

Natural England Commissioned Report NECR129

# Monitor of Engagement with the Natural Environment: The national survey on people and the natural environment

Wellbeing and the natural environment

First published 04 October 2013

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# Foreword

Natural England commission a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

## Background

In 2009 Natural England, Defra and the Forestry Commission commissioned TNS to undertake the Monitor of Engagement with the Natural Environment (MENE) survey.

In the four years since MENE was commissioned, a wealth of information has been collected regarding visits taken to the natural environment and related behaviours and attitudes.

### The survey is commissioned in order to:

- Understand how people use, enjoy and are motivated to protect the natural environment.
- Provide data that monitors changes in use and enjoyment of the natural environment over time, at a range of different spatial scales and for key groups within the population.

Published alongside this report are:

- Annual reports presenting a summary of the main survey results.
- A technical report providing full details of the survey methodology including approaches to sampling, grossing and weighting and estimates of confidence intervals.
- Electronic data table viewer: interactive tool which allows detailed analysis of the MENE dataset.

A number of further reports including the year one, two, three and four annual reports and the results of additional analyses of the MENE data are available from the Natural England website (<http://www.naturalengland.org.uk/ourwork/research/mene.aspx#results>).

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**Keywords** - visits, natural environment, wellbeing, satisfaction, worthwhile, happy, anxiety

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This report can be downloaded from the Natural England website:

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# Executive Summary

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In 2012 the Office for National Statistics (ONS) introduced a series of measures to assess levels of wellbeing amongst the adult population living in the UK<sup>1</sup>. These measures use a series of four questions to assess levels of wellbeing with responses provided on a scale from 0 ('not at all') to 10 ('completely').

The questions were added to MENE in four survey waves (May, August and November 2012 and February 2013) to explore correlations between a person's propensity to visit the natural environment and their subjective wellbeing scores. A total of 3,528 interviews were conducted over the four waves.

Multivariate analysis approaches were used to explore and better understand relationships between responses to the wellbeing questions and other factors such as frequency of visits to the outdoors, and the other ways that people engage with the natural environment.

## Key results

At the total population level the MENE results were similar to those obtained using the same questions in the population surveying undertaken by the Office for National Statistics (ONS). On the 0 to 10 response scale used, the following mean scores were obtained for each of the measures. Note that figures in parenthesis indicate the mean score for group in question.

*1) Life satisfaction: Overall, how satisfied are you with life nowadays? – total population average 7.3*

Levels of life satisfaction were found to be closely correlated to an individual's working status with significantly higher satisfaction amongst people in education or retired but the lowest levels amongst unemployed people. In terms of engagement with the natural environment the highest values were recorded amongst the following population groups:

- Those who had visited the outdoors once a month or more often in the last 12 months (7.4).
- Those who strongly agreed that spending time out of doors is important (7.5).
- Those who took part in gardening, watching wildlife and unpaid voluntary work (8.0).
- Those who bought seasonal or locally grown food, were a member of an environmental or conservation organisation, and walked or cycled whenever possible (8.2).

*2) Worthwhile: Overall, to what extent do you feel that the things you do in your life are worthwhile? – total population average 7.6*

This measure of wellbeing was also found to be most closely correlated to an individual's working status, with the lowest levels recorded amongst unemployed people and those in education. Disability, gender, lifestage and housing tenure were also found to be related to this measure with women in employment who live in an owned/mortgaged house most likely to rate their life activities as worthwhile. In terms of engagement with the natural environment, levels recorded for the worthwhile measure were highest amongst the following population groups:

- Those who visited the outdoors every day (8.2).
- Those who strongly agreed that spending time out of doors is important (7.9).

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<sup>1</sup> For further details, visit the ONS website [www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html](http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html)

- Those who took part in gardening, watching wildlife and unpaid voluntary work (8.4).
- Those who bought seasonal or locally grown food, were a member of an environmental organisation, and walked or cycled whenever possible (8.5).
- People who believed that they already do enough to protect the natural environment (7.9).

### 3) Happiness: Overall, how happy did you feel yesterday? – total population average 7.4

Happiness was also found to be closely correlated to an individual's working status with part time workers and retired people reporting the highest happiness levels, while those not working or in education reported the lowest levels. Disability and lifestage were also related to this measure with people in the empty nester lifestage (55+ and no children at home), working part time or retired with no disabilities reporting the highest levels of happiness. In terms of engagement with the natural environment, happiness levels were highest amongst the following population groups.

- People who typically visited the outdoors more than once a week (7.7).
- People who strongly agreed that they are glad natural places existed even if they didn't visit them (7.7).
- People who took part in gardening (7.6).
- People who bought seasonal or locally grown food (7.6).

### 4) Anxiety: Overall, how anxious did you feel yesterday? – total population average 2.8

Unlike the other wellbeing measures, anxiety is most closely related to housing tenure with those people who own their home outright generally being least anxious, while people who rent their accommodation were most anxious. This measure is also related to disability, lifestage and age. Overall the population group with the lowest levels of anxiety was the Family or Empty Nester lifestages<sup>2</sup> with no long-term illness or disability who owned their home outright. In terms of engagement with the natural environment, levels of anxiety were lower amongst the following population groups.

- People who visited the outdoors at least once a month (2.6).
- People who strongly agreed that they were glad natural places existed even if they didn't visit them (2.5).
- People who took part in gardening, watching wildlife and watching/listening to nature programmes (2.2).
- People who recycled, walked or cycled whenever possible and bought seasonal or locally grown food (2.3).

People who already believed that they do enough to protect the natural environment and/or liked their lifestyle as it was (2.5).

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<sup>2</sup> See Appendix 1 for an explanation of the lifestage groupings

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# 1 Introduction

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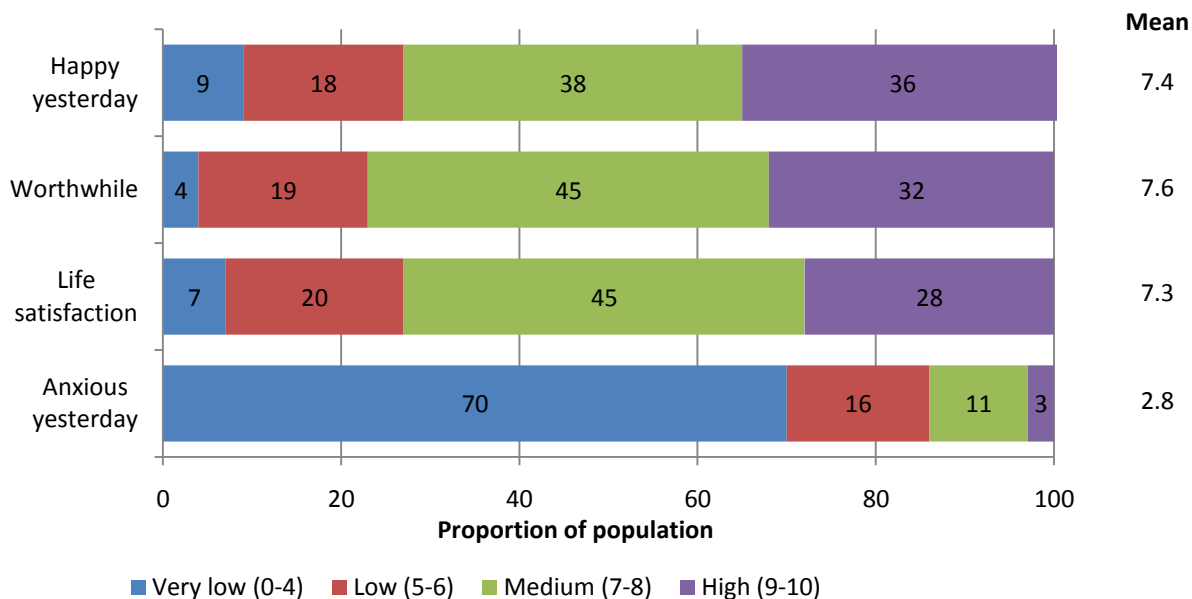
- 1.1 As part of a long-term programme of work, the Office for National Statistics (ONS) introduced a series of measures to assess levels of wellbeing amongst the adult population living in the UK<sup>3</sup>.
- 1.2 These measures, first tested between October 2011 and January 2012 and then revised in July 2012, use the following four questions to assess levels of wellbeing amongst the population:
  - **Life satisfaction:** Overall, how satisfied are you with life nowadays?
  - **Worthwhile:** Overall, to what extent do you feel that the things you do in your life are worthwhile?
  - **Happiness:** Overall, how happy did you feel yesterday?
  - **Anxiety:** Overall, how anxious did you feel yesterday?
- 1.3 In each question, responses are provided on a scale from 0 ('not at all') to 10 ('completely').
- 1.4 The Monitor of Engagement with the Natural Environment (MENE) survey collects detailed information on people's use and enjoyment of the natural environment, focusing on visits to the natural environment.
- 1.5 The ONS wellbeing questions were introduced as part of the MENE questionnaire during four weekly waves of surveying in 2012/13 (May, August and November 2012 and February 2013). A total of 3,528 interviews were conducted over the four waves.
- 1.6 The questions were added to MENE in order to explore whether interaction with the natural environment has a tangible effect on wellbeing by looking for correlations between a person's propensity to visit the natural environment and their subjective wellbeing scores.
- 1.7 This report presents the results of these questions including an analysis of the relationships between wellbeing, demographics and engagement with the natural environment.
- 1.8 Please note that in the report, any figures given in parenthesis represent the mean score for the group in question.

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<sup>3</sup> For further details, visit the ONS website [www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html](http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html)

## 2 Overall wellbeing

- 2.1 Figure 2-1 illustrates the responses to the four wellbeing questions. When asked whether they were happy yesterday, 36 per cent of the population provided a response of 9 or 10 – a mean score of 7.4, while 32 per cent provided a rating of 9 or 10 to indicate that they felt the activities they undertook in life were worthwhile – a mean score of 7.6. In addition, 28 per cent of the population provided a rating of 9 or 10 in relation to their overall life satisfaction – a mean score of 7.3.
- 2.2 A low score for the anxiety measure is positive. It is encouraging then that seven out of ten members of the population rated their anxiety levels as very low, which resulted in a mean score of 2.8 for this measure.



**Figure 2-1** Subjective wellbeing (%)

*I would like to ask your feelings on aspects of your life. Give an answer on a scale of 0 (not at all) to 10 (completely). (Base: Random visits, quarterly questions 2012/13 N=3,528)*

- 2.3 These results are similar to those obtained in the population surveying undertaken by the Office for National Statistics (ONS) using the same questions<sup>4</sup> as shown in Table 2-1 overleaf.

<sup>4</sup> See [www.ons.gov.uk/ons/rel/wellbeing/measuring-subjective-wellbeing-in-the-uk/first-annual-ons-experimental-subjective-well-being-results/first-annual-experimental-subjective-well-being-results.html#tab-Section-1--Overall-results](http://www.ons.gov.uk/ons/rel/wellbeing/measuring-subjective-wellbeing-in-the-uk/first-annual-ons-experimental-subjective-well-being-results/first-annual-experimental-subjective-well-being-results.html#tab-Section-1--Overall-results)

**Table 2-1** Subjective wellbeing – comparison of means scores in MENE and ONS survey  
*I would like to ask your feelings on aspects of your life. Give an answer on a scale of 0 (not at all) to 10 (completely). (ONS sample from Integrated Household Survey N=165,000)*

	Wellbeing measure			
	Life satisfaction %	Worthwhile %	Happiness %	Anxiety %
<b>MENE</b>	7.3	7.6	7.4	2.8
<b>ONS survey</b>	7.4	7.7	7.3	3.1

- 2.4 Analysing the MENE wellbeing data in more detail, Table 2-2 overleaf shows the mean scores for each of the wellbeing measures by a number of key demographic groups. As shown in Table 2-2, it was those aged 16-24 and those aged 65 and over who recorded the highest levels for overall life satisfaction, worthwhile activities and happiness. Those aged 65 and over also recorded the lowest levels of anxiety.
- 2.5 When analysed by socio-economic grouping, those in the most affluent AB social grades recorded the highest levels of life satisfaction, worthwhile activities and happiness, as well as the lowest mean score for anxiety.
- 2.6 When analysed by working status, those who were unemployed recorded the lowest mean scores for life satisfaction, worthwhile activities and happiness and the highest anxiety levels.
- 2.7 The ONS population survey recorded similar variations to the above by age and work situation. This survey also found other demographic differences including:
- Higher levels of wellbeing amongst people who are married but lower levels amongst people who are divorced.
  - A close correlation with self-reported health, with those who state that their health is 'good' more likely to provide high wellbeing ratings.
  - Lower levels of wellbeing amongst people with a disability than amongst those who are not disabled.
  - Lower levels of wellbeing than the national averages amongst people living in London and the West Midlands.

**Table 2-2** Subjective wellbeing by demographic variables (%)

*I would like to ask your feelings on aspects of your life. Give an answer on a scale of 0 (not at all) to 10 (completely). (Base: Random visits, quarterly questions 2012/13 N=3,528)*

	Wellbeing measure (mean score)			
	Life satisfaction	Worthwhile	Happiness	Anxiety
<b>Age</b>				
16-24	7.8	7.7	7.7	2.8
25-44	7.2	7.6	7.3	2.9
45-64	7.2	7.6	7.4	2.7
65+	7.6	7.9	7.7	2.3
<b>Socio-economic grouping</b>				
AB	7.5	7.9	7.6	2.5
C1	7.4	7.7	7.6	2.8
C2	7.3	7.7	7.4	2.7
DE	7.1	7.3	7.3	2.8
<b>Working status</b>				
Working full/ part-time	7.4	7.7	7.5	2.7
Retired	7.6	7.8	7.7	2.4
Still in education	7.7	7.8	7.7	2.9
Unemployed	6.7	7.1	7.0	3.2
<b>Housing tenure</b>				
Mortgage	7.4	7.7	7.4	2.6
Own outright	7.6	7.9	7.7	2.4
Rent (Local Authority)	7.0	7.4	7.2	3.2
Rent (private)	7.2	7.5	7.5	3.1

2.8 Responses to the four wellbeing questions also vary by frequency of visits taken to the natural environment (Table 2-3). Those people who take visits less often than once a month are likely to record lower ratings regarding their life satisfaction and how worthwhile the things they do are. Notably, some 13 per cent of those who never visit the outdoors recorded a very low overall satisfaction rating, while 14 per cent provided a very low score for the happiness measure.

2.9 The averages recorded for overall satisfaction, worthwhile activities and happiness levels were highest amongst those who visited the outdoors most often (once a month or more often) while anxiety levels were lowest amongst this group as well.

**Table 2-3** Subjective wellbeing by frequency of visits to the natural environment

*I would like to ask your feelings on aspects of your life. Give an answer on a scale of 0 (not at all) to 10 (completely). (Base: Random visits, quarterly questions – at least once a week N=1826; once/twice a month N=738; less often N=590; never N=374)*

	Frequency of visits		
	Once a month or more %	Less often %	Never %
<b>Life satisfaction</b>			
0 to 4 (very low)	5	9↑	13↑
5 to 6 (low)	19	24	24
7 to 8 (medium)	48	40↓	34↓
9 to 10 (high)	28	26	29
Average	7.4	7.0	7.0
<b>Worthwhile</b>			
0 to 4 (very low)	3	6↑	9↑
5 to 6 (low)	17	24↑	27↑
7 to 8 (medium)	47	42	36↓
9 to 10 (high)	33	28	28
Average	7.7	7.3	7.2
<b>Happiness</b>			
0 to 4 (very low)	8	12	14↑
5 to 6 (low)	16	19	22
7 to 8 (medium)	40	37	26↓
9 to 10 (high)	36	31↓	37
Average	7.6	7.1	7.1
<b>Anxiety</b>			
0 to 4 (very low)	72	64↓	66
5 to 6 (low)	14	20↓	17
7 to 8 (medium)	10	11	11
9 to 10 (high)	3	5	5
Average	2.6	3.2	2.9

Note: arrows indicate percentages that are significantly higher or lower than the once a month or more percentage

# 3 Multivariate analysis

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- 3.1 Using multivariate analysis approaches it is possible to explore and better understand relationships between responses to the wellbeing questions and other factors such as frequency of visits to the outdoors, or other ways that people engage with the natural environment. Please note that while the analysis demonstrates statistical correlations, it does not provide an indication of cause and effect.
- 3.2 Using CHAID<sup>5</sup> approaches, each analysis is based around a single dependent variable, here the responses to the four wellbeing questions, based on the mean score obtained. The dependent variable is then analysed against a number of predictor variables. For the purposes of this report, the predictor variables used are:
- Demographic variables (gender, age, socio-economic grouping, lifestage<sup>6</sup>, working status, disability, children in household and housing tenure).
  - General propensity to visit the natural environment over the previous 12 months.
  - Participation in other types of engagement with the natural environment (for example, gardening, watching or listening to nature programmes etc).
  - Attitudes towards the environment.
  - Pro-environmental behaviours such as recycling and buying local produce.
  - Willingness to make lifestyle changes to protect the natural environment.
- 3.3 Outputs from the CHAID analysis are produced as a tree diagram with the population segmented into groups depending on whether they are significantly more or significantly less likely to be related to the dependant variable.
- 3.4 CHAID tests the significance of correlations between the dependant variable and the predictor variables. The variable with the highest level of correlation is represented by the first split in the decision tree.
- 3.5 The top level of the tree shows the data for all respondents in the study. The predictor variables are then applied to see if splitting the sample based on these predictors leads to a statistically significant discrimination in the dependent variable. If responses are not significant on their own, they are then combined with other responses until a significant discrimination is found. This becomes the first branch of the tree. If the predictor variables can be further split to show additional discrimination in the data, these then form subsequent levels in the tree diagram.
- 3.6 The following sections present the findings for each of the four wellbeing questions. In each of the answer trees, groups providing a higher than average rating to the wellbeing questions than the total population are shaded dark blue while groups providing a below average rating are shown in light blue. A dark border is applied to those 'boxes' which represent the highest and lowest mean scores.

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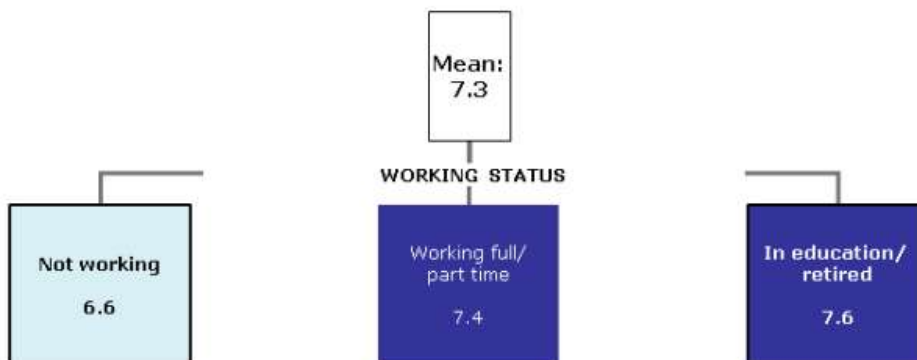
<sup>5</sup> CHAID stands for Chi-squared Automatic Interaction Detector

<sup>6</sup> See Appendix 1 for definitions of the lifestage groupings



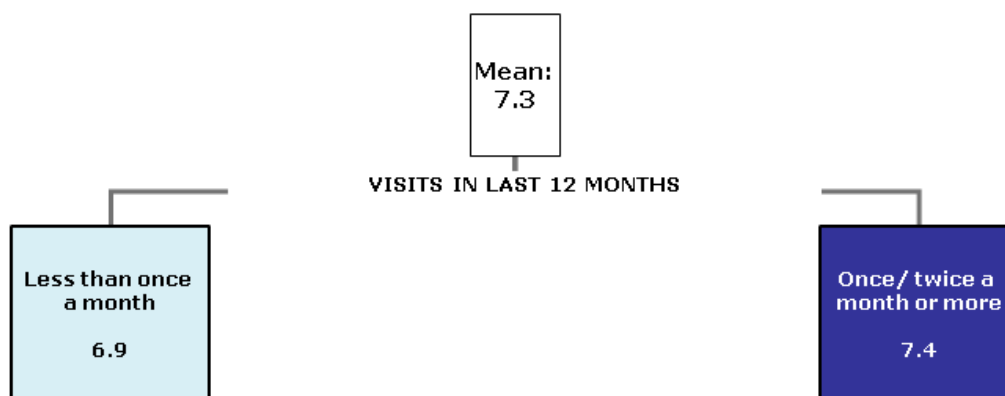
## 4 Life satisfaction

- 4.1 Across the English adult population as a whole, overall life satisfaction received a mean score of 7.3. As shown in Figure 4-1 below, when analysed by demographic variables, working status most closely correlates with this measure. An above average mean of 7.6 was recorded for those in education or those who were retired, while people not in paid employment recorded a below average mean score of 6.6. None of the other demographic variables tested were found to have this level of statistical correlation to the overall satisfaction measure.



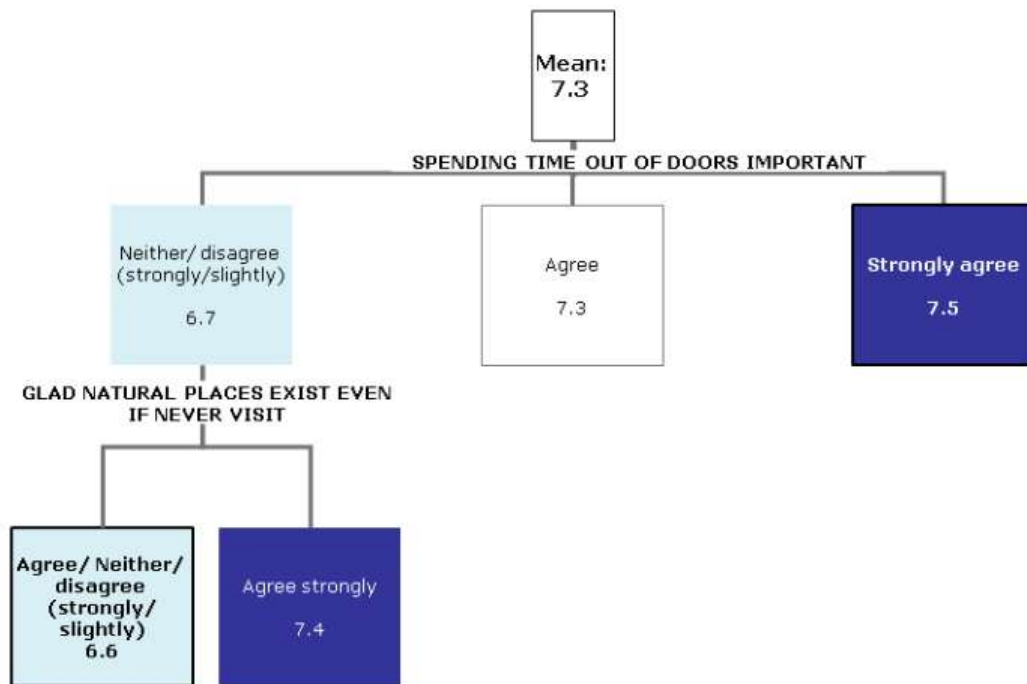
**Figure 4-1** Overall satisfaction by demographics

- 4.2 When analysed by frequency of visits taken to the natural environment, the life satisfaction score recorded amongst those who visit the outdoors once a month or more (7.4) was found to be significantly higher than that recorded amongst those who visit less often (6.9).



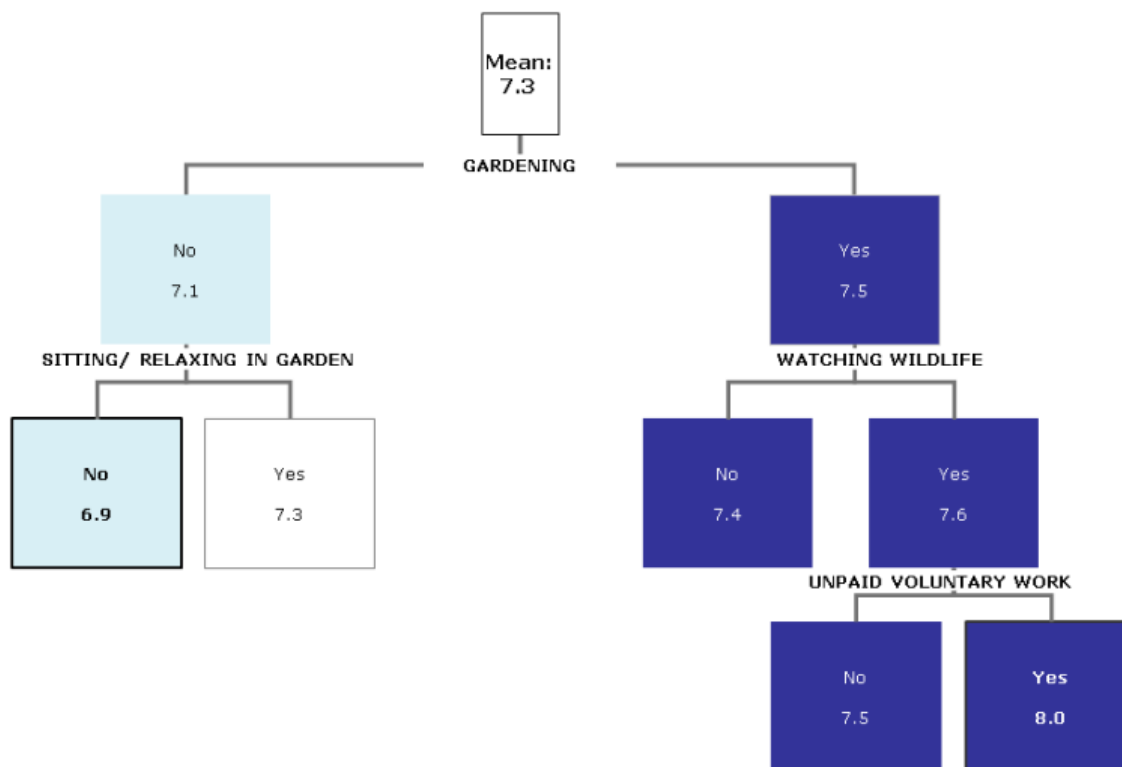
**Figure 4-2** Overall satisfaction by frequency of visits to natural environment in last 12 months

- 4.3 When attitudes towards the environment are considered, responses to the statement 'Spending time out of doors (including my own garden) is an important part of my life' were found to be most strongly correlated to overall satisfaction.
- 4.4 Those who strongly agreed with this statement recorded a significantly higher mean score for overall satisfaction (7.5) while a lower than average mean score was recorded for those who did not agree or neither agreed nor disagreed with this statement (6.7).
- 4.5 It is interesting to note that amongst those who did not rate spending time out of doors as important, those who strongly agreed that they were glad natural places existed even if they didn't visit them, recorded a higher than average mean result of 7.4.



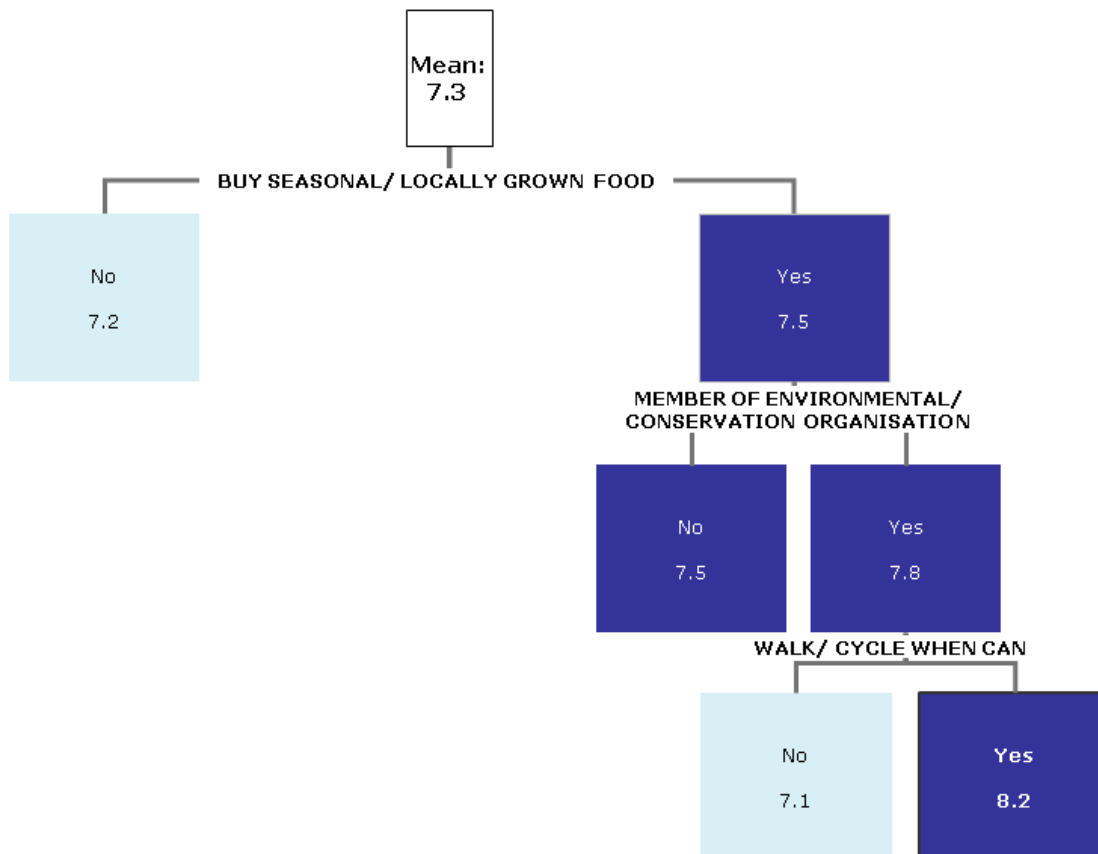
**Figure 4-3** Overall satisfaction by attitudes towards the natural environment

- 4.6 The strongest correlation between overall life satisfaction and other forms of engagement with the natural environment related to participation in gardening. As shown in Figure 4-4, satisfaction was higher amongst those who took part in gardening, and even higher amongst gardeners who also participated in wildlife watching and unpaid voluntary work.
- 4.7 In contrast the lowest levels of overall life satisfaction were found amongst those who did not take part in either gardening, or sitting or relaxing in a garden (6.9), a group which it should be noted will include those who do not have access to a garden.



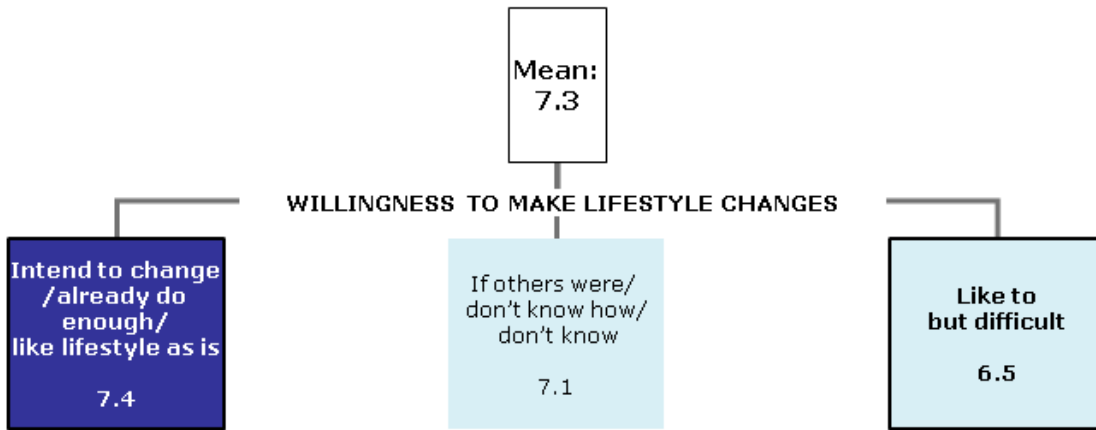
**Figure 4-4** Overall satisfaction by participation in other outdoor related activities

- 4.8 Considering the relationships between pro-environmental behaviours and overall life satisfaction (Figure 4-5), the most closely related activity was whether or not a person bought seasonal or locally grown food. Those who did so recorded a mean life satisfaction score of 7.5, compared to a mean of 7.2 amongst those who did not buy seasonal or locally grown food.
- 4.9 Overall life satisfaction was highest amongst those people who undertook several pro-environmental behaviours. Those who were members of an environmental or conservation organisation and who chose to walk/cycle whenever possible, and bought seasonal or locally grown food, recorded the highest mean score for this measure.



**Figure 4-5** Overall satisfaction by pro-environmental behaviours

- 4.10 The analysis has also demonstrated a correlation between life satisfaction and willingness to make lifestyle changes to protect the environment. Notably a mean score of 6.5 was recorded for life satisfaction amongst those who expressed a desire to make changes to their lifestyle that would protect the environment but found it too difficult to do so.
- 4.11 Life satisfaction was highest amongst those who appeared most confident about the impact of their lifestyle on the environment. A mean result of 7.4 was recorded amongst this group, which includes those who were satisfied that they already do enough or were not willing to change, and those who intended to make changes.



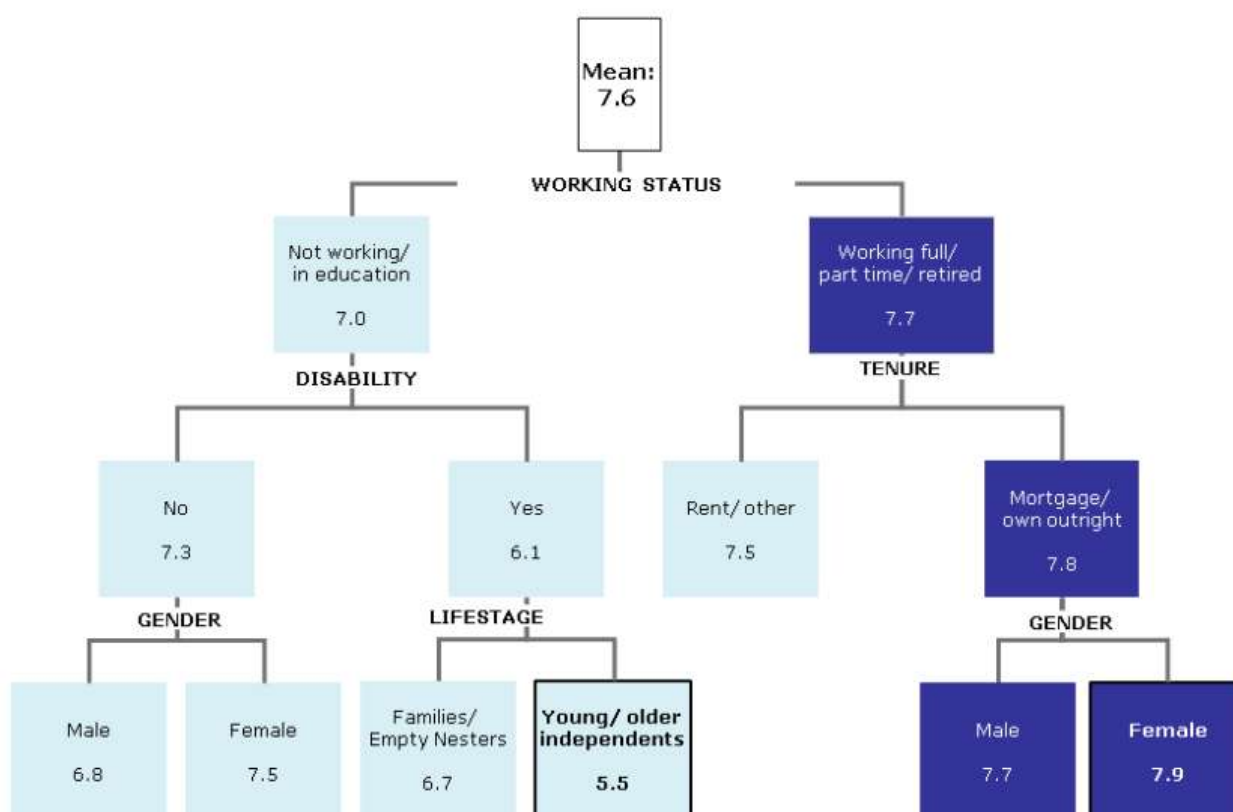
**Figure 4-6** Overall satisfaction by willingness to make lifestyle changes to protect the environment

4.12 In summary, those who recorded the highest overall life satisfaction included people who:

- Were in full-time education or were retired.
- Had visited the outdoors once a month or more often in the last 12 months.
- Strongly agreed that spending time out of doors is important.
- Took part in gardening, watching wildlife and unpaid voluntary work.
- Bought seasonal or locally grown food, were a member of an environmental or conservation organisation and walked or cycled whenever possible.
- Intended to make changes or were satisfied with their lifestyle as it is.

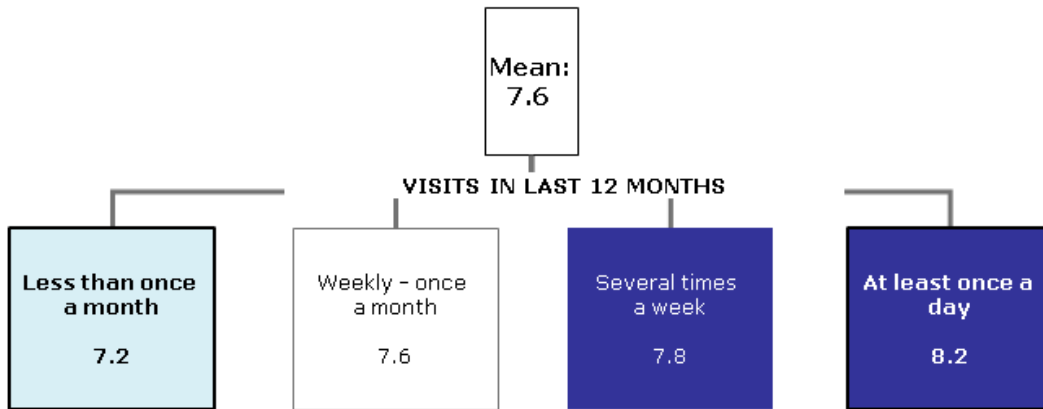
## 5 Life is worthwhile

- 5.1 When asked whether about the things they do in life are worthwhile, the English adult population's mean score was 7.6. When analysed by demographic variables, the strongest correlation was with working status (Figure 5-1 below), with those working full or part-time and retired respondents recording a high mean score (mean 7.7).
- 5.2 Amongst people in employment, housing tenure and gender were also correlated to this measure, with women in employment living in a house that they own or have a mortgage for, more likely to rate their life activities as worthwhile.
- 5.3 However amongst people not in employment, those with a disability or long-term illness were generally less likely to rate their life activities as worthwhile.



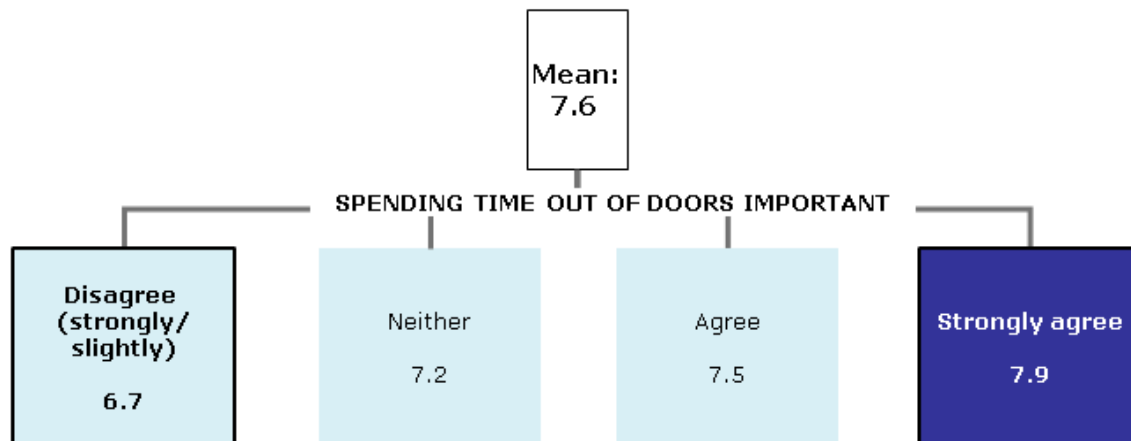
**Figure 5-1** 'Worthwhile' activities by demographics

- 5.4 As shown in Figure 5-2 overleaf, the belief that activities done in life are worthwhile varied by frequency of visit taking in the last 12 months. Those who visited the outdoors daily recorded the highest mean score of 8.2, which compares to a mean score of 7.2 amongst those who visited less than once a month.



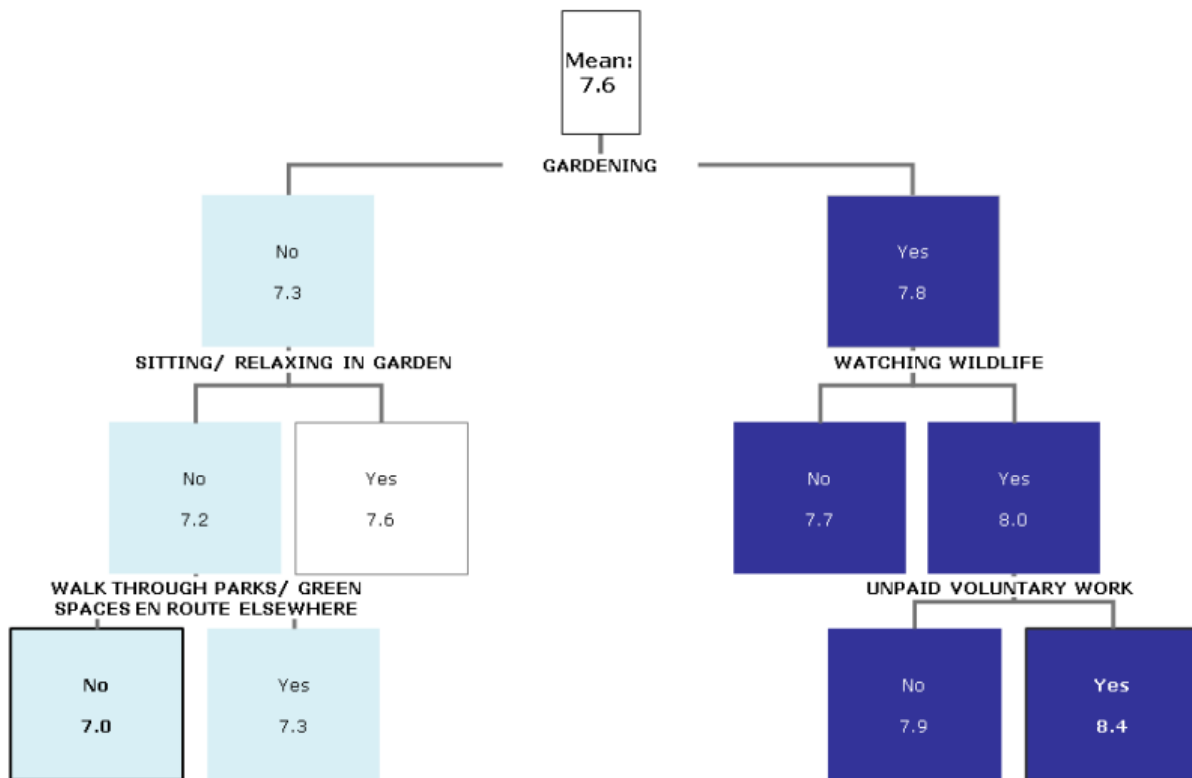
**Figure 5-2** 'Worthwhile' activities by frequency of visits to natural environment in last 12 months

5.5 When analysed by attitudes to the environment, in common with the life satisfaction measure, agreement with the statement 'Spending time out of doors (including my own garden) is an important part of my life' was found to have a close correlation to the 'worthwhile' measure (Figure 5-3).



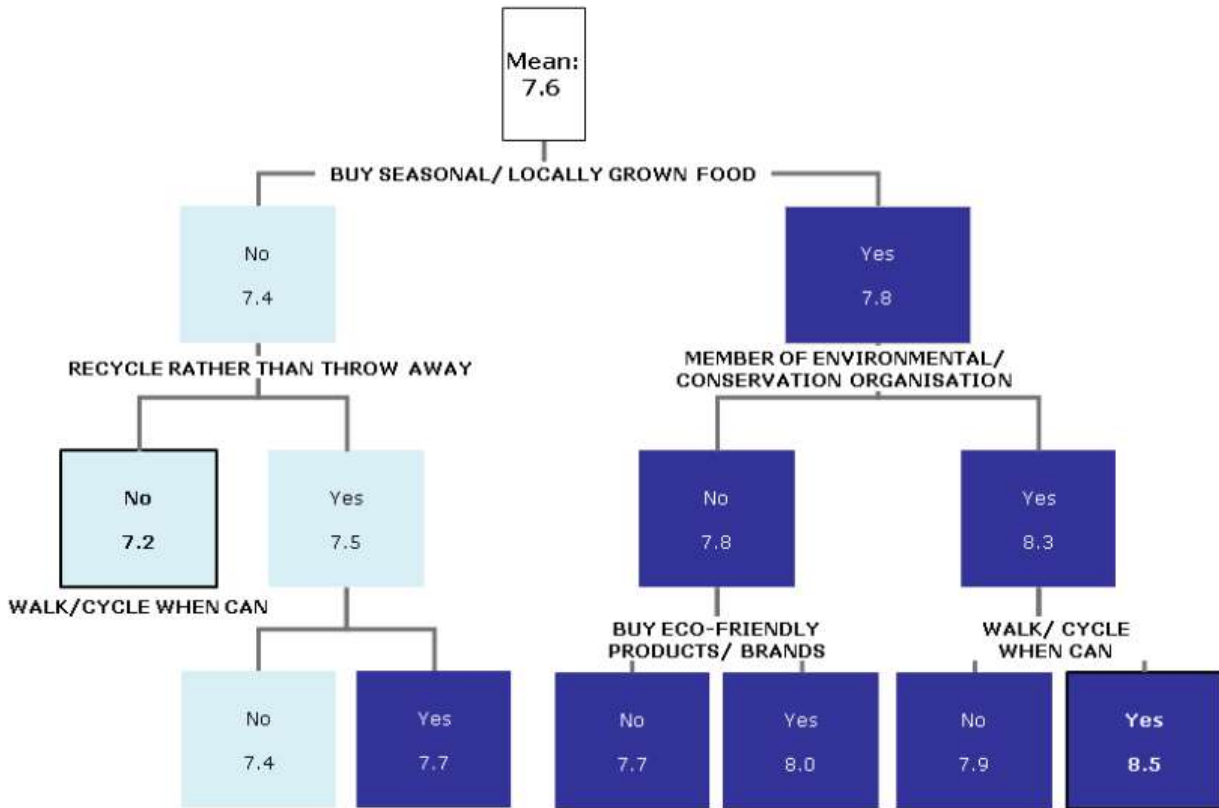
**Figure 5-3** 'Worthwhile' activities by attitudes towards the natural environment

5.6 In terms of other forms of engagement with the natural environment (Figure 5-4), gardening was found to be most closely correlated to the 'worthwhile' measure, with those who took part in this activity recording a mean score of 7.8 compared to 7.3 amongst those who did not participate in this activity, either due to lack of access to a garden or by choice.



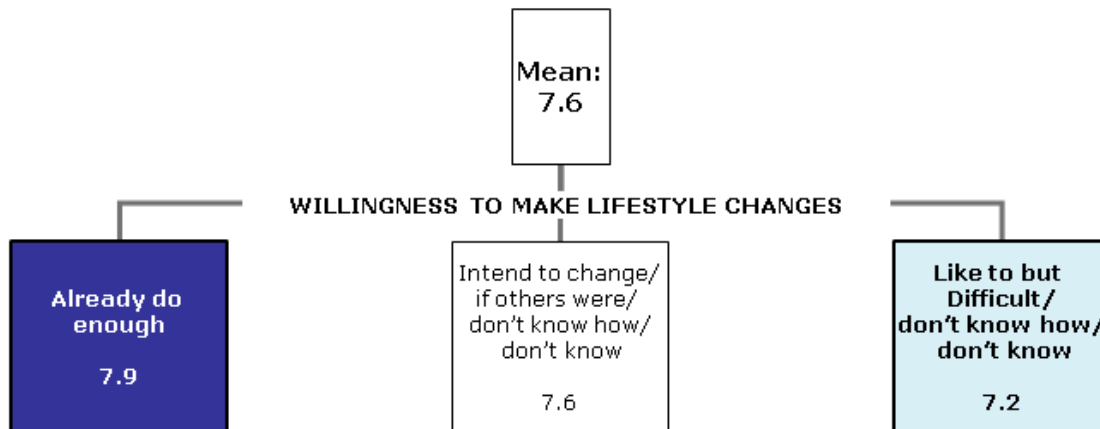
**Figure 5-4** 'Worthwhile' activities by participation in other outdoor related activities

- 5.7 Also, in common with the results relating to life satisfaction, those people who undertook gardening, wildlife watching and unpaid voluntary work were significantly more likely than the overall population average to indicate they were positive about the things they do in life being worthwhile.
- 5.8 Conversely, those who did not spend any time in a garden or tended not to walk through parks and greenspaces provided the least positive responses when asked about whether the things they do in life are worthwhile.
- 5.9 Turning to pro-environmental behaviours, buying seasonal or locally grown food is most closely correlated with higher ratings on the worthwhile activities measure. Those who undertook this activity were more likely than those who did not to rate their life activities as worthwhile (7.8 and 7.4 respectively). The score increased further amongst those who were also members of environmental or conservation organisations, and who walked or cycled whenever possible (8.5).
- 5.10 Conversely, the mean score for this measure was lowest amongst those who do not normally buy seasonal or locally grown food and who do not recycle (7.2).



**Figure 5-5** 'Worthwhile' activities by pro-environmental behaviours

- 5.11 As shown in Figure 5-6, when asked about their attitudes towards their lifestyle and protecting the environment, those people confident that they already do enough to protect the natural environment were also the most likely to consider the activities they do in life as being worthwhile (7.9).
- 5.12 In contrast, those people who found it difficult to make changes to their lifestyle to protect the environment generally tended to have a less positive attitude towards the value of the things they do in general.



**Figure 5-6** 'Worthwhile' activities by willingness to make lifestyle changes to protect the environment

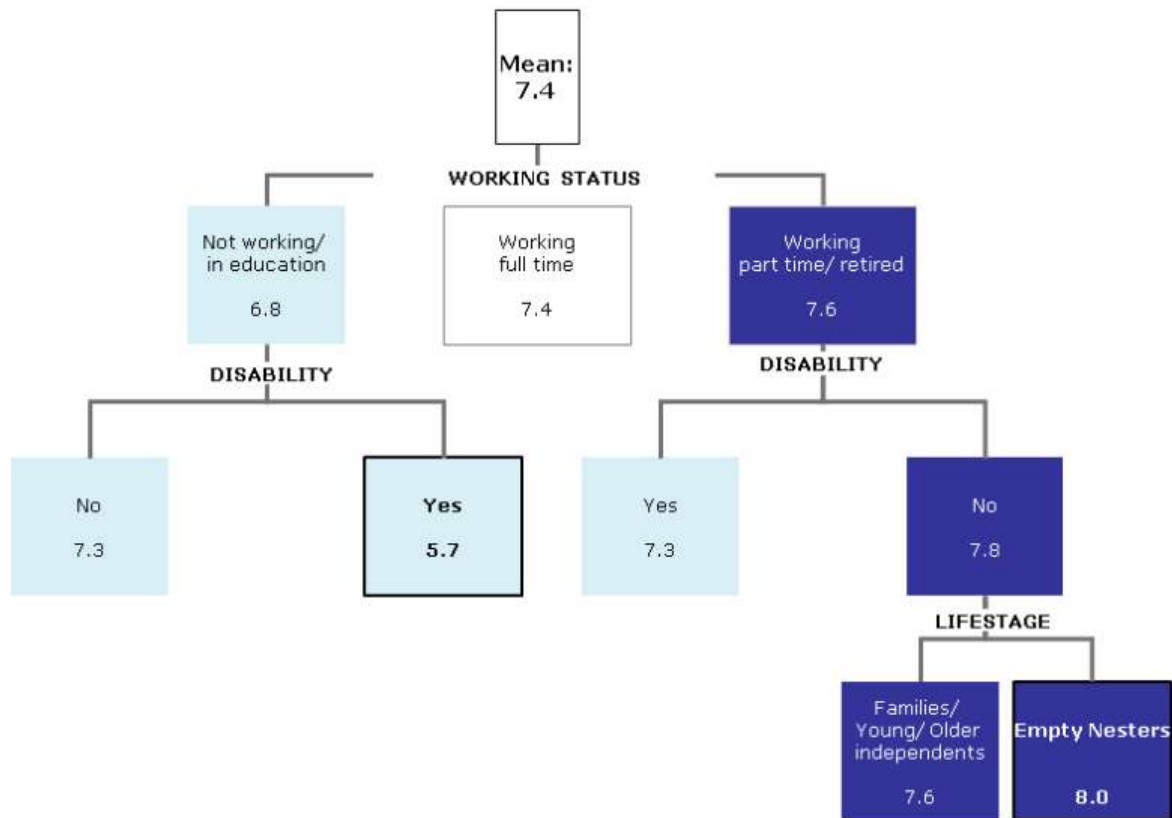


5.13 In summary, people more likely to consider the activities they undertake in their life as worthwhile included those who:

- Were in paid employment or were retired, were homeowners (outright/ mortgage) and were female.
- Had visited the outdoors at least once a day in the last 12 months.
- Strongly agreed that spending time out of doors is important.
- Took part in gardening, watching wildlife and unpaid voluntary work.
- Bought seasonal or locally grown food, were a member of an environmental organisation, and walked or cycled whenever possible.
- Already believe that they do enough to protect the natural environment.

# 6 Happiness

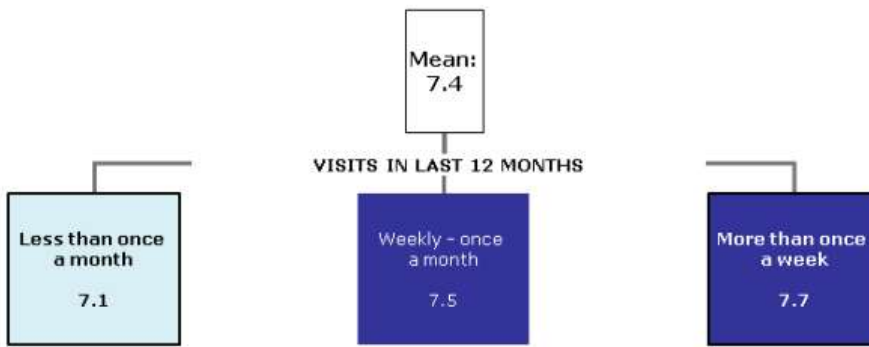
6.1 When asked how happy they felt yesterday, the English adult population as a whole gave a mean score of 7.4. When analysed by demographics, working status had the closest correlation with this measure – particularly those who worked part-time and those who were retired, where a higher than average mean score of 7.6 was recorded.



**Figure 6-1** Happiness by demographics

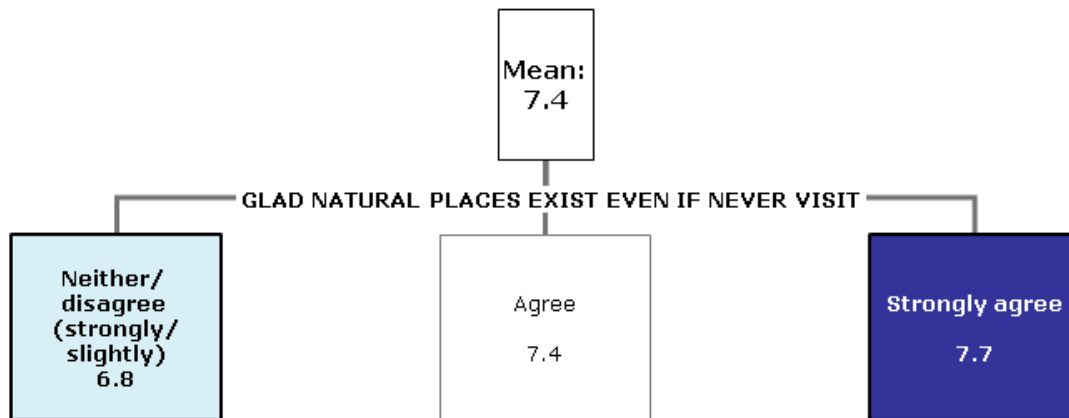
- 6.2 The mean score for happiness increased further amongst those who worked part-time or were retired, who had no long-term illness or disability, and who were in the Empty Nester lifestyle stage<sup>7</sup>.
- 6.3 Conversely, people who were not working (including those in education) and who had a long term illness or disability rated their happiness lowest with a mean score of 5.7.
- 6.4 When looking at frequency of visiting the natural environment, those who visited the outdoors more often than once a week recorded a mean happiness score of 7.7 compared to a mean of 7.1 amongst those who visited less often than once a month (Figure 6-2).

<sup>7</sup> See Appendix 1 for an explanation of the lifestage groupings



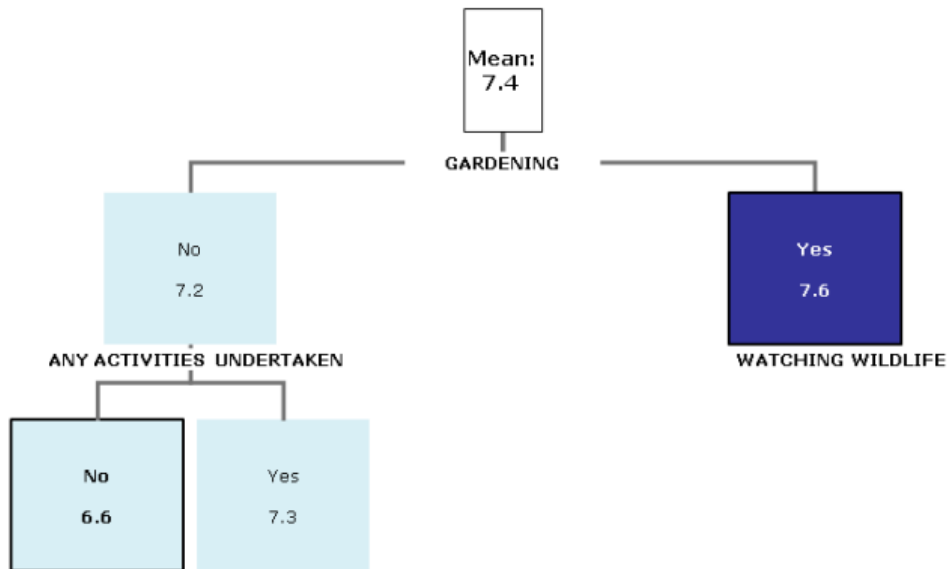
**Figure 6-2** Happiness by frequency of visits to natural environment in last 12 months

6.5 Analysis was also undertaken in relation to attitudes towards the natural environment. From this, the value people gave to the existence of natural places had the highest correlation to levels of happiness. Those who strongly agreed with the statement ‘There are many natural places I may never visit but I am glad they exist’ recorded a mean score of 7.7, significantly higher than the score of 6.8 amongst those who did not agree with this statement.



**Figure 6-3** Happiness by attitudes towards the natural environment

- 6.6 The analysis also looked at engagement with the outdoors via activities other than outdoor recreation visits.
- 6.7 Those who took part in gardening recorded a mean happiness score of 7.6, higher than the mean score of 7.2 recorded amongst those who did not undertake this activity.
- 6.8 The lowest happiness mean score of 6.6 was recorded amongst those people who did not normally undertake any forms of engagement with the natural environment.



**Figure 6-4** Happiness by participation in other outdoor related activities

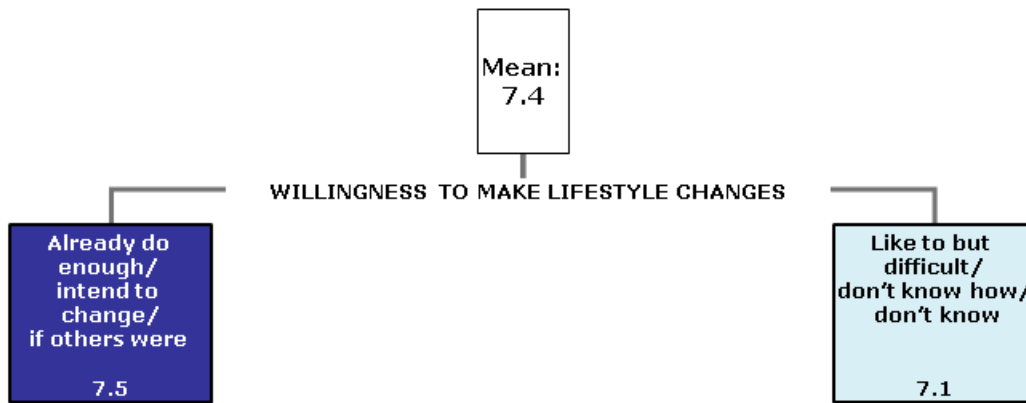
6.9 Figure 6-5 illustrates the analysis with regards to pro-environmental behaviours undertaken by members of the English adult population. Those people who normally bought seasonal or locally grown food recorded a mean happiness score of 7.6. The lowest recorded score was 7.2, found amongst those who did not normally buy seasonal or locally grown food and who did not normally walk or cycle.



**Figure 6-5** Happiness by pro-environmental behaviours

6.10 Turning to lifestyle changes, as Figure 6-6 shows, the lowest level of happiness was a mean score of 7.1 - found amongst those people who wanted to change their lifestyle but felt that it was too difficult or did not know what to do.

6.11 However, those who felt that they already did enough, intended to make changes or who indicated they would make changes if others did so, recorded a significantly higher mean score of 7.5.



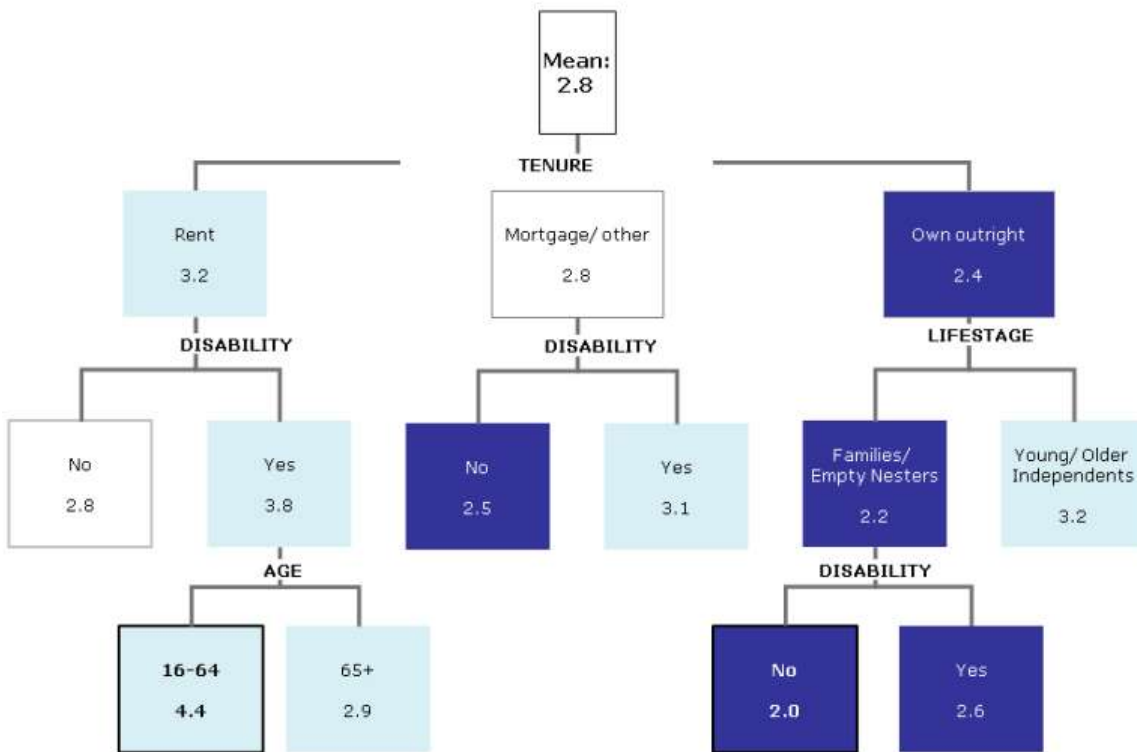
**Figure 6-6** Happiness by willingness to make lifestyle changes to protect the environment

6.12 In summary, people more likely to be happiest are also likely to have:

- Worked part-time or were retired.
- Visited the outdoors more than once a week in the last 12 months.
- Strongly agreed that they are glad natural places existed even if they didn't visit them.
- Took part in gardening.
- Bought seasonal or locally grown food.
- Already believe that they do enough to protect the natural environment, intend to make lifestyle changes to protect the natural environment or would make such changes if others did likewise.

# 7 Anxiety

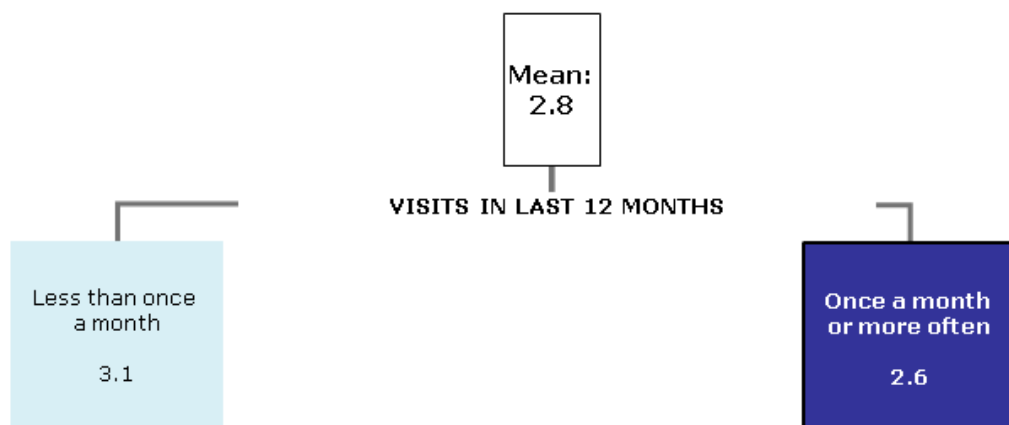
- 7.1 The mean score for anxiety across the English population as a whole was 2.8. For this measure, below average scores are dark blue as these indicate a more positive than average result, while higher than average scores are shown in light blue.
- 7.2 When this measure was analysed by demographic variables, it was housing tenure that showed the greatest correlation. Those who owned their houses outright recorded a below average anxiety score of 2.4, while those who lived in rented accommodation recorded an above average score of 3.2 (Figure 7-1 below).



**Figure 7-1** Anxiety by demographics

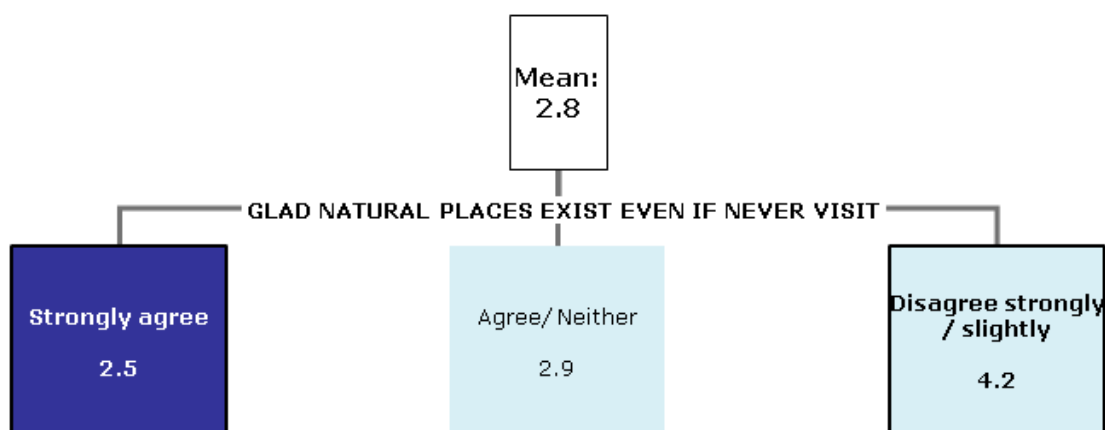
- 7.3 Overall people with the lowest level of anxiety were those who owned their property outright, who were in the Family or Empty Nester lifestages<sup>8</sup> and who did not have a long-term illness or disability.
- 7.4 However the greatest anxiety score of 4.4 was recorded amongst disabled people aged under 65 who lived in rented accommodation.
- 7.5 As shown in Figure 7-2, those who visited the outdoors at least once a month tended to be least anxious, with a mean score of 2.6 compared to 3.1 amongst those who visited less often.

<sup>8</sup> See Appendix 1 for an explanation of the lifestage groupings



**Figure 7-2** Anxiety by frequency of visits to natural environment in last 12 months

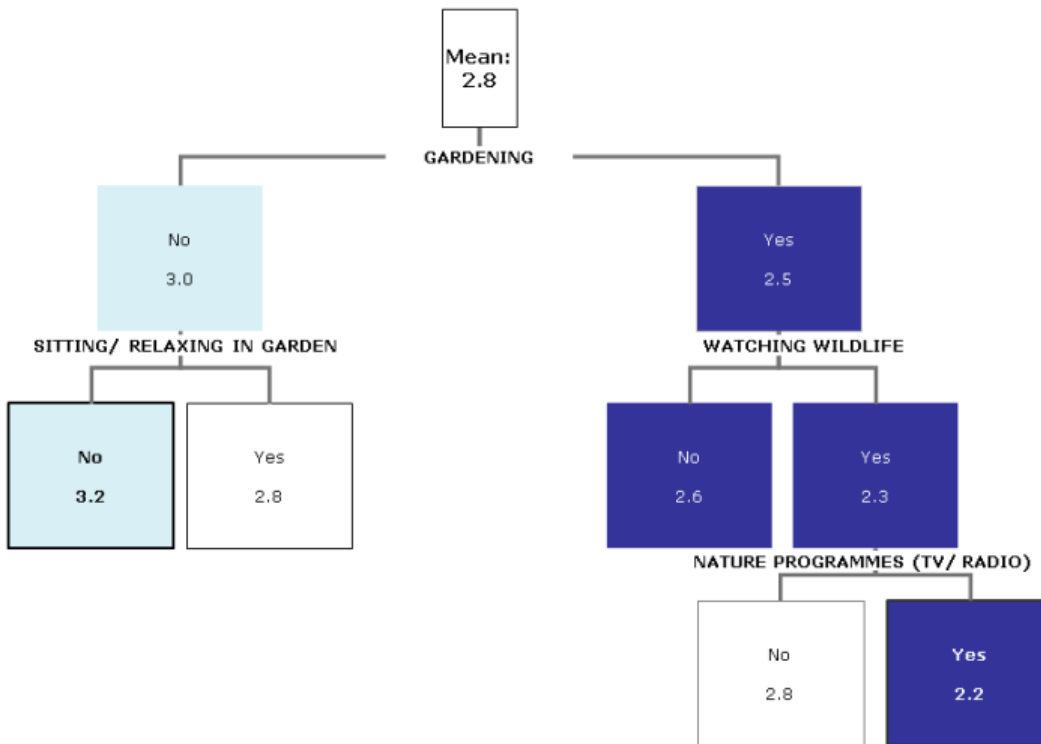
7.6 When asked about attitudes to the natural environment, those with the lowest level of anxiety were those people who strongly agreed they are glad for the existence of many natural spaces even though they may never visit them.



**Figure 7-3** Anxiety by attitudes towards the natural environment

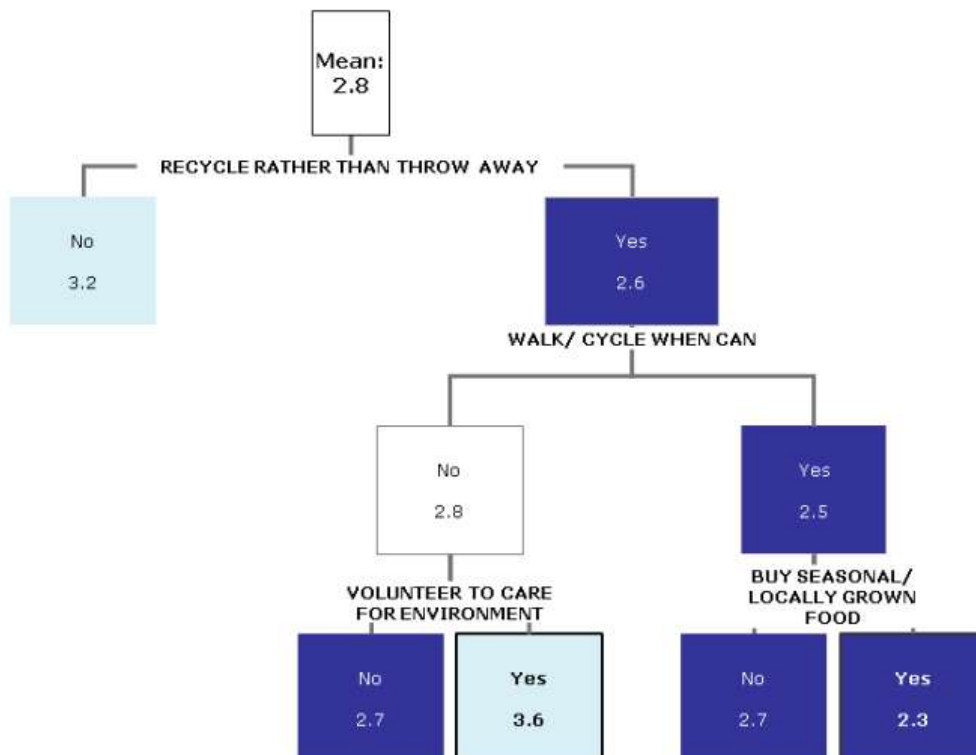
7.7 As shown in Figure 7-4, in common with the other wellbeing measures, gardening is once again the activity that most closely correlates with levels of anxiety. Those who took part in gardening recorded a lower mean score for anxiety than the average. This measure was also correlated to wildlife watching and watching or listening to nature programmes on TV or radio with a mean of 2.2 amongst those who tended to undertake all of these activities.

7.8 Conversely, anxiety was highest amongst those who did not undertake gardening or sitting or relaxing in a garden, with a mean score of 3.2.



**Figure 7-4** Anxiety by participation in other outdoor related activities

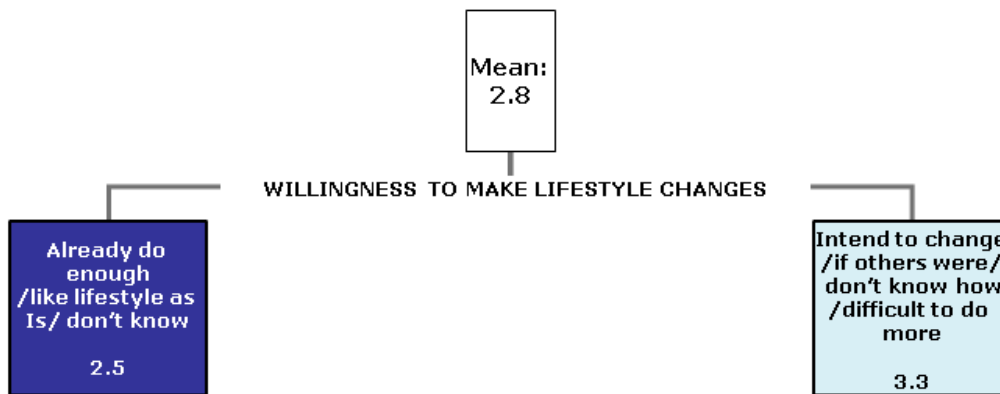
- 7.9 Turning to pro-environmental behaviours, the propensity to recycle was found to be the activity most closely linked to lower levels of anxiety. For example, people who recycle recorded a lower than average anxiety score of 2.6 compared to 3.2 amongst those who tended not to recycle.
- 7.10 Levels of anxiety also appeared to be related to participation in walking and cycling, volunteering, and buying seasonal or locally grown food.



**Figure 7-5** Anxiety by pro-environmental behaviours



7.11 In terms of lifestyle changes, those people who were comfortable with their lifestyle and had no plans to change it to protect the environment recorded the lowest levels of anxiety (Figure 7-6).



**Figure 7-6** Anxiety by willingness to make lifestyle changes to protect the environment

7.12 In summary, people who record the lowest levels of anxiety include those who:

- Owned their house outright.
- Visited the outdoors at least once a month.
- Strongly agreed that they were glad natural places existed even if they didn't visit them.
- Took part in gardening, watching wildlife and watching/ listening to nature programmes.
- Recycled, walked or cycled whenever possible and bought seasonal or locally grown food.
- Already believe that they do enough to protect the natural environment and/or liked their lifestyle as it was.

## 8 Summary and conclusions

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- 8.1 Data from MENE shows variation in the levels of wellbeing between different groups within the population, with variation by demographic status and some relationships with frequency of visits taken to the outdoors and other forms of engagement with the natural environment evident.
- 8.2 Working status was the demographic variable with the strongest correlation to overall life satisfaction, worthwhile activities and levels of happiness. Housing tenure had the strongest correlation to levels of anxiety, with those who own their property outright reporting the least anxiety.
- 8.3 Those people who visit the outdoors at least once a month record the highest levels of overall life satisfaction and happiness, and are more likely to believe that the things they do in life are worthwhile. They also report the lowest levels of anxiety.
- 8.4 Wellbeing scores are also higher amongst those who take part in gardening and those who buy seasonal or locally grown food.
- 8.5 The multivariate analysis has also identified some variations in how the four wellbeing measures relate to individual attitudes and behaviours. For example, the value given to spending time outdoors is most closely correlated to overall life satisfaction, while the happiness and anxiety measures are more closely correlated to a more general appreciation of the existence of natural places.
- 8.6 While frequency of buying seasonal or locally grown food is closely correlated to an individual's overall life satisfaction, happiness and the 'worthwhile' measure, participation in recycling is more closely related to anxiety, with less anxious people more likely to participate.
- 8.7 The wellbeing analysis has offered a fascinating insight into the potential relationship between engagement with the natural environment and subjective wellbeing. While it is not possible to prove cause and effect, this report suggests a link between engagement with the outdoors and improved subjective wellbeing - either directly through visiting, or indirectly through pro-environmental behaviours or other forms of engagement.

# Appendix 1 Lifestage definitions

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**Table A** Lifestage definition

Young Independent	Under 35, no children in household
Older Independent	35 to 54, no children in household
Family	Any age, children in household
Empty Nester	55+, no children in household