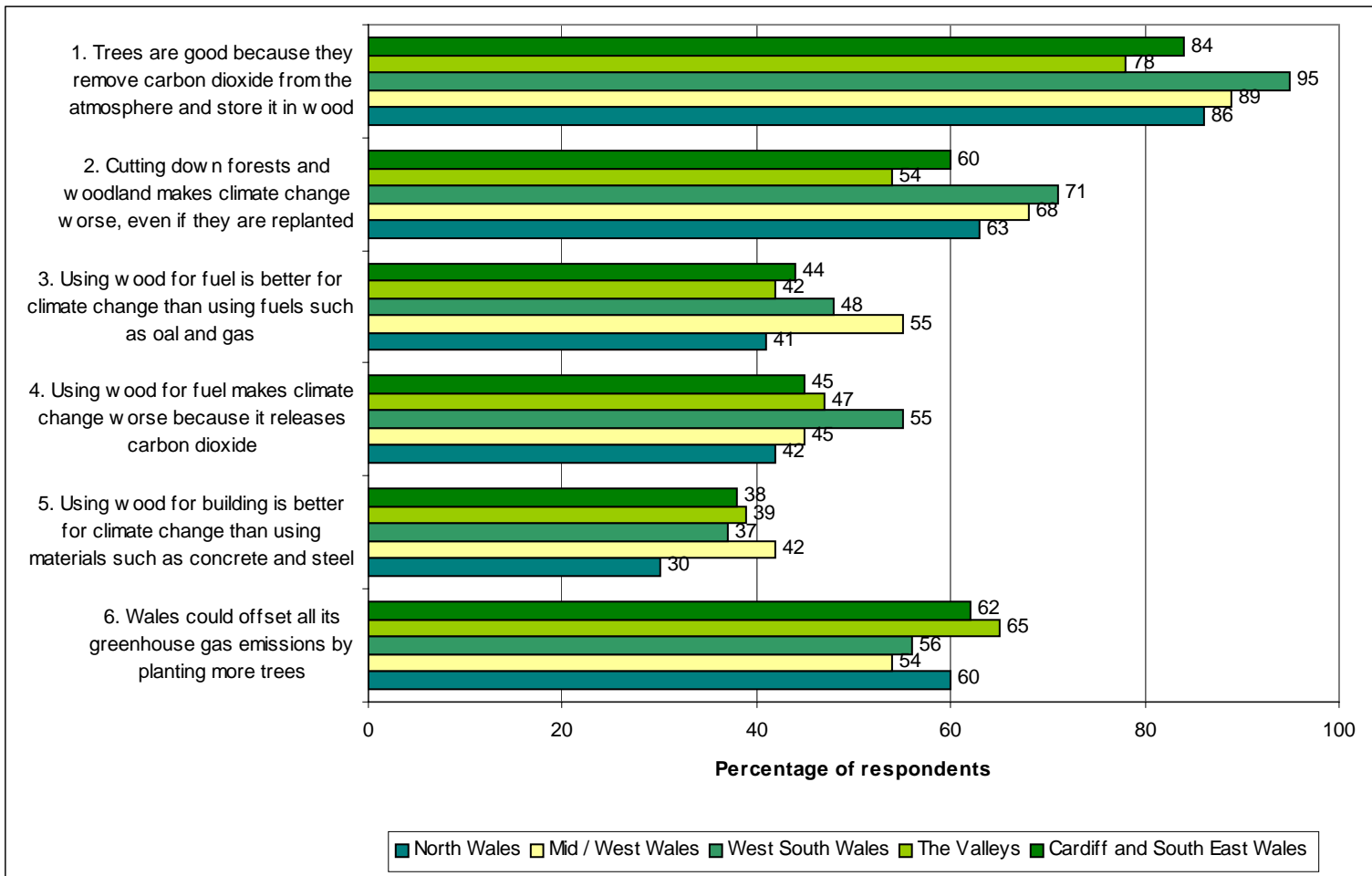
Respondents agreeing that 'Using wood for building is better for climate change than using materials such as concrete and steel', Wales overall 37%:

- **Region** - North Wales 30%.

Respondents agreeing that 'Wales could offset all its greenhouse gas emissions by planting more trees', Wales overall 60%:

- **Region** - Mid/West Wales 54%, West South Wales 56%.

Figure 8: Levels of agreement with statements about the ways in which forests and woodlands in Wales can impact on climate change, by region



Base: Respondents who gave an opinion, ranging from 710 for part 4 to 780 for part 2.

Socio-demographic comparisons

For each part of this question, those socio-demographic variables shown to be significant in the analysis are highlighted below; in the statements below, the proportion 'agreeing' refers to those respondents who answered 'strongly agree' or 'agree':

Respondents agreeing that 'Trees are good because they remove carbon dioxide from the atmosphere and store it in wood', Wales overall 86%:

- **Age group** - aged 16 to 34 81%; aged 35 to 54 89%; aged 55 and over 89%;
- **Gender** - male 90%; female 82%;
- **Visited woodland** - visited forests or woodlands recently 79%; not visited 76%.

Respondents agreeing that 'Cutting down forests and woodlands makes climate change worse, even if they are replanted', Wales overall 63%:

- **Illness or disability** - with long-term illness or disability 67%; without 62%.

Respondents agreeing that 'Using wood for fuel makes climate change worse because it releases carbon dioxide', Wales overall 47%:

- **Social grade** - ABC1 44%; C2DE 49%;
- **Visited woodland** - visited forests or woodlands recently 45%; not visited 53%.

Respondents agreeing that 'Using wood for building is better for climate change than using materials such as concrete and steel', Wales overall 37%:

- **Aware of FC** - are aware of FC 39%; not aware of FC 30%.

Respondents agreeing that 'Wales could offset all its greenhouse gas emissions by planting more trees', Wales overall 60%:

- **Illness or disability** - with long-term illness or disability 69%; without 56%.

4.3 Forest management in response to climate change

The respondents were then presented with a series of statements regarding the way in which Welsh forests and woodlands should be managed in response to the threat of climate change.

There was a clear distinction in the level of agreement with the six statements posed, but for each, the majority of responses were in line with most expert opinion, as displayed below in Figure 9.

The majority of respondents agreed or strongly agreed that:

- 'a lot more trees should be planted' (86%);
- 'more information should be provided about the ways in which wood can be used to lessen our impact on the environment' (79%); and that,
- 'different types of trees should be planted that will be more suited to future climates' (73%).

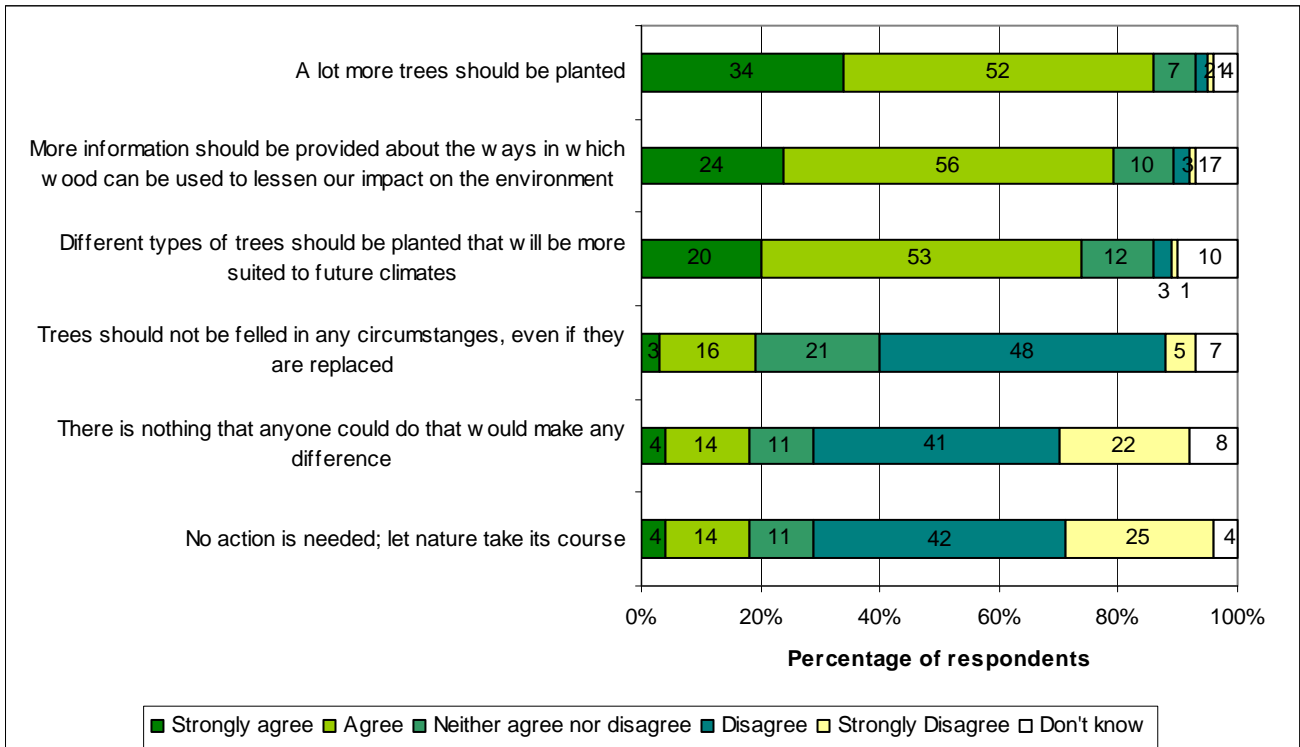
Agreement with these points reflects a belief that climate change is occurring but also some amount of faith that forestry and wood can be utilised in an attempt to mitigate changes.

Conversely, a majority of respondents disagreed or strongly disagreed that:

- 'no action is needed; let nature take its course' (67%)
- 'there is nothing that anyone could do that would make any difference' (63%); and that,
- 'trees should not be felled in any circumstances, even if they are replaced' (53%).

These results suggest that respondents believe we can and should use our knowledge of forestry to attempt to make a difference.

Figure 9: Management of Welsh forests in response to the threat of climate change (%)



Base: All respondents (953)

Geographic comparisons

Figure 10 presents the proportion of respondents by region (of those who gave an opinion) who either strongly agreed or agreed with each statement.

For each part of this question, the geographic variables shown to be significant in the analysis are highlighted below; in the following statements, the proportion 'agreeing' refers to those respondents who answered either 'strongly agree' or 'agree':

Respondents agreeing that 'More information should be provided about the ways in which wood can be used to lessen our impact on the environment'; Wales overall 85%:

- **Regional** - Mid/West Wales (82%).

Respondents agreeing that 'Different types of trees should be planted that will be more suited to future climates'; Wales overall 81%:

- **Regional** - Cardiff & South East (79%); Mid/West Wales (78%).
- **Rural/urban** - urban (83%); town & fringe (73%); village and hamlet & isolated dwelling (82%).

Respondents agreeing that 'Trees should not be felled in any circumstances, even if they are replanted'; Wales overall 21%:

Deprivation - least deprived areas 29%; most deprived areas 18%.

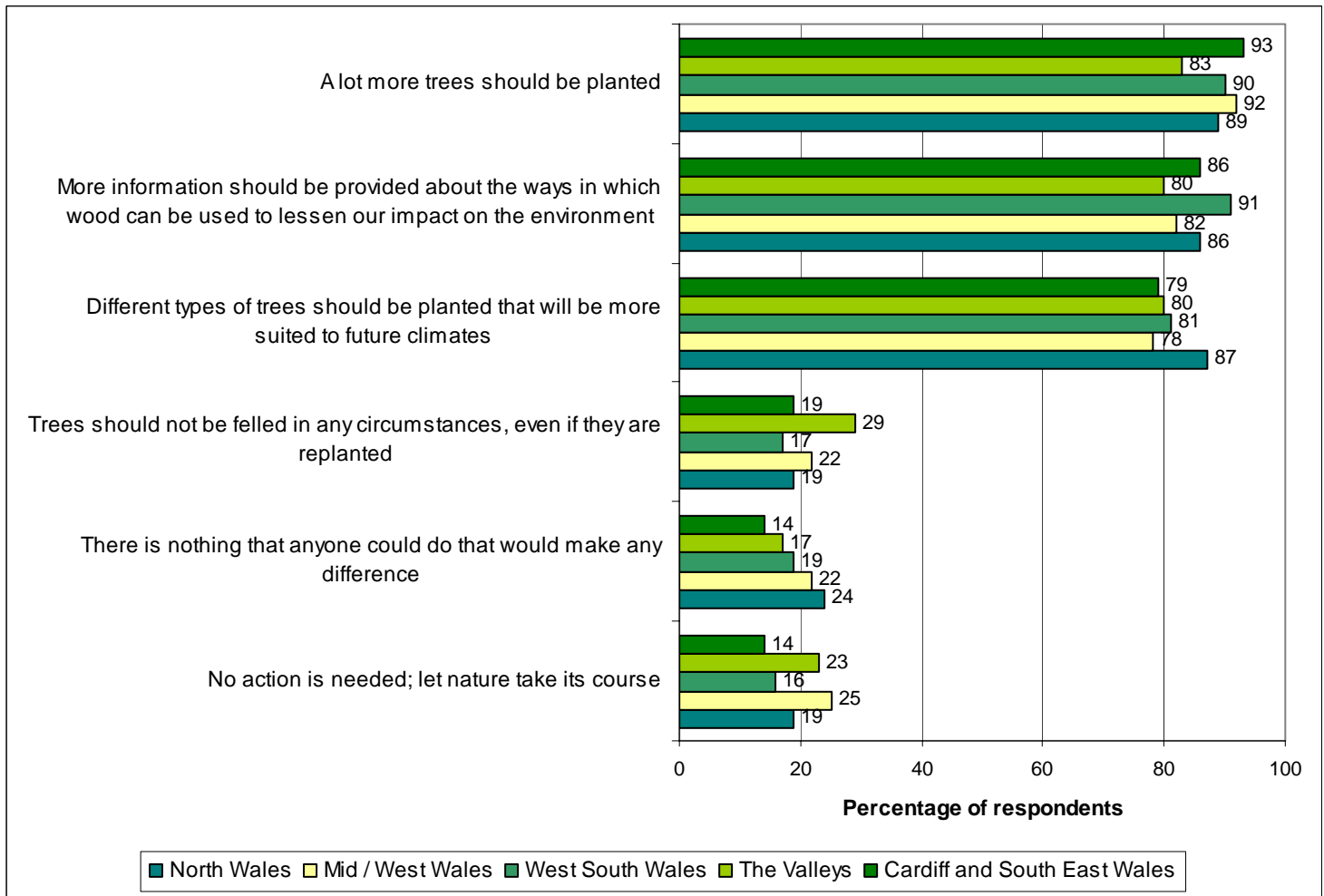
Respondents agreeing that 'There is nothing that anyone could do that would make any difference'; Wales overall 19%:

- **Regional** - Cardiff & South East 14%;
- **Rural/urban** - urban 15%; town & fringe 24%; village and hamlet & isolated dwelling 26%.

Respondents agreeing that 'No action is needed; let nature take its course'; Wales overall 19%:

- **Regional** - Cardiff & South East 14%; West South Wales 16%, Mid/West Wales 25%.

Figure 10: Levels of agreement with statements about how Welsh forests and woodlands should be managed in response to the threat of climate change, by region (%)



Base: Those who gave an opinion (ranging from 860 to 913).

Socio-demographic comparisons

For each part of this question, those socio-demographic variables shown to be significant in the analysis are highlighted below:

Respondents agreeing that 'A lot more trees should be planted', Wales overall 89%:

- **Age group** - aged 16 to 34 84%; aged 35 to 54 92%; aged 55 and over 93%;
- **Aware of FC** - are aware of FC 92%; not aware of FC 79%;
- **Visited woodland** - visited forests or woodlands recently 91%; not visited 84%.

Respondents agreeing that 'More information should be provided about the ways in which wood can be used to lessen our impact on the environment'; Wales overall 85%:

- **Children** - respondents with children 80%; without children 88%;
- **Employment** - respondents who were employed 88%; not employed 82%;
- **Gender** - male 82%; female 88%;
- **Illness or disability** - with long-term illness or disability 87%; without 84%;
- **Visited woodland** - visited forests or woodlands recently 87%; not visited 77%.

Respondents agreeing that 'Different types of trees should be planted that will be more suited to future climates'; Wales overall 81%:

- **Age group** - aged 16 to 34 75%; aged 35 to 54 83%; aged 55 and over 86%;
- **Gender** - male 80%; female 76%;
- **Social grade** - ABC1 78%; C2DE 84%.

Respondents agreeing that 'Trees should not be felled in any circumstances, even if they are replanted'; Wales overall 21%:

- **Aware of FC** - are aware of FC 19%; not aware of FC 26%;
- **Employment** - respondents who were employed 16%; not employed 22%;
- **Social grade** - ABC1 16%; C2DE 25%.

Respondents agreeing that 'There is nothing that anyone could do that would make any difference'; Wales overall 19%:

- **Employment** - respondents who were employed 15%; not employed 24%;
- **Visited woodland** - visited forests or woodlands recently 17%; not visited 28%.

Respondents agreeing that 'No action is needed; let nature take its course'; Wales overall 19%:

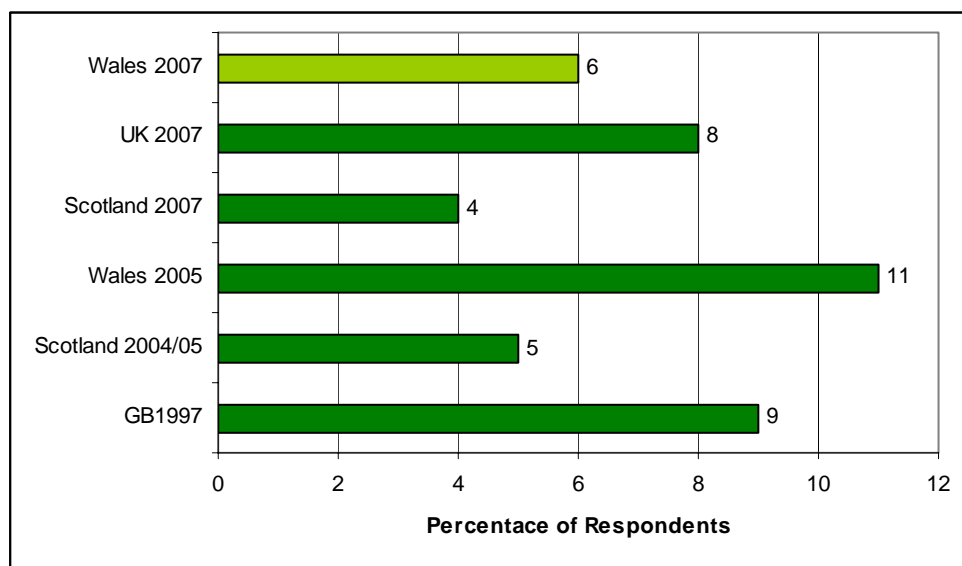
- **Aware of FC** - are aware of FC 17%; not aware of FC 25%;
- **Employment** - respondents who were employed 14%; not employed 24%;
- **Visited woodland** - visited forests or woodlands recently 15%; not visited 33%.

5 Wood as a fuel

In 2007, 6% of respondents to the Wales survey said that they used wood as a fuel in their home, either on its own, or with other fuels. This question was asked in separate 2007 public opinion surveys undertaken across the UK and in Scotland, in the 2005 Wales public opinion survey, in a woodfuel consumption study in Scotland in 2004/05 and additionally in the GB firewood survey in 1997.

Each of these surveys identified a small proportion of respondents who used wood as a fuel. Although the proportion of respondents answering yes is lower in the 2007 Wales survey (6%) than in the 2005 Wales survey (11%), the difference is not quite large enough to be significant at the 95% confidence level. It is notable that the UK result is not significantly different to the GB result from ten years earlier.

Figure 11: Proportion of respondents who use wood as a fuel in their home (%)



Base: All respondents in - Wales 2007 (953), Wales 2005 (1,001), UK 2007 (4,000), Scotland 2007 (1,007), Scotland 2004/5 (4,006), GB 1997 (2,000)

Geographic comparisons

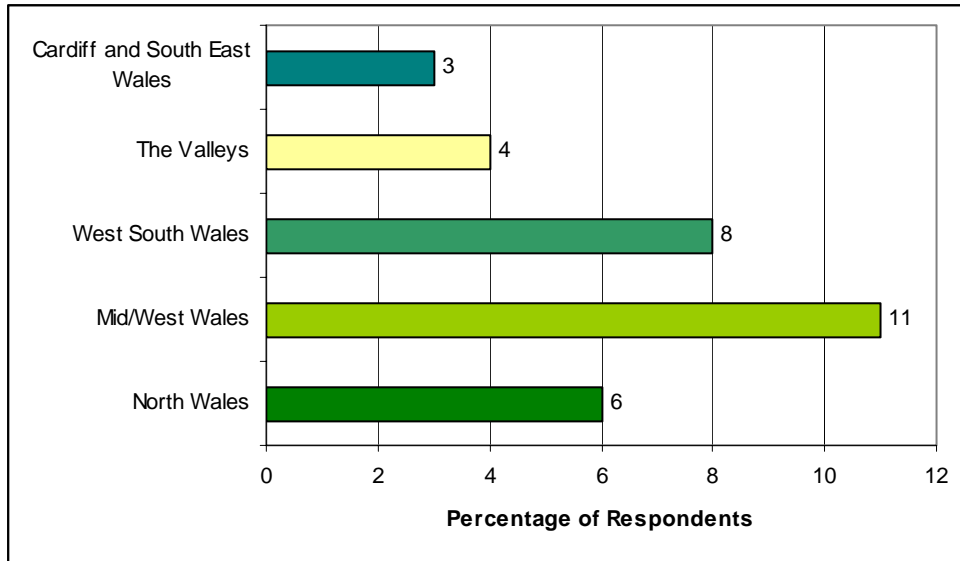
Respondents living in more rural areas are more likely to use wood as a fuel in their home (urban - 4%, small towns & fringe - 9%, village - 12%).

Although not statistically significant in the analysis, Figure 12 presents information on the regional woodfuel usage results.

Socio-demographic comparisons

Respondents who had visited woodland in the last few years are more likely to use wood as a fuel in their home (have visited 7%, have not visited 4%).

Figure 12: Proportion of respondents who use wood as a fuel in their home, by region (%)



Base: All respondents (953)

The respondents who did use wood for fuel were asked three further questions:

- Around four in ten respondents gathered their woodfuel themselves or obtained it a few bags at a time, one in seven received it by the truck load;
- Almost two-thirds of respondents classified themselves as an occasional user, while the rest said they used wood as a fuel regularly;
- Of those using wood, two in ten used it as the main fuel for heating their home, while the rest mainly use something else.

As only 58 respondents used wood as a fuel, no geographic or socio-demographic analysis was carried out on the subsequent questions about using wood as a fuel.

6 Awareness of Forestry Commission Wales

The Forestry Commission is the government department responsible for forestry in Great Britain. Since devolution in 1999, most policy and operational responsibility has been devolved to national offices in Wales and in England and Scotland.

6.1 Awareness of Forestry Commission Wales

Respondents were asked whether they had heard of Forestry Commission Wales; 80% answered 'yes', 19% 'no' and 1% 'don't know'.

Geographic comparisons

No significant geographic differences emerged from the analysis of this question.

Socio-demographic comparisons

The socio-demographic variables shown to be significant in the analysis are highlighted below:

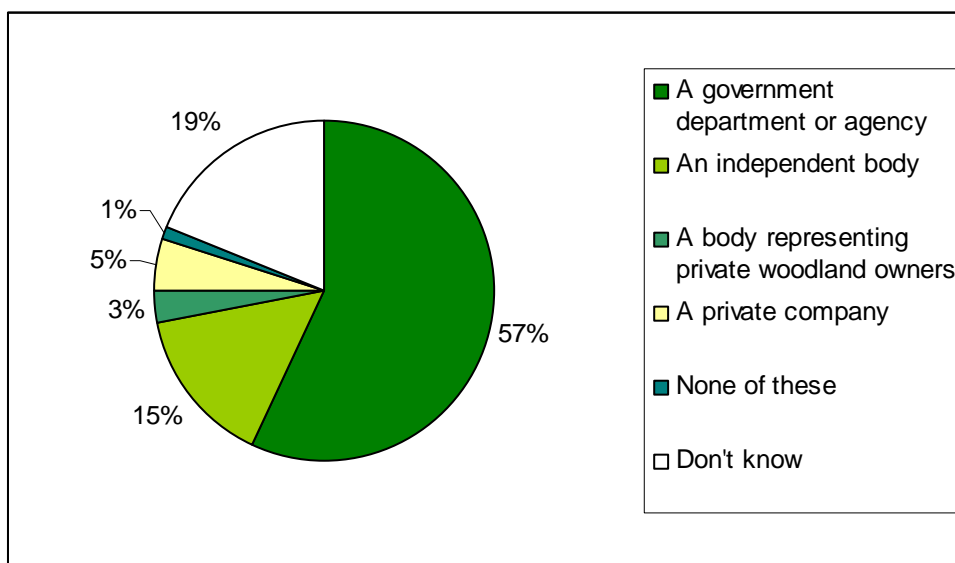
Respondents that had heard of Forestry Commission Wales:

- **Age group** - aged 16 to 34 62%; aged 35 to 54 84%; aged 55 and over 92%;
- **Illness or disability** - with long-term illness or disability 85%; without 78%;
- **Children** - respondents with children 67%; without children 88%;
- **Social grade** - ABC1 90%; C2DE 72%;
- **Employment** - respondents who were employed 84%; not employed 76%;
- **Visited woodland** - visited forests or woodlands recently 83%; not visited 73%;

6.2 Perception of Forestry Commission Wales

Of those respondents who had heard of Forestry Commission Wales, 57% correctly identified it as a government department or agency (Figure 13), 15% thought that it was an independent body, and 19% said that they did not know its status.

Figure 13: Perception of status of Forestry Commission Wales (%)

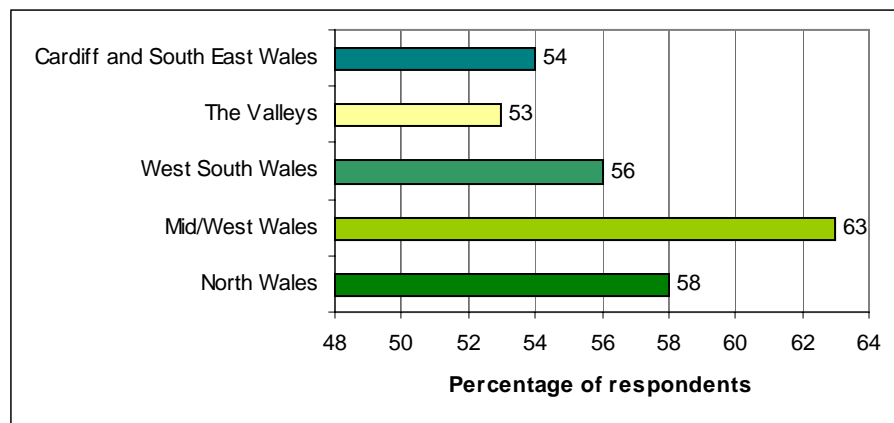


Base: Respondents who had heard of Forestry Commission Wales – 765

Geographic comparisons (including those who responded 'don't know')

Analysis showed that respondents living in Mid/West Wales were more likely than those living elsewhere to correctly identify FC Wales as a government department or agency.

Figure 14: Respondents correctly identifying FC Wales as a government department or agency (%)



Base: Respondents who had heard of Forestry Commission Wales – 765

Socio-demographic comparisons (including those who responded 'don't know')

The socio-demographic variables shown to be significant in the analysis are highlighted below:

Respondents who correctly identified status of Forestry Commission Wales, Wales overall 57%:

- **Age group** - aged 16 to 34 (54%); aged 35 to 54 (56%); aged 55 and over (59%);
- **Children** - respondents with children (54%); without children (58%);
- **Gender** - male (61%); female (53%);
- **Social grade** - ABC1 (60%); C2DE (54%);
- **Visited woodland** - visited forests or woodlands recently (59%); not visited (47%);

Comparisons with previous surveys

Although this question was asked in previous GB and UK surveys (see Table 3), it was not asked in earlier Welsh surveys. The Welsh 2007 responses are similar to those from the GB and UK surveys between 1997 and 2005, although Welsh 2007 respondents were less likely than their GB and UK survey counterparts to think the Forestry Commission was an independent body and more likely to state 'don't know'.

Table 3: Perception of status of Forestry Commission (%)

	GB 1997	GB 1999	GB 2001	UK 2003	GB 2005	Wales 2007
Government department or agency	61	62	62	60	60	57
Independent body	20	21	23	23	24	15
Body representing woodland owners	7	3	2	2	3	5
Private company	--	3	3	3	2	3
Don't know	12	11	10	12	11	19

Base: Respondents who had heard of the Forestry Commission – Wales 2007 (765), GB 2005 (2,455), UK 2003 (2,596), GB 2001 (1,440), GB 1999 (1,440), GB 1997 (1,540)

6.3 Forestry Commission Wales activities

Most respondents showed a fairly good awareness of a range of Forestry Commission activities⁵. The vast majority were aware that the Forestry Commission lets the public walk in its woodlands (91%) and improves woodland habitats for wildlife (91%). Fewer respondents were aware that the Forestry Commission gives grants to private woodland owners (38%).

Table 4: Perception of activities carried out by Forestry Commission Wales (%)

	GB 2005	Wales 2007		
	Yes	Yes	No	<i>Don't know</i>
Improves woodland habitats for wildlife	88	91	1	7
Lets the public walk in its woods and forests	89	91	3	6
Provides trails for cycling and horseriding	82	88	3	9
Carries out scientific studies	78	71	6	23
Sells Christmas trees	59	68	14	18
Gives grants to private woodland owners	38	38	15	47

Base: Respondents who had heard of Forestry Commission Wales – 765, GB 2005 - 2,455 (the GB survey asked about Forestry Commission, not FC Wales).

Comparison with previous surveys

Although this question was not asked in earlier Welsh surveys, it has previously been asked in GB and UK surveys. Table 4 shows that the proportion of respondents answering 'yes' was similar in the Wales 2007 and GB 2005 surveys.

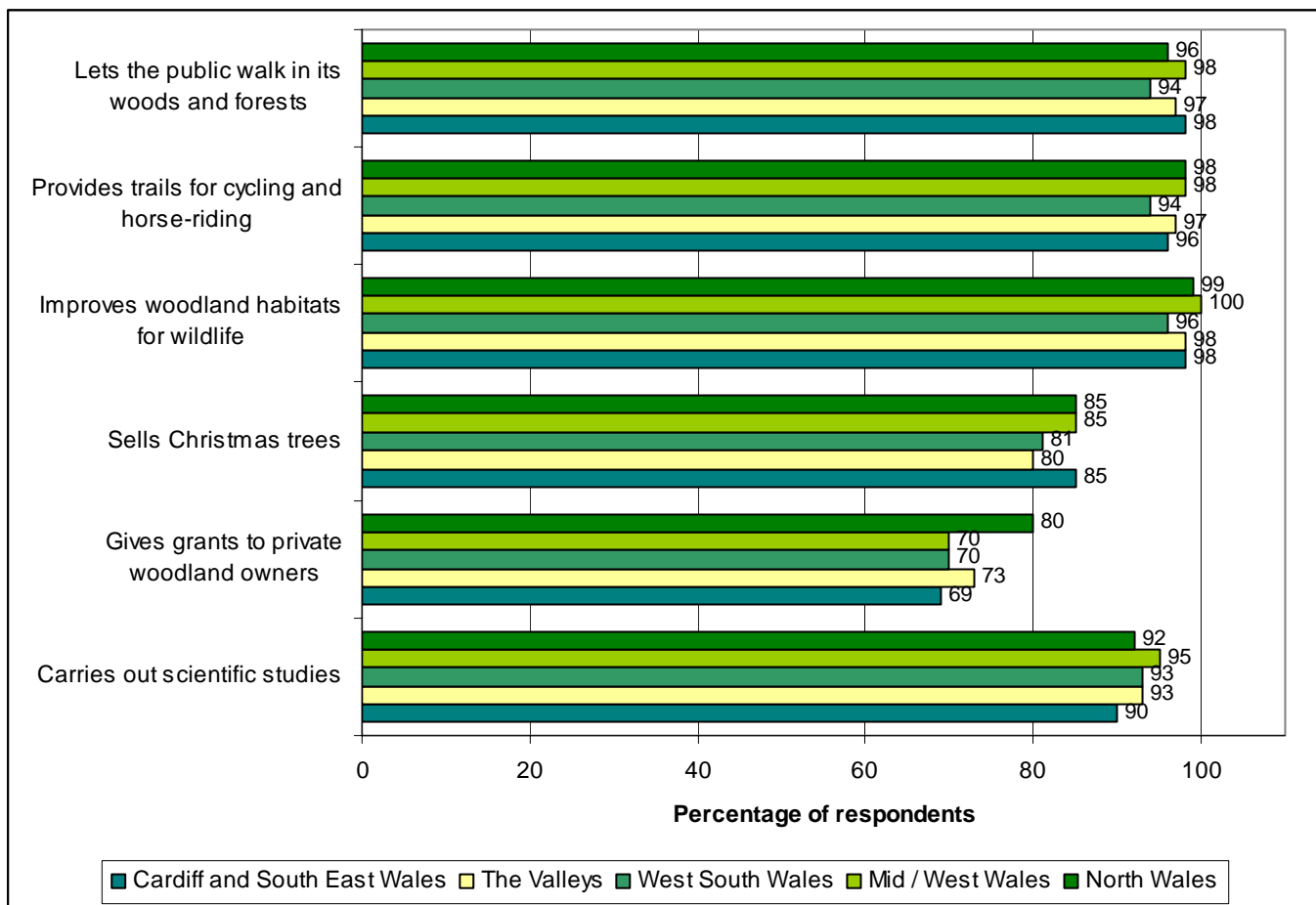
Geographic comparisons

Respondents from the West South Wales region were less likely than those from elsewhere to think that Forestry Commission Wales improves woodland habitats for wildlife and that it provides trails for cycling and horseriding. Those from North Wales were more likely to believe that the Forestry Commission gives grants to private woodland owners. (Figure 15).

Those from more rural areas were less likely to believe that the Forestry Commission provides trails for cycling and horseriding (urban 98%, small town & fringe 93%, village 92%).

⁵ It is possible that the levels of awareness may be overstated, as some respondents may have guessed that the correct response to every activity listed was "yes".

Figure 15: Perception of activities carried out by the Forestry Commission, by region (%)



Base: Those respondents that had heard of FC Wales and gave an opinion, ranging from 405 for 'Giving grants to private woodland owners' to 718 for 'Lets the public walk in its woods and forests'

Socio-demographic comparisons

The socio-demographic variables shown to be significant in the analysis are highlighted below:

Respondents believing that the Forestry Commission 'Lets the public walk in its woods and forests', Wales overall 97%:

- **Age group** - aged 16 to 34 94%; aged 35 to 54 97%; aged 55 and over 98%;
- **Illness or disability** - with long-term illness or disability 95%; without 98%.

Respondents believing that the Forestry Commission 'Provides trails for cycling and horse-riding', Wales overall 97%:

- **Age group** - aged 16 to 34 93%; aged 35 to 54 98%; aged 55 and over 98%;
- **Employment** - employed 98%; not employed 95%;
- **Visited woodland** - visited forests or woodlands recently 97%; not visited 92%;

Respondents believing that the Forestry Commission 'Sells Christmas trees', Wales overall 83%:

- **Age group** - aged 16 to 34 65%; aged 35 to 54 84%; aged 55 and over 92%;
- **Social grade** - ABC1 86%; C2DE 80%;
- **Welsh language** - Welsh speakers (79%); non-Welsh speaker (85%).

Respondents believing that the Forestry Commission 'Gives grants to private woodland owners', Wales overall 72%:

- **Age group** - aged 16 to 34 61%; aged 35 to 54 76%; aged 55 and over 75%.

Respondents believing that the Forestry Commission 'Carries out scientific studies', Wales overall 92%:

- **Age group** - aged 16 to 34 86%; aged 35 to 54 92%; aged 55 and over 96%;
- **Social grade** - ABC1 95%; C2DE 89%.

6.4 Performance of Forestry Commission Wales

Respondents were asked to rate the performance of Forestry Commission Wales in pursuing some of its main aims:

- in managing and protecting Forestry Commission woodland in Wales;
- in encouraging other landowners to protect and expand Welsh woodlands; and
- in responding to the challenge of climate change.

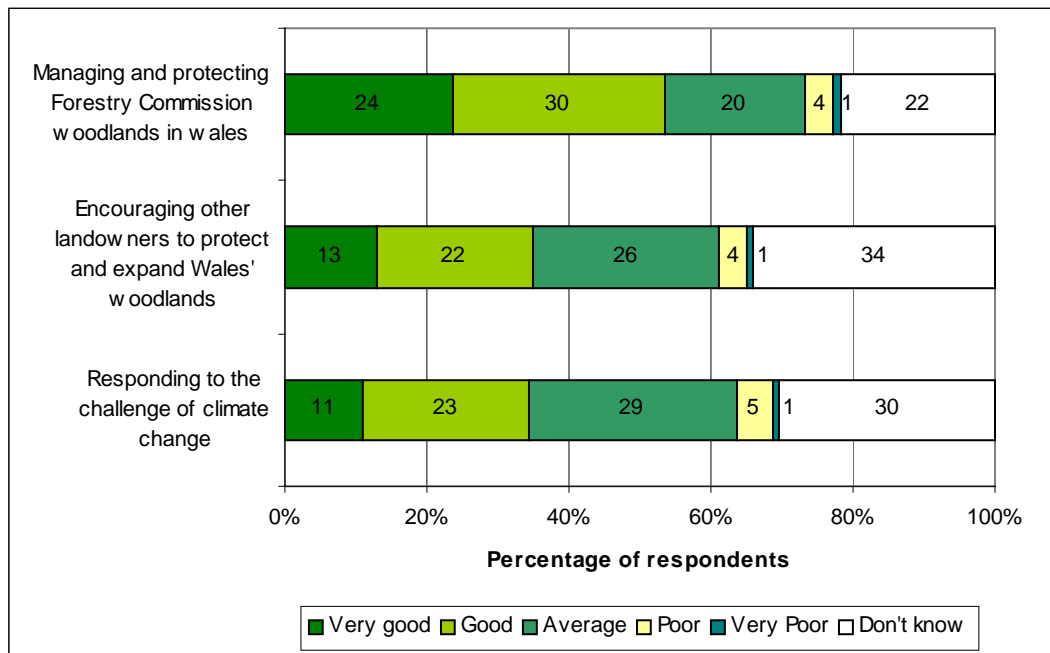
Ratings were given on a scale of 1-5, 1 being 'very good' and 5 being 'very poor'.

Figure 16 shows that more than half of respondents (54%) who were aware of Forestry Commission Wales gave their performance in managing and protecting their own woodlands a rating of 1 (very good) or 2.

Around a third of respondents (35%) gave ratings of 1 or 2 for the Forestry Commission's work with other landowners and around a third of respondents (34%) said that they could not rate the Forestry Commission on this activity, possibly because fewer people were aware of this role.

When asked about Forestry Commission Wales' performance in responding to the challenge of climate change 35% of responses were positive (1 'very good' or 2) and 6% were negative (5 'very poor' or 4).

Figure 16: Rating of Forestry Commission Wales' performance (%)



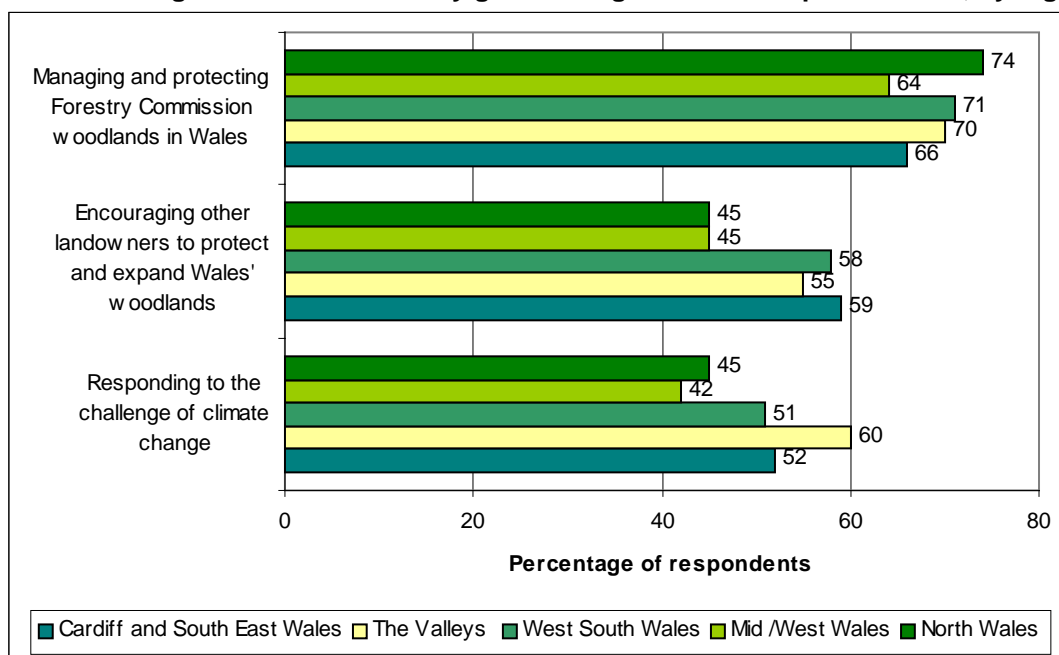
Base: Respondents who had heard of Forestry Commission Wales – 765

Geographic comparisons

Respondents from Mid/West Wales are less likely than those living elsewhere to rate all the elements of the Forestry Commission Wales' overall performance as 'Good' or 'Very Good'.

Respondents from North Wales are more likely than those living elsewhere to highly rate Forestry Commission Wales' performance in managing and protecting Forestry Commission woodlands in Wales.

Figure 17: 'Good' or 'very good' rating of FC Wales' performance, by region



Base: Those who had heard of the Forestry Commission and gave a response, ranging from 506 to 598

Socio-demographic comparisons

The socio-demographic variables shown to be significant in the analysis are highlighted below:

Respondents giving high rating for Forestry Commission Wales' performance in managing and protecting Forestry Commission woodlands in Wales, overall Wales 69%:

- **Children** - respondents with children 73%; without 69%;

Respondents giving high rating for Forestry Commission Wales' performance in encouraging other landowners to protect and expand Wales' woodlands, overall Wales 52%:

- **Age group** - aged 16 to 34 45%; aged 35 to 54 49%; aged 55 and over 57%.

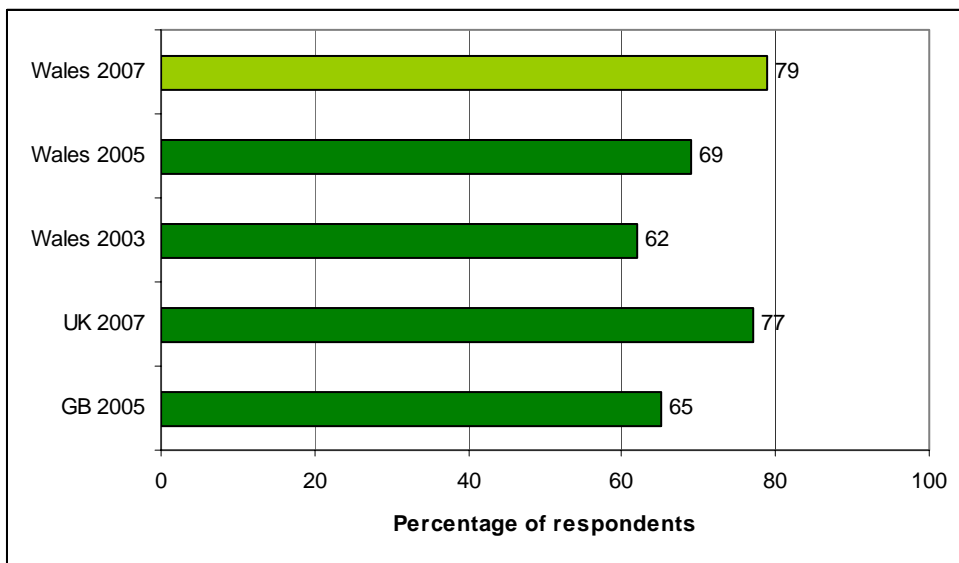
7 Woodland recreation

'Woodlands for Wales states that the Welsh Assembly Government aims to use woodlands to help create a high quality visitor experience as well as to promote health through access to woodlands for all. This section deals with questions relating to recreation in woodlands.

7.1 Visits to woodland

Over three-quarters of respondents (79%) said that they had visited forests or woodlands for walks, picnics or other recreation in the last few years (Figure 18). This represents a significant increase over the 2005 and 2003 Wales survey results and is in line with the 2007 UK survey result.

Figure 18: Visited woodland in last few years (%)



Base: All respondents - Wales 2007 (953), 2005 (1,001), 2003 (1,000), UK 2007 (4,000), GB 2005 (4,000)

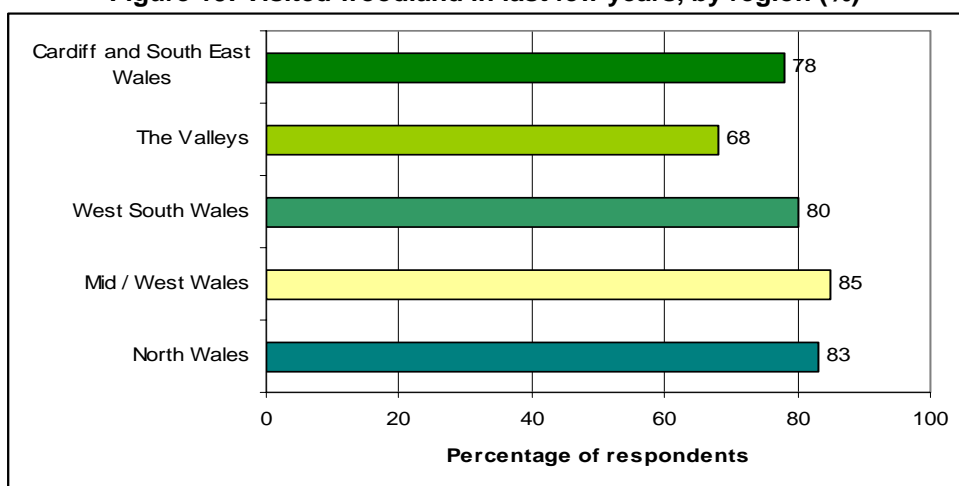
Some of the new questions already reported in section 2.2, related to woodland recreation; for example, over four-fifths of respondents either agreed (57%) or strongly agreed (24%) that woodlands are places to exercise and keep fit.

Geographic comparisons

Figure 19 shows that those respondents who live in The Valleys were less likely to have visited forests or woodlands in the last few years than those in other regions.

In addition, those living in the most deprived areas (69%) were less likely to have visited woodlands than those in the least deprived areas (82%).

Figure 19: Visited woodland in last few years, by region (%)



Base: All adults (953)

Socio-demographic comparisons

The socio-demographic variables shown to be significant in the analysis are highlighted below:

Respondents who have visited forests or woodlands in the last few years, overall Wales 80%:

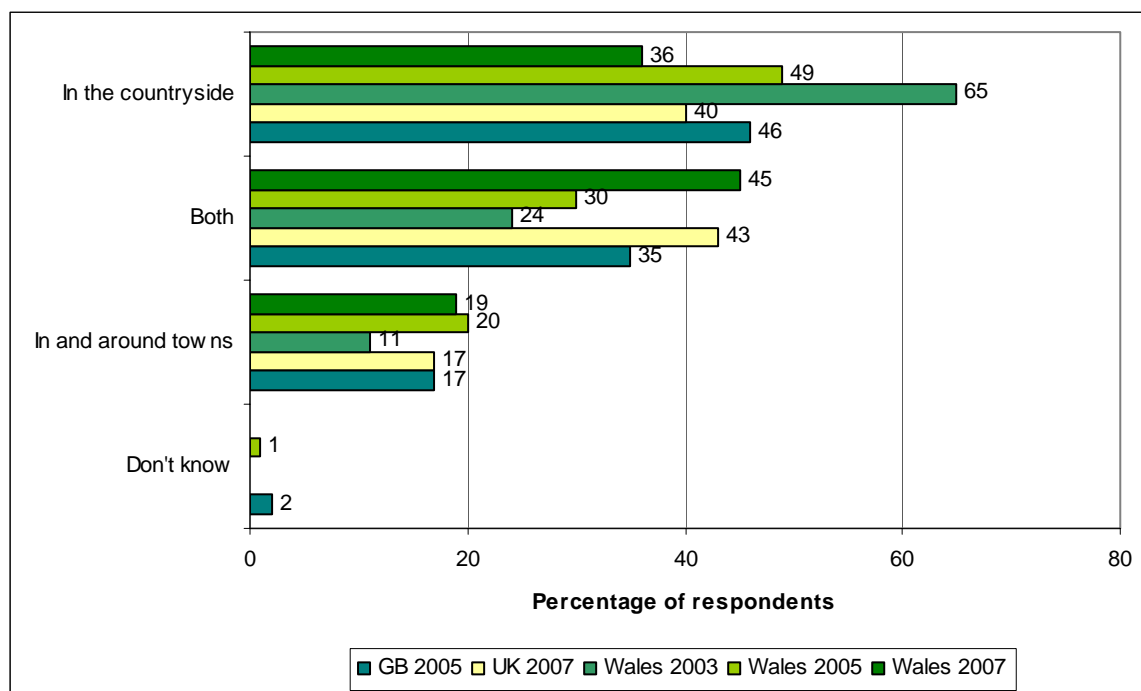
- **Age group** - aged 16 to 34 84%; aged 35 to 54 83%; aged 55 and over 71%;
- **Aware of FC** - respondents who heard of FC Wales 81%; not heard of FC Wales 70%;
- **Illness or disability** - with long-term illness or disability 68%; without 85%;
- **Social grade** - ABC1 85%; C2DE 73%;

7.2 Type of woodland visited

Figure 20 shows an increase in the proportion of Welsh survey respondents stating that they had visited woodlands in and around towns (i.e. responding either 'both' or 'in and around towns'), from 50% in 2005 to 64% in 2007. Around four-fifths of respondents said that they had visited woodlands in the countryside in 2007 (81%) and 2005 (79%), (i.e. they responded either 'in the countryside' or 'both').

The responses from the Wales 2007 survey are similar to those received from the UK 2007 survey.

Figure 20: Type of woodland visited (%)



Base: Respondents who had visited woodland in the last few years - Wales 2007 (751), 2005 (694), 2003 (620), UK 2007 (3,065), GB 2005 (2,672)

Geographic Comparisons

Figure 21 shows the proportions of respondents from each region who had visited woodlands in the countryside and woodlands in and around towns in the last few years.

For each part of this question, the geographic variables shown to be significant in the analysis are highlighted below;

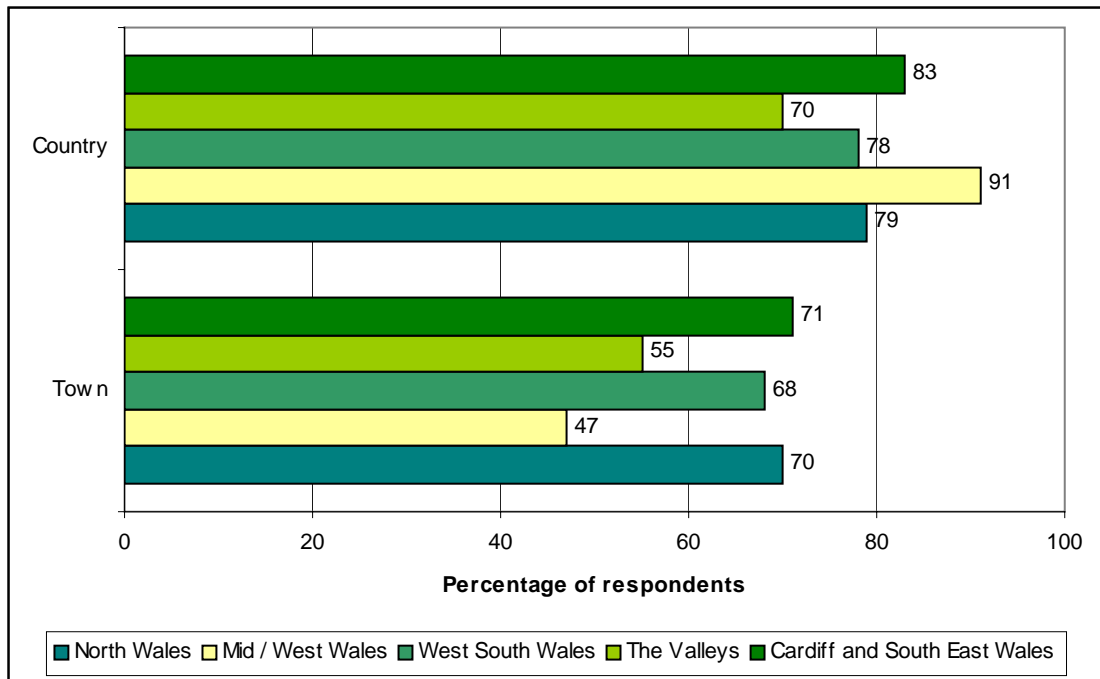
Respondents who have visited woodlands in and around towns; overall Wales 64%:

- **Rural/urban** - urban 72%, small towns & fringe 58%, village 32%;
- **Region** - North Wales 70%, West South Wales 68%; Cardiff and South East Wales 71%.

Respondents who have visited woodlands in the countryside; overall Wales 81%:

- **Rural/urban** - urban 77%, small towns & fringe 81%, village 97%;
- **Region** - The Valleys 70%.

Figure 21: Locations of visited forests, by region (%)



Base: Those who had visited forests or woodlands recently (751)

Socio-demographic comparisons

The socio-demographic variables shown to be significant in the analysis are highlighted below:

Respondents more likely to visit woodlands in and around towns, overall Wales 64%:

- **Children** - respondents with children (62%); without (64%);

Respondents more likely to visit woodlands in the countryside overall Wales 81%:

- **Aware of FC** - respondents who heard of FC Wales (83%); not heard of FC Wales (68%);
- **Social grade** - ABC1 (85%); C2DE (76%);

7.3 Reasons for not visiting woodland

Respondents who had not visited woodlands in the last few years were asked to specify their reasons for not doing so. The main reasons cited in the Wales 2007 survey for not visiting a forest or woodland were that the respondent had other personal mobility reasons, difficulty in walking, unwell etc' (26%)' or that they were 'not interested in going' (25%).

The proportion of Wales 2007 survey respondents who were 'not interested in going' was lower in 2007 (25%) than in 2005 (36%). The proportion of respondents who did not visit due to 'other personal mobility reasons' increased from 14% in 2005 to 26% in 2007.

18% of Welsh 2007 survey respondents did not provide a specific reason for not visiting woodland.

Table 5: Main reason for not visiting forest/woodland in last few years

	UK 2007	Wales 2005	Wales 2007
Other personal mobility reasons	18	14	26
Not interested in going	26	36	25
Woods are too far away	14	6	10
Lack of time	-	8	6
Don't have a car	11	5	6
Other	17	5	4
Prefer other areas of countryside	2	3	3
Concerns that woods are not safe	3	1	2
Lack of information	2	2	0
Don't know / No particular reason	9	18	18

Base: Respondents who have not visited woodland in the last few years, Wales 2007 (192) Wales 2005 (308), UK 2007 (935)

The following results identify, for the top two reasons given for not visiting, those variables highlighted as significant in the regression analysis.

Geographic comparisons (*including those who responded 'don't know'*)

Respondents more likely to give their main reason for not visiting forests or woodlands as 'Other personal mobility reasons', Wales overall 26%:

- **Deprivation** - least deprived areas (20%); most deprived areas (45%);

Socio-demographic comparisons (*including those who responded 'don't know'*)

Respondents more likely to give their main reason for not visiting forests or woodlands as 'Other personal mobility reasons', Wales overall 26%:

- **Age group** - aged 16 to 34 (2%); aged 35 to 54 (14%); aged 55 and over (43%);
- **Illness or disability** - with long-term illness or disability (53%); without (5%).

Respondents more likely to give their main reason for not visiting forests or woodlands as 'Not interested in going', Wales overall 25%:

- **Illness or disability** - with long-term illness or disability (16%); without (31%).

Appendix 1: UK survey: results for respondents from Wales

This appendix gives results for Wales and the UK as a whole, for questions which were asked in the 2007 UK survey but not in the Wales survey. Only 188 interviews were carried out in Wales so these results should be treated with caution. The full UK report is published separately.

Forest Awareness

You may have seen or read about UK forests, woods or trees on the television, radio or in the newspapers. From this list, can you please tell me which of these topics you have seen or read anything about in the last 12 months?

	Wales	UK
Forests and woodlands helping to tackle climate change	36	35
Birds and other animals in woodlands	31	34
Tree planting	27	30
Public rights of access to woodlands	24	24
Protests about roads or other developments on woodlands	24	23
Forests and woodlands as places to visit	20	25
Loss of ancient or native woodlands	17	20
Restoration of ancient or native woodlands	15	17
Flowers and other plants in woodlands	15	22
Wood for fuel / (short coppice rotation)	14	11
Creation of new native woodlands	13	15
Community woodlands / new local woodlands	11	14
Tree pests and diseases	11	13
Labelling / certification of wood products	7	10
Other	0	1
None	26	32
Don't know	8	5
At least one	66	64

Base: UK (4,000), Wales (188)

Promotion Awareness

Which of these promotions have you heard of?

	Wales	UK
Forest Schools	12	6
Forest Education Initiative	8	7
Autumn Colours	6	5
Active Woods 'Naturally good for you'	6	4
'Wood for Good' or other promotions for timber uses and products	2	3
None	72	79
Don't Know	6	3

Base: UK (4,000), Wales (188)

Support of forestry

Please tell me which of the following are good reasons to support forestry with public money?

	Wales	UK
To provide places for wildlife to live	69	72
To help tackle climate change	64	61
To provide places to walk in	63	61
To provide healthy places for physical activity, relaxation and stress relief	58	48
To improve the countryside landscape	58	55
To support the economy in rural areas	46	45
To provide places to cycle or ride horses	46	40
To create pleasant settings for developments around towns	43	41
To provide renewable energy including wood as fuel	43	37
To make woods more accessible to all in the community	43	37
To help rural tourism	41	38
To restore former industrial land	35	34
So that the UK can buy less wood products from abroad	31	31
To provide timber and sawmills for wood processing	29	26
None	3	2
Don't know	4	4
At least one	93	93

Base: UK (4,000), Wales (188)

Standards of management

How would you rate the standard of forest management in the UK / in your local area?

		1 (very high)	2	3	4	5 (very low)	Don't Know
In the UK	Wales	6	17	36	8	2	31
	UK	6	20	36	9	3	26
In your local area	Wales	6	24	31	9	5	26
	UK	7	21	29	12	7	24

Base: UK (4,000), Wales (188)

Area of woodlands

Would you like to have more or less woodland in your part of the country?

	Wales	UK
More than half as much again	19	22
About half as much again	27	25
A little more	23	23
More – total	70	71
Neither more nor less	27	25
Less	2	2
Don't know	2	2

Base: UK (4,000), Wales (188)

Involvement

Have you in the past 12 months...?

	Wales	UK
Been involved in an organised tree planting event	3	3
Become or are you a member of a community based woodland group such as a 'Community Trust' or 'Friends of Group'	2	2
Been involved in voluntary work in connection with a woodland (e.g. physical work in a wood, admin, fund raising, running a group)	1	3
None	91	92
Don't know	4	1

Base: UK (4,000), Wales (188)

Recreation

All adults were asked if they had visited forests or woodlands for recreation in the last few years; over three-quarters said that they had (81% for Wales, 77% for the UK as a whole). These respondents were then asked about the frequency of their visits.

How frequently did you visit forests and woodlands last summer, i.e. between April and September 2006? And how often this winter, i.e. since October 2006?

Summer		Frequency	Winter	
Wales	UK		Wales	UK
21	14	Several times per week	10	7
26	29	Several times per month	14	13
31	27	About once a month	25	20
22	26	Less often	37	33
0	3	Never	14	27
1	0	Don't know	0	0

Base: Those who have visited forests or woodlands in the last few years: UK (3,065), Wales (152)

If you were thinking about visiting forests or woodlands that you had not visited before, which of the following sources of information would you normally use?

	Wales	UK
Internet	42	37
Tourist Information Centre	34	29
Ask friends or relatives	23	33
Guide book or map	21	26
Forestry Commission (GB) / Forest Service (NI)	12	10
Library or sports centre	7	10
Other	4	2
No interest in visiting	8	8
Don't know	6	7

Base: UK (4,000), Wales (188)

Appendix 2: Cross breaks used in analysis

Table 6 details the cross-breaks used in the analysis for Wales. It also shows the proportion of the sample that falls into each category (e.g. for visited woodland, 79% had visited woodlands recently and 21% had not).

Table 6: Variables used in regression analysis

Variable	Divisions	Distribution of Sample	Distribution of 16+ Welsh population in 2001 Census ⁶	Details (where necessary)
Geographic region	North Wales	23%	23%	Anglesey, Conwy, Denbighshire, Flintshire, Gwynedd, Wrexham
	Mid / West Wales	17%	17%	Ceredigion, Carmarthenshire, Pembrokeshire, Powys
	West South Wales	17%	17%	Brigend, Neath & Port Talbot, Swansea
	The Valleys	18%	18%	Blaenau Gwent, Caerphilly, Merthyr, Rhondda Cynon Taff
	Cardiff and South East Wales	25%	25%	Cardiff, Monmouthshire, Newport, Torfaen, Vale of Glamorgan
Deprivation	Bottom 15 (1) Top 85 (0)	18% 82%	15% 85%	Based on respondents postcode
Rural/urban	Urban (1) Town & Fringe (2) Village and Hamlets(3)	62% 30% 8%	-	Based on respondents postcode
Gender	Male (1) Female (2)	48% 52%	48% 52%	
Age	16 – 34 (1) 34 – 55 (2) 55+ (3)	29% 35% 36%	29% 35% 36%	Adults 16 and over were divided into 3 age classes
MRS social grades	ABC1 (1) C2DE (2)	47% 53%	47% 53%	ABC1: the chief income earner is a non-manual earner. C2DE: the chief income earner is a manual worker or unemployed
Long term illness or disability	Yes (1) No (0)	28% 72%	23% 77%	From question in survey
Work Status	Employed (1) Not Employed (2)	50% 50%	49% 51%	Not working includes students, retired adults and unemployed
Children in household	Yes (1) No (0)	34% 66%	-	Children under 16 in household
Welsh speaker	Yes (1) No (0)	31% 69%	21% 79%	From question in survey
Visited Woodland	Yes (1) No (0)	79% 21%	-	From question in survey
Aware of Forestry Commission	Yes (1) No (0)	80% 20%	-	From question in survey

Note: To aid in interpreting Table 7, the values used for each of the variables are detailed in italics.

⁶ Welsh adult population (16+ years) 2,316,000

Description of variables

Market Research Society (MRS) social grades:

Covers ABC1, where the chief income earner in the household is a non-manual worker and C2DE, where the chief income earner in the household is a manual worker or is unemployed.

Geographic region:

Wales has been divided into five regions by grouping Unitary Authorities; 'North Wales', 'Mid/West Wales', 'West South Wales' 'The Valleys' and 'Cardiff and South East Wales'.

Deprivation:

The deprivation ranking is taken from the Welsh Index of Multiple Deprivation, which is based on a range of indicators in areas such as Health, Education and Employment. Deprivation is measured across Super Output Area (SOA's), groups of postcodes containing approximately 1,500 people, which are ranked from 1 (most deprived), to 1,896 (least deprived). This survey contrasts the responses from those resident in the most deprived 15% of SOA's with those resident in the least deprived 85% of SOA's.

Rural/urban:

The 'rural/urban' variable is based upon the official definition developed by the Office for National Statistics and published in 2004. This classifies SOA's into four strata based upon population size and density - 'urban', 'small town & fringe', 'village' and 'dispersed (hamlets and isolated dwellings)'. In this report, the last two categories have been combined and for brevity, the categories are referred to as 'urban', 'towns & fringe' and 'villages and hamlets'.

Appendix 3: Correlation matrix of variables used in analysis

Table 7 details the correlation between the socio-demographic, deprivation and rural / urban variables used in the regression modelling. The greater the magnitude of the correlation coefficient, the more highly correlated the variables are.

More highly correlated pairs of variables include:

- age with children in household;
- long term illness or disability with work status;
- MRS social grade with awareness of the Forestry Commission; and
- deprivation with rural/urban.

Table 7: Correlation coefficients of variables used in regression analysis

	Gender	Age	MRS social grade	Long term illness or disability	Work Status	Children in household	Welsh Speaker	Visited Woodlands	Aware of Forestry Commission	Deprivation	Rural / urban
Gender	1.00	0.02	0.03	0.02	0.08	0.17	0.06	-0.03	-0.04	0.01	-0.04
Age		1.00	-0.07	0.31	0.28	-0.49	-0.03	-0.13	0.31	-0.07	-0.00
MRS social grade			1.00	0.09	-0.13	0.13	-0.03	-0.14	-0.22	0.16	0.01
Long term illness or disability				1.00	0.35	-0.21	0.01	-0.16	0.09	0.04	0.00
Work Status					1.00	-0.13	0.01	-0.14	-0.10	0.08	0.06
Children in household						1.00	0.01	0.09	-0.23	0.06	-0.01
Welsh Speaker							1.00	0.04	0.01	-0.08	0.17
Visited Woodlands								1.00	0.11	-0.12	0.01
Aware of Forestry Commission									1.00	-0.10	-0.00
Deprivation										1.00	-0.21
Rural / urban											1.00

Furthermore, Table 8 shows that there is a positive correlation between respondents from North and Mid / West Wales and the proportion of Welsh speakers and a more negative correlation between respondents in Cardiff and South East Wales and the proportion of Welsh speakers.

Table 8: Correlation coefficients of Welsh speakers against region

	North Wales	Mid/West Wales	West South Wales	The Valleys	Cardiff and South East Wales
Welsh Speaker	0.21	0.18	-0.05	-0.10	-0.24

Since the regression modelling took into consideration the correlations between all of the variables listed in Table 7, when simply analysing overall results, consideration should be taken of the correlation between each of these variables and the effect they may have upon the interpretation of the results.

Appendix 4: Beaufort Research sampling method

The omnibus sample is designed to be representative of the adult population resident in Wales aged 16 and over. The unit of sampling is the electoral ward and 68 interviewing points throughout Wales are selected with probability proportional to resident population, after stratification within county (unitary authority).

Within each sampling point, interlocking quota controls of age and social class within sex are employed for the selection of respondents.

Quotas are set to reflect the demographic profile of Welsh residents and no more than one person per household is interviewed. A fresh sample is selected for each survey within substantially the same interviewing locations.

Interviews are conducted face to face in the homes of respondents. Beaufort's experienced fieldworkers are used with postal and telephone back-checking in accordance with BS7911.

Fieldwork for the March 2007 survey was largely conducted over the period 9th - 17th March 2007 with the remaining fieldwork completed a few days later. A total of 952 interviews were completed and analysed.

Beaufort Research

Appendix 5: TNS Omnibus Random Location Sampling Method

(UK 2007 survey)

SAMPLING FRAME

The TNS CAPI Omnibus employs a random location methodology. 2001 Census small area statistics and the Postal Address File (PAF) were used to define sample points. These are areas of similar population sizes formed by the combination of wards, with the constraint that each point must be contained within a single Government Office Region (GOR). In addition, geographic systems were employed to minimise the drive time required to cover each area as optimally as possible. 600 points were defined south of the Caledonian Canal in Great Britain (GB), and, for UK samples, another 25 points were defined in a similar fashion in Northern Ireland.

STRATIFICATION AND SAMPLE POINT SELECTION

The Omnibus selected 278 points south of the Caledonian Canal and stratified them by Government Office Region and Social Grade. They were also checked to ensure they are representative by an urban and rural classification. Those points are divided into two replicates. Each set is used in alternate weeks. 16 of the points in Northern Ireland were selected and divided into four replicates. Those replicates are used in rotation to give a wide spread across the Province over time in the UK samples. Similarly the statistical accuracy of the GB sampling is maximised by issuing sequential waves of fieldwork systematically across the sampling frame to provide maximum geographical dispersion. This ensures that the sample point selection remains representative for any specific fieldwork wave.

SELECTION OF CLUSTERS WITHIN SAMPLING POINTS

All the sample points in the sampling frame have been divided into two geographically distinct segments each containing, as far as possible, equal populations. The segments comprise aggregations of complete wards. For the Omnibus alternate A and B halves are worked each wave of fieldwork. Each week different wards are selected in each required half and Census Output Areas selected within those wards. Then, blocks containing an average of 150 addresses are sampled in those areas from the PAF.

DESIGN EFFECT

As with all multi-stage sample designs, there are effects on the magnitude of the standard error of estimates that arise from a number of sources. The greatest contributors are caused negatively by the effects of clustering and weighting and positively by the effects of stratification. These are collectively known as 'design effects'. The 'design factor' is used to estimate the ratio of the standard error of these complex sample estimates to that of a simple random sample of the same size. Design factors vary from one variable to another depending on the inter-correlations that exist between that variable and the causes of variation in the size of the standard error. For example social grade tends to be correlated between households in small geographical areas and thus variables that are correlated with social grade (e.g. visits to woodland) will have larger design factors. Such design factors need to be individually calculated from actual data to obtain accurate estimates for any given variable. Common practice is the use of a 'modal' value for application to estimates. For the Omnibus TNS recommend a design factor of 1.5 be applied to the calculation of confidence limits and when testing for significance.

INTERVIEWING AND QUOTA CONTROLS

Assignments are conducted over two days of fieldwork and are carried out on weekdays from 2 p.m. – 8 p.m. and at the weekend. Quotas are set by sex (male, female housewife, female non-housewife); within female housewife, presence of children and working status, and within men, working status, to ensure a balanced sample of adults within effective contacted addresses. Interviewers are instructed to leave 3 doors between each successful interview.

Appendix 6: Wales Questionnaire 2007

<p>Q1</p>	<p>Do you receive substantial benefit from any of the following? (Yes/No/Don't know)</p> <ul style="list-style-type: none"> • Seeing trees or woods from where you live • Knowing that there are trees and woodlands in Wales • Seeing trees and woodlands as you undertake your daily activities • Knowing that Welsh woodlands will be there for future generations • Knowing that Welsh woodlands provide a place for wildlife
<p>Q2</p>	<p>How much do you agree or disagree with the following statements? ((1) strongly agree, agree, neither agree or disagree, disagree, (5) strongly disagree, and don't know)</p> <ul style="list-style-type: none"> • Woodlands are places to reduce stress and anxiety • Woodlands are places to exercise and keep fit • Woodlands allow families to learn about nature • Woodlands are good places to meet with friends and family • Woodlands in Wales are an important part of the country's natural and cultural heritage • Woodlands play an important role in children's and young people's outdoor learning experience • Woodlands in Wales are important in helping people to earn a living or make ends meet • It is important to have a say in what happens in your local woodland
<p>Q3</p>	<p>How much of an impact do you think climate change will have on Wales?</p> <ul style="list-style-type: none"> • Large impact • Slight impact • No impact at all • Don't know
<p>Q4</p>	<p>Would you agree or disagree with the following statements about the ways in which forests and woodlands in Wales can impact on climate change? ((1) strongly agree, agree, neither agree or disagree, disagree, (5) strongly disagree, and don't know)</p> <ul style="list-style-type: none"> • Trees are good because they remove carbon dioxide from the atmosphere and store it in wood • Cutting down forests and woodland makes climate change worse, even if they are replanted • Using wood for fuel is better for climate change than using fuels such as coal and gas • Using wood for fuel makes climate change worse because it releases carbon dioxide • Using wood for building is better for climate change than using materials such as concrete and steel • Wales could offset all its greenhouse gas emissions by planting more trees
<p>Q5</p>	<p>Do you agree or disagree with the following statements regarding how Welsh forests and woodlands should be managed in response to the threat of climate change? ((1) strongly agree, agree, neither agree or disagree, disagree, (5) strongly disagree, and don't know)</p>

	<ul style="list-style-type: none"> • There is nothing that anyone could do that would make any difference • No action is needed; let nature take its course • A lot more trees should be planted • Trees should not be felled in any circumstances, even if they are replaced • Different types of trees should be planted that will be more suited to future climates • More information should be provided about the ways in which wood can be used to lessen our impact on the environment
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<p>Q6</p>	<p>a. Do you ever use wood as a fuel in your home, either on its own or with other fuels?</p> <ul style="list-style-type: none"> • Yes • No <i>(skip to Q7)</i> <p>b. Do you get the wood by the truck load, or a few bags at a time, or gather it yourself?</p> <ol style="list-style-type: none"> 1. by the truck load 2. a few bags at a time 3. gather it yourself 4. don't know <p>c. Do you use wood as a fuel regularly or only occasionally?</p> <ol style="list-style-type: none"> 1. regularly 2. occasionally 3. don't know <p>d. Is wood the main fuel for heating your home, or do you mainly use something else?</p> <ol style="list-style-type: none"> 1. main fuel 2. mainly use something else 3. don't know
<p>Q7</p>	<p>a. Have you ever been consulted about plans for creating, managing or using woodlands in your area?</p> <ul style="list-style-type: none"> • Yes • No <p>b. Would you like to be consulted (again) about plans for creating, managing or using woodlands in your area?</p> <ul style="list-style-type: none"> • Yes • No
<p>Q8</p>	<p>a. In the last few years, have you visited forests or woodlands for walks, picnics or other recreation?</p> <ul style="list-style-type: none"> • Yes • No <p>If YES ask Q8b, If NO then skip to Q8c</p> <p>b. Did you visit woodlands in the countryside or woodlands in and around towns?</p> <ul style="list-style-type: none"> • Woodlands in the countryside • Woodlands in and around towns • Both <p>c. What was the main reason that you did not visit?</p> <ul style="list-style-type: none"> • Not interested in going

	<ul style="list-style-type: none"> • Don't have a car • Lack of suitable public transport • Other personal mobility reasons (difficulty in walking, unwell, etc.) • Woods are too far away • Lack of facilities (play areas, picnic areas, etc.) • Lack of information about woods to visit • Prefer other areas of countryside • Concerns that woods are not safe • Other (specify)
Q9	<p>Have you heard of Forestry Commission Wales?</p> <ul style="list-style-type: none"> • Yes • No (if no, then go to Q11) <p>Do you think that Forestry Commission Wales is ...</p> <ul style="list-style-type: none"> • A government department or agency • An independent body • A body representing private woodland owners • A private company
Q10	<p>I am now going to read out a number of forestry activities and for each one I would like you to say whether you think it is something done by Forestry Commission Wales. So do you think Forestry Commission Wales ...</p> <ul style="list-style-type: none"> • Lets the public walk in its woods and forests • Provides trails for cycling and horse-riding • Improves woodland habitats for wildlife • Sells Christmas trees • Gives grants to private woodland owners • Carries out scientific studies <p>On a scale of 1 to 5, where 1 is very good and 5 is very poor, how would you rate Forestry Commission Wales' overall performance in ...</p> <ul style="list-style-type: none"> • Managing and protecting Forestry Commission woodlands in Wales • Encouraging other landowners to protect and expand Wales' woodlands • Responding to the challenge of climate change
Q11	<p>Do you have any long-term illness, health problems or disability which limits your daily activities or the work you can do?</p> <ul style="list-style-type: none"> • Yes • No