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# Scottish Environmental Attitudes and Behaviours Survey 2008

Environment



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# **SCOTTISH ENVIRONMENTAL ATTITUDES AND BEHAVIOURS SURVEY 2008**

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# EXECUTIVE SUMMARY

## Introduction

- 1 In December 2008, the Scottish Government published the Climate Change (Scotland) Bill<sup>1</sup>. This includes a statutory target to reduce emissions by 80 per cent by 2050. While the need for action in relation to climate change is commonly recognised, there has been a paucity of information in Scotland to examine people's attitudes and behaviours in relation to this and other environmental issues. It is within this context that the Scottish Government Rural and Environment Analytical Services (REAS) Division, on behalf of the Greener Scotland Directorate and Climate Change Division, commissioned the Scottish Environmental Attitudes and Behaviours Survey (SEABS '08). The SEABS'08 serves the Scottish Government's 'Greener' and 'Wealthier and Fairer' Strategic Objectives.
- 2 The over-arching aim of SEABS '08 was to produce dedicated, sound and up-to-date robust social survey data on environmental attitudes and behaviours, supporting the development and delivery of environmental policy, relating specifically to climate change, sustainable development and wellbeing, but also of relevance to other policy areas. Specific objectives for the survey were to:
  - provide robust information on individual environmental attitudes and individual and household behaviours of adults (aged 16+ across Scotland);
  - enable disaggregation of such information in terms of sub-groups;
  - enable detection of trends over time;
  - allow more detailed surveys or follow-up surveys, if required, of sub-samples from the main survey sample; and
  - devise appropriate dissemination, presentation and use of results.
- 3 The survey was undertaken among a quota sample of the Scottish adult population (aged 16+) between 18 August and 15 November 2008. All interviews were conducted face to face by experienced Ipsos MORI interviewers in respondents' homes. The total number of interviews achieved was 3,054.
- 4 The primary purposes of the analysis were two-fold. First, to describe the prevalence of various attitudes and behaviours in relation to the environment across Scotland and within particular sub-groups. Secondly, to analyse what drives environmental attitudes and behaviours.

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<sup>1</sup> <http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/index.htm>

## Attitudes to the environment

- 5 Overall, 12% of respondents considered the environment or environmental issues (such as global warming or climate change) as one of the most important issues facing Scotland today, with 4% saying that the environment is the *single most important* issue. Respondents were more likely to mention issues relating to the economy and the 'credit crunch' (38%), crime, law and order and anti-social behaviour (32%), and the Scottish constitution (17%).
- 6 The environment was mentioned more often when respondents were asked what were the most important issues facing the world, with around a third of respondents (35%) mentioning this. Respondents were most likely to view international conflict (such as terrorism and the wars in Iraq and Afghanistan) as an important issue facing the world (43%), while 35% mentioned the economy.
- 7 When asked about environmental issues specifically, climate change/global warming was mentioned more than any other problem (41%). The second most commonly mentioned issue was weather patterns/freak weather (19%). Other environmental issues included: household waste (18%), consumption of natural resources (15%) and CO<sub>2</sub> emissions (15%).
- 8 Most respondents said they knew something about climate change. Just over two fifths (43%) said they know a fair amount, and 5% said they know a great deal about climate change. Two fifths (40%) said they know not very much. In contrast, 10% said that they had heard of climate change but knew nothing about it. Only 1% of respondents in Scotland have never heard of climate change.
- 9 The majority of respondents (57%) said climate change is an immediate and urgent problem. Around a fifth of respondents (22%) said that climate change is more of a problem for the future. Fewer respondents said that climate change is not really a problem (4%) or are not convinced that climate change is happening (9%).
- 10 Respondents were asked what two or three actions they thought would most help reduce climate change. The most common actions were: recycling (45%), avoiding creating waste in the first place (36%), using a more fuel efficient car (32%) and making fewer car journeys (28%). Fewer respondents mentioned buying organic produce (1%), people having fewer children (4%), reusing bottles/containers (5%), using water sparingly (6%), buying fewer products generally (6%), and taking fewer foreign holidays (12%).
- 11 There were differing views on the value of action and the link between individual behaviour and climate change. While around two-thirds (68%) disagreed with the statement, 'it's not worth me doing things to help the environment if others don't do the same', over one in five (22%) agreed. A sizeable proportion of people struggle to make the link between climate change and their own individual behaviour, with over a third agreeing, 'I don't believe my behaviour and everyday lifestyle contribute to climate change' (48% disagreed and 16% gave a neutral response).

- 12 A typology of environment engagement was created. This typology is used as a key analysis variable in subsequent chapters on behaviour and policy responses. It segments people into a hierarchy of five groups:
- Deep Greens: These are people who: said that the environment was an important issue in Scotland or the most important issue in the world; believed that climate change is an immediate and urgent problem; and said they know a great deal or a fair amount about climate change. These people are most likely to be engaged with the issues and the most proactive in terms of adopting new or alternative behaviours.
  - Light Greens: People who believe that climate change is an immediate and urgent problem and an important issue globally, but who do not necessary feel well informed about climate change or think that it is an important issue in Scotland. This group could be referred to as "aspiring greens". They may be interested in adopting new behaviours but tend to be more passive than those who are highly engaged.
  - Shallow Greens: These are people who said that climate change is an immediate and urgent problem, but not one of the most important issues globally or in Scotland. These people accept that climate change is an issue, but may not be convinced of the need to take more than minimal action at present.
  - Distanced: This group believe that climate change is more of a problem for the future or hold no views on climate change. It is unlikely that this group will readily accept the need for anything more than minor or relatively easy changes to their lifestyle.
  - Disengaged: These are people who are not convinced that climate change is happening or, that if it is happening, believe it is not a problem. This group are likely to be the most resistant to messages about changing their behaviour.
- 13 High environmental engagement is more concentrated among certain groups in the population, with educational attainment, social class, and age being the strongest predictors of engagement.
- 14 Educational attainment has the strongest impact on membership of two groupings in the typology, the Deep Green grouping and the Disengaged grouping. While only 4% of those with no educational qualifications were classified as Deep Greens, a quarter (25%) of those with a degree level qualification were classified in this grouping. In contrast, those with no qualifications were twice as likely as those with a degree level qualification to be classified as Distanced (42% compared to 21%).

### **Energy efficiency in the home**

- 15 To gauge how conscious people are of their energy consumption, respondents were asked whether they felt they could accurately estimate the

amount they spend each month on gas and/or electricity to within £20. A majority – 68% of those who use electricity and 66% of those who use gas – felt that they could do so.

- 16 Respondents in social groups C2DE<sup>2</sup> and those with no educational qualifications were among those most likely to say they could provide an estimate within £20. This may be because these groups will have relatively low incomes and therefore may pay closer attention than other people to their monthly outgoings. Those living in a flat or apartment were more likely to be able to provide an estimate than those living in a house and bungalow (for example, 71% versus 67% for electricity) and those living in the most deprived areas were more likely than those in the least deprived areas (for example, 72% compared to 60%). There was no significant difference by rurality.
- 17 Asked about their current use of gas and electricity compared with a year ago, respondents who use these types of fuel were most likely to say they were using about the same amount (electricity users – 55% and gas users – 58%). Overall, 21% said they were using less electricity/gas now compared with one year ago. Fewer respondents said they were now using more gas and electricity (15% and 16% respectively) than a year ago.
- 18 Analysis by the engagement typology finds that the Deep Green grouping were more likely than all of the other groupings to say they use less electricity and/or gas than a year ago.
- 19 Only around 1% of respondents (N=30) in the survey use energy from micro-generation. Just three people used solar panels and just one person used hydro power. No respondents obtained energy from photovoltaics, air and ground source heat pumps, biomass, or micro-wind turbines.
- 20 To assess wider awareness of micro-generated forms of energy, *all* respondents were asked whether they felt their home was suitable for photovoltaics, solar panels, air and ground source heat pumps and micro wind turbines. A consistently higher proportion of respondents felt their home was *unsuitable* rather than suitable for each of the technologies. Just over half felt their home was unsuitable for micro wind turbines (54%) or air and ground source heat pumps (52%), while 43% felt their home was unsuitable for solar panels and 35% felt the same in respect to photovoltaics. However, significant proportions of respondents were unable to give definitive responses as to the suitability of their homes for the four forms of micro-generation.
- 21 There was no linear pattern of responding across the five typology groupings, but the Deep Green grouping was consistently a little more likely than all of

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<sup>2</sup> Social grades ABC1 includes: people in supervisory or clerical and junior managerial, administrative or professional positions (C1); intermediate managerial, administrative or professional positions (B); and higher managerial, administrative or professional positions (A). Social grades C2DE includes: skilled manual workers (C2); semi and unskilled manual workers (D); and casual or lowest grade workers, pensioners and others who depend on the state for their income (E).

the other grouping to say that their home was suitable for the four technologies.

- 22 Respondents were presented with a list of day to day energy saving behaviours and asked how important they think it is that people do each. All of the behaviours were regarded as at least fairly important by a strong majority of respondents. Around nine in ten people felt it was important to: use energy saving light bulbs (90%); hang washing up rather than using a tumble dryer (91%); and turn off lights in rooms that aren't being used (94%). Around eight in ten felt it was important that people avoid over-filling kettles (83%); and seven in ten felt it was important that they turn off heating before going out (73%) and turn off the tap when brushing their teeth (72%).
- 23 The most engaged typology groupings were generally more likely than the less engaged groupings to rate each of the behaviours as important.
- 24 Respondents were presented with the list of behaviours again and asked how often they, personally, do each. The prevalence of the behaviours varied considerably. On the one hand, a majority of respondents said they use energy saving light bulbs and hang up washing to dry at least 'most of the time' (63% and 79% respectively). Similarly, 67% say they rarely or never leave lights on in rooms that aren't being used. However, significantly fewer respondents said they turn off heating before going out or turn off the tap when brushing their teeth – indeed, roughly as many people 'rarely' or 'never' did these things as did them 'always' or 'most of the time'.
- 25 There was no consistent pattern of variation by environmental engagement, but the Deep Green grouping were consistently more likely than all other groupings to: turn off the tap when brushing their teeth (59% compared with 35% of the Disengaged grouping); use energy saving light bulbs (73% compared with 61%); and hang up washing rather than using a tumble dryer (83% compared with 77%).
- 26 Respondents were asked whether they have bought a number of white goods in the past two years and, if so, whether they were aware of the energy efficiency rating of their new item. For the three items most commonly purchased in the past two years – television, fridge or freezer or fridge freezer and washing machine – the majority of respondents said they did not know what the energy efficiency was (82%, 54% and 53% respectively).

### **Travel behaviour**

- 27 Driving by car is the most common mode of transport for respondents to travel to work and do grocery shopping. The majority of respondents in employment travel to work in a car, either themselves (56%) or by getting a lift from someone else (6%). In comparison, 16% walk, 12% travel by bus and 5% travel by train.
- 28 Similarly, the majority of respondents drive (54% drive themselves, 9% get a lift) to the place where they do their main food and grocery shopping. Other

most common modes of transport to do the main food and grocery shopping were walking (22%) and using a bus (11%).

- 29 The prominence of driving in respondents' lives is reflected by how often respondents use different modes of transport. Nearly half (45%) said they use a car as a driver *most days*, while a further 15% use a car as a passenger most days. By comparison 18% of respondents said they use the bus most days and 3% said they use the train most days. Overall, 27% of respondents *never* use buses.
- 30 Regression analysis suggests that among people with a car available to the household, once other socio-economic factors have been controlled for, environmental engagement is not a significant factor in determining whether people drive to work. Similarly, once distance from their main grocery shop, car ownership, and socio-economic factors are controlled for, the environmental typology does not prove to be significant to whether people drive to do their main grocery shopping.
- 31 There is, however, limited evidence that environmental engagement decreases frequency of driving. Once other variables are controlled for, among respondents with a car available to their household, Deep Greens are significantly, but only slightly less likely to drive most days: 64% of Deep Greens drove every day compared to 68% of Light Greens, 65% of Shallow Greens, 63% of the Distanced and 71% of the Disengaged. In contrast, Deep Greens with a car available to their household were more likely to drive once or twice a week (20%) compared to Light Greens (14%), Shallow Greens (14%), the Distanced (12%) and the Disengaged (12%). This suggests that environmental engagement may have a small effect on reducing car usage overall.
- 32 Of all forms of transport, cycling is the most closely associated with environmental engagement. This holds even after controlling for socio-economic variables.
- 33 Overall, 46% of respondents said that they had made at least one journey by air in the last 12 months for non-work reasons: 19% made just one journey, 12% made two journeys, 5% made three journeys, and 10% made four or more journeys. These results are very much in line with findings from the 2007 DEFRA survey.
- 34 While Deep Greens, the most environmentally engaged group in the attitudinal typology, were the *most* likely to have flown for leisure purposes in the last year, regression modelling suggests environmental engagement is not a significant factor. A higher proportion of Deep Greens fly than those in the Disengaged Grouping because they are more likely to have high educational attainment and be in social groups ABC1. In other words, after all other factors are controlled, the environmentally engaged do not appear to be any more or less likely to fly for non-work reasons.

- 35 17% of workers had made at least one journey by air in the last twelve months: 4% had made one journey, 3% had made two journeys, 1% had made three journeys, and 9% had made four or more journeys.
- 36 Patterns of flying for work by environmental engagement are similar to patterns of flying for non-work reasons. While Deep Greens were more likely to have flown for business in the last year (26%), compared to Light Greens (19%), Shallow Greens (16%), The Distanced (13%) and those in the Disengaged grouping (17%), once other socio-economic factors have been controlled for, there is no significant relationship between environmental engagement and likelihood of flying for work. In other words, environmental engagement does not make a measurable impact on the number of flights taken for work.

### **Recycling and reusing**

- 37 Respondents were more likely to make use of kerbside recycling services than other recycling facilities, such as bottle banks. Kerbside paper recycling collection services, where available, were used by 84% of respondents at least sometimes; with 76% saying they use such facilities every time.
- 38 By comparison, they use other recycling services and facilities less often:
- 72% use the kerbside garden waste recycling collection, where available, every time.
  - 63% of respondents use the kerbside can recycling collection, where available, every time.
  - 60% use the kerbside bottle recycling collection, where available, every time.
  - 44% use other bottle recycling facilities, where kerbside services are not provided, every time.
  - 41% use other paper recycling facilities, where kerbside services are not provided, every time.
  - 33% use other can recycling facilities, where kerbside services are not provided, every time.
  - 19% of respondents with a garden use a home composting heap or bin, or worm farm every time.
- 39 Although those who are environmentally engaged are more likely to use available kerbside recycling facilities, the difference is relatively small. After other factors have been controlled for, environmental engagement is not significant with regard to use of available kerbside recycling facilities. In other words, all other things being equal, the environmentally engaged are no more or less likely than other people to use kerbside recycling facilities where they are available.

- 40 However, the likelihood of using other recycling facilities, even after other socio-economic factors have been controlled for, is strongly related to environmental engagement and suggests that the impact of environmental engagement on recycling is strongest where it requires the most effort.
- 41 Respondents were also asked how often they reuse a variety of everyday items. Most respondents sometimes use their own shopping bags or boxes, with 48% saying they use them *every time*. Similarly, the majority of respondents claim to carry out the following behaviours *every time*:
- Donate items to the charity shop (28%).
  - Reuse wrapping paper/gift bags (21%).
  - Reuse plastic food containers (23%).
  - Use rechargeable batteries (17%).
  - Reuse plastic drink bottles (16%).
- 42 A significant proportion of respondents said that they never use rechargeable batteries (38%), plastic drinks bottles (36%), wrapping paper/gift bags (24%) and plastic food containers (25%).
- 43 The likelihood of reusing these items, after other socio-economic factors have been controlled for, was related to environmental engagement.

### **Eco-purchasing**

- 44 Supermarkets were by far the most popular places to buy groceries, with almost all (97%) respondents saying they visit supermarkets at least once a month, and around half (52%) saying they do most of their grocery shopping in supermarkets. Meanwhile, around two in five respondents said they visit small independent shops (40%) and convenience stores or corner shops (35%). Very few people said they regularly buy groceries from other types of shop – for example, only around one in 10 said they visit farmers' markets (9%) or health food shops (7%) at least once a month.
- 45 Awareness of different sustainably produced goods varied considerably. The majority of respondents were familiar with Scotch Beef (90%), Fair Trade products (83%) and Scotch Lamb (83%), but only around one in five had heard of sustainably produced timber (23%), fish from sustainable sources (20%) and Freedom Food (19%). Further, only 3% had heard of LEAF Marque food.
- 46 Respondents were asked which, of the products they had heard of, they make a conscious effort to buy. Again the results were somewhat mixed. Two thirds (66%) of those who had heard of Scotch Beef and around half (53%) of those who had heard of Fair Trade products said they made a point of buying these items. The figures for fish from sustainable sources, Freedom Food,

timber, and LEAF Marque food, were somewhat lower, at 39%, 23%, 20% and 11% respectively.

- 47 Respondents were presented with a list of other eco-friendly products and asked how often, if at all, they buy each. Free range eggs were by far the most widely bought product, with six in ten respondents saying they choose these 'every time' or 'most times'. None of the other products were bought with the same frequency by a majority of respondents. Free range poultry and recycled toilet paper – the next most commonly purchased products – were bought 'every time' or 'most times' by 28% and 22% of respondents respectively. The *least* commonly bought products were eco-friendly clothing and organic groceries – in each a majority said they *never* purchase these items.
- 48 Those in the Deep Green typology grouping were more likely than other groups to buy each of the products 'every time' or 'most times'. The differences were not great, however. For example, the proportion of Deep Greens who bought organic milk 'every time' or 'most times' was 13%, compared with 5% of the 'Disengaged' grouping. For recycled toilet paper, the comparable figures were 32% and 16% respectively. In short, even amongst those segments of the public that are the most engaged with the environment issue, eco-purchasing is not widespread.

### **Barriers to behavioural change**

- 49 The SEABS'08 questionnaire included a suite of questions aimed at gauging *why* people do not always choose to adapt their behaviour in ways that may be helpful to the environment. While some of the reasons cited were very behaviour-specific, there were four recurring themes which consistently ranked highly. These were: convenience; cost; a lack of alternative options; and practical considerations.
- 50 Overall, convenience was the factor that most commonly underpinned people's choice of behaviour. Indeed, it was the main reason respondents gave for opting to: drive to work (50%); drive to do grocery shopping (54%); drive their children to school (30%); and use air travel within the UK for leisure (74%) or business purposes (67%).
- 51 Cost considerations were among the main reasons respondents gave for changing their gas and/or electricity supplier (89% and 88% respectively, compared with 3% and 4% respectively mentioning environmental considerations), not buying more locally produced food (21%), and using air travel within the UK for leisure (27%) or business purposes (16%). Similarly, of those respondents who said they now use less electricity/and or gas than a year ago, a majority accounted for this with reference to increased energy costs or trying to save money (gas: 68%, electricity: 67%). In contrast, just 13% of those who are using less gas and 16% of those who are using less electricity said they are doing so to help the environment.
- 52 A lack of alternatives option was most commonly cited in relation to travel behaviour and specifically: driving to work (18% said there was no direct

public transport); driving to do grocery shopping (13% said there was no direct public transport); driving children to school (24% said there were no practical alternatives); and flying within the UK for leisure or business purposes (10% and 16% respectively said there were no alternatives).

- 53 Practical considerations cited were closely related to convenience. For example, amongst the reasons people gave for driving to work were that public transport takes too long (13%); that their work is too far to walk or cycle (10%); or because they work unsociable hours (7%). Similarly, a significant proportion of those who drove to do grocery shopping said they did so because their shopping is too heavy to carry home on foot or onto public transport (44%), or because it is easier to take the car when you have children (6%).

### **Meeting the challenge of climate change**

- 54 In order to achieve the target of reducing emissions by 80 per cent by 2050, the public will need to be convinced of the urgency of issues relating to the environment. A key factor determining the likely success of any communications will be the extent to which these are seen as legitimate and trustworthy.
- 55 Respondents were asked what sources they would trust the most to provide them with correct information about climate change. The most commonly mentioned sources were independent scientists (45%), environmental groups or charities (25%), television news programmes (23%), and the Scottish Government (12%).
- 56 When asked who they would trust the least, the most commonly mentioned sources were the UK Government (34%), tabloid newspapers (34%), business and industry (22%) and the Scottish Government (17%).
- 57 Respondents were asked whether they supported a variety of hypothetical policy developments:
- Requiring shops to charge 10p for a carrier bag was supported by 61% of respondents, and opposed by 37%.
  - Introducing water meters so that respondents pay for the amount they use was supported by 49% of respondents, and opposed by 45%.
  - Charging car owners to drive in city centres (congestion charging) was supported by 40% of respondents and opposed by 55%.
- 58 Respondents were asked whether they agreed or disagreed with a number of statements relating to the value and impact of renewable energy sources, as well as nuclear energy, *vis a vis* traditional energy sources.
- 59 People were considerably more likely to be positive than negative about the value of renewable energy with around three in five (58%) disagreeing that windfarms do more damage than good to the natural environment (12% agreed). This notwithstanding, over two fifths (44%) thought that windfarms

and hydro electric schemes should only be built on the condition that they don't lead to more pylons. Further, a majority (53%) said they would *not* be happy to pay more for electricity if they knew it was produced in a more environmentally friendly way and less than a third (30%) said they would be willing to do so.

- 60 With regards to attitudes towards nuclear energy, just over half (53%) agreed that society needs nuclear power along with other forms of energy. Respondents were more likely to agree than disagree that nuclear power stations are more environmentally friendly than coal and gas power stations (39% versus 21%).
- 61 It therefore appears that people were generally in favour of generating energy from renewable rather than nuclear sources. However, they were unwilling to pay higher household bills, or sacrifice the aesthetic of the landscape to make this possible.
- 62 Perceptions of renewable energy differed according to levels of environmental engagement. Deep Greens were more likely than all other groupings to say they *would* be happy to pay more for their electricity if they knew that it was produced in a more environmentally friendly way (52% versus 20% of the Disengaged grouping). The Distanced and Disengaged groupings were most likely to say they would *not* be happy to pay more (58% and 67% respectively).

### **Greenspace**

- 63 Respondents were asked how often they visit public gardens, parks, countryside or other greenspaces. When asked how often they visited greenspaces, 55% of respondents said they did so at least once a week, 22% said at least once a month but less than once a week, 13% said less than once a month, and 10% said they never visited greenspaces.
- 64 Most respondents (79%) said that it was very important to them to have gardens, parks, countryside or other green spaces nearby, while 18% said it was fairly important. Only 2% said that this was not very important and 1% that this was not at all important.

### **Wellbeing**

- 65 Respondents were asked whether they agreed or disagreed with five statements related to their wellbeing:
- I am satisfied with my life: 80% agreed while 13% disagreed.
  - So far I have managed to get the important things I want in life: 79% agreed while 14% disagreed.
  - In most ways my life is close to my ideal: 69% agreed while 20% disagreed.
  - The conditions of my life are excellent: 65% agreed while 23% disagreed.
  - If I could live my life over, I would change almost nothing: 54% agreed while 36% disagreed.

- 66 Respondents were also asked what two or three things would most improve their wellbeing. The respondents most commonly given were: earning/having more money (27%), improved health (23%), spending more time with family (20%), doing more exercise/physical activity (17%), working fewer hours (13%), spending more time with friends (12%), losing weight (12%), and spending more time outdoors (11%).

### **Links between greenspace and wellbeing**

- 67 Those who said they visit greenspace everyday, at least once a week or at least sometimes, were more likely than those who never do so to say they were satisfied with life (82%, 77%, and 78% respectively versus 68%). Conversely, those who never visit greenspace were nearly twice as likely as those who do so every day to say they were dissatisfied with life (27% versus 14%). More specifically, regression modelling suggests that, after socio-economic factors are controlled for, visiting greenspace was a significant factor in determining differences in wellbeing, but only in the groups who comprise the two extremes – those said they visit greenspace *everyday* and those who *never* do so.

### **Key messages**

- 68 Public engagement with the environment issue is mixed. On the one hand a majority of people agree that climate change is an immediate and urgent problem, rather than a problem for the future, and disagree that climate change will only impact on other countries, so there is no need to worry. Further, there are some signs that people are starting to change their behaviour for the sake of the environment. Recycling in particular, appears to be commonplace, with a relatively high proportion of people saying they recycle various types of household waste on a regular basis. Similarly, considerable proportions report reusing items such as shopping bags, and plastic drinks bottles, and taking measures to save energy in the home, such as using energy saving light bulbs. Significantly, the survey found a clear link between attitudes and behaviour – those who were the most environmentally engaged were the most likely to have made green lifestyles changes in terms of recycling, eco-purchasing, reusing households items and taking energy saving measures in the home.
- 69 However, levels of participation in many other forms of pro-environmental behaviour remain low: 44% of those who live a mile from work and have a car still choose drive there; two thirds of people drive most days; almost half of people have flown for leisure in the last year; a third of people could not say how much they spend on gas or electricity at home; around half of respondents do not reuse shopping bags every time possible; the majority of those who had bought a washing machine or a fridge freezer in the last two years did not know its energy rating; only 1% use energy from micro-generation; and almost half of people never use eco-friendly cleaning products.
- 70 When respondents were asked what actions would most help reduce climate change they were more likely to mention recycling than any other action.

While it is positive that the argument for recycling appears to be generally accepted, there is scope to raise public awareness of the impact of other actions, such as reducing domestic energy use and taking fewer flights.

- 71 Not making fundamental changes to behaviour is understandable. One of the key difficulties of promoting green behaviours is that the benefits are not necessarily obvious or immediate - one person's actions will not be significant enough to make any perceptible difference to climate change. At the same time, the effort and cost of green behaviours are by no means negligible, and environmental considerations have to be weighed against competing demands. That respondents in the survey consistently identified cost and convenience as among the main considerations influencing their choice of behaviour illustrates the scale of the challenge in this respect.
- 72 While challenges ahead are undeniable, the survey results also provide an indication of ways in which environmental behaviour could be encouraged in the future. First, and as already noted, there are signs that environmental attitudes lead behaviour. As such, encouraging environmental engagement may go some way to promoting greener lifestyles. Conversely, the fact that environmental engagement was not significant in influencing other behaviours, such as driving to work, suggests that communications relating to these behaviours may be most effective if they focus, not on the need to protect the environment, but on other benefits such as the importance of a healthy lifestyle or cost savings.
- 73 Second, the two greatest barriers to change, effort and cost, may also provide opportunities to shape the architecture of people's choices and therefore their behaviour. Not only may there be scope to make some environmentally friendly behaviour easier to adopt, there may also be areas where non-environmentally friendly options can be made more difficult. Similarly, and where appropriate, highlighting potential cost-savings to be made from green behaviours may provide an effective means by which to 'sell' those behaviours to the public.
- 74 As people are, to some extent, sceptical about the influence that they, as individuals can have, the potential role of government in shaping opinions and behaviour should not be underplayed. While a number of policy options put to the public – for example paying more for green energy – elicited a sizeable degree of opposition, it is important to consider that this opposition may not be particularly steadfast. Before the introduction of the smoking ban in Scotland it would have been hard to imagine a majority of people supporting this measure but survey research conducted since the ban indicates that in at least some parts of the country, support is now as high as 75% (Ipsos MORI, Edinburgh Omnibus Survey, Summer 2006). It is not inconceivable that public opinion on policies aimed at promoting green behaviour may be similarly malleable.
- 75 The evidence in this survey shows that the Scottish public is beginning to engage with the environment issue, and to participate in relatively 'easy' green behaviours such as recycling and reusing. The challenge moving forward will be to increase levels of engagement further among all sections of

the public and specifically to persuade people of the need to make more significant lifestyles changes if environmental problems are to be tackled.

# 1 INTRODUCTION

1.1 The Scottish Government sets as its purpose to focus the Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth. This means building a dynamic and growing economy that will provide prosperity and opportunities for all, while ensuring that future generations can enjoy a better quality of life too. Integral to this is the need to protect and enhance our built and natural environment, to reduce the local and global environmental impact of our consumption and production, and to create well-designed, sustainable places where people are able to access the amenities and services we need. In December 2008, the Scottish Government published the Climate Change (Scotland) Bill<sup>3</sup>. This includes a statutory target to reduce emissions by 80 per cent by 2050. While the need for action in relation to climate change is commonly recognised, there has been a paucity of information in Scotland to examine people's attitudes and behaviours in relation to this and other environmental issues. It is within this context that the Scottish Government Rural and Environment Analytical Services (REAS) Division, on behalf of the Greener Scotland Directorate and Climate Change Division, commissioned the Scottish Environmental Attitudes and Behaviours Survey (SEABS '08).

## Policy background

1.2 Recent years have seen significant political attention paid to the environment, particularly climate change. The UK Climate Change Act became law in November 2008. The Act put into statute a target to reduce greenhouse gas emissions by 80% by 2050.

1.3 The emphasis on sustainability, in the Scottish Government's purpose, is reflected in: the purpose target to cut greenhouse gas emissions, its Greener strategic objective and the three national outcomes most closely associated with it:

- We live in well designed, sustainable places where we are able to access the amenities and services we need.
- We value and enjoy our built and natural environment and protect it and enhance it for future generations.
- We reduce the local and global environmental impact of our consumption and production.

1.4 Ministers have on a number of occasions emphasised that the Scottish Government wishes to become an "exemplar" on environmental issues.

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<sup>3</sup> <http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/index.htm>

- 1.5 There have been significant legislative and policy developments across the Greener agenda. Among these are:
- the Scottish Government’s new target to generate 50% of Scotland's electricity from renewables by 2020, with an interim target of 31% by 2011. (The previous target was 40% by 2020.)
  - The introduction to the Scottish Parliament in December 2008 of the Climate Change (Scotland) Bill<sup>4</sup> which will create a legal framework to support the delivery of the sustainability purpose target to reduce Scottish emissions by 80 per cent by 2050.
  - The UK Climate Change Act (November 2008).
  - The current review of the national waste plan, culminating with a launch of a new plan in Spring 2010. Waste proposals in the Climate Change (Scotland) Bill introduced in December 2008 include powers to place duties on public bodies and businesses to provide recycling facilities; to set targets in relation to packaging reduction; to specify recycled content in procurement contracts; to require plans to prevent and manage waste; to introduce deposit and return systems; to provide information on amount of waste produced; and provision to charge for carrier bags.
- 1.6 Key to delivering a Greener Scotland will be the attitudes and, more critically, behaviours of the Scottish public, for example in terms of energy use, travel, waste disposal and recycling. To this end the Government has recently launched a number of communications campaigns, including the *Go Greener* campaign, which aims to encourage and support people to take action to adopt greener, more sustainable behaviours, focusing on four key areas – reducing waste, saving energy, transport and travel, and community engagement.
- 1.7 The Climate Challenge Fund launched in June 2008 is providing £27.4 million over three years to support communities across Scotland taking action to cut their carbon emissions<sup>5</sup>.
- 1.8 A new Energy Saving Scotland Advice Centre Network was launched in June 2008 to provide a one stop shop service and advice and support to householders wishing to save energy.
- 1.9 During the passage of the 2009 Budget, the Scottish Government announced an area-based home insulation scheme, backed by £15 million of new Government funding and £15 million from other partners to provide up to 90,000 homes with energy efficiency advice and assistance and with insulation where suitable and appropriate.

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<sup>4</sup> <http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/index.htm>

<sup>5</sup> [www.wired-gov.net/wg/wg-news-1.nsf/vAllPrint/0A6B194090E1EA6780257540005C3ECE?](http://www.wired-gov.net/wg/wg-news-1.nsf/vAllPrint/0A6B194090E1EA6780257540005C3ECE?)

- 1.10 To support the various legislative and policy developments outlined above, the Scottish Government requires up-to-date, robust, targeted data about environmental attitudes and behaviour. To this end, the Scottish Government Rural Affairs and Environment Analytical Services (REAS) Division, on behalf of the Greener Scotland Directorate and Climate Change Division, commissioned Ipsos MORI to undertake the Scottish Environmental Attitudes and Behaviours Survey 2008 (SEABS'08).

### **Survey aims and objectives**

- 1.11 The over-arching aim of SEABS'08 was to produce dedicated, sound and up-to-date robust social survey data on environmental attitudes and behaviours, supporting the development and delivery of environmental policy, relating specifically to climate change, sustainable development and wellbeing, but also of relevance to other policy areas. Specific objectives for the survey were to:
- provide robust information on individual environmental attitudes and individual and household behaviours of adults (aged 16+ across Scotland);
  - enable disaggregation of such information in terms of sub-groups;
  - enable detection of trends over time;
  - allow more detailed surveys or follow-up surveys, if required, of sub-samples from the main survey sample; and to
  - devise appropriate dissemination, presentation and use of results.

### **Structure of the report**

- 1.12 The next chapter describes the methodology adopted for the research. Subsequent chapters detail the main findings from the survey. Chapter three seeks to contextualise the survey findings by considering the relative salience of environmental issues in the public consciousness. Chapter four considers attitudes to the environment and sets out a typology of attitudes. Chapter five looks at participation in environmental behaviour and identifies key barriers to such behaviour. In chapter six the focus is on meeting the challenge of environment problems – for example, in terms of developing appropriate policy responses and narrowing the gap between environmental attitudes and behaviour. Chapter seven presents findings in relation to greenspace and wellbeing, while Chapter eight concludes the report.

### **Acknowledgements**

- 1.13 SEABS '08 enjoyed the support of a wide variety of people. The survey was overseen by a Technical Management Group. We are grateful for their support and guidance throughout the survey process. Special thanks are due to the 3,054 survey respondents who freely gave up their time to participate in the study.

## 2 RESEARCH METHODOLOGY AND DATA ANALYSIS

### Questionnaire design

- 2.1 The starting point for the SEABS'08 questionnaire was DEFRA's 'Survey of Attitudes, Knowledge and Behaviour in relation to the Environment'<sup>6</sup> and a related DEFRA-commissioned omnibus survey. Following a review of these questionnaires and other relevant studies, Ipsos MORI Scotland, working in collaboration with the SG Project Management Team and the Greener Scotland and Climate Change Divisions, produced a draft SEABS'08 questionnaire. The draft was presented to the SEABS Scottish Government Advisory Group, and the Scottish Environment Social Evidence Group<sup>7</sup> (SESEG) for discussion. It was subsequently refined and a final version agreed.
- 2.2 Specific topics covered in the questionnaire were as follows:
- the salience of the environment and specific environment problems;
  - attitudes towards climate change;
  - travel behaviour;
  - energy consumption;
  - reusing and recycling;
  - eco-purchasing;
  - wellbeing; and
  - greenspace.
- 2.3 As part of the development stage of the questionnaire, cognitive testing was undertaken to ensure that all questions and response options were understood in the way intended. A total of 20 cognitive interviews were conducted among a cross-section of respondents.
- 2.4 The questionnaire was then piloted among 103 respondents to provide a final check of the clarity of questions and to ensure that the CAPI script had been correctly programmed.
- 2.5 The questionnaire design had to be mindful of the potential effects of social desirability bias. Social desirability effects refer to evidence that survey

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<sup>6</sup> [www.defra.gov.uk/environment/statistics/pubatt/](http://www.defra.gov.uk/environment/statistics/pubatt/) .

<sup>7</sup> Current membership of SESEG include representatives from: the Forestry Commission/Forest Research; Greenspace Scotland; Sustainable Development Commission Scotland; Scottish Natural Heritage; Scottish Environmental Protection Agency; SPICe; SNIFFER; and Waste Aware Scotland.

respondents' answers to survey questions are, at times, related to their perceptions of the social acceptability or political correctness of their answers. Therefore, the survey was not introduced to respondents' as about the environment specifically but more generally about "what the people of Scotland do and think". This was to try to ensure that those who were more enthusiastic in their environmental viewpoint were no more or less likely to participate than those with a more sceptical or disengaged attitude towards the environment.

2.6 The structure of the questionnaire was designed to elicit as accurate as possible an account of public engagement with the environment issue. The core, environmental part of the questionnaire was divided into three consecutive sections. The first section focused on participation in environmental behaviours, the second on barriers to participation in environmental behaviours and the third on environmental attitudes. There were two key reasons for this choice of ordering. First, the barriers questions were designed to be asked of respondents who reported that they did not or rarely performed particular environmental behaviours. Had these questions been asked in tandem with the questions measuring participation in environmental behaviours, rather than being kept entirely separate, respondents may have grown used to this pattern as the interview progressed and realised that they could avoid having to answer barriers questions by giving 'green' responses to behavioural questions. Second, the attitudinal questions were placed after the behavioural questions so that respondents would not be tempted to 'adjust' their self reported levels of participation in environmental behaviours to bring these into line with any green attitudes they expressed earlier in the questionnaire.

2.7 A copy of the questionnaire is provided in Appendix A.

## **Methodology**

2.8 The survey was undertaken among a quota sample of the Scottish adult population (aged 16+) between 18 August and 15 November 2008. All interviews were conducted face to face by experienced Ipsos MORI interviewers in respondents' homes.

## **Sampling**

2.9 The sample was drawn from the small user file from Postcode Address File (PAF), expanded using the Multiple Occupancy Indicator to equalise the probability of dwellings being selected within properties appearing only once on the PAF. This contains addresses to which the Post Office delivers fewer than 25 items of mail a day and is the best available source for Scotland's household population.

2.10 Datazones were employed as the primary sampling units because of their links with the urban/rural classification. A proportionate sample was drawn from all Datazones in mainland Scotland and the larger islands of Skye, Mull, Uist, Lewis and Harris, Islay, mainland Orkney and mainland Shetland.

Sampling units were selected with probability proportionate to household population, stratified by region and within region by urban/rural classification.

- 2.11 In order to minimise the clustering effect on the achieved sample, a relatively large number of primary sampling units used were selected, with a relatively small target number of interviews set in each - 388 Datazones were selected with a target of 8 interviews in each<sup>8</sup>.
- 2.12 Each individual Datazone was allocated a unique sample point number and in each, interviewer quotas were based on three demographic variables, and one key behavioural variable:
- Sex (two bands: male and female).
  - Age (four bands: 16 to 24, 25 to 34, 35 to 54, and 55 and over).
  - Working status (two bands: working full time and not).
  - Car availability (two bands: car owned by household or not).

### **Survey administration**

- 2.13 All fieldwork was conducted using Computer Assisted Personal Interviewing (CAPI) where data is collected on laptop computers. Attitudinal and wellbeing questions were administered using CASI (Computer Assisted Self Interviewing) whereby respondents are invited to enter their responses directly into the CAPI machine. Eighty-seven percent of respondents agreed to complete the CASI module, with interviewers providing assistance to those for whom computer literacy was an issue.

### **Achieved sample**

- 2.14 The target number of interviews for the survey was 3,000 and the total number achieved was 3,054.
- 2.15 To ensure that the achieved sample was in line with population estimates, the data was weighted for the quota variables back to the 2001 Scottish Census figures. Overall, as the quotas were almost always met, the effect of the weights was small. Table 2.1 shows the weighted and the non-weighted profile of the achieved sample on the four quota variables and compares these with the characteristics of the Scottish population.

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<sup>8</sup> There are around 6,500 Datazones in Scotland with an average population of 839 in each.

**Table 2.1: Weighted versus unweighted profile of the sample.**

	<b>SEABS 2008 Unweighted profile</b>	<b>SEABS 2008 Weighted profile</b>	<b>2001 census data</b>
	%	%	%
<b>Sex</b>			
Male	49	47	47
Female	51	53	53
<b>Car in household</b>			
Car in household	71	66	66
No car in household	29	34	34
<b>Age</b>			
16-24	13	14	14
25-34	14	17	17
35-54	36	36	36
55 and over	36	33	33
<b>Economic status</b>			
Working full time <sup>9</sup>	42	42	42
Not working full time	58	58	58

2.16 Since respondents are selected into a quota sample on the basis of a relatively small number of characteristics, it is important to confirm that not only the distribution of the quota variables match the population, but that also non-quota characteristics are in line with other estimates. By ensuring that the sample was representative on these four variables, it was expected that other characteristics of the sample would be representative of the population. Table 2.2 overleaf illustrates the weighted profile of the sample on five other variables – tenure, method of travel to work, highest qualification, economic status, and dwelling type – that can be compared against the latest published results in the Scottish Household Survey<sup>10</sup>. Overall, there is little difference in the estimates from each source with the exception of travel to work patterns.

<sup>9</sup> This includes those people who were self-employed.

<sup>10</sup> Comparisons made with the latest available figures from the SHS based on 2007 fieldwork.

**Table 2.2: Sample profile on selected characteristics**

	<b>SEABS 2008</b>	<b>SHS</b>
	<b>Weighted profile</b>	<b>2007</b>
	<b>%</b>	<b>%</b>
<b>Tenure</b>		
Owner occupied	62	66
Social rented	26	24
Private rented	9	8
Other	3	2
<b>Travel to work</b>		
Walk	16	12
Drive	56	63
Lift	6	6
Bike	2	2
Bus	12	12
Rail	5	4
Other	2	2
<b>Highest qualification level</b>		
Degree, Professional Qualification	25	26
HNC/HND or equivalent	9	11
Higher, A level or equivalent	14	17
O Grade, Standard Grade or equivalent	26	23
None/other	24	22
Unknown	2	1
<b>Economic status</b>		
Self employed	5	6
Full time employment	37	35
Part time employment	9	11
Looking after home/family	8	7
Permanently retired from work	24	27
Unemployed and seeking work	6	3
Higher/further education	5	4
Permanently sick or disabled	4	5
Unable to work due to short term ill-health	1	1
Other	0	1
<b>Dwelling type</b>		
House	68	67
Flat	31	32
Other	1	1

2.17 It should be noted that as the survey was weighted to estimates from the 2001 census, including car availability. The SHS suggests that car availability has

increased since 2001. For example, the SHS shows levels of car availability at 88% in rural areas compared with 79% in SEABS'08. This should be borne in mind when considering the results given in the transport behaviour section.

## **Analysis and interpretation of the data**

- 2.18 The primary purposes of the analysis were two-fold. First, to describe the prevalence of various attitudes and behaviours in relation to the environment across Scotland and within particular sub-groups. Secondly, to analyse what drives environmental attitudes and behaviours.
- 2.19 For the purposes of analysis, computer tables were prepared to a specification agreed with the Scottish Government. In the tables responses to each survey question were analysed against a number of variables, namely:
- sex
  - age (four groups: 16 to 24 years, 25 to 34 years, 35 to 54 years and 55 years and over<sup>11</sup>)
  - employment status (four groups: working, not working, studying/training scheme, retired; plus breakdown of working into full-time and part time)
  - children in household (two groups: yes and no)
  - socio-economic group of chief income earner (two groups: ABC1 and C2DE<sup>12</sup>)
  - most important issue facing Scotland (two groups: mentioned environment, didn't mention environment)
  - tenure (four groups: owner occupier, rent from social landlord, rent from private landlord, other)
  - housing type (two groups: house or bungalow; and flat maisonette or apartment)
  - car in household (two groups: yes and no)

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<sup>11</sup> The age breakdown used gives 4 groupings rather than a larger number to maintain the robustness of the sub-group findings. The groupings were chosen to reflect people's life stage as far as possible.

<sup>12</sup> Social grades ABC1 includes: people in supervisory or clerical and junior managerial, administrative or professional positions (C1); intermediate managerial, administrative or professional positions (B); and higher managerial, administrative or professional positions (A). Social grades C2DE includes: skilled manual workers (C2); semi and unskilled manual workers (D); and casual or lowest grade workers, pensioners and others who depend on the state for their income (E).

- household type (eight groups: single adult, small adult, single parent, single pensioner, small family, older smaller households, large adult household, large family)
  - highest level of qualification obtained (five groups: Degree or professional qualification, HNC/HND or equivalent, Higher, A level or equivalent, O, Standard Grade or equivalent and no qualifications)
  - typology of environmental engagement (five groups: Deep Greens, Light Greens, Shallow Greens, the Distanced and the Disengaged)<sup>13</sup>
  - use of greenspace (four groups: everyday, at least once a week, less often than once a week and not at all)<sup>14</sup>
  - Wellbeing (Satisfaction with life scale (SWLS)) (three groups: satisfied, neutral and dissatisfied)<sup>15</sup>
  - Urban/Rural indicator (two groups: urban and rural)
  - Scottish Index of Multiple Deprivation (SIMD) (three groups: most deprived 20% datazones, least deprived 20% datazones and others).
- 2.20 Household income was not used as a main analysis variable due to the level of non-response to this question (33%). It should be noted that household income tends to be highly correlated and other analyses variables, such as economic status and socio-economic group.
- 2.21 Survey respondents represent only a sample of the total population. All survey results are subject to sampling variability which means that observed differences between sub-groups may not always be statistically significant; i.e. they may have occurred by chance.
- 2.22 While random samples are conducted within an established theoretical framework and their ability to generate estimates that are representative of the population is justified by sampling theory, no such framework exists for quota samples.
- 2.23 In practice, however, experimental studies and comparisons have consistently shown that quota samples are able to provide estimates that are as good as those obtained from random samples. Therefore, throughout the report, differences between sub-groups are commented upon only where these are statistically significant based on sampling theory – i.e. where we can be 95% confident that such a difference has not occurred by chance ( $p < 0.05$ ).
- 2.24 Where percentages do not sum to 100% this may be due to computer rounding or multiple answers.

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<sup>13</sup> The definition of these groups is discussed in paragraph 4.36.

<sup>14</sup> Greenspace is discussed in Chapter 7.

<sup>15</sup> Details of how the SWLS is derived are provided in Chapter 7.

- 2.25 In some instances, reported figures combine two or more response categories, for example, combining “every day”, “two or three times a week”, and “once a week” to present the figures for “at least once a week”. The figure given for the combined category has been rounded after the addition and therefore may not exactly sum to the figures given for the individual response categories. For example, 18.3% of respondents said that the environment was *the most* important issue facing the world, and a further 16.4% said that it was *an* important issue. While these figures are reported separately as 18% and 16% in Figure 3.2, the combined total of any mention of the environment as a important issue facing the world is reported in the text as 35% (18.3% plus 16.4% rounded to the nearest percentage point).
- 2.26 All findings given are based on the weighted data. All sample sizes reported are based on unweighted data.
- 2.27 In addition to the tabulations, additional multivariate analysis – primarily regression analysis – has been undertaken on the data. The main benefit of using regression was to clearly distinguish the different effects of the various factors. One important aspect of the study was to examine how far positive environmental attitudes lead to changes in behaviour. As environmental engagement is closely linked to educational attainment and social class, by including in the regression models these variables, it is possible to separate the effect of each of these. This helps overcome the danger that the effect of one variable (social class for example) is confused with the effect of another (environmental engagement for example). The following variables were routinely included in each of the regression models: age, gender, social class, economic status, educational attainment, whether have children in the household, urban/rural indicator, tenure, and property type.
- 2.28 It is important to note that the findings presented throughout this report are based on what people say about their environmental attitudes and behaviour. It may be that some respondents overstated their concern for the environment due to a social desirability effect. This point should be borne in mind when interpreting the data.

### 3 CONTEXT: THE SALIENCE OF THE ENVIRONMENT AND OF SPECIFIC ENVIRONMENTAL ISSUES

3.1 To provide some context for the survey findings this chapter considers the relative salience of the environment in the public consciousness, in other words, how much the environment is at the front of people's minds. Over a decade ago, academic commentators began referring to environmental protection as a 'valence issue' or a 'consensual value' that few individuals would openly reject<sup>16</sup>. Accordingly, any attempt to obtain a rounded picture of public engagement with the issue must consider, not simply how concerned people say they are about the environment, but how much importance they attach to it compared with other prominent issues and concerns. The chapter also examines how people conceptualise 'the environment' by considering which specific environmental issues are most prominent in the public mind.

#### How important is the environment relative to other issues?

3.2 Respondents were asked what they considered to be the most important issues facing Scotland today. As Figure 3.1 illustrates, the most common responses related to the economy (mentioned by 38% overall), crime, law and order, anti-social behaviour (32%) and the Scottish constitution (17%<sup>17</sup>). The environment was mentioned by fewer respondents – 12% overall.

3.3 This rank ordering of issues is to some extent unsurprising. The survey was conducted during a major economic slowdown characterised by a falling housing market and rising food and fuel prices. The associated 'credit crunch' has received extensive coverage in the media and dominated political debate during the survey fieldwork. Anti-social behaviour and issues surrounding the Scottish constitution similarly featured prominently in the Scottish media over the fieldwork period. Of course, the environment was by no means absent from political and media debate during this time so it seems reasonable to conclude that while a minority of Scots see the issue as important for their country, the majority feel there are other, more pressing concerns.

3.4 Still, it is worth noting that perception of the environment as an important issue in Scotland was slightly higher than in comparable UK wide studies. Compared with the 12% who mentioned the environment as an important issue facing Scotland in the SEABS'08 data, in Ipsos MORI's monthly 'most important issues facing Britain' series, 8% of respondents mentioned the

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<sup>16</sup> See for example, Keeter, S. (1984), 'Problematic Pollution Polls: Validity in the measurement of public opinion on environmental issues', *Political Methodology*, Vol.10, pp.267-291; and Rudig, W. (1995), 'Public Opinion and Global Warming', *Strathclyde Papers on Government and Politics*, No.101. Glasgow: Department of Government, University of Strathclyde.

<sup>17</sup> All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

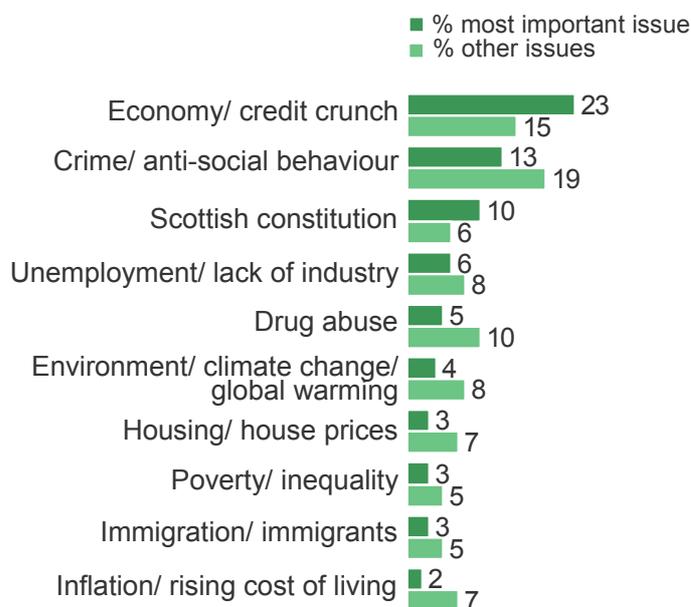
issue during the first half of 2008 and 7% did so during the second half of the year<sup>18</sup>.

3.5 In DEFRA's 2007 *Survey of Attitudes, Knowledge and Behaviour in relation to the Environment*, respondents were asked what they thought were the most important issues the Government should be dealing with. In total, 20% mentioned the environment or pollution, a significantly higher proportion than in SEABS '08 and Ipsos MORI's monthly poll. However, it should be noted that the DEFRA study was specifically introduced to respondents as being about the environment, whereas SEABS '08 was not. This is likely to have prompted higher mention of the environment in the former survey<sup>19</sup>.

**Figure 3.1: Most important issues facing Scotland – top 10 responses**

Q. What do you see as the most important issue facing Scotland today?

Q. And what do you see as other important issues facing Scotland today?



Base: All respondents (3,054)

<sup>18</sup> Average of the monthly indices from Ipsos MORI's 'most important issues facing Britain' series: [www.ipsos-mori.com/content/the-most-important-issues-facing-britain-today.ashx](http://www.ipsos-mori.com/content/the-most-important-issues-facing-britain-today.ashx). The difference between the first 6 months and latter 6 months is not statistically significant.

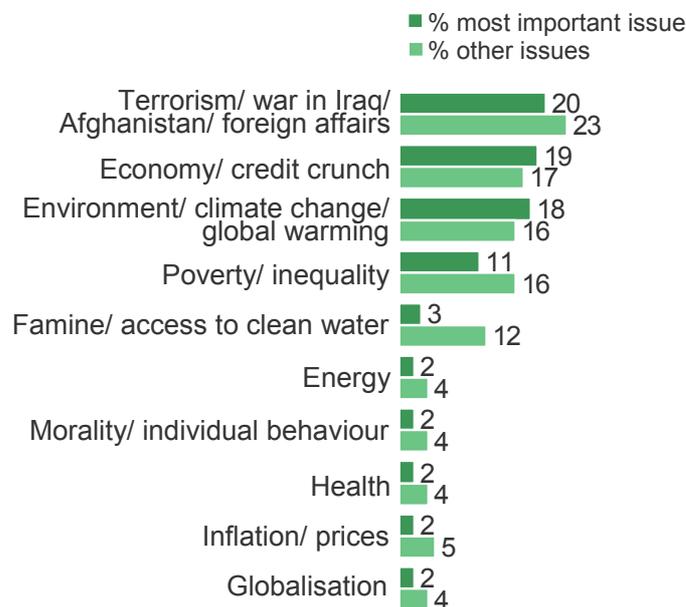
<sup>19</sup> All comparisons between the DEFRA survey and SEABS '08 should be treated with some caution. Because the surveys were conducted in different years the results are likely to have been influenced by differing contextual factors – the prevailing economic climate being just one example. Additionally, because the content of the two questionnaires differed, results may have been influenced by differing response effects, particularly order effects. Full details of the DEFRA survey can be found at [www.defra.co.uk/environment/statistics/pubatt/](http://www.defra.co.uk/environment/statistics/pubatt/).

3.6 To explore the salience of the environment further, respondents were also asked about the most important issue facing the *world* today. In this instance, the environment registered at a significantly higher level, with just over a third (35%<sup>20</sup>) of respondents mentioning the issue and 18% identifying it as the *single most important issue* facing the world. Only one issue terrorism/the wars in Iraq and Afghanistan (43%) received more mentions, while the economy received the same number of mentions (35%) (see Figure 3.2).

**Figure 3.2: Most important issues facing the world – top 10 responses**

Q. *What do you see as the most important issue facing the world today?*

Q. *And what do you see as other important issues facing the world today?*



Base: All respondents (3,054)

3.7 It could be argued that the perceived proximity of environmental problems influences the extent to which people regard these issues as important. In other words, those who see the environment as an issue for Scotland attach greater significance to it than those who see it simply as a global concern. On this basis, responses to the two questions were combined to create a single 'salience scale'. The scale categorises respondents into five, mutually exclusive groups, reflecting the importance they place on the environment both in Scotland and globally (see Table 3.1).

<sup>20</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

**Table 3.1: Salience scale**

Group	% respondents in group
Mention the environment as the single most important issue facing Scotland	4
Mention the environment as one of the most important issues facing Scotland	8
Mention the environment as the single most important issue facing the world	14
Mention the environment as one of the most important issues facing the world	13
Do not mention the environment at all	61
<i>N</i>	3,054

- 3.8 As Table 3.1 shows, just fewer than two in five respondents in total make *any* mention of the environment across the two questions. Looking at the extremes of the scale, 4% fall into the group among whom the environment has highest salience – that is, those who regard the environment as the *single most important issue* facing Scotland – while 61% fail to mention the issue at all.
- 3.9 There is a clear socio-economic dimension to the findings, with educational attainment and social class emerging as the strongest predictors of respondents' positioning on the salience scale. As Table 3.2 illustrates, around half (50%) of those with degree level qualifications cited the environment as an important issue (either within Scotland or globally), compared with around a quarter (27%<sup>21</sup>) of those who had no education qualifications. Similarly, whereas 48% of respondents in social groups ABC1 mentioned the environment, the comparable figure for social groups C2DE was 29%. Of course, education and social class are highly correlated, with educational attainment typically being higher among those in the ABC1 category.
- 3.10 It is perhaps unsurprising that the environment is a relatively low salience issue for C2DE respondents compared with other issues such as the credit crunch, crime and anti social behaviour. Arguably, the latter problems will be most visible in less affluent areas where C2DEs are disproportionately represented.
- 3.11 There was also some variation by age, with 40% of people aged 16 to 24 years mentioning the environment as important, compared with 43% of those aged 25 to 34 years, 42% of those aged 35 to 54 years and 34% of those aged 55 and over. Further, there was an interaction between age and educational attainment, with the latter emerging as a stronger predictor

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<sup>21</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

variable for younger than for older groups. Thus among respondents aged 16 to 35 years, 23% of those with no educational qualifications mentioned the environment, compared with 56% of those with degree level or higher qualifications. Among those aged 55 years and over the comparable figures were 26% and 42% respectively (a gap of 16% compared with 33% for the younger group).

3.12 Looking at other sub-group differences, the perceived importance of the environment varied by:

- *gender* – 41% of men mention the issue, compared with 37% of women.
- *tenure* – 42% of owner-occupiers, 27% who rent from a local authority or a housing association and 51% who rent from a private landlord.
- *newspaper readership* – 31% of those who read a tabloid compared with, 54% who read a national broadsheet, 52% who read a Scottish broadsheet and 43% who don't read a newspaper.
- *vegetarianism* – 50% of vegetarians mention the environment as an important issue, compared with 38% of non-vegetarians.
- *deprivation* – 47% of people in the least<sup>22</sup> deprived areas mentioned the issue compared to 29% in the most deprived areas.

**Table 3.2: Salience scale by highest level of qualification achieved**

	None	'O' Grade, S Grade or equivalent	Higher, A level or equivalent	HNC/HND or equivalent	Degree, professional qualification	All
	%	%	%	%	%	%
Most important issue in Scotland	2	4	5	3	7	4
An important issue in Scotland	4	6	10	12	11	8
Single most important issue in the world	10	13	14	16	17	14
An important issue in the world	9	11	17	15	15	13
No mention	73	67	54	53	50	61
<i>N</i>	726	791	432	271	784	3,054

<sup>22</sup> Analysis by deprivation uses the most deprived and least deprived quintile of Datazones, according to the Scottish Index of Multiple Deprivation.

- 3.13 Most of these differences are relatively modest however and are likely to be driven by interaction with other variables, including educational attainment, social class and, in the case of tenure-based differences specifically, age.
- 3.14 To provide another perspective on the salience of the environment, respondents were asked whether they agreed or disagreed with the statement, 'Many people feel it is important to be seen to be concerned about the environment these days'. The majority – 75% - agreed, while just 11% disagreed. Among those who mentioned the environment as an important issue for Scotland or the world, the figures were 81% and 7% respectively. These results suggest that, while the environment may not always be seen as the most important issue in Scotland or globally, it has clearly gained currency as an issue among the public. However, the result also confirms that there is probably a significant 'social desirability effect' governing how people portray their level of engagement with this issue. This point should be borne in mind throughout this report.

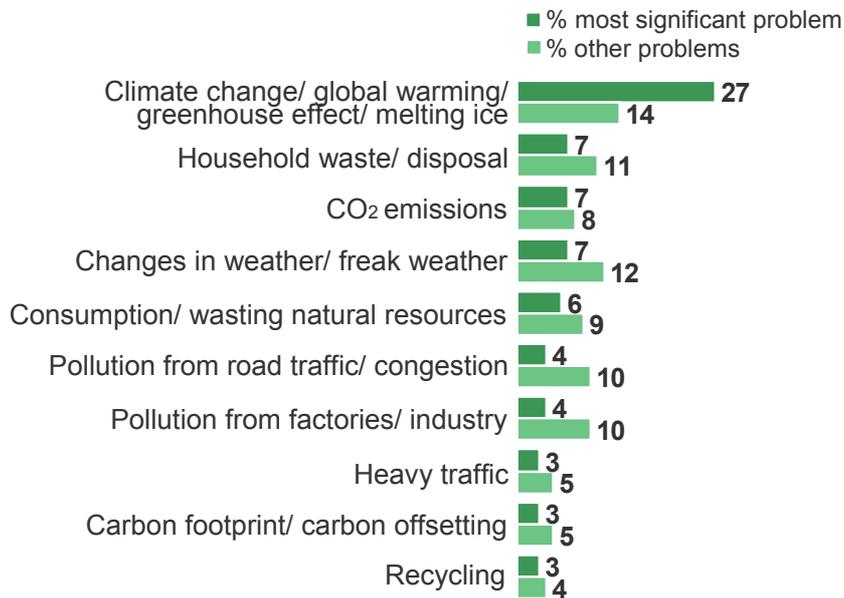
### **What types of environmental issues are most salient?**

- 3.15 As well as looking at the salience of the environment *per se*, the survey included a question to gauge which *specific* environmental issues are most prominent in the public mind. Respondents were asked (unprompted):
- a) what they considered to be the 'most significant' environmental problem these days; and
  - b) what they saw as 'other' environmental problems.
- 3.16 As Figure 3.3 shows, climate change was by far the most common response – 41% of respondents in total mentioned the issue, and 27% identified it as the *single most significant* environmental issue. The next highest ranking issues were: changing weather patterns (mentioned by 19% overall), household waste (18%), CO<sub>2</sub> emissions (15%), and over-consumption (15%). Of course, it could be argued that all of these issues are in some way related to climate change. Overall, 53% of respondents mentioned climate change, CO<sub>2</sub> emissions or carbon footprint.

**Figure 3.3: Most significant environmental issues – top 10 responses**

Q. *There is a lot of talk these days about environmental problems. When people talk about environmental problems, what do you see as the most significant problem?*

Q. *And what do you see as other environmental problems?*



Base: All respondents (3,054)

3.17 Again, there were some sub group differences in the findings. People belonging to social groups ABC1 were more likely than those belonging to groups C2DE to mention climate change (47% versus 35%), household waste (20% versus 16%), over-consumption (18% versus 12%), and pollution from factories/industry (16% versus 12%). Meanwhile, and as Table 3.3 illustrates, people with Higher level or more advanced qualifications were more likely than those with 'Standards Grade level or no qualifications to mention several of the problems in Figure 3.3 (above), including climate change, household waste, CO<sub>2</sub> emissions, over-consumption and pollution from factories/industry.

**Table 3.3: Most prominent environmental issues by highest level of qualification achieved**

	None	'O' Grade, S Grade or equivalent	Higher, A level or equivalent	HNC/HND or equivalent	Degree, professional qualification	All
	%	%	%	%	%	%
Climate change	34	39	46	43	48	41
Household waste	15	17	20	22	21	18
CO <sub>2</sub> emissions	11	14	19	18	17	15
Changes in weather	19	20	19	19	17	19
Consumption	10	11	18	15	23	15
Pollution from roads	13	15	14	16	14	14
Pollution from factories	11	12	14	19	17	14
Heavy traffic	11	8	6	8	5	8
Carbon footprint/offsetting	4	6	9	11	9	7
Recycling	4	7	7	13	7	7
<i>N</i>	726	791	432	271	784	3,054

3.18 In terms of differences by age, people aged 25 to 34 years and 35 to 54 years are more likely than younger groups to mention climate change (43% and 44%, versus 37%) and changes in weather (20% and 18% versus 13%).

3.19 Mention of household waste was higher among women than men (21% versus 16%), while the reverse was the case with respect to mention of over-consumption and CO<sub>2</sub> emissions (17% versus 14% and 17% versus 13% respectively).

## Conclusion

3.20 In sum, people are more likely to regard the environment as an important global problem than as an issue facing Scotland. In the Scottish context, the environment lags some way behind other, prominent issues of the day, namely, the economy, crime, law and order, anti-social behaviour and the Scottish constitution. In the global context, however, it ranks highly as an issue of concern, with only terrorism/the wars in Iraq and Afghanistan mentioned more frequently, and as frequently as the economy. There are clear socio economic dimensions to public engagement with the environment, with younger people, those belonging to social groups ABC1 and those with higher educational qualifications being the most likely to (spontaneously) cite the issue - whether in relation to Scotland or the world.

- 3.21 In terms of how the public conceptualise 'environmental problems', climate change and related issues, such as changing weather patterns, are the most commonly cited issues.
- 3.22 Notwithstanding these results, an equally important finding is the high proportion of respondents agreeing that it is important to be *seen to be* concerned about the environment "these days". While this suggests that the environment has gained currency as an issue, it also indicates that there may be a significant social desirability effect governing how the public respond to survey questions about the environment.

## **4 KNOWLEDGE AND ATTITUDES TOWARDS CLIMATE CHANGE**

- 4.1 There is a growing consensus among the scientific community on the impact of climate change and the risk it poses to society. The need to limit greenhouse gas emissions, a primary cause of climate change, is recognised in the Climate Change (Scotland) Bill published in December 2008, that sets a target of reducing greenhouse gas emissions by 80% by 2050. This is an ambitious target that will require action in all sectors of society to be successful, including changes to the public's behaviour.
- 4.2 The analysis presented in the previous chapter showed that only a proportion of people see the environment as one of the most important issues facing Scotland. While the factors that underpin environmental behaviour change are complex, without accepting that climate change is a problem and that action is needed, it is unlikely that the public will change their behaviour for environmental reasons.
- 4.3 This chapter examines people's attitudes to climate change and whether they would be prepared to consider changes to their lifestyles. It examines how much people claim to know about climate change, what they believe are the causes of climate change, their views on the potential solutions, and whether they see climate change as an immediate and urgent problem. On the basis of these analyses, a typology of environmental engagement is presented. This typology is used in later chapters to explore the relationship between attitudes and behaviour.

### **Knowledge of climate change**

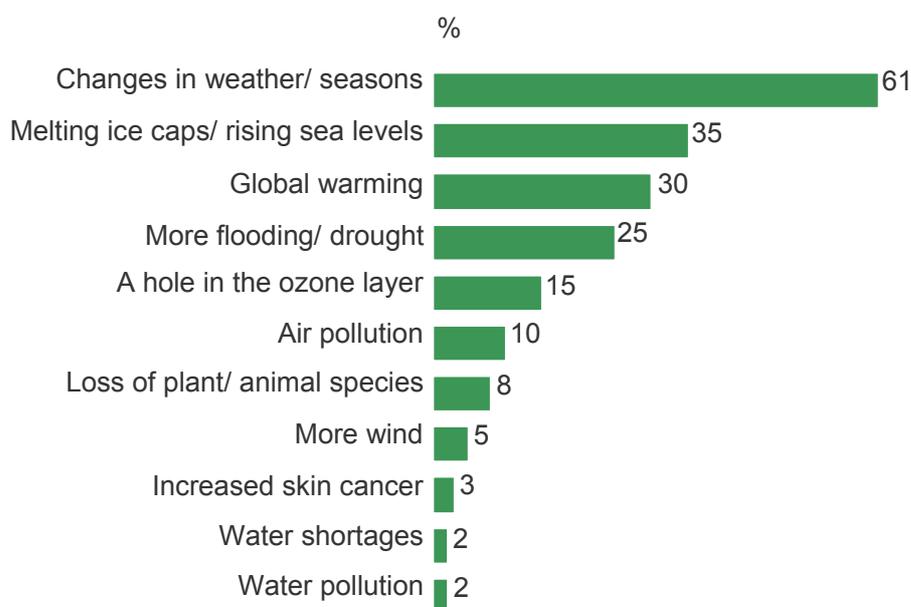
- 4.4 Asked how much they knew about climate change, respondents' gave very mixed answers. Around half claimed to know a great deal (5%) or a fair amount (43%) about climate change, while two fifths (40%) said they did not know very much and 10% said that they had heard of climate change but knew nothing about it. Only 1% of respondents in Scotland said that they had never heard of climate change.
- 4.5 Reported knowledge of climate change is closely related to education level. Three-quarters (75%) of respondents with degree level qualifications said that they knew a great deal or a fair amount about climate change, while only 3% said that they had either heard about but knew nothing about climate change or had never heard of it. In contrast, only 24% who had no qualifications said that they knew a great deal or a fair amount about climate change, while 22% either said they had heard about climate change but knew nothing about it or had never heard of it. Similarly, it was also related to deprivation, with 61% in the least deprived areas of Scotland saying they knew a great deal or a fair amount about climate change compared to 35% in the most deprived areas doing likewise.
- 4.6 Men were more likely than women to say they knew a fair amount or a great deal about climate change (57% compared to 40%). Additionally, those who said that the environment is an important issues facing Scotland were more

likely than those who did not, to say they knew a fair amount or a great deal about climate change (65% compared to 46%). Workers and respondents in education or training were more likely than non-workers and the retired to say they know a great deal or a fair amount about climate change (56% and 63% compared to 38% and 38%).

4.7 All respondents who said they knew something about climate change were also asked what they thought were the main *effects* of climate change. The majority mentioned general changes in weather (61%), while 35% mentioned melting ice caps and rises in sea levels, 30% mentioned global warming, 25% more flooding and droughts, and 15% the hole in the ozone layer (see Figure 4.1). Other effects were mentioned by few respondents. For example, air pollution was mentioned by 1 in 10 respondents (10%), while a reduction in plant and animal species was mentioned by 8%.

**Figure 4.1: Perceived effects of climate change**

*Q. From what you know or have heard, what would you say are the main effects of climate change?*



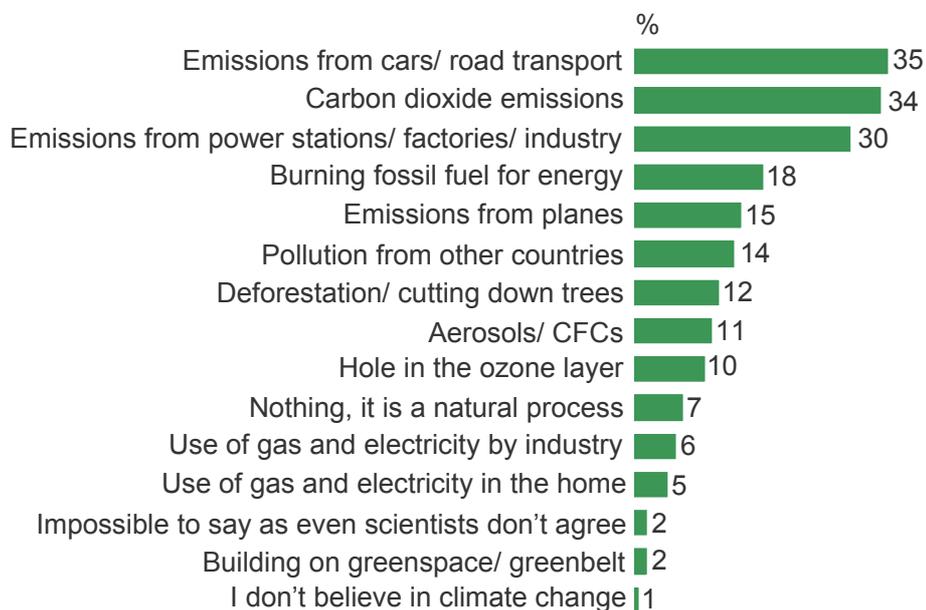
Base: All who know a great deal, a fair amount or not very much about climate change (2,699)

4.8 Those who said they know at least something about climate change were also asked what they thought were the main *causes* of climate change. This question was unprompted. Emissions, including emissions from cars and road transport (35%); general CO<sub>2</sub> emissions (34%); and factories and power stations (30%) were the most common responses (see Figure 4.2).

4.9 Apart from emissions from cars and road transport, causes relating to individual-level behaviour were mentioned by few people. For example, the use of gas and electricity in the home was mentioned by only 5%.

### Figure 4.2: Perceived causes of climate change

Q. From what you know or have heard about climate change, what would you say are the main causes of it?

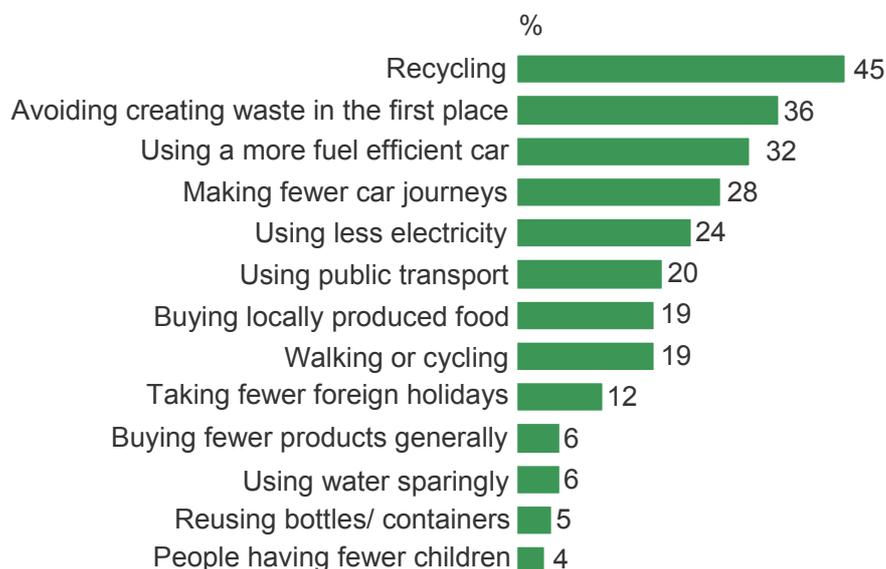


Base: All who know a great deal, a fair amount or not very much about climate change (2,699)

- 4.10 It is important to note that, even among those who say they know something about climate change, there was a sizeable proportion of people who did not accept that individual actions are necessarily linked to climate change: 7% said that climate change is a natural process, 2% that it is impossible to define the causes of climate change as even the scientists can't agree, and 1% said they don't believe in climate change.
- 4.11 People who said they know something about climate change were presented with a list of potential actions to reduce climate change and asked to pick two or three that would do most to ameliorate the problem. While the actions were all related to individual-level behaviours (see Figure 4.3), it should be noted that the question was not worded specifically to ask what the *respondent* could do to help reduce climate change, but was worded more generally to simply ask what 'would do the most to help reduce climate change'.

**Figure 4.3: ‘Which two or three of the actions on this list do you think would do the most to help reduce climate change?’**

*Q. Which two or three of the actions on this list do you think would do the most to help reduce climate change?*



Base: All who know something about climate change (2,699)

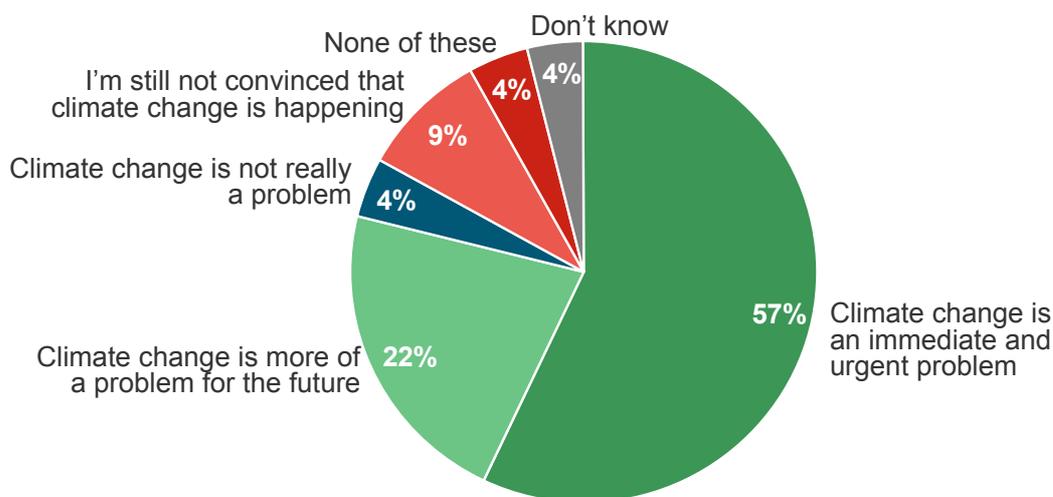
- 4.12 The action that most people said would reduce climate change was recycling, mentioned by almost half of respondents (45%). Avoiding creating waste in the first place (36%), using a more fuel efficient car (32%), making fewer car journeys (28%) and using less electricity were also commonly mentioned (24%). Using a more fuel efficient car was more likely to be mentioned by people who had a car available to the household than not (35% compared with 28%). Older respondents were less likely than younger people to mention using less electricity as a way of reducing climate change (18% of those aged 55 and over compared to 25% of those aged 35 to 54, 25% of those aged 25 to 34, and 32% of those aged 16 to 24).
- 4.13 The actions that fewest people chose were: buying organic produce (1%), people having fewer children (4%), reusing bottles/containers (5%), using water sparingly (6%), buying fewer products generally (6%), and taking fewer foreign holidays (12%).
- 4.14 While it is positive that the argument for recycling appears to be generally accepted, there is scope to raise public awareness of the impact of other actions, such as reducing domestic energy use and taking fewer flights.

## Views on the immediacy of the threat from climate change

4.15 To help contextualise people's willingness to act over climate change, it is important to examine how urgent the threat of climate change is perceived to be. Respondents were presented with four different statements relating to the urgency of climate change and asked which of these came closest to their own view. As Figure 4.4 shows, views were mixed. While the majority of respondents (57%) said climate change is an immediate and urgent problem, a considerable proportion did not. Around one in five (22%) said that climate change is more of a problem for the future and around one in eight either said that climate change is not really a problem (4%) or that they were not convinced that climate change is happening (9%). The remaining respondents said that none of these statements comes close to their own view (4%) or felt unable to give an answer (4%).

**Figure 4.4: Perceived immediacy of the threat from climate change**

*Q. Which of these statements, if any, comes closest to your view?*



Base: All respondents (3,054)

- 4.16 Views on the urgency of climate change, particularly as to whether climate change is an immediate and urgent problem, or more of a problem for the future, were closely related to highest level of educational qualification attained and to social group.
- 4.17 Over two-thirds of those with degree level qualifications (68%) said that climate change is an immediate and urgent problem compared with 64% of those with an HNC/HND or equivalent, 65% of those with Higher grade or

equivalent, 52% of those with 'O' Grade or equivalent, and 44% of those with no qualifications (see Table 4.1). In other words, there was a clear divide in the views of those with 'O' Grade level qualifications and below and those with Higher Grade qualifications and above in terms of how urgent a problem they consider climate change to be.

**Table 4.1: Perceived immediacy of the threat from climate change by highest level of qualification achieved**

	None	'O' Grade, S Grade or equivalent	Higher, A level or equivalent	HNC/HND or equivalent	Degree, professional qualification	All
	%	%	%	%	%	%
Climate change is an immediate and urgent problem	44	52	65	64	68	57
Climate change is more of a problem for the future	27	27	19	20	16	22
Climate change is not really a problem	4	4	3	5	3	4
I'm still not convinced that climate change is happening	11	10	8	8	8	9
None of these	6	3	3	3	4	4
Don't know	8	4	2	2	2	4
<i>N</i>	726	791	432	271	784	3,054

4.18 A similar pattern emerges when views on the urgency of the threat of climate change is analysed by social grouping. While 62% of respondents in social groups ABC1 said that climate change is an immediate and urgent problem, only 51% of those in social groups C2DE said likewise. Those in social groups C2DE were more likely than those in social groups ABC1 to say that climate change is a problem for the future (27% compared to 18%). However, those in social groups C2DE were not significantly more likely than those in social groups ABC1 to say that climate change is not really a problem or that they are not convinced that climate change is happening (13% compared to 12%).

4.19 While there were also differences by age as to the immediacy of the threat of climate change, this correlation was not linear. Respondents aged 16 to 24 years, and those aged 55 years and over were less likely than those aged 25 to 34 years and those aged 35 to 54 years to say that climate change is an immediate and urgent problem (55% and 51% compared to 62% and 61% respectively).

- 4.20 Educational attainment appears to be more important in shaping the views of younger than older respondents. Among people aged 16 to 34 years, 34% of those who have not obtained any qualifications said that climate change is an immediate and urgent threat compared with 72% of those who have obtained a degree or professional level qualification. Among those aged 55 years and over, the gap was considerably narrower between these groups (46% and 61% respectively).
- 4.21 Differences by other socio-economic factors are less marked. Specifically:
- Men and women were equally likely to say climate change is an immediate and urgent problem (both 57%). However, men were more likely to say that climate change is not a problem or is not happening (15% compared to 11%), while women were more likely to say it is a problem for the future (24% compared to 21%).
  - There was no clear pattern by urban/rural. Respondents in accessible rural locations were the most likely to say climate change is an immediate and urgent problem (61%), while respondents in remote rural locations are least likely to say this (54%). In comparison 57% of respondents in large urban areas, and 58% of respondents in other urban areas said that climate change is an immediate and urgent problem.
  - Those in the most deprived areas of Scotland were less likely than those in the least deprived areas to say climate change is an immediate and urgent problem (62% compared to 55%).

### **Environmental engagement**

- 4.22 Understanding of, and concern about, climate change is central to mapping environmental attitudes in the public's mind. However, the extent to which this understanding and concern translates into individual action will not only depend on how people view the urgency of the threat from climate change, but on whether they believe their actions can make a difference, whether their actions are based on deliberation or habit, and how they perceive the balance of benefit against the cost and effort of action.
- 4.23 In order to understand the attitudes of the public – particularly in terms of their acceptance of climate change and the need for action to reduce carbon use – all respondents were asked how much they agreed or disagreed with a number of statements about climate change and the environment<sup>23</sup>.
- 4.24 Respondents were asked to respond to a total of 29 statements related to various dimensions of environmental and climate change attitudes (see Appendix C). Factor analysis confirmed that responses to these statements tended to be grouped depending on the subject matter of the questions:

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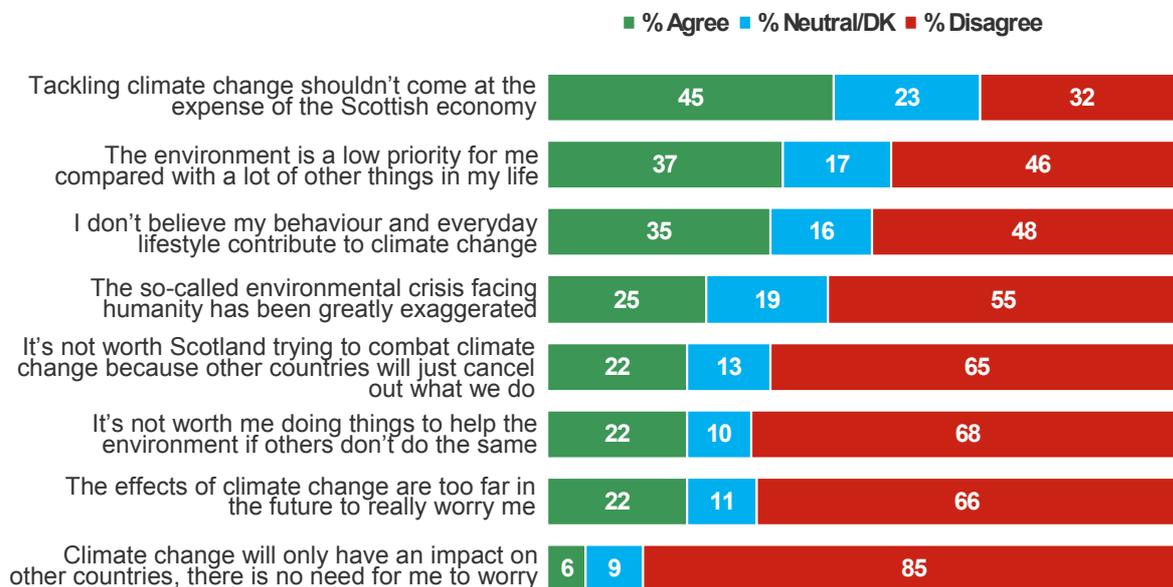
<sup>23</sup> These were asked in a self-completion section of the questionnaire to minimise social desirability effect on responses. The self-completion section was only completed by 87% of respondents.

- views on the severity of the problem of climate change and whether action is needed,
- views on waste and recycling,
- and views on car usage and public transport.

4.25 Figure 4.5 shows the responses to the statements relating to views of the severity of the problem of climate change and whether individual action is needed<sup>24</sup>.

**Figure 4.5: Agreement/disagreement with statements about climate change and the environment**

Q. To what extent do you agree or disagree with each statement?



Base: All respondents completing CASI section (2,673)

4.26 The results very much reflect views on the urgency of climate change, discussed above. Thus, although around two-thirds disagreed (66%) with the statement 'the effects of climate change are too far in the future to really worry me', a sizeable minority (22%) agreed. Similarly, while 55% disagreed that the 'so-called environmental crisis facing humanity has been greatly exaggerated', a quarter (25%) agreed.

4.27 Generally, most people do not accept that 'climate change will only have an impact on other countries so there is no need for me to worry' - only 6% agreed with this statement while 85% disagreed. However, over one in five

<sup>24</sup> For clarity, "not applicable" responses have been excluded from the analysis.

people (22%) agreed that it is 'not worth Scotland trying to combat climate change because other countries will just cancel out what we do'. This suggests that while most people do accept climate change is a global issue that could impact Scotland, the need for action in Scotland is not universally accepted.

- 4.28 There were also differing views on the value of action and the link between individual behaviour and climate change. While around two-thirds (68%) disagreed with the statement, 'it's not worth me doing things to help the environment if others don't do the same', over one in five (22%) agreed.
- 4.29 A sizeable proportion of people struggle to make the link between climate change and their own individual behaviour, with over a third (35%) agreeing, 'I don't believe my behaviour and everyday lifestyle contribute to climate change' (48% disagreed and 16% gave a neutral response).
- 4.30 The results further indicate that, when set against other day to day concerns, climate change is not top of the Scottish public's priorities. Over a third of respondents (37%) agreed that the 'environment is a low priority for me compared with a lot of other things in my life', while less than half (46%) disagreed with this. Meanwhile, more people agreed (45%) than disagreed (32%) that, 'tackling climate change should come at the expense of the Scottish economy', while over a quarter (23%) expressed no opinion or did not know. This suggests that while some are willing to take action, changes to behaviour are likely to be limited in scope to particular people and to particular actions that do not impinge on other aspects of lifestyle.
- 4.31 Some of the statements in Figure 4.5 also featured in DEFRA's 2007 *Survey of Attitudes, Knowledge and Behaviour in relation to the Environment*. A comparison of the results from the two surveys finds both similarities and differences in the attitudes of those living in Scotland and England.
- 4.32 In terms of similarities, respondents to the two surveys were equally likely to agree that 'the effects of climate change are too far in the future for me to worry about' (in the DEFRA survey 62% agreed and 21% disagreed).
- 4.33 With regard to differences, respondents in the SEABS'08 were more likely than those in the DEFRA survey to agree that 'the environment is a low priority for me compared with a lot of other things in my life' (36% versus 28%) and 'I don't believe my behaviour and everyday lifestyle contribute to climate change' (36% versus 29%). However, they were also more likely to disagree that 'the so called environmental crisis facing humanity has been greatly exaggerated' (55% versus 46%) and 'it's not worth me doing things to help the environment if others don't do the same' (68% versus 56%).
- 4.34 Thus, on one level it appears that those in Scotland may be more likely than those in England to recognise that environmental problems exist and to believe in the efficacy of individual action as a means of addressing these problems. At the same time, however, they appear to be *less* likely than those living in England to believe that they personally are contributing to

environmental problems and to prioritise the environment above other things in their life.

### Typology of environmental engagement

- 4.35 Environmental behaviours clearly stand a better chance of adoption if people believe there is a need to take action and that these actions are of value. A typology of environment engagement was created to provide a clearer analysis of the types of people who may be more open to environmental messages and potential changes to behaviour, and to facilitate understanding of the link between attitudes and behaviours.
- 4.36 The segmentation approach is broadly similar to that undertaken by DEFRA<sup>25</sup>, aiming to divide the public into different groups based on their attitudes towards the environment. The segments were determined using responses to four questions on climate change and the environment, namely:
- the importance of the environment versus other issues in Scotland, and globally;
  - views on the immediacy of the threat of climate change; and
  - reported levels of knowledge about climate change.
- 4.37 The typology segments people into a hierarchy of five groupings:
- Deep Greens (14%): These are people who: said that the environment was an important issue in Scotland or the most important issue in the world; believed that climate change is an immediate and urgent problem; and said they know a great deal or a fair amount about climate change. These people are most likely to be engaged with the issues and the most proactive in terms of adopting new or alternative behaviours.
  - Light Greens (14%): People who believe that climate change is an immediate and urgent problem and an important issue globally, but who do not necessarily feel well informed about climate change or think that it is an important issue in Scotland. This group could be referred to as “aspiring greens”. They may be interested in adopting new behaviours but tend to be more passive than those who are highly engaged.
  - Shallow Greens (30%): These are people who said that climate change is an immediate and urgent problem, but not one of the most important issues

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<sup>25</sup> See [www.defra.gov.uk/evidence/social/behaviour/pdf/behaviours-jan08-report.pdf](http://www.defra.gov.uk/evidence/social/behaviour/pdf/behaviours-jan08-report.pdf)). The method of segmentation used in this report differed from that used by DEFRA. Whereas DEFRA constructed 7 different segmentation groups, based on the batch of attitudinal questions, a 5 group typology using different questions was constructed for the SEABS'08. The typology was created in this way as the SEABS '08 and DEFRA questionnaires were not consistent in their questionnaire coverage, and because the self-completion section of the questionnaire, containing the attitudinal statements, was not answered by 13% of the sample.

globally or in Scotland. These people accept that climate change is an issue, but may not be convinced of the need to take more than minimal action at present.

- Distanced (30%): This group believe that climate change is more of a problem for the future or hold no views on climate change. It is unlikely that this group will readily accept the need for anything more than minor or relatively easy changes to their lifestyle.
- Disengaged (14%): These are people who are not convinced that climate change is happening or, that if it is happening, believe it is not a problem. This group are likely to be the most resistant to messages about changing their behaviour.

4.38 High environmental engagement is more concentrated among certain groups in the population, with educational attainment, social class, and age being the strongest predictors of engagement.

**Table 4.2: Engagement typology by highest level of qualification obtained**

	None	'O' Grade, S Grade or equivalent	Higher, A level or equivalent	HNC/HND or equivalent	Degree, professional qualification	All
	%	%	%	%	%	%
Deep Green	4	9	16	18	25	14
Light Green	10	13	17	15	15	14
Shallow Green	29	30	32	31	29	30
Distant Green	42	34	24	24	21	30
Disengaged	15	14	11	12	11	13
<i>N</i>	726	791	432	271	784	3,054

4.39 Table 4.2 shows environmental engagement by highest level of qualification obtained. Educational attainment has the strongest impact on membership of two groupings in the typology, the Deep Green grouping and the Disengaged grouping. While only 4% of those with no educational qualifications were classified as Deep Greens, a quarter (25%) of those with a degree level qualification were classified in this grouping. In contrast, those with no qualifications were twice as likely as those with a degree level qualification to be classified as Distanced (42% compared to 21%).

- 4.40 The effect of educational attainment is also seen in the Disengaged grouping, although not with the same strength: 15% of those with no qualifications fall into this grouping compared with 11% of those with degree level qualifications.
- 4.41 A similar pattern emerges for environmental engagement by social class and area deprivation. Respondents in social groups ABC1 were more likely than those in groups C2DE to be categorised in the two groups who are the most environmentally engaged, the Deep Green groupings (19% compared with 7%), and the Light Green groupings (16% compared to 11%). They were less likely to be classified as Shallow Greens (27% compared to 33%), and Distanced (25% to 35%). However, there was no significant difference by social grouping in the likelihood of being classified in the Disengaged grouping (12% compared to 13%). With regard to deprivation, 20% of those in the least deprived areas were categorised as Deep Green compared to 8% of those in the most deprived areas.
- 4.42 Table 4.3 shows environmental engagement by age. Older respondents are less likely than younger respondents to be Deep Greens or Light Greens. While 26% of those aged 16 to 25 years, 31% of those aged 25 to 34 years and 31%<sup>26</sup> of those aged 35 to 54 years were in these two groupings, only 21% of those aged 55 years and over were categorised as such. Indeed the latter group, were twice as likely to be in the Disengaged grouping as those aged 16 to 24 years and those age 25 to 34 years (16% compared to 8%).

**Table 4.3: Environmental engagement by age**

	16 to 25	25 to 34	35 to 54	55 and over	All
	%	%	%	%	%
Deep Green	15	14	16	10	14
Light Green	11	17	16	11	14
Shallow Green	28	31	30	29	30
Distant Green	37	30	25	33	30
Disengaged	8	8	14	16	13
<i>N</i>	388	437	1,110	1,110	3,045

- 4.43 With regard to sex, men were more likely than women to be Deep Greens (15% compared with 12%) or in the Disengaged grouping (15% compared with 11%), the two categories at the extremes of the typology. Women were more likely to be in one of the three middle typology groupings: Light Greens (14% compared with 13%), Shallow Greens (31% compared with 29%) or Distanced (32% compared with 28%).

<sup>26</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

- 4.44 Differences in environmental engagement by tenure and economic status appear to primarily reflect differences by age, social class and educational attainment. For example, those permanently retired from work were more likely to be in the Disengaged grouping than those in other economic statuses (18% compared to 11%) and less likely to be Deep Greens (8% compared to 15%). With regard to tenure, those in private rented accommodation (23%) and owner occupiers (15%) were more likely to be Deep Greens than those in social rented housing (7%).
- 4.45 Vegetarians were almost twice as likely to be Deep Greens as non-vegetarians (24% compared to 13%). People who either make regular donations to an environmental organisation or who have given up time in the last twelve months to volunteer were more likely to be Deep Greens than those who have not (18% compared with 11%). They were also less likely to be in the Distanced (26% compared 33%) or Disengaged groupings (12% compared to 14%).
- 4.46 There was also some variation by use of greenspace. Those respondents who said they never use greenspace were considerably less likely than those who said they use it more often to be Deep Greens (6% compared to 15% of those who use it everyday). In fact, the majority (57%) of people who said they never use greenspace were categorised in the two groups with the lowest levels of environmental engagement, the Distanced and the Disengaged.
- 4.47 There are no clear patterns of environmental engagement by other social-economic indicators such as car availability, the Scottish Government Rural Urban indicator, whether there are children in the household, type of dwelling, or satisfaction with life.
- 4.48 This typology is used as a key analysis variable in subsequent chapters on behaviour and policy responses.

## **Conclusion**

- 4.49 The findings presented in this chapter provide a mixed picture of public engagement with the environment issue. On the one hand a majority of people agree that climate change is an immediate and urgent problem, rather than a problem for the future, and disagree that climate change will only impact on other countries, so there is no need to worry. On the other hand, just over a third say that they do not believe their behaviour and everyday lifestyle contribute to climate change and that the environment is a low priority compared with other things in their life. Further, when asked to identify actions that would do the most to combat climate change, people tend to mention relatively 'easy' actions as opposed to actions which demand more of a sacrifice on the part of the public. In short, while people are generally aware of, and profess to being concerned about, climate change, it seems they may be reluctant to adopt behaviours that require a significant change to their lifestyles.

4.50 A typology was developed to segment respondents according to their attitudes towards the environment and climate change. The typology comprises five groupings which display varying levels of environmental engagement: the Deep Greens (the most environmentally engaged group), the Light Greens, the Shallow Greens, the Distanced and the Disengaged (the least environmentally engaged group). The groupings have distinct socio-demographic profiles. Most notably, people in the Deep Green grouping tend to have higher educational qualifications, belong to social group ABC1 and be younger. In contrast, the Disengaged grouping typically have lower educational qualifications, live in more deprived areas and are older. Nevertheless, it is worth emphasising that the Deep Green grouping is not entirely composed of people with high educational attainment, but that it spans different educational levels and conversely, that the Disengaged are not entirely composed of people with low educational attainment.

## 5 ENVIRONMENTAL BEHAVIOUR

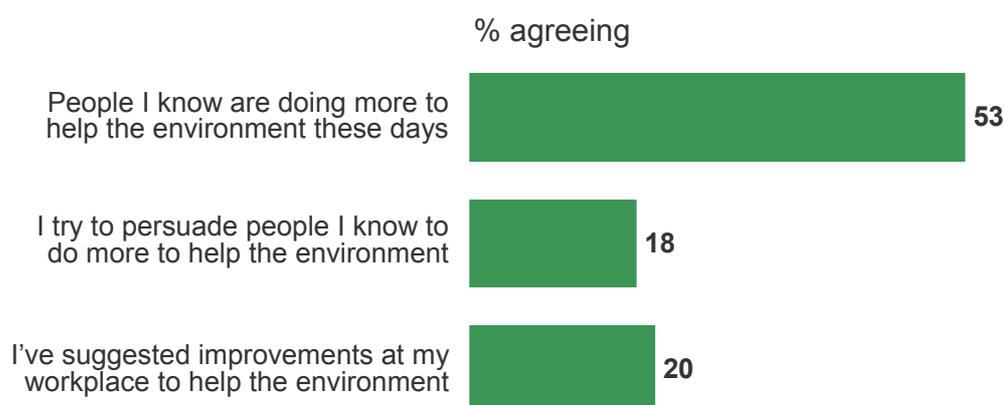
- 5.1 The previous chapters looked at the salience of environmental issues and at attitudes toward the environment – both generally and in relation to climate change specifically. They also began to explore people’s willingness to make behavioural changes to combat climate change. This chapter looks in more detail at environmental behaviour. The discussion is divided into two main sections. The first section considers to what extent the general idea of behaving in ways that ‘help the environment’ has penetrated the public consciousness. It then explores levels of participation in four specific categories of behaviour: energy efficiency in the home; reusing and recycling; eco-purchasing; and green travel. The analysis provides information on the proportion exhibiting these behaviours which can be used as a baseline for monitoring future changes to patterns of behaviour. The analysis also considers what drives behaviour – particularly in relation to environmental engagement – providing evidence of where environmental engagement leads to differences in lifestyle patterns, and potentially, where greater information, understanding, and acceptance of the need for change could have an impact. The second part of the chapter looks at perceived barriers to green behaviours, drawing on both behavioural and attitudinal data. Developing an understanding of, and attempting to tackle, such barriers will be an essential prerequisite to promoting green behaviour in the future.

### **Are people ‘doing more to help the environment’?**

- 5.2 Respondents were presented with three general statements about ‘doing more to help the environment’ and asked whether they agreed or disagreed with each. The results are summarised in Figure 5.1. On one level, the findings indicate that participation in green behaviours may be reasonably widespread - just over half (53%) of respondents agreed that people they know are doing more to help the environment these days. On the other hand, it seems that only a minority of people could be described as ‘advocates’ of green behaviour. Fewer than one in five (18%) respondents agreed that they try to persuade people they know to do more to help the environment; and a similar proportion of workers (20%) said they have suggested improvements at their workplace to help the environment.

**Figure 5.1: 'Doing more to help the environment'**

Q. Which, if any, of these statements would you say applies to you?



Base: First two statements, all respondents (3,054); third statement, all workers (1,362)

5.3 There were some notable sub group differences in the findings. As Table 5.1 illustrates, people belonging to social groups ABC1 were consistently more likely than those in groups C2DE, to agree with the statements, reflecting their higher engagement with the environment issue reported in the previous chapter. Similarly, people with Higher level or more advanced educational qualifications were more likely than others to agree that people they know are doing more to help the environment and that they have suggested improvements in their workplace to help the environment. People with an HNC/HND or higher qualification were also among those most likely to say that they try to persuade people they know to do more to help the environment (see Table 5.2).

**Table 5.1: 'Doing more to help the environment' by social group**

	ABC1	C2DE	All
	% agreeing		
People I know are doing more to help the environment these days	59	47	53
I try to persuade people I know to do more to help the environment	20	15	18
I've suggested improvements at my workplace to help the environment (Base: all workers)	24	13	20
<i>N</i>	1,584	1,470	3,054

**Table 5.2: ‘Doing more to help the environment’ by highest educational qualification**

	None	‘O’ Grade, S Grade or equivalent	Higher, A level or equivalent	HNC/HND or equivalent	Degree, professional qualification	All
% agreeing	%	%	%	%	%	%
People I know are doing more to help the environment these days	42	50	59	59	62	53
I try to persuade people I know to do more to help the environment	10	14	17	22	27	18
I’ve suggested improvements at my workplace to help the environment (Base: all workers)	4	12	23	26	27	20
<i>N</i>	726	791	432	271	784	3,054

5.4 In terms of other differences, people aged 25 to 54 years were more likely than older groups to say that people they know are doing more to help the environment (55% of those aged 25 to 34 years and 59% of those aged 35 to 54 years, compared with 46% of people aged 55 and over). Similarly, people aged 54 years and younger were slightly more likely than their elders to say that they try to persuade people they know to do more to help the environment (19% of those aged 16 to 24 years compared with 14% of those aged 55 years and over).

5.5 Regression analysis suggests that after other socio-economic factors<sup>27</sup> have been controlled for, the Deep Green typology grouping were consistently more likely than the Disengaged grouping to agree with the statements in Figure 5.1. Most notably, they were more than three times as likely to say they try to persuade people they know to do more to help the environment (36% versus 10%) and more than twice as likely to say they have suggested changes in their workplace (32% versus 14%).

### Energy efficiency in the home

5.6 The survey included questions on various forms of energy use and efficiency in the home. These can be grouped into four main themes: energy

<sup>27</sup> See paragraph 2.27.

consumption and efficiency; use of energy from micro-generation; energy efficient appliances; and day-to-day energy saving behaviours.

### **Energy consumption and efficiency**

- 5.7 Overall, 98% of respondents said that they use electricity for lighting, heating or power, and 79% said they use gas in the home. To gauge how conscious people are of their energy consumption, respondents were asked whether they felt they could accurately estimate, to within £20, the amount they spend each month on gas and/or electricity. A majority – 68% of those who use electricity and 66% of those who use gas – felt that they could do so.
- 5.8 As Table 5.3 shows, respondents in social groups C2DE and those with no educational qualifications were among those most likely to say they could provide an estimate within £20. This may be because these groups will have relatively low incomes and therefore may pay closer attention than other people to their monthly outgoings. It is not surprising, therefore, that those living in a flat or apartment were more likely to be able to provide an estimate than those living in house and bungalows (for example, 71% versus 67% for electricity) and those living in the most deprived areas were more able to do so than those in the least deprived areas (for example, 72% compared to 60%). There was no significant difference between urban and rural areas.
- 5.9 There was further variation by sex, with women more able than men to provide an estimate (electricity: 71% versus 64%; gas: 70% versus 61%).

**Table 5.3: Awareness of amount spent on gas/electricity each month by social group, educational attainment and environmental engagement**

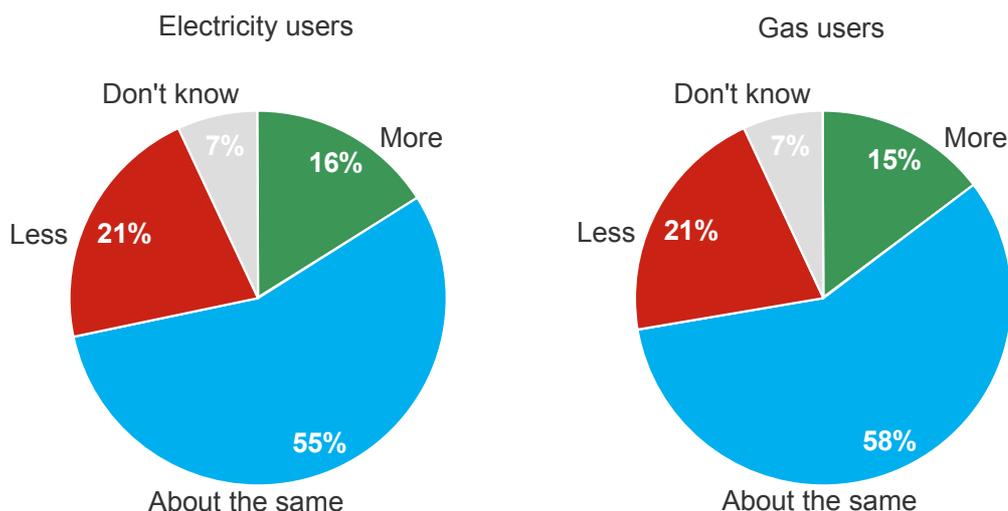
<i>Bases: Electricity (3,007) Gas (2,408)</i>		<b>% able to provide estimate within £20</b>	
		Electricity	Gas
<b>Social group</b>			
ABC1		66	63
C2DE		71	68
<b>Highest education qualification</b>			
Degree/professional qualification		69	67
HNC/HND or equivalent		71	70
Higher, A level or equivalent		62	61
'O' Grade, Standard Grade or equivalent		66	63
None		72	68
<b>Environmental engagement</b>			
Deep green		65	62
Light green		66	66
Shallow green		73	70
Distanced		66	64
Disengaged		67	63
<b>All</b>		68	66

- 5.10 Significantly there were no differences by typology groupings – the Deep Green grouping were no more likely than the Disengaged grouping to say they could provide an estimate of their energy expenditure (see Table 5.4).
- 5.11 Asked whether they currently use more, less or about the same amount of gas and/or electricity than a year ago, the majority of respondents said they use about the same (see Figure 5.2). However, a significant minority (21%) said they use less than a year ago, while 16% of those who use electricity and 15% of those who use gas said they use more.

**Figure 5.2: Amount of gas and electricity used compared with a year ago**

*Q. Ignoring any increases in the cost of electricity in the last year, compared with a year ago, do you think you are using more, less, or about the same amount of electricity?*

*Q. Ignoring any increases in the cost of gas in the last year, compared with a year ago, do you think you are using more, less, or about the same amount of gas?*



Base: All who use electricity (3,007); all who use gas (2,408)

- 5.12 As Table 5.4 shows, respondents belonging to social group ABC1 were more likely than those in groups C2DE to say they now use less electricity or gas, while those with HNC/HND or higher qualifications were more likely to do so than those with lower qualifications. People living in houses or bungalows were more likely to say they use less gas or electricity than those living in flats or apartments.
- 5.13 Analysis by the engagement typology finds that the Deep Green grouping were more likely than all of the other groupings to say they use less electricity and/or gas than a year ago. However, there were no other inter-group differences.

5.14 One way in which people often try to reduce their energy costs is by changing their supplier. Around a third (31%) of respondents who used gas and a similar proportion (29%) who used electricity said that they had considered changing their suppliers. Of these groups, 61% and 58% respectively had actually changed supplier. As Table 5.4 shows, those who have considered changing their supplier and those who have changed their supplier were also more likely to have used less energy.

**Table 5.4: Amount of gas and electricity used compared with a year ago, by social group, highest educational qualification and environmental engagement**

Subgroup	% using less	
	Electricity	Gas
<b>Social group</b>		
ABC1	25	23
C2DE	18	18
<b>Highest education qualification</b>		
Degree/professional qualification	28	26
HNC/HND or equivalent	28	26
Higher, A level or equivalent	21	23
'O' Grade, Standard Grade or equivalent	17	17
None	16	15
<b>Environmental engagement</b>		
Deep green	31	31
Light green	22	21
Shallow green	21	21
Distanced	18	16
Disengaged	21	21
<b>Dwelling type</b>		
House/bungalow	22	22
Flat/apartment	19	17
<b>Considered changing supplier</b>		
Yes	27	26
No	20	19
<b>Have changed supplier</b>		
Yes	27	26
No	20	20
<b>All</b>	21	21
<i>Base: those using electricity/gas</i>	3,007	2,408

### ***Use of 'alternative' forms of energy***

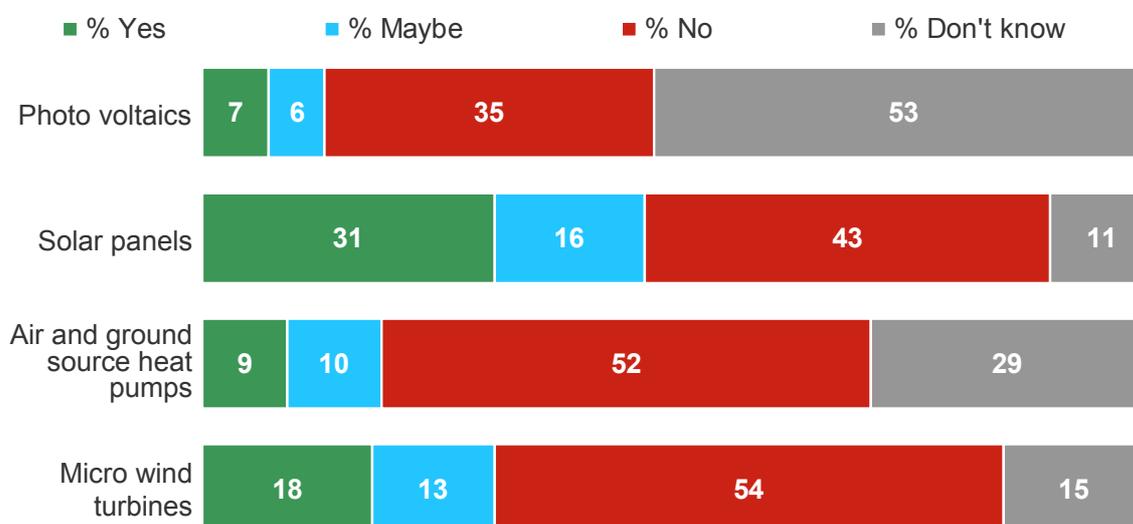
- 5.15 Only around 1% of respondents (N=30) in the survey use energy from micro-generation. Of this group, most relied on combined heating and power (15 people), wood or peat (8 people), or diesel (4 people). Just three people used solar panels and just one person used hydro power. No respondents obtained energy from photovoltaics<sup>28</sup>, air and ground source heat pumps, biomass, or micro-wind turbines.
- 5.16 To assess wider awareness of micro-generated forms of energy, *all* respondents in the survey were asked whether they felt their home was suitable for:
- photovoltaics;
  - solar panels;
  - air and ground source heat pumps; or
  - micro wind turbines.
- 5.17 The results are summarised in Figure 5.3. A consistently higher proportion of respondents felt their home was *unsuitable* rather than suitable for each of the technologies. Just over half felt their home was unsuitable for micro wind turbines (54%) or air and ground source heat pumps (52%), while 43% felt their home was unsuitable for solar panels and 35% felt the same in respect to photovoltaics.
- 5.18 However, significant proportions of respondents were unable to give definitive responses as to the suitability of their homes for the four forms of micro-generation. In the cases of photovoltaics and air and ground source heat pumps, the figures were 59% and 39% respectively, suggesting that awareness of these technologies is relatively low.

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<sup>28</sup> Photo-voltaics are a type of solar panels that transforms the sun's energy into usable domestic energy, converting solar radiation directly into electricity.

**Figure 5.3: ‘Do you think your home is suitable for any of these ways of generating energy?’**

Q. Do you think your home is suitable for any of these ways of generating energy?

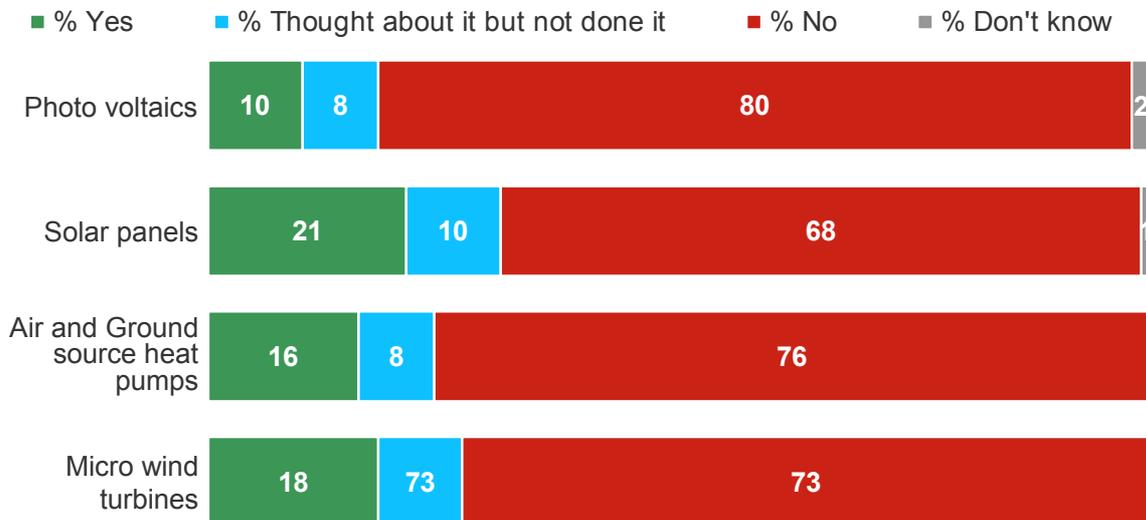


Base: All respondents (3,054)

- 5.19 Respondents belonging to social group ABC1 were consistently more likely than those in groups C2DE to give either a ‘yes’ or ‘no’ responses to the question and, indeed, to say that their homes *were* suitable for the four forms of energy generation, although the differences were not great. A similar pattern emerged by educational attainment – those with degree level qualifications were the most likely to respond definitively and to say their homes were suitable for the technologies, while those with no qualifications were the least likely to do so. But, again, the differences were modest.
- 5.20 As might be expected, people who lived in a flat were more likely than those who lived in a house or bungalow to judge their property as ill suited to photo voltaics (45% versus 30%), solar panels (64% versus 33%), air and ground source heat pumps (62% versus 47%), and micro wind turbines (66% versus 48%). Similarly, there were differences depending on whether or not people had a garden – those who did not were consistently less likely than those who did to feel their home was suitable for the technologies.
- 5.21 There was no linear pattern of responding across the five typology groupings, but the Deep Green grouping was consistently a little more likely than all of the other grouping to say that their home was suitable for the four technologies.

**Figure 5.4: Proportions who have looked into alternative forms of energy generation**

*Q. Thinking about the forms of generating electricity you think your home is suitable for, has your household ever looked into installing these?*



Base: All who think their home is suitable for each technology (photo voltaics: 216; solar panels: 969; air & ground source heat pumps: 280; micro wind turbines: 570)

5.22 Few respondents had looked into installing any of the technologies for which they felt their home was suitable (see Figure 5.4). This was the case across all sub groups of respondents, with no notable patterns of variation emerging.

### ***Energy efficient appliances***

5.23 To further gauge the level of importance people place on energy efficiency, all respondents who had bought electrical appliances in the last two years were asked whether they knew the energy efficiency rating of that appliance. Most said they did not or that they could not remember the rating, although the figure varied depending on the specific type of appliance bought (see Table 5.5). Of those respondents who had bought a television, just over four in five (82%) did not know its energy efficiency rating, compared with 54% of those who had bought a fridge or freezer, 53% who had bought a washing machine and 45% who had bought a dish washer.

**Table 5.5: Awareness of energy efficiency ratings of appliances bought in last two years**

	Fridge or freezer	Washing machine	Television	Dish washer
	%	%	%	%
A+	10	14	3	15
A	21	18	5	25
B	6	5	2	4
C	*	1	*	1
D	1	*	*	-
E	*	*	-	-
F	*	-	*	-
G	-	-	*	-
Can't remember but know it was high	7	8	7	10
Don't know	54	53	82	45
<i>N</i>	874	866	1,298	252

5.24 Respondents in social groups C2DE were consistently more likely than those in groups ABC1 to say they did not know the ratings of their fridge freezer (62% versus 46%), washing machine (60% versus 46%), and television (86% versus 79%). This was reflected in differences by educational attainment – people with no qualifications were among those least able to recall the rating of their appliances, while those with degree level qualifications were among those most able to do so. Patterns of variation by environmental engagement were less linear. While overall, significantly more Deep Greens than Distant Greens and Disengaged were able to recall the rating of their fridge or freezer, washing machines and dish washers, there were no significant differences in recall between Deep Greens, Light Greens and Shallow Greens. After other socio-economic variables had been controlled for, Deep Greens were significantly more likely to be able to remember the rating of washing machines and televisions than Distant Greens. No other significant differences were found. This may reflect the fact that only a proportion of the sample had bought appliances in the last two years, and that Distant Greens comprise a larger proportion of the sample than the Disengaged.

### ***Day to day energy saving behaviours***

5.25 Respondents were presented with a list of day to day energy saving behaviours and asked how important they think it is that people do each. As Table 5.6 shows, all of the behaviours were regarded as at least fairly important by a strong majority of respondents. Around nine in ten people felt it was important to: use energy saving light bulbs (90%); hang washing up rather than tumble drying it (91%); and turn off lights in rooms that aren't being used (94%). Around eight in ten felt it was important that people avoid

over-filling kettles (83%<sup>29</sup>); and seven in ten felt it was important that they turn off heating before going out (73%), and turn off the tap when brushing their teeth (72%).

**Table 5.6: Perceived importance of energy saving behaviours**

	Very important	Fairly important	Not very important	Not at all important
	%	%	%	%
Turn off their heating when they go out for a few hours in winter	34	38	19	6
Turn off the tap when brushing their teeth	34	38	21	6
Use energy saving light bulbs where possible	51	39	7	2
Hang up their washing rather than using a tumble dryer	61	30	6	2
Turn off lights in rooms that aren't being used	63	31	4	1
Avoid filling the kettle with more water than they are going to use	46	36	14	2

*Base: All respondents (3,054)*

- 5.26 There were no consistent patterns of variation by class, educational attainment, area deprivation, dwelling type or other socio-demographic variables. For example, while those living in the most deprived areas were more likely than those living in the least deprived areas to say it was important to turn off the heating when they go out for a few hours in winter (42% compared to 28%), there was no significant differences in views on the use of energy saving light bulbs or on turning off lights in rooms that aren't being used. Similarly, while people living in flats were more likely than those living in houses to say that it was very important to turn off the heating when going out for a few hours in winter (39% compared to 32%), there was no significant difference in relation to views on the importance of using energy saving lightbulbs or turning off lights in rooms not being used.
- 5.27 With regard to environmental engagement, the most engaged typology groupings were generally more likely than the less engaged groupings to rate each of the behaviours as important (see Table 5.7). It is interesting to note that the most marked difference between the groups was in respect to turning off the tap when brushing their teeth - the only one of the energy saving behaviours which would not result in a financial saving. This reinforces the analysis that the most engaged groups are motivated by a strong concern for the environment, rather than by other, more material benefits.

<sup>29</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

**Table 5.7: perceived importance of energy saving behaviours, by environmental engagement**

	Deep greens	Light greens	Shallow greens	Distanced	Disengaged	All
	% saying each is fairly or very important					
Turn off their heating when they go out for a few hours in winter	77	73	76	71	63	73
Turn off the tap when brushing their teeth	78	74	78	69	60	72
Use energy saving light bulbs where possible	93	93	93	87	85	90
Hang up their washing rather than using a tumble dryer	95	93	92	88	89	91
Turn off lights in rooms that aren't being used	95	96	96	93	91	94
Avoid filling the kettle with more water than they are going to use	87	87	87	77	79	83
<i>N</i>	416	412	907	910	409	3054

5.28 Respondents were presented with the list of behaviours again and asked how often they, personally, do each. As Table 5.8 shows, the prevalence of the behaviours varied considerably. On the one hand, a majority of respondents said they use energy saving light bulbs and hang up washing to dry at least 'most of the time' (63% and 79% respectively). Similarly, 67% say they rarely or never leave lights on in rooms that aren't being used. However, significantly fewer respondents said they turn off heating before going out or turn off the tap when brushing their teeth – indeed, roughly as many people 'rarely' or 'never' did these things as did them 'always' or 'most of the time'.

**Table 5.8: Participation in day to day energy saving behaviours**

	Always	Most of the time	Sometimes	Rarely	Never
	%	%	%	%	%
Turn off heating when going out	32	11	12	7	25
Turn off tap when brushing teeth	36	8	12	7	35
Use energy saving light bulbs where possible	45	18	16	5	14
Hang up washing rather than using a tumble dryer	69	10	7	2	6
Leave lights on in rooms that aren't being used	6	5	21	19	48
Fill the kettle with more water than you are going to use	17	11	22	17	32

*Base: All respondents (3,054)*

5.29 ABC1 respondents were a little more likely than those in social groups C2DE to say they turn off the tap when brushing their teeth (46% versus 41%) and hang up washing rather than using a tumble dryer (81% versus 77%). However, C2DEs were more likely than ABC1s to say they never leave lights on in rooms that aren't being used (54% versus 42%). The latter difference may reflect the finding, reported above, that C2DEs are more conscious of their energy consumption, perhaps for financial reasons.

5.30 Variation by educational attainment very much reflects the differences reported above. Specifically:

- people who have Higher level or more advanced qualifications were more likely than those with no qualifications to say they turn off the tap when brushing their teeth (50% of those with degree level qualifications do this always or most of the time, compared with 37% of those with no qualifications).
- People with an HNC/HND or higher qualification were more likely than those with no qualifications to hang up washing to dry rather than using a tumble dryer (82% of those with degree level qualifications and 83% of those with HNC/HND level qualifications, compared with 75% of those with no qualifications).
- People with no qualifications were among those most likely to say they rarely or never leave lights on in rooms that aren't being used (76% compared with, for example, 64% of those with degree level qualifications).

- 5.31 As with views on importance, there was no consistent pattern by area deprivation. For example, while there was no significant difference with regard to the use of energy saving lightbulbs, those in the most deprived areas were more likely than those in the least deprived areas to always turn off the heating when going out for a few hours in winter (38% compared to 27%). This may be because the cost savings made by turning off heating are more immediate than the potential savings from using energy saving lightbulbs. Alternatively, it could also reflect that an initial investment is required in energy saving lightbulbs. A similar pattern emerges with dwelling type: while people in flats are more likely than those in houses to always turn off their heating when going out for a few hours in the winter (38% compared to 30%), there was no significant difference with regard to use of energy saving lightbulbs or turning off lights in unused rooms.
- 5.32 There was no consistent pattern of variation by environmental engagement, but the Deep Green grouping were consistently more likely than all other groupings to: turn off the tap when brushing their teeth (59% compared with 35% of the Disengaged grouping); use energy saving light bulbs (73% compared with 61%); and hang up washing rather than using a tumble dryer (83% compared with 77%).

## **Transport behaviour**

- 5.33 This section examines three aspects of transport behaviour: car availability; car and public transport usage; and air travel.

### ***Car availability to households***

- 5.34 Around two thirds (66%)<sup>30</sup> of households had access to at least one car: 42% had one car, 19% had two cars, and 4% had three or more cars available to the household. Car availability differed across a number of factors:
- *educational attainment* - 80% of those with Degree level qualification had a car available compared to 79% with HNC/HND level qualification, 71% with Higher level qualification, 64% with 'O' Grade level qualifications, and 43% with no qualifications.
  - *social group* – 79% of those in social classes ABC1 had a car available compared to 52% in social groups C2DE.
  - *urban/rural indicator* – 63% in urban areas had a car available compared to 79% in rural areas. People in remote rural areas were the most likely to have a car available to the household (84%).

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<sup>30</sup> As noted previously, the data was weighted to the 2001 census results. As there has been an increase in car availability since 2001 in Scotland, the figures presented in this section give lower estimates of car availability and driving than comparable surveys such as the Scottish Household Survey.

- *age* – car availability was most common for people aged 35 to 54 years (77%) and 25 to 34 years (66%) and least common for those aged 55 years and over (58%) and 16 to 24 years (53%).
  - *children* - households with children (76%) were more likely to have a car available than those without children (61%).
  - *economic status* – 80% of people in work had a car available; compared to 55% of people studying or training, 53% of retired people, and 48% of people not in work (52%).
- 5.35 Given that people in social groups ABC1 and those who have degree level qualifications were more likely to have a car available, it is unsurprising that those who were Deep Greens were as likely to have a car as the other typology groupings (see Table 5.9).
- 5.36 However, modelling the data suggests that once socio-demographic variables have been controlled for, there may be a small but significant effect of environmental engagement on availability of a car, with Deep Greens slightly less likely to have a car available to their household than those who were Disengaged. In other words, if all other factors were the same, a respondent classified as a Deep Green will be less likely to have access to a car than a respondent who is classified as Disengaged<sup>31</sup>.

**Table 5.9: Number of cars by typology of environmental engagement**

	None	One	Two	Three or more
	%	%	%	%
Deep greens	28	43	23	6
Light greens	29	42	24	4
Shallow greens	36	42	18	4
Distanced	40	41	14	4
Disengaged	29	43	24	4
All	34	42	19	4

*Base: All respondents (3,054)*

- 5.37 Respondents were asked how they travel to work, how they travel to do their main grocery shopping, and how often they use various forms of transport in general.

<sup>31</sup> For example, consider two respondents who are educated to degree level, who live in a large urban area, are in employment, and in social groups ABC1. The respondent who is classified as a Deep Green is less likely to have a car than the respondent who is classified as Disengaged.

## **Travel to work**

- 5.38 The majority of people in employment (56%), who do not work from home, drove to their usual place of work and 6% got a lift with someone else. In comparison, 16% walked to work, 12% travel by bus, and 5% travel by train.
- 5.39 These findings are broadly consistent with comparable results from the 2007 DEFRA study in which 60% of respondents who were in employment said that they travel to work by car or motorcycle, 17% said they travel by public transport, and 18% said they walked or cycled.
- 5.40 Travel to work patterns are closely related to the distance between home and work (Table 5.10). A third of workers (33%) whose main place of work was a mile or less from home drove to work. When the analysis is limited to households with access to a car, 44% of working respondents who lived a mile or less from their work drove there.
- 5.41 Respondents who lived in rural areas were more likely to drive to work than those who lived in urban areas (65% compared to 54%).
- 5.42 Workers aged 16 to 24 years were less likely to drive to work (28%) than workers aged 25 to 34 years (51%), those aged 35 to 54 years (66%) and those aged 55 years and over (58%). Although men were more likely to drive to work than women (59% compared to 53%), this difference was primarily because men tended to live further away from their workplaces than women.

**Table 5.10: How adults usually travel to work by distance from home among workers who do not work from home**

	<b>A mile or less</b>	<b>2 to 5 miles</b>	<b>6 to 10 miles</b>	<b>11 plus miles</b>	<b>All</b>
	%	%	%	%	%
Drive	33	53	70	73	56
Get a lift with someone from household	2	3	2	2	2
Get a lift with someone outside household	1	5	4	4	4
Motorcycle/moped/scooter	0	1	1	1	1
Taxi/minicab	0	1	1	1	1
Bus	7	21	13	6	12
Train	1	2	7	11	5
Cycle	3	3	1	0	2
Walk	53	10	1	0	16
<i>N</i>	340	426	265	363	1,415

- 5.43 Regression analysis suggests that among people with a car available to the household, once other socio-economic factors have been controlled for, environmental engagement is not a significant factor in determining whether people drive to work.

- 5.44 Deep Greens (5%) and Light Greens (4%) were, however, more likely to cycle to work than Shallow Greens (1%), the Distanced (1%) and the Disengaged (0%).
- 5.45 Similarly, the Disengaged were less likely to walk to work (11%) than the Distanced (18%), Shallow Greens (14%), Light Greens (20%) and Deep Greens (19%).

### ***Travel to main grocery shopping***

- 5.46 Overall, 54% of people drove to the place where they do their main food and grocery shopping, and 5% got a lift with someone from their household. In contrast, 22% of people walked, 11% got a bus, 4% got a lift with someone outside their household, 2% took a taxi, and 1% had their main food and grocery shopping delivered (see Table 5.11).
- 5.47 Like travel to work patterns, the likelihood of driving to do the main food and grocery shopping is strongly related to distance, with 41% of those who lived within a mile of their main food and grocery shopping driving there. In comparison, 63% of those who lived between two and five miles away, 75% who lived six to ten miles away, and 78% of those who lived eleven miles or over, drove to do their main food and grocery shopping.

**Table 5.11: Usual mode of transport to main grocery shopping by distance from home**

	<b>A mile or less</b>	<b>2 to 5 miles</b>	<b>6 to 10 miles</b>	<b>11 plus miles</b>	<b>All</b>
	%	%	%	%	%
Drive	41	63	75	78	54
Get a lift with someone from household	3	6	8	9	5
Get a lift with someone outside household	3	5	4	3	4
Motorcycle/moped/scooter	1	0	0	0	0
Taxi/minicab	2	2	0	1	2
Bus	9	15	10	7	11
Train	0	0	0	2	0
Cycle	1	0	0	0	0
Walk	40	7	0	0	22
Shopping is delivered	*	*	*	*	1
<i>N (All respondents who could give a distance to the place where they do their food or grocery shopping and those who have their shopping delivered)</i>	1426	1042	289	185	2,992

- 5.48 Among those who had a car available to the household, 78% drove to do their main grocery shopping: 70% of people with a car who lived a mile or less away from their main grocery shopping drove there, compared to 84% of

those who lived between 2 to 5 miles away, and 89% of those who lived further away.

- 5.49 The likelihood of driving to do the main grocery shopping, among households with cars, differed by:
- *age* - 79% of all those aged 55 years and over, 85% of those aged 35 to 54 years, and 76% of those aged 25 to 34 years drove compared to 56% of those aged 16 to 24 years.
  - *gender* - 81% of men drove compared to 76% of women. Women, however, were more likely than men to get a lift with someone in their household (10% compared to 3%).
  - *educational attainment* - 73% of those with no qualifications compared with 79% of people with any level of qualification drove to their main grocery shop.
  - *property type* - 82% of those who live in a house drove compared to 65% of those who live in a flat, maisonette or apartment.
- 5.50 Once distance from their main grocery shop, car availability, and socio-economic factors are controlled for, the environmental typology does not prove to be significant as to whether people drive to do their main grocery shopping.

#### ***Frequency of travel by method overall***

- 5.51 Respondents were also asked how often they make journeys by different means overall (see Table 5.12).
- 5.52 Overall, 45% drove a car or van most days, 11% once or twice a week, and 5% less than once a week and 39% never drove.
- 5.53 Travel patterns are primarily determined by whether there is a car or van available to the household. Among respondents who had a car available to their household, 66% drove most days, and 14% drove once or twice a week.

**Table 5.12: Frequency of travel by different means of transport**

	Most days	Once or twice a week	About once a fortnight	About once a month	Several times a year	Once a year or less	Never
Car/van as driver	45	11	2	1	1	1	39
Car/van as passenger	15	35	9	9	11	4	16
Motorbike, moped	1	1	0	0	1	0	97
Bus	18	19	7	9	12	8	27
Train	3	4	4	10	22	18	38
Underground	0	1	1	1	5	8	83
Taxi	2	14	8	13	21	11	31
Bicycle	3	6	2	3	6	3	77
Walking	70	16	2	2	2	0	7

*Base: All respondents (3,054)*

5.54 There is limited evidence that environmental engagement decreases frequency of driving. Once other socio-economic variables are controlled for<sup>32</sup>, among respondents with a car available to their household, Deep Greens were significantly, but only slightly less likely to drive most days: 64% of Deep Greens drove every day compared to 68% of Light Greens, 65% of Shallow Greens, 63% of the Distanced and 71% of the Disengaged (see Table 5.13). In contrast, Deep Greens with a car available to their household were more likely to drive once or twice a week (20%) compared to Light Greens (14%), Shallow Greens (14%), the Distanced (12%) and the Disengaged (12%). This suggests that environmental engagement may have a small effect on reducing car usage overall.

<sup>32</sup> In addition to other socio-economic variables, variables also include: distance to main grocery shop, distance to workplace, and car availability.

**Table 5.13: Frequency of driving among those with a car available to the household by environmental engagement**

	Deep Greens	Light Greens	Shallow Greens	The Distanced	Disengaged	All
	%	%	%	%	%	%
Most days	64	68	65	63	71	66
Once or twice a week	20	14	14	12	12	14
About once a fortnight	1	2	2	1	2	2
About once a month	0	0	1	1	1	1
Several times a year	1	0	1	1	1	1
About once a year or less	1	0	1	1	1	1
Never	14	15	16	21	12	17
<i>N</i>	321	310	626	588	310	2,155

- 5.55 Around one in six respondents (15%) travelled in a car or van as a passenger most days, 35% did so once or twice a week, 34% less than once a week and 16% never travelled in a car or van as a passenger. Among respondents who have a car available to their household, 18% travelled as a passenger most days, and 35% did so once or twice a week. Respondents with a car available who live in the most deprived areas were more likely than those in the least deprived areas to travel in a car as a passenger most days (22% compared to 16%).
- 5.56 Environmental engagement also decreases the frequency of being a car passenger, once other factors are controlled for. Deep Greens who had a car available in the household were less likely to travel in a car or van as a passenger most days (11%) than Light Greens (13%), Shallow Greens (20%), the Distanced (22%) and the Disengaged (18%). The Deep Greens were more likely to be a car passenger only once or twice a week (43% compared to 36%, 32%, 36% and 31% respectively).
- 5.57 With regard to travel by bus, 18% of respondents travelled used this mode of transport most days, 19% did so once or twice a week, 7% about once a fortnight, 29% less often than once a fortnight, and 27% of respondents never travelled by bus.
- 5.58 Bus usage was closely related to car availability. While 34% of respondents who did not have access to a car in their household travelled by bus most days, and 28% travelled by bus once or twice a week, only 9% of those that did have a car travelled by bus most days, and only 15% did likewise once or twice a week. Only 13% of those without a car never used a bus, compared to 35% of those who did have access to a car. Among those with a car available to the household, respondents living in the most deprived areas were more likely than those in the least deprived areas to travel by bus most days (16% compared to 9%).

- 5.59 Environmental engagement is also linked to patterns of travel by bus. While Deep Greens were not significantly more likely than the other typology groupings to have travelled by bus most days or once or twice a week, they were more likely to travel by bus at least once a year. In other words, they were less likely to never travel by bus. In households with access to a car, 30% of Deep Greens never travel by bus, compared with 41% of Light Greens, 32% of Shallow Greens, 36% of the Distanced, and 37% of the Disengaged. Similarly, in households without access to a car, 8% of Deep Greens never travel by bus, compared to 11% of Light Greens, 13% of Shallow Greens, 15% of the Distanced and 12% of those in the Disengaged group.
- 5.60 Use of particular modes of transport was also related to how often respondents used greenspace. Those people who said they visited greenspace every day were far more likely than those who never did so to use a bicycle at least once a fortnight (17% versus 3%). Nearly all of those who said they never visited greenspace (95%) also never cycled. Similarly, people who visited greenspace every day were considerably more likely than those who never visited greenspace to walk for 10 minutes at least once or twice a week (97% versus 62%).
- 5.61 With regard to train usage, 3% used this method of travel most days, 4% once or twice a week, and 4% about once a fortnight. Almost four in ten (38%) people said that they never travel by train. Access to cars has a smaller effect on train use than it does on bus use. Respondents with access to a car, and those without access to a car were equally likely to travel by a train most days (both 3%), or once or twice a week (3% compared to 5%).
- 5.62 Regression analysis suggests that environmental engagement is not a primary driver of patterns of travel by train, but rather, that this reflects differences in distance to work, economic status, and rurality. Respondents in rural areas are less likely to travel by train than those living in urban areas (55% compared to 64%).
- 5.63 It is interesting to note that, of all forms of transport, cycling is the most closely associated with environmental engagement. This holds even after controlling for socio-economic variables. Table 5.14 shows the frequency of cycling by environmental engagement. Overall, 17% of Deep Greens cycled at least once a week, compared with 12% of Light Greens, 9%<sup>33</sup> of Shallow Greens, 6% of the Distanced, and 6% of the Disengaged. While 67% of Deep Greens never cycled, the corresponding figure for the Disengaged was 79%.

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<sup>33</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

**Table 5.14: Frequency of cycling by environmental engagement**

	<b>Deep Greens</b>	<b>Light Greens</b>	<b>Shallow Greens</b>	<b>The Distanced</b>	<b>Disengaged</b>	<b>All</b>
	%	%	%	%	%	%
Most days	7	6	3	2	1	3
Once or twice a week	10	6	5	4	4	6
About once a fortnight	3	3	2	2	4	2
About once a month	3	3	3	2	2	3
Several times a year	8	5	6	4	7	6
About once a year or less	4	6	2	2	3	3
Never	67	72	78	83	79	77
<i>N</i>	416	412	907	910	409	3,054

### ***Air travel***

5.64 Respondents were asked about any journeys by air that they had made in the last twelve months for non-work and work or business purposes. They were asked to count outward and return flights, and any transfers as one journey.

5.65 Overall, 46% of respondents said that they had made at least one journey by air in the last 12 months for non-work reasons: 19% made just one journey, 12% made two journeys, 5% made three journeys, and 10% made four or more journeys (see Table 5.15).

**Table 5.15: Number of Air travel journeys for leisure, holidays, or visiting friends in the last twelve months by destination**

	<b>Journeys within Scotland</b>	<b>To elsewhere in the UK</b>	<b>Elsewhere within Europe</b>	<b>Outside Europe</b>	<b>All destinations</b>
	%	%	%	%	%
None	96	83	67	85	54
One journey	2	10	20	11	19
Two journeys	1	3	7	2	12
Three journeys	0	1	2	0	5
Four or more journeys	0	2	3	1	10
Don't know	0	0	0	0	0

*Base: All respondents (3,054)*

- 5.66 These results are very much in line with findings from the 2007 DEFRA survey. Fifty-six per cent of respondents in that survey said they had taken no 'non-business' return flights over the previous year, while 19% said they had taken one flight, 14% had taken two, 6% had taken three, 4% had taken four and 4% had taken five or more.
- 5.67 Returning to the SEABS'08, the most common destination for leisure journeys made by air was Europe. Overall, 33%<sup>34</sup> of respondents had flown to Europe in the last twelve months, while 17% had flown somewhere in the UK (outside Scotland), 15% to outside of Europe, and 4% had flown within Scotland. In the DEFRA study, 58% had flown to Europe, while 17% had made 'domestic' flights and 26% had flown elsewhere in the world. In other words, it appears that Scots are less likely than their English counterparts to fly to countries outside the UK.
- 5.68 The likelihood of flying for non-work reasons is related to a number of factors:
- *educational attainment* - respondents whose highest level of educational qualification is a degree or professional qualification were more likely to have flown for non-work reasons in the last twelve months (63%) than those with HNC/HND level qualifications (56%), those with Higher level qualifications (55%), those with 'O' Grade level qualifications (40%) and those with no educational qualifications (26%).
  - *social group* - 58% of those in social groups ABC1 had flown for non-work reasons compared to 34% in social groups C2DE.
  - *economic status* - 58% of working respondents, and 59% in education or training had made at least one journey by air for non-work reasons compared to 33% of retired respondents and 27% of unemployed or otherwise economically inactive.
  - *age* - those aged 25 to 34 years (53%) and those aged 35 to 54 years (50%) were more likely to have flown in the last year for non-work reasons than those aged 16 to 24 years (48%) and those aged 55 years and over (37%).
- 5.69 While Deep Greens, the most environmentally engaged group in the attitudinal typology, were the *most* likely to have flown for leisure purposes in the last year, regression modelling suggests environmental engagement is not a significant factor. A higher proportion of the Deep Green than the Disengaged fly because they are more likely to have high educational attainment and be in social groups ABC1. In other words, after all other factors are controlled for, the environmentally engaged do not appear to be any more or less likely to fly for non-work reasons.
- 5.70 Turning to flying for work reasons, 17% of workers had made at least one journey by air in the last twelve months: 4% had made one journey, 3% had

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<sup>34</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

made two journeys, 1% had made three journeys, and 9% had made four or more journeys.

**Table 5.16: Number of air travel journeys for work in the last twelve months by destination**

	Journeys within Scotland	To elsewhere in the UK	Elsewhere within Europe	Outside Europe	All destinations
	%	%	%	%	%
None	96	88	93	95	83
One journey	1	4	2	2	4
Two journeys	0	3	1	1	3
Three journeys	0	1	1	0	1
Four or more journeys	2	5	2	1	9
Don't know	0	0	0	0	0

*Base: All workers (1,525)*

5.71 As shown in table 5.16, the most common destination for work journeys made by air was to somewhere in the UK, outside of Scotland. Overall, 12% of working respondents had flown to somewhere in the UK (outside Scotland), while 7% had flown to a destination within Europe, 5% to a destination outside of Europe, and 4% had flown within Scotland for work in the last twelve months.

5.72 A number of factors were related to the likelihood of flying for work reasons:

- *economic status* - Full-time employees and the self employed were more likely to have flown than part-time employees (20% and 19% compared to 5%);
- *gender* - Male workers were more likely to have flown for work than female workers (24% compared to 10%);
- *social group* – those in social groups ABC1 were more likely to have flown for work than those in social groups C2DE (24% compared to 7%); and
- *educational attainment* - those with a Degree or professional qualification were more likely to have flown for business (33%) than those with HNC/HND level qualifications (16%), those with Higher level qualifications (13%), those with 'O' Grade level qualifications (7%) and those with no educational qualifications (3%).

5.73 Patterns of flying for work by environmental engagement are similar to patterns of flying for non-work reasons. While Deep Greens were more likely to have flown for business in the last year (26%) than Light Greens (19%), Shallow Greens (16%), The Distanced (13%) and those in the Disengaged grouping (17%), once other socio-economic factors have been controlled for, there is no significant relationship between environmental engagement and likelihood of flying for work. In other words, environmental engagement does not make a measurable impact on the number of flights taken for work.

## **Composting and recycling**

### ***Composting***

5.74 Respondents were asked how often they make use of a home composting heap/bin or worm farm/wormery. Clearly, without a garden, it is difficult to compost waste, and the use of the resulting compost would be limited. For ease of interpretation, we have limited the analysis of composting to respondents in dwellings with a private garden<sup>35</sup>.

5.75 Use of a compost heap or a wormery is related to rurality, property type and social group:

- *rurality* - 38% of those living in rural areas, compared to 26% of those in urban areas, used a compost heap or wormery rarely or more often: 26% in rural areas said they always used a compost heap or wormery compared to 16% in urban areas.
- *property type* - 29% of respondents in a house with a private garden said they use a compost heap or wormery rarely or more often, and 19% always use these. Comparatively, 25% of those who live in a flat with a private garden used a compost heap or wormery at least rarely and 14% always use these.
- *social group* - 35% of respondents in social groups ABC1 have used a compost heap or a wormery rarely or more often compared to 21% of those in social group C2DE.

5.76 Use of a compost heap or wormery is related to environmental engagement (see Table 5.17). Even when other factors have been controlled for, including rurality, property type and social class, Deep Greens were more likely to use a compost bin or wormery than people in the other typology groupings.

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<sup>35</sup> Presence of a garden is primarily associated with dwelling type. While 99% of respondents living in a house had a private garden, only 28% of those living in a flat said likewise.

**Table 5.17: Use of a compost heap/wormery among those with a private garden by environmental engagement**

	Deep greens	Light greens	Shallow greens	The Distanced	Disengaged	All
	%	%	%	%	%	%
Every time	29	19	17	17	17	19
Most times	7	4	4	4	5	4
Sometimes	5	4	2	5	5	4
Rarely	2	2	1	1	2	1
<i>Ever</i>	44	29	24	27	28	28
<i>N</i>	321	319	709	696	347	2,392

### **Recycling**

5.77 The questionnaire asked people how often, if at all, they made use of various kerbside recycling facilities. Using kerbside facilities will initially depend on whether respondents have any particular types of waste to recycle and whether there are kerbside recycling facilities provided in their area. Therefore, respondents were given the option of responding “service not provided in my area” or “not applicable”.

**Table 5.18: Recycling by presence of different recycling facilities**

		Ever recycle	Never recycle	Service not provided	Don't know	Not applicable	<i>N</i>
Kerbside bottle recycling	%	47	16	32	0	4	3,054
Other bottle recycling	%	55	37	4	1	3	3,054
Kerbside can recycling	%	56	16	24	1	4	3,054
Other can recycling	%	41	49	5	1	4	3,054
Kerbside paper recycling	%	76	12	11	0	2	3,054
Other paper recycling	%	42	48	4	1	5	3,054
Kerbside garden waste (respondents with gardens)	%	69	10	19	0	2	2,392

5.78 Overall, 32% of respondents said that kerbside bottle recycling was not provided in their area. In comparison, 24% said likewise about kerbside can recycling facilities and 11% about kerbside paper recycling facilities. Among respondents with a garden, 19% said kerbside garden waste recycling facilities were not provided in their area (Table 5.18).

5.79 Kerbside recycling facilities were more common in urban areas than rural areas: for example 17% of respondents in rural areas said they did not have kerbside paper recycling facilities compared to 9% in urban areas. However, people in the most deprived areas were more likely than those in the least deprived areas to say that kerbside facilities were not provided (13%

compared to 6% for paper recycling, 31% compared to 23% for bottle recycling facilities). Similarly, more people who live in flats than those in houses said that that kerbside recycling facilities were not provided (18% compared to 7% for paper recycling facilities).

- 5.80 In order to examine the frequency of using recycling facilities where available and of potential use, the following analyses exclude respondents who say they do not have recycling facilities available or that the question is “not applicable”. This assumes that a ‘not applicable response’ means that they never produce this type of waste.
- 5.81 A high proportion of people reported using kerbside recycling facilities: 86% had at some time used paper recycling facilities; and 76% always used these where available. Respondents were less likely to always use kerbside can recycling facilities (63%<sup>36</sup>) or kerbside bottle recycling facilities (60%) where available (see Table 5.19). Among those with gardens, 87% had at some time used kerbside garden waste facilities, and 72% always used these where available.
- 5.82 People were more likely to recycle paper than bottle and cans using kerbside facilities. Perhaps paper enjoys higher recycling rates as it does not require preparation, i.e. it is ‘cleaner’ and dry.

**Table 5.19: Use of kerbside recycling facilities where available**

	Always	Most times	Sometimes	Rarely	Never	Don't know	N
Bottle	60	6	5	3	25	1	1,967
Can	63	5	5	3	22	1	2,217
Paper	76	4	4	2	13	0	2,699
Garden waste (those with gardens)	72	6	6	2	13	0	1,894

- 5.83 Patterns of use of kerbside recycling facilities were similar across the different types of waste, but differed by a number of factors:
- *dwelling type* - those living in houses were more likely to use all forms of kerbside recycling than those living in flats: for example, 79% and 61% respectively used bottle recycling.
  - *social group* - those in social groups ABC1 were more likely than those in social groups C2DE to use all forms: for example, 77% compared to 71% used bottle recycling.

<sup>36</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

- *age* - older people were more likely to use all forms kerbside recycling facilities: for example 88% of those aged 55 and over and 88% of those aged 34 to 35 used kerbside paper recycle compared to 84% of those aged 25 to 34 and 79% of those aged 16 to 24.
- *rurality* - those living in rural areas were more likely than those living in urban areas to use kerbside recycling facilities: for example, 83% compared to 76% had recycled cans.

5.84 Although those who are environmentally engaged are more likely to use available kerbside recycling facilities, the difference is relatively small. After other socio-economic factors had been controlled for, environmental engagement is not significant with regard to use of available kerbside recycling facilities. In other words, all other things being equal, the environmentally engaged are no more or less likely than other people to use kerbside recycling facilities where they are available.

5.85 Table 5.20 shows the frequency of use of other recycling facilities by respondents who do not have kerbside facilities available to them in their area. Overall, 71% of respondents who don't have kerbside bottle recycling facilities, but do have other bottle recycling facilities available to them, say they ever recycle bottles. In comparison, 68% recycled paper at other facilities and 58% recycled cans.

5.86 It is again unclear what account for the differences in likelihood of recycling bottles, can and paper.

**Table 5.20: Use of non-kerbside recycling facilities by those who do not have kerbside facilities**

	Other bottle recycling facilities	Other can recycling facilities	Other paper recycling facilities
	%	%	%
Always	44	33	41
Most times	11	9	11
Sometimes	11	9	10
Rarely	5	7	6
<i>Ever</i>	71	58	68
Never	29	40	31
Don't know	0	1	1
<i>N</i>	846	599	253

5.87 Where no kerbside facilities were available, respondents with a car were more likely than those without to recycle at other facilities: 52% with a car always recycled bottles compared to 29% of those who did not have a car, and only 22% with a car never recycle bottles compared to 43% without a car. A similar pattern emerges with both can and paper recycling.

- 5.88 The likelihood of recycling where there were no kerbside facilities also differed by dwelling type, rurality, and deprivation:
- People in houses were more likely than those in flats to always use non-kerbside facilities (bottles - 48% versus 34%, cans – 34% versus 30%, paper – 48% compared to 33%).
  - Those in rural areas were more likely than those in urban areas to always use non-kerbside facilities (bottles – 56% versus 39%, cans – 39% versus 30%, paper -52% compared to 35%).
  - Those in the least deprived areas were more likely than those in the most deprived areas to always use non-kerbside facilities (bottles - 52% versus 31%, cans – 39% versus 22%, paper 57% compared to 26%).
- 5.89 The likelihood of using other recycling facilities, even after other socio-economic factors have been controlled for, is strongly related to environmental engagement. Table 5.21 shows the frequency of using other bottle recycling facilities by environmental engagement. While 63% of Deep Greens said they always recycle bottles at other facilities, only 53% of Light Greens, 43% of Shallow Greens, 29% of the Distanced, and 47% of the Disengaged grouping did likewise. This is in contrast to use of kerbside recycling facilities and suggests that the importance of environmental engagement is strongest when it requires the most effort to recycle.

**Table 5.21: Use of non-kerbside bottle recycling facilities by environmental engagement when kerbside recycling facilities not provided**

	Deep greens	Light greens	Shallow greens	The Distanced	Disengaged	All
	%	%	%	%	%	%
Always	63	53	43	29	47	44
Most times	11	10	12	12	10	11
Sometimes	9	8	11	11	13	11
Rarely	6	5	4	8	2	5
Never	11	24	30	39	28	29
Don't know	0	0	0	1	0	0
<i>N</i>	127	120	251	235	113	846

### Reuse of household items

- 5.90 Respondents were asked how often they use or reuse a number of specific household items. These are listed in Table 5.22. Given that it is becoming more socially desirable to reuse items such as shopping bags - and arguably

more socially unacceptable not to - it should be borne in mind that there may be a degree of over-reporting of these actions.

**Table 5.22: Use and re-use of selected items**

	Reuse plastic drink bottles	Reuse plastic food containers	Reuse wrapping paper/gift bags	Reuse shopping bags/boxes	Donate items to charity shops	Use rechargeable batteries	Use washable nappies (household with children under 3)
	%	%	%	%	%	%	%
Every time	16	23	21	48	28	17	5
Most times	12	16	17	17	24	14	3
Sometimes	24	27	28	14	31	21	4
Rarely	10	8	7	5	6	7	3
Ever	62	74	74	84	89	60	15
Never	36	25	24	15	10	38	75
Not applicable	2	1	1	1	0	2	10
Don't know	0	0	1	0	0	0	0

5.91 It should also be noted that while patterns of reuse of items such as shopping bags, wrapping paper, plastic food containers and plastic drinks bottle containers differ by a number of factors, patterns of use will also differ. To aid the clarity of analysis in this section, “not applicable” responses were excluded. However, it is probable that some respondents who do not use - and therefore do not reuse – these items will have chosen the “never” response to these questions rather than the “not applicable” response. For example, only 2% of respondents overall responded “not applicable” when asked how often they reused plastic bottle containers. It is likely that the results for the four questions relating to reuse of items may be reflecting patterns of *use* in addition to reflecting *reuse*. This will have a greater effect on the results for items that are less commonly used – for example plastic drinks bottles more than shopping bags.

5.92 While the majority of respondents reported reusing shopping bags, plastic food containers, plastic drinks bottles and wrapping paper, less than half of respondents recycled these items every time. Reuse of shopping bags was more widespread than reuse of these other three items. Over eight in ten (84%) respondents said that they reused shopping bags or boxes, with almost half (48%) saying that they did this every time. In comparison, 74% said that they re-use plastic food containers, 74% that they reuse wrapping paper or gift bags; and 62% said that they reuse plastic drinks bottles.

- 5.93 Respondents were asked in the self-completion section of the questionnaire whether they agreed with the statement, “reusing bottles and food containers is unhygienic”. Overall, 73% disagreed with the statement, 10% did not know or neither agreed nor disagreed, and 16% agreed. This suggests that a small proportion of people may not reuse bottles and food containers because of fears over hygiene.
- 5.94 Patterns of reuse differed by social group, age, sex, and whether there are children in the household. With regard to social group, those in social groups ABC1 were more likely than those in social group C2DE to recycle all four items. For example, while 19% of those in C2DE never reuse shopping bags, only 10% in social groups ABC1 never did. Patterns of reuse differed across the four items with regard to age; sex; satisfaction with life; and whether there are children in the household. Specifically:
- Older respondents were more likely than younger respondents to reuse shopping bags (62% of those aged 55 and over reuse shopping bags every time) and wrapping paper or gift bags. They were less likely to reuse plastic drinks bottles or plastic food containers.
  - Women were more likely than men to reuse shopping bags/boxes (53% compared to 43% said they did this every time), to reuse wrapping paper or gift bags (81% compared to 67%) and slightly more likely to reuse food containers (76% compared to 73%).
  - People who were satisfied with life were more likely than those who were dissatisfied to reuse shopping bags/boxes and wrapping paper or gift tags every time (68% compared to 58% and 41% compared to 35% respectively).
  - Respondents with children in the household were more likely than those without to reuse food containers (81% compared to 71%) and to reuse plastic drinks bottles (71% compared to 58%).
- 5.95 The likelihood of reusing shopping bags, plastic food containers, plastic drinks bottles and wrapping paper, even after other socio-economic factors have been controlled for, was related to environmental engagement:
- 92% of Deep Greens said they reuse shopping bags, compared with 85% of Light Greens, 86% of Shallow Greens, 79% of the Distanced, and 83% of the Disengaged. This difference is primarily driven by the proportion saying that they reuse shopping bags most times.
  - 82% of Deep Greens reuse wrapping paper or gift bags compared with 80% of Light Greens, 76% of Shallow Greens, 67% of the Distanced and 74% of respondents in the Disengaged grouping.
  - 81% of Deep Greens reuse plastic food containers compared with 77% of Light Greens, 76% of Shallow Greens, 70% of the Distanced and 70% of people in the Disengaged grouping.

- 73% of Deep Greens reuse plastic drinks bottles compared with 64% of Light Greens, 63% of Shallow Greens, 58% of the Distanced and 55% of those in the Disengaged grouping.
- 5.96 Around 9 in 10 respondents (89%) said that they donate items to charity shops. Over a quarter (28%) said that they donate items to charity shops every time, while 24% said they do this most times, 31% sometimes, 6% rarely, and 10% never. The likelihood of donating items to charity shops differed by sex, age, social group, satisfaction with life and environmental engagement:
- 92% of women donate to charity shops compared with 86% of men.
  - 91% of respondents aged 55 years and over, and 92% aged between 35 and 54 years donate to charity shops, compared with 87% of those aged 25 to 34 years, and 79% of those aged 16 to 24 years.
  - 93% of those in social groups ABC1 donate items to charity shops compared to 85% of those in social groups C2DE.
  - 90% of those who are satisfied with life donate items to charity shops compared to 86% of those dissatisfied.
  - 95% of Deep Greens donate items to charity shops compared to 92% of Light Greens, 89% of Shallow Greens, 85% of The Distanced and 88% of those in the Disengaged grouping.
- 5.97 Just under two-thirds of respondents (60%) said that they use rechargeable batteries. Around a fifth (17%) said that they use these every time, while 14% said they use these most times, 21% sometimes, and 7% rarely. The likelihood of using rechargeable batteries differed by sex, age, social group, and household structure:
- Men were more likely than women to say they use rechargeable batteries (63% compared to 57%).
  - Older respondents were less likely than younger respondents to use rechargeable batteries (48% of those aged 55 and over did so, compared to 67% of those aged 35 to 54, 65% among those aged 25 to 35, and 65% of those aged 16 to 24).
  - Respondents with children in the household were more likely than those without to use rechargeable batteries (69% compared to 56%).
  - Those in social groups ABC1 were more likely than those in social groups C2DE to use rechargeable batteries (68% compared to 52%).
  - 70% of Deep Greens said they use rechargeable batteries compared with 60% of Light Greens, 62% of Shallow Greens, 55% of The Distanced, and 58% of those in the Disengaged grouping.

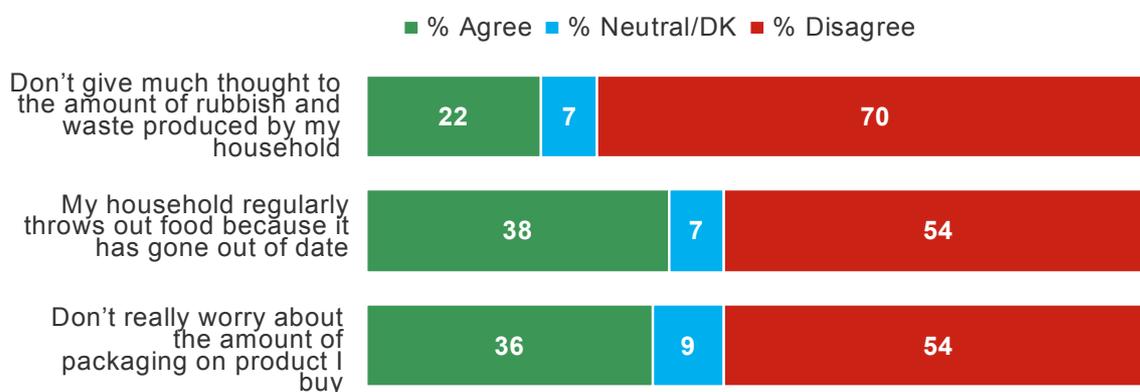
5.98 Less than one in five (15%) respondents in households with children aged less than 3 years said that they use washable or reusable nappies, with 5% saying they use them every time, 3% using them most times, 4% using them sometimes, and 3% rarely using them. Given the small sample size of this group, it is not possible to analyse patterns of use by environmental engagement.

### Reducing consumption

5.99 In addition to the questions on recycling, respondents were asked about their views on waste and packaging (See Figure 5.5)

**Figure 5.5: Agreement/disagreement with statement on waste and packaging**

*Q. On the following pages are some things people have said. To what extent do you agree or disagree with each?*



Base: All respondents who completed the CASI section (2,673)

5.100 The majority of respondents (70%) disagreed with the statement, “I don’t give much thought to the amount of rubbish and waste produced by my household”. Only around 1 in 5 (22%) of respondents agreed with this statement. While more respondents agreed with the statements, “my household regularly throws out food because it has gone out of date” (38%) and “I don’t really worry about the amount of packaged on a product I buy” (36%), the majority also disagreed with these statements.

5.101 Views on all three of the statements on waste and packaging differed by environmental engagement, educational attainment, area deprivation and social grouping. For example, with regard to the statement “I don’t give much thought to the amount of rubbish and waste produced by my household”:

- 87% of Deep Greens disagreed compared to 60% of the Disengaged grouping, while 10% of Deep Greens agreed compared to 29% of the Disengaged.
- 82% of those with a degree level qualification disagreed compared to 62% of those with no educational qualifications, while 13% of those with a degree level qualification agreed compared to 30% of those with no educational qualifications.
- 75% of those in the least deprived areas disagreed compared to 65% in the most deprived areas, while 19% in the least deprived areas agreed compared to 28% in the most deprived areas.
- 77% of those in social groups ABC1 disagreed compared to 62% of those in social groups C2DE, while 16% agreed compared to 28%.

### **Eco-purchasing**

5.102 Respondents who said that they make all or most of the decisions about what groceries their household buys (N=2,011) were asked a series of questions about their shopping behaviour. These questions were designed to ascertain, from which types of shops people buy most of their groceries and, how familiar they are with products that are 'eco-friendly' or from sustainable sources.

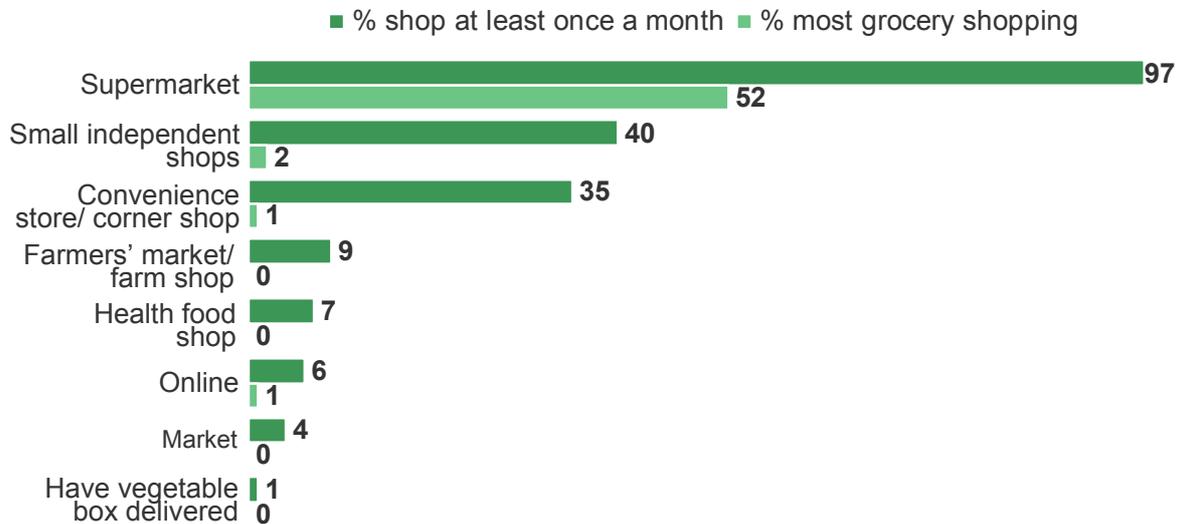
#### ***Where people buy groceries***

5.103 As Figure 5.6 shows, supermarkets were by far the most popular places to buy groceries, with almost all (97%) respondents saying they visit supermarkets at least once a month, and around half (52%) saying they do most of their grocery shopping in supermarkets. Meanwhile, around two in five respondents said they visit small independent shops (40%) and convenience stores or corner shops (35%). Very few people said they regularly buy groceries from other types of shop – for example, only around one in 10 said they visit farmers' markets (9%) or health food shops (7%) at least once a month.

## Figure 5.6: Where people buy groceries

Q. At which of these types of shop does your household do grocery shopping at least once a month?

Q. Where does your household do most of its grocery shopping?



Base: All who make all or most of the decisions about what groceries their household buys (2,011)

5.104 Certain groups of respondents were more likely than others to do most of their grocery shopping at a supermarket, namely.

- People living in houses or bungalows (56% compared to 48% of those living in a flat or apartment).
- Those living in rural areas (61% compared to 50% of those living in urban areas).
- People with access to a car (56% compared with 47% of those without access to a car (56% compared to 47%).

5.105 Conversely, the following groups of respondents were more likely than others to visit shops, other than supermarkets:

- people in social groups ABC1 (46% visit small, independent shops; 13% visit farmers' markets; and 10% visit health food shops);
- people with degree level qualifications (51%; 15%; and 13%);
- the Deep Green grouping (51%; 16%; and 13%); and
- people living in rural areas (53% visit small independent shops; 13% visit farmers' markets), although as noted above, they are more likely to use a supermarket to do most of their shopping.

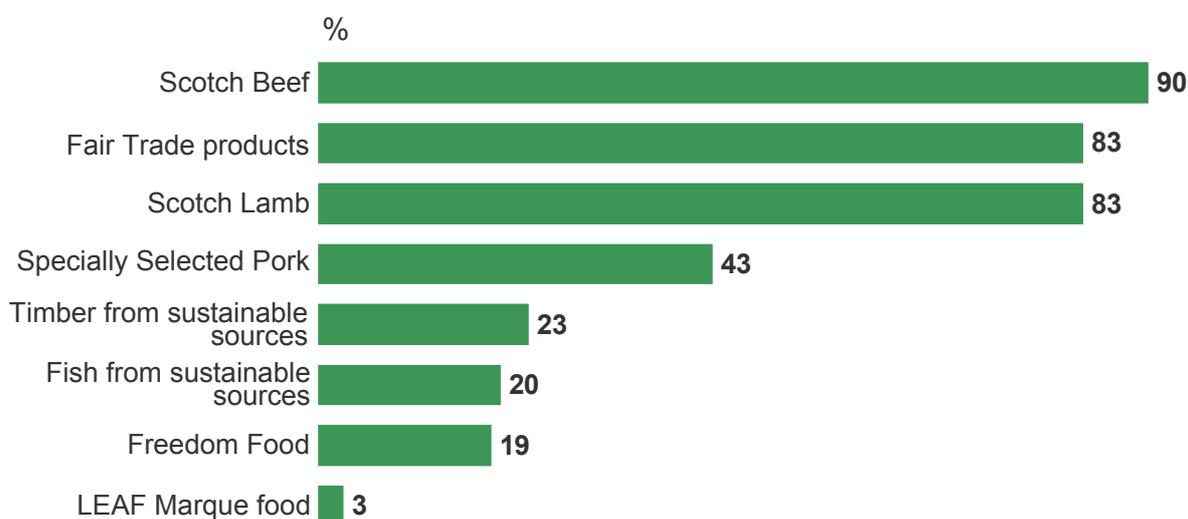
5.106 Notwithstanding these differences, no sub group of respondents did most of their shopping anywhere other than a supermarket.

**Awareness and uptake of sustainably produced and eco-friendly goods**

5.107 Awareness of different sustainably produced goods varied considerably. As Figure 5.7 shows, the majority of respondents were familiar with Scotch Beef (90%), Fair Trade products (83%) and Scotch Lamb (83%), but only around one in five had heard of sustainably produced timber (23%), fish from sustainable sources (20%) and Freedom Food (19%). Further, only 3% had heard of LEAF Marque food.

**Figure 5.7: Awareness of sustainably produced goods**

Q. Which, if any, of these products have you heard of?



Base: All respondents who make all or most of the decisions about what groceries their household buys (2,011)

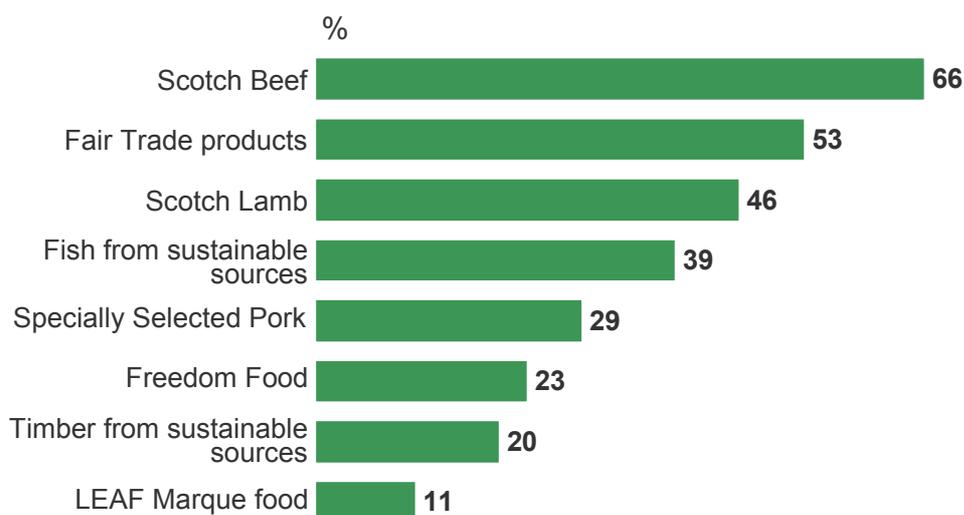
5.108 The proportions of respondents who said they had heard of Fair Trade products, timber from sustainable sources, Freedom Food and LEAF Marque food are consistent with equivalent results from the 2007 DEFRA survey (81% 21% 15% and 4% respectively). However, significantly fewer respondents in the current survey than in the DEFRA study had heard of fish from sustainable sources (20% versus 34%)<sup>37</sup>.

5.109 Respondents were asked whether they make a conscious effort to buy those products they had heard of. Again the results were mixed. Two thirds (66%) of those who had heard of Scotch Beef and around half (53%) of those who had heard of Fair Trade products said they made a point of buying these items. The figures for fish from sustainable sources, Freedom Food, timber, and LEAF Marque food were lower, at 39%, 23%, 20% and 11% respectively.

<sup>37</sup> Scottish Beef, Scottish Lamb and Specially Selected Pork were not included in the DEFRA version of the question.

**Figure 5.8: Uptake of sustainably produced goods**

Q. Which, if any, of the products that you have heard of do you make a conscious effort to buy?



Base: All respondents who have heard of each product (Scotch Beef: 1,813; Fair Trade products: 1,669; Scotch Lamb: 1,674; Fish from sustainable sources: 411; Specially Selected Pork: 872; Freedom Food: 378; Timber from sustainable sources: 475; LEAF Marque food: 53)

- 5.110 While, the figure for Fair Trade products is the same as that recorded in the 2007 DEFRA survey, uptake of the other products appears to be significantly higher in Scotland than in England. Only 10% of DEFRA respondents who had heard of fish and timber from sustainable sources bought these products, while just 4% bought Freedom Food and just 1% bought LEAF Marque food (compared to 39%; 20%; 23% and 11% in Scotland).
- 5.111 Of course, the results in Figure 5.8 should not be taken as a direct reflection of Scots' *willingness* to buy sustainably produced goods. Uptake will be influenced by a range of different factors, both related and unrelated to levels of engagement with the environment. To provide just two examples, it is likely that there are people who have heard of fish from sustainable sources but who do not buy it because they do not eat fish. Equally, there may be people who have heard of Fair Trade products but are *unable* to buy these because the products are not available where they live.
- 5.112 Small base sizes preclude detailed subgroup analysis of the findings for most of the products. However, it is apparent that Fair Trade products were most commonly bought by people belonging to social groups ABC1 (59% compared with 45% of those in groups C2DE), those with degree level qualifications (62% compared with 44% of those with no qualifications), people aged 35 to 54 years (57%), and by those in the Deep Green typology grouping (69% compared with 45% of the Disengaged grouping).
- 5.113 Respondents were presented with a list of other eco-friendly products and asked how often, if at all, they buy each. As Table 5.23 shows, free range eggs were by far the most widely bought product, with six in ten respondents

saying they choose these ‘every time’ or ‘most times’. None of the other products were bought with the same frequency by a majority of respondents. Free range poultry and recycled toilet paper – the next most commonly purchased products – were bought ‘every time’ or ‘most times’ by 28% and 22%<sup>38</sup> of respondents respectively.

5.114 The *least* commonly bought products were eco-friendly clothing and organic groceries – for each of these products a majority of respondents said they *never* purchase these items.

**Table 5.23: Uptake of eco-friendly products**

	Every time	Most times	Sometimes	Rarely	Never	When they are available	N/A
	%	%	%	%	%	%	%
Free range eggs	41	18	17	7	15	1	1
Recycled toilet paper	11	10	18	9	45	1	1
Organic carrots	7	9	18	12	52	1	1
Organic cows’ milk	3	3	6	8	77	*	1
Free range poultry	13	15	24	11	33	1	2
Eco-friendly cleaning products	7	10	23	12	45	1	1
Eco-friendly clothing	1	4	13	11	69	1	1

*Base: All respondents (3,054)*

5.115 People in social groups ABC1, those with degree level qualifications, and those in the Deep Green typology grouping were more likely than other groups to buy each of the products ‘every time’ or ‘most times’, but the figures were still well short of a majority in most cases. For example, the proportion of Deep Greens who bought organic milk ‘every time’ or ‘most times’ was 13%, compared with 5% of the ‘Disengaged’ grouping. For recycled toilet paper, the comparable figures were 32% and 16% respectively. In short, even those segments of the public that are the most engaged with the environment issue, do not consistently choose the most eco-friendly products available.

## Barriers to green behaviour

<sup>38</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

5.116 The survey included a suite of questions aimed at gauging *why* people do not always choose to adapt their behaviour in ways that may be helpful to the environment. Specifically, and where applicable, respondents were asked to give reasons as to why they:

- drive to work;
- drive to do grocery shopping;
- drive their children to school;
- fly within Scotland or to elsewhere within the UK (for leisure and/or business purposes);
- use more/less electricity than a year ago;
- use more/less gas than a year ago;
- considered changing their gas and/or electricity supplier;
- do not turn their heating off when they go out for a few hours;
- do not hanging washing up to dry instead of using a tumble dryer;
- do not use their own shopping bags; and
- do not buy more locally produced food<sup>39</sup>.

5.117 Full response listings relating to each behaviour are provided in Appendix B. Looking at the results as a whole, some of the reasons cited were very behaviour-specific (for example, one reason people gave for driving their children to school was that they felt it was unsafe for their child to travel alone). However, there were four recurring themes which consistently ranked highly. These were:

- convenience;
- cost;
- a lack of alternative options; and
- practical considerations.

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<sup>39</sup> These questions were asked after *all* of the questions aimed at measuring levels of participation in green behaviour. This was done to avoid order effects – respondents may have over-stated their level of participation in green behaviour if they knew that they would be asked about their reasons for not doing certain things.

## **Convenience**

5.118 Overall, convenience was the factor that most commonly underpinned people's choice of behaviour. Indeed, it was the main reason respondents gave for opting to: drive to work (50%); drive to do grocery shopping (54%); drive their children to school (30%); and use air travel within the UK for leisure (74%) or business purposes (67%). It was also among the main reasons people gave for using a tumble dryer rather than hanging up their washing - 14% said they didn't have time to hang washing up and 12% said it's just easier to put washing in the tumble dryer.

## **Cost**

5.119 Cost considerations were among the main reasons respondents gave for changing their gas and/or electricity supplier (89% and 88% respectively, compared with 3% and 4% respectively mentioning environmental considerations); not buying more locally produced food (21%); and using air travel within the UK for leisure (27%) or business purposes (16%). Similarly, of those respondents who said they now use less electricity/and or gas than a year ago, a majority accounted for this with reference to increased energy costs or trying to save money (gas: 68%, electricity: 67%). In contrast, just 13% of those who are using less gas and 16% of those who are using less electricity said they are doing so to help the environment.

## **Lack of alternatives**

5.120 A lack of alternative option was the reason most commonly cited in relation to travel behaviour and specifically: driving to work (18% said there was no direct public transport); driving to do grocery shopping (13% said there was no direct public transport); driving children to school (24% said there were no practical alternatives); flying within the UK for leisure or business purposes (10% and 16% respectively said there were no alternatives).

## **Practical considerations**

5.121 Practical considerations cited were closely related to convenience. For example, among the reasons people gave for driving to work were that public transport takes too long (13%) that their work is too far away to walk or cycle (10%) or because they work unsociable hours (7%). Similarly, a significant proportion of those who drove to do grocery shopping said they did so because their shopping is too heavy to carry home on foot or onto public transport (44%), or because it is easier to take the car when you have children (6%). There were several other, non-travel related examples of practical considerations determining behaviour. For example:

- 29% of those who use a tumble dryer rather than hanging up their washing do so because they have nowhere to hang washing. This was closely related to dwelling type with the figure rising to 52% among people in flats compared to 11% of those living in houses.

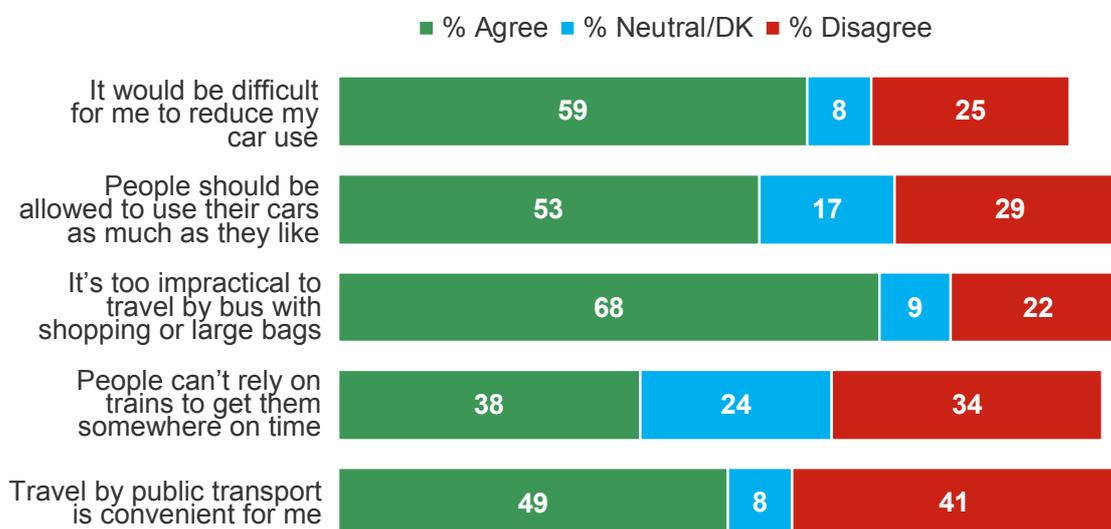
- 13% of respondents said they don't buy locally produced food because it is not available where they shop or in their area.
- 5.122 In addition to the four main drivers of behaviour discussed above – convenience, cost, the availability of alternatives and practical considerations – there was a clear sense in which some people simply act out of habit and fail to reflect on the costs or benefits of the behaviour. For example around one in ten said they don't really think about how they dry washing (11%), the type of bags they use to carry groceries home from the supermarket (9%), or where the food they buy is produced (7%).
- 5.123 Barriers to green behaviour, particularly in relation to travel, were further explored via a number of attitudinal questions. The results served to reinforce the perceived convenience and practicality of car travel *vis a vis* public transport, highlighted above. As Figure 5.9 illustrates, more than half of respondents with a car available agreed that it would be difficult to reduce their car use (59%). Around half of all respondents agreed that people should be allowed to use their car as much as they like (53%). Meanwhile, significant proportions agreed that it's too impractical to travel by bus with large shopping bags, and that people can't rely on trains to get them somewhere on time. Similarly, 41% disagreed that travel by public transport is convenient.
- 5.124 The proportion who disagreed that it would be difficult to reduce their car use is the same as the proportion of respondents in the DEFRA study who *agreed* with the statement, 'It would be easy to reduce my car use'. This points towards some consistency in attitudes on this issue north and south of the border<sup>40</sup>.
- 5.125 In the SEABS'08 survey, attitudes varied to a degree by social group. ABC1 respondents were more likely than those in social groups C2DE to agree that it would be difficult to reduce their car use (51% versus 33%), and disagree that public transport is convenient (46% versus 35%). On the other hand, they were less likely than C2DEs to think that people should be able to use their cars as much as they like (50% agree versus 56%) and that people can't rely on trains (36% versus 40%).
- 5.126 There were also some differences by environmental engagement. The Deep Green grouping were more likely than all other groups to disagree that: it would be difficult to reduce their car use (31% versus 17% of the Disengaged grouping); that people should be able to use cars as much as they like (44% versus 20%); and that it is too impractical to travel by bus with large shopping bags (30% versus 15%).

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<sup>40</sup> None of the other statements in Figure 5.9 were asked in the DEFRA survey.

**Figure 5.9: Attitudes towards travel by car and public transport**

Q. On the following pages are some things people have said. To what extent do you agree or disagree with each?



Base: All respondents who completed the CASI section (2,673), reduction in car usage based on number of respondents who have a car in their household (1,925)

## Conclusion

- 5.127 There are some signs that people are starting to change their behaviour for environmental reasons. Indeed a high proportion of respondents said that people they know are doing more to help the environment these days. Recycling in particular, appears to be commonplace, with a relatively high proportion of people saying they recycle various types of household waste on a regular basis. Considerable proportions also say they reuse household items and take measures to save energy at home, such as using energy saving light bulbs. Significantly, the survey found a clear link between attitudes and behaviour – those who were the most environmentally engaged were the most likely to have made green lifestyles changes in terms of recycling, eco-purchasing, reusing households items and taking energy saving measures in the home.
- 5.128 Still, participation in other forms of green behaviour remains low. Most notably: almost half of those who live a mile from work and own a car drive there; almost two-thirds drive every day; almost half have flown for leisure in the last year; the majority of those who have bought a fridge or freezer in the last year do not know its energy rating; and only 1% use energy from micro-generation. In these respects, the most environmentally engaged members of the public are no different to other groups, suggesting challenges remain in terms of greening both attitudes and behaviours.

5.129 Across all segments of the public, it is clear that the main barriers to green behaviour are cost and convenience: people are least likely to make lifestyle changes when there is significant cost or effort involved in doing so.

## 6 MEETING THE CHALLENGE OF CLIMATE CHANGE

6.1 The previous chapters discussed the salience of, and attitudes towards, the environment; environmental behaviour; and barriers to such behaviour. This chapter considers views on how the challenge of climate change may be met. The chapter begins by considering how receptive the public are likely to be to messages about the need to tackle climate change and environmental problems more generally. It then considers people's perceptions of alternative sources of energy, before outlining support for potential policy measures aimed at promoting a greening of the public's behaviour.

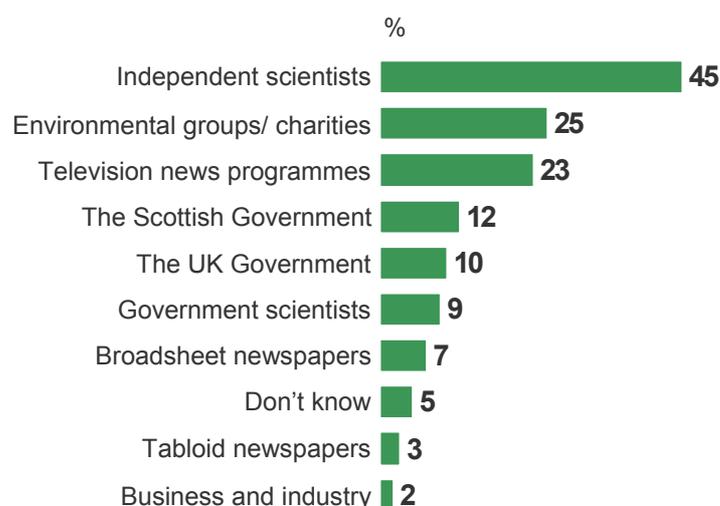
### Sources of information on climate change

6.2 In order to achieve the target of reducing emissions by 80 per cent by 2050, the public will need to be convinced of the urgency of issues relating to the environment. A key factor determining the likely success of any communications will be the extent to which these are seen as legitimate and trustworthy. Accordingly, respondents were asked which sources they trusted the most and the least to give them correct information about climate change.

6.3 People were nearly twice as likely to say that they would trust independent scientists as they were to say they would trust any other source of information (45%) (see Figure 6.1). The next most trusted sources were environmental groups or charities (25%) and television news programmes (23%). In comparison, one in ten respondents (12%) said they would trust the Scottish Government to give them correct information about climate change, with a similar proportion (10%) saying they would trust the UK government.

**Figure 6.1: Most trusted sources of information on climate change**

*Q. Which of the following, if any, would you trust **most** to give you correct information about climate change?*

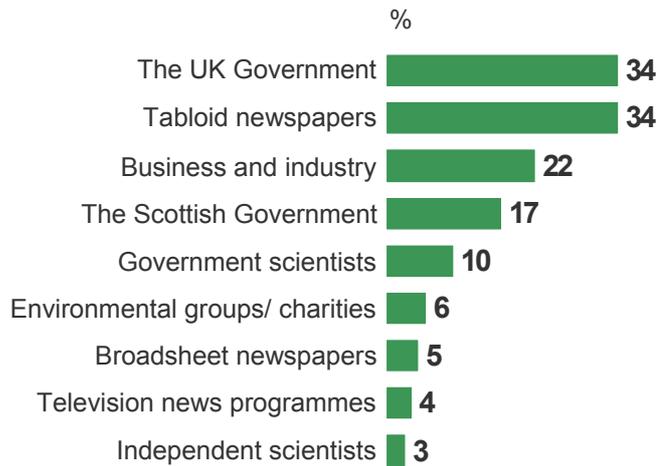


Base: All respondents (3,054)

6.4 As regards the sources of information that people said they would least trust, just over a third mentioned the UK Government (34%) and tabloid newspapers (34%), while around a fifth (22%) mentioned business and industry. Overall, 17% said they would trust the Scottish Government the least (see Figure 6.2).

**Figure 6.2: Least trusted sources of information on climate change**

Q. And who would you trust the *least*?



Base: All respondents (3,054)

6.5 The extent to which people said they trust the various sources of information varied among different subgroups of respondents. As Table 6.1 shows, younger respondents aged 16 to 24 years were more likely than older groups to say they would trust the Scottish Government and the UK Government the most. Conversely, *distrust* of both the Scottish and UK Governments was higher among older than younger people. Younger respondents were similarly more likely than older groups to distrust tabloid newspapers.

6.6 People with a Higher level qualification or above were more likely than those with Standard Grade level or no qualifications to say they would trust independent scientists the most (60% with Degree or professional qualification, 49% with a HND or HNC, and 54% with a Higher level qualification against 36% with 'O' Grade level qualifications and 34% with no qualifications). At the same time, those with Degree or professional qualifications were most likely to say they would trust tabloid newspapers and business and industry the *least* (35% and 44%). Those with no qualifications were more likely than all other groups to say they would trust the Scottish Government and UK Government the *least* (21% and 40%).

**Table 6.1: Trust in sources of information on climate change by age**

	16-24		25-34		35-54		55+		All	
	Trust most	Trust least								
	%	%	%	%	%	%	%	%	%	%
Independent scientists	47	3	40	2	50	2	42	3	45	3
Environmental groups	28	8	24	7	30	7	21	5	25	6
TV news programmes	18	6	26	3	24	3	24	3	23	4
The Scottish Government	17	10	14	13	11	17	11	21	12	17
The UK Government	17	19	10	31	8	37	8	38	10	34
Government scientists	10	7	8	7	9	11	9	10	9	10
Broadsheet newspapers	7	6	7	3	8	5	7	6	7	5
Tabloid newspapers	3	47	3	38	2	34	4	26	3	34
Business and industry	1	22	3	22	2	27	1	18	2	23
<i>N</i>	388		437		1,110		1,110		3,054	

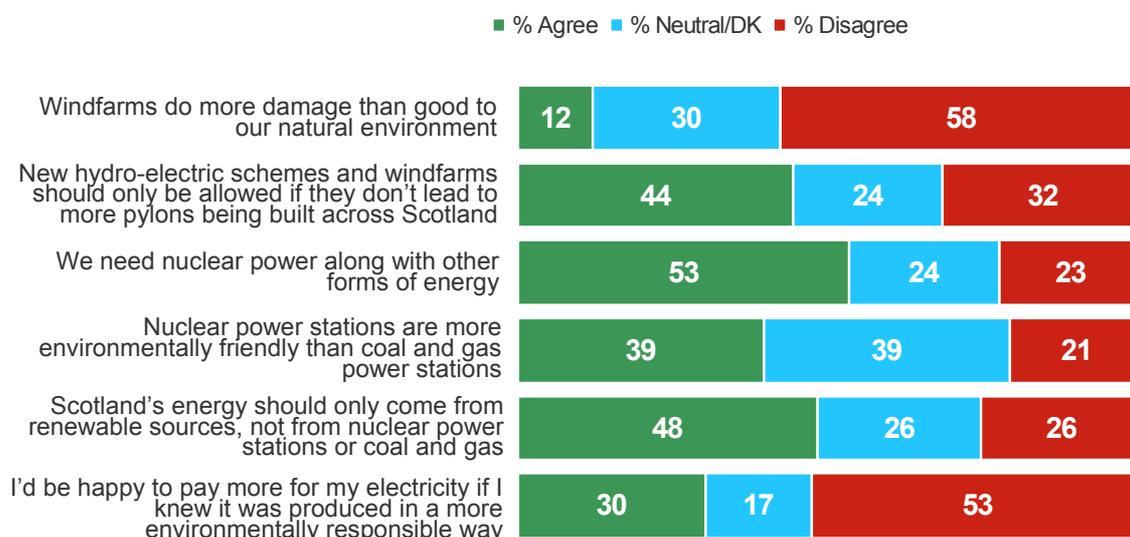
- 6.7 There was also variation by environmental engagement. Deep Greens and Light Greens were more likely than the other groupings to say they would trust environmental groups (37% and 37% versus 12% of those in the Disengaged grouping). Deep Greens were also more likely than all other groupings to say they would trust independent scientists (61% against 45% of those in the Disengaged grouping).
- 6.8 Those in the Disengaged grouping were more likely than all other groupings to say they would trust the UK and Scottish Governments the least (43% and 22% against 33% and 13% of Deep Greens).
- 6.9 Those who were dissatisfied with life were more likely than those who were satisfied to say they would trust the UK Government the least (41% versus 33%).
- 6.10 These results have significant implications for building awareness of environmental issues among the public. Lack of trust in the information disseminated by the Scottish Government may make it difficult to communicate with the public generally. More specifically, there will be particular challenges involved in communicating with those people who are currently the least engaged with environmental issues, the Disengaged, because it is this group who are the least likely to trust information provided by Government.

## Energy policy options

- 6.11 Given the Scottish Government’s commitment to generate 50% of Scotland’s electricity from renewables by 2020, the survey measured current perceptions of alternative energy sources. Respondents were asked whether they agreed or disagreed with a number of statements relating to the value and impact of renewable energy sources, as well as nuclear energy, *vis a vis* traditional energy sources.
- 6.12 People were considerably more likely to be positive than negative about the value of renewable energy (see Figure 6.3), with around three in five (58%) disagreeing that windfarms do more damage than good to the natural environment (12% agreed). This notwithstanding, over two fifths (44%) thought that windfarms and hydro electric schemes should only be built on the condition that they don’t lead to more pylons. Further, a majority (53%) said they would *not* be happy to pay more for electricity if they knew it was produced in a more environmentally friendly way and less than a third (30%) said they would be willing to do so.

**Figure 6.3: Perceptions of alternative energy sources**

Q. To what extent do you agree or disagree?



Base: All respondents (3,054)

- 6.13 With regards to attitudes towards nuclear energy, just over half (53%) agreed that society needs nuclear power along with other forms of energy. Respondents were more likely to agree than disagree that nuclear power stations are more environmentally friendly than coal and gas power stations (39% versus 21%) – although 39% felt unable to provide a response either way.

- 6.14 Despite the perceived value of both renewable sources *and* nuclear energy, when people were pressed to choose between the two, more agreed than disagreed that ‘Scotland’s energy should only come from renewable sources such as hydro schemes and windfarms and not from nuclear power stations or coal or gas’ (48% versus 26%).
- 6.15 In short, people were generally in favour of generating energy from renewable rather than nuclear sources. However, they were unwilling to pay higher household bills, or sacrifice the aesthetic of the landscape to make this possible.

**Table 6.2: Perceptions of alternative energy sources by age**

	16-24		25-34		35-54		55+		All	
	Agree	Disagree								
	%	%	%	%	%	%	%	%	%	%
Windfarms do more damage than good to our natural environment	12	61	5	63	10	62	17	49	12	58
New hydro-electric schemes and windfarms should only be allowed if they don't lead to more pylons being built across Scotland	37	33	37	34	44	34	51	28	44	32
We need nuclear power along with other forms of energy	52	20	46	24	54	25	56	22	53	23
Nuclear power stations are more environmentally friendly than coal and gas power stations	37	24	32	21	39	22	44	20	39	21
Scotland's energy should only come from renewable sources such as hydro schemes and windfarms, and not from nuclear power-stations or coal and gas	53	19	51	20	46	29	45	28	48	26
I'd be happy to pay more for my electricity if I knew that it was produced in a more environmentally friendly way	32	41	32	50	31	54	29	58	30	53
<i>N</i>	388		437		1,110		1,110		3,054	

- 6.16 Perceptions of alternative energy sources differed by age. As Table 6.2 shows, older groups were more likely than younger respondents to agree that: windfarms do more damage than good to the natural environment; windfarms and hydro electric schemes should only be allowed if they do not lead to more pylons being built; and nuclear power stations are more environmentally

friendly than coal and gas power stations, though a significant proportion either could not decide or said they did not know. Further, older groups were more likely to *disagree* that: Scotland's energy should only come from renewable sources, such as hydro schemes and windfarms, and not from nuclear power-stations or coal and gas; and that they would be willing to pay more for energy produced in an environmentally friendly way.

- 6.17 Perceptions of renewable energy also differed according to levels of environmental engagement. In general, those who were the most environmentally engaged held 'greener' views than less engaged groupings:
- Deep and Light Greens were more likely than all other groupings to disagree that windfarms do more damage than good to the natural environment (72% and 68% versus 52% of those in the Disengaged grouping). Conversely, the Disengaged were more likely than all other groupings to agree (20%).
  - Deep and Light Greens were more likely than all other groupings to agree that Scotland's energy should only come from renewable sources, with 27% of Deep Greens agreeing *strongly* (62% and 56% versus 35% of the Disengaged grouping). The Disengaged were most likely to disagree (38%).
  - Deep Greens were the only group more likely to disagree than agree that windfarms and hydro schemes should be built on the condition that they don't lead to any more pylons being built (43% versus 38%).
  - Deep Greens were more likely than all other groupings to agree that they would be happy to pay more for their electricity if they knew that it was produced in a more environmentally friendly way (52% versus 20% of the Disengaged grouping). The Distanced and Disengaged groupings were most likely to *disagree* that they would be happy to pay more (58% and 67% respectively).
- 6.18 Given the pattern of results relating to perceptions of other aspects of alternative energy sources, it could be expected that Deep Greens and the Disengaged would hold different views on nuclear energy. However, there was no consistent pattern of variation, with the Deep Greens and the Disengaged more likely than all other groupings to agree that nuclear power stations are more environmentally friendly than coal and gas power stations (48% and 45% versus 36% of Shallow Greens). Further, there were no major differences by levels of environmental engagement in response to the statement "we need nuclear power along with other forms of energy", perhaps reflecting lower awareness of nuclear energy.
- 6.19 Interestingly, there were no significant differences in attitudes towards renewable energy sources by urban/rural indicator.

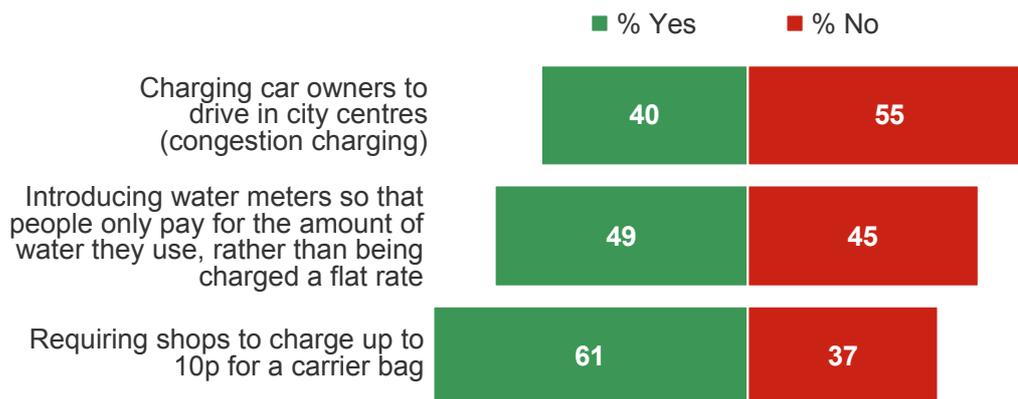
### **Support for possible policies aimed at tackling climate change**

- 6.20 Respondents were asked to respond to three hypothetical policy options, eliciting whether they would support or oppose each. The policy responses were:

- charging car owners to drive in city centres (i.e. congestion charging);
  - introducing water meters so that people only pay for the amount of water they use (rather than being charged a flat rate); and
  - requiring shops to charge up to 10p for a carrier bag.
- 6.21 Of the three policies, people were most in favour of the requirement for shops to charge up to 10p for a carrier bag (61%) (see Figure 6.4 below). However, a significant minority – 37% – said they would not support this action. Opinion was more divided in respect to introducing water meters and charging car owners to drive in city centres. Indeed, more people opposed than supported the latter policy (55% compared with 40%).
- 6.22 Among respondents with a car available in their household, that is, those people who the policy would most directly affect, the majority (59%) opposed congestion charging, and only 37% supporting the policy. Among those without a car available to the household, respondents were evenly split between support (46%) and opposition (47%) to this policy suggestion.
- 6.23 It could be argued that the relatively high support for carrier bag charges is unsurprising. Indeed, many major retailers already charge for carrier bags and, therefore, it may be the case that this policy appeared less controversial to respondents. By comparison, congestion charging and water meters may be seen as more ‘radical’ and more costly policies, hence the lower levels of support for each.

**Figure 6.4: Support for policy responses**

Q. Which, if any, of the following would you support?



Base: All respondents (3,054)

6.24 As Table 6.3 shows, respondents aged 35 years and over were more likely than younger people to oppose the introduction of water meters. Further, the oldest group (aged 55 years and over) were among those most likely to oppose shops charging up to 10p for carrier bags. There were no major differences by age with respect to the policy of congestion charging among those with a car available to the household.

**Table 6.3: Support for policy responses by age**

	16-24		25-34		35-54		55+		All	
	Support	Oppose								
	%	%	%	%	%	%	%	%	%	%
Requiring shops to charge up to 10p for a carrier bag	60	37	66	33	64	35	56	42	61	37
Introducing water meters so that people only pay for the amount of water they use, rather than being charged a flat rate	61	31	56	40	46	59	43	49	49	45
Charging car owners to drive in city centres (congestion charging)	36	58	37	60	40	56	34	63	37	59
Base: All those with a car available in their household (2,155)										
<i>N</i>	388		437		1,110		1,110		3,054	

6.25 Deep Greens were more likely than all other groupings to say they would support charges for carrier bags and water meters (79% and 58% versus 54% and 41% of the Disengaged grouping) (see Table 6.4). Furthermore, among those with access to a car, people were most likely to support congestion charging if they were in the Deep Green or Light Green groupings (51% and 46%).

**Table 6.4: Support for policy responses by environmental engagement**

	Deep Greens		Light Greens		Shallow Greens		Distanced		Disengaged		All	
	Support	Oppose	Support	Oppose	Support	Oppose	Support	Oppose	Support	Oppose	Support	Oppose
	%	%	%	%	%	%	%	%	%	%	%	%
Requiring shops to charge up to 10p for a carrier bag	79	19	68	30	64	35	50	48	54	45	61	37
Introducing water meters so that people only pay for the amount of water they use, rather than being charged a flat rate	58	37	57	40	45	48	50	44	41	55	49	45
Base: all	416		412		907		910		409		3,054	
Charging car owners to drive in city centres (congestion charging)	51	45	46	51	37	60	28	67	32	64	37	59
Base: All those with a car available in their household	321		310		626		588		310		2,155	

6.26 As Table 6.5 shows, although there were no socio-economic group-based differences in levels of support for water meters, people in social groups ABC1 were significantly more likely than those in groups C2DE to say they supported the introduction of charges for carrier bags. At the same time, people in groups ABC1 (of those with access to a car), were more likely than those in groups C2DE to support congestion charging.

**Table 6.5: Support for policy responses by social class**

	ABC1		C2DE		All	
	Support	Oppose	Support	Oppose	Support	Oppose
	%	%	%	%	%	%
Requiring shops to charge up to 10p for a carrier bag	69	29	53	46	61	37
Introducing water meters so that people only pay for the amount of water they use, rather than being charged a flat rate	51	44	48	46	49	45
Base: All	1,584		1,470		3,054	
Charging car owners to drive in city centres (congestion charging)	41	55	32	64	37	59
Base: All those with a car available to their household (N=2,155)	1,300		855		2,155	

6.27 There were few other notable subgroup differences, although people living in owner occupied and social rented accommodation were more likely than those renting from a private landlord to say they would oppose the introduction of water meters (46% and 48% versus 34% respectively).

6.28 Support for potential policy responses was further explored in the attitudinal questions<sup>41</sup>. People were asked the extent to which they agreed or disagreed with two statements: *I would favour a system that penalised people if they did not recycle everything they could*; and *It is important to build more roads to reduce congestion*. In both cases, opinion was divided: 39% agreed with the recycling statement and 44% disagreed. Similarly, 37% of those with access

<sup>41</sup> These questions were only asked of respondents to the CASI section of the survey (n=2,673)

to a car agreed with the statements about building more roads and 43% disagreed.

- 6.29 The latter statement was also included in the 2007 DEFRA survey. The level of agreement with the statement in that survey was broadly the same as in the SEABS'08 (39%) but the level of disagreement was a little lower, at 37%, suggesting that those in Scotland may be less in favour of road building than those in England.

## **Conclusion**

- 6.30 There appears to be significant challenges in promoting behavioural change and other measures aimed at combating climate change. Among these challenges is a lack of trust, by some, in information provided by Government. The less predisposed the public is to trusting what it is told by government, then arguably the more likely it may be to distrust or ignore messages aimed at encouraging people to, for example, drive less or use less energy. That trust in government information is lowest among those who are the least environmentally engaged presents an added challenge in this respect.
- 6.31 Public support for hypothetical policies aimed at tackling climate change is at best "lukewarm". Whereas a majority of people see value in renewable energy, most said they would not be willing to pay higher bills for this. Similarly, whereas most supported the policy of charging for carrier bags, fewer were in favour of congestion charging or water meters. In short, and reinforcing findings reported in the previous chapter, the greater the sacrifice a policy demands on the part of the public, the less likely people are to support it.

## 7 WELLBEING AND GREENSPACE

- 7.1 In recent years there has been a growing emphasis on the impact of the environment and, most notably, use of greenspace, on physical and mental wellbeing. In order to explore this link, the survey included questions on both wellbeing and greenspace. Results for both sets of questions, as well as linkages between these, are considered below.
- 7.2 For the purposes of the research, wellbeing was defined in terms of people's subjective evaluations of their lives as a whole and, in particular, the extent to which they were happy or satisfied with life<sup>42</sup>. Further, in the absence of a common definition of greenspace in the literature<sup>43</sup>, greenspace was defined as "public gardens, parks, countryside or other greenspaces that are visited on foot or by bike".

### Wellbeing

- 7.3 Research<sup>44</sup> has indicated that use of greenspace promotes wellbeing in three main ways:
- it promotes restoration, relaxation and reduction in stress;
  - it promotes physical activity; and
  - it promotes social interaction and cohesion in communities.
- 7.4 Respondents<sup>45</sup> were asked two questions to establish their current level of wellbeing. In the first question respondents were asked to rate how satisfied they were with their life on a scale of 0 to 10, with 0 indicating extremely dissatisfied and 10, extremely satisfied. Just over four in five people (82%) could be considered satisfied with their life (giving a score between 6 and 10), while only 6% said they were dissatisfied (giving a score between 0 and 4). The average score across all respondents was 7.3. These results are very much consistent with comparable findings from the 2007 DEFRA *Survey of Attitudes and Behaviour in relation to the Environment*, in which respondents' average satisfaction score was 7.2.
- 7.5 To provide an additional measure of wellbeing, the survey also included the Satisfaction with Life Scale (SWLS)<sup>46</sup>. Respondents were asked the extent to

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<sup>42</sup> For further information on subjective wellbeing and satisfaction with life, please refer to <http://www.psych.uiuc.edu/~ediener/hottopic/hottopic.html>

<sup>43</sup> <http://www.greenspacescotland.org.uk/upload/File/Greenspace%20HIA.pdf>

<sup>44</sup> See, for example Greenspace Scotland (2008) *Health Impact of Greenspace: A Guide*, Stirling: Greenspace Scotland, <http://www.greenspacescotland.org.uk/upload/File/Greenspace%20HIA.pdf>

<sup>45</sup> These questions were only asked of respondents to the CASI section of the survey (n=2,673)

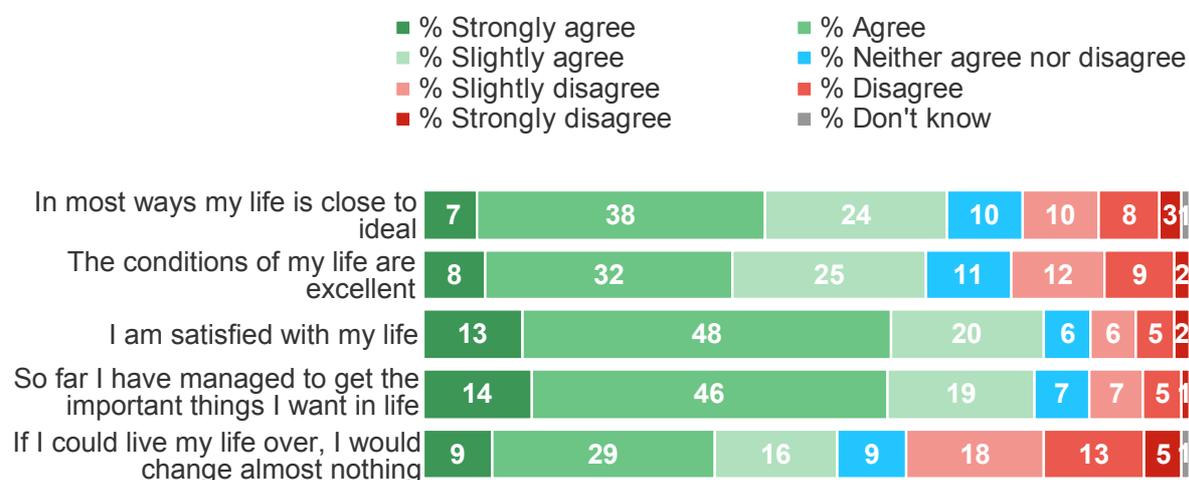
<sup>46</sup> For further information on the Satisfaction with Life Scale, please refer to <http://www.psych.uiuc.edu/~ediener/hottopic/hottopic.html>

which they agreed or disagreed with the following five statements about their life:

- In most ways my life is close to ideal.
- The conditions of my life are excellent.
- I am satisfied with life.
- So far I have managed to get the important things I want in life.
- If I could live my life over, I would change almost nothing.

**Figure 7.1: Satisfaction with life**

Q. Please indicate to what extent you agree or disagree with each statement.



Base: All who completed the CASI section (2,673)

7.6 Answers to each statement (see Figure 7.1 for full breakdown of responses) were combined to provide a measure of overall satisfaction with life. Using this approach, the majority (53%) of respondents were classified as being satisfied or extremely satisfied with life, while a quarter (25%) were slightly satisfied and 17% were dissatisfied with life, although the majority of these people (11%) were only *slightly* dissatisfied.

7.7 Subgroup analysis of findings for both satisfaction questions reveals that satisfaction was consistently highest among:

- those living in a house or bungalow (84% on the 0-10 scale and 82% on the SWLS);
- owner occupiers (86% on the 0-10 scale and 84% on the SWLS);

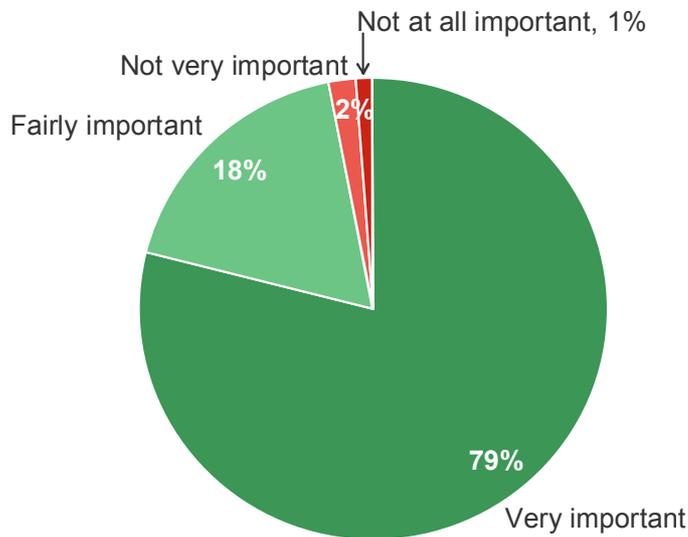
- social groups ABC1 (87% on the 0-10 scale and 84% on the SWLS); and
  - those living in the least deprived areas (88% on the 0-10 scale and 85% on the SWLS).
- 7.8 However, there was no relationship between higher levels of wellbeing and higher levels of environmental engagement. In fact, the Disengaged were most likely to say they were satisfied with life (86% on the 0-10 scale and 83% on the SWLS).
- 7.9 Meanwhile, satisfaction was *lowest* among:
- those living in a flat (74% on the 0-10 scale and 68% on the SWLS);
  - people living in social rented accommodation (73% on the 0-10 scale and 65% on the SWLS);
  - people in social groups C2DE (75% on the 0-10 scale and 71% on the SWLS);
  - those living in the most deprived areas (70% on the 0-10 scale and 74% on the SWLS); and
  - people living in single adult and single parent households (67% and 66%, and 60% and 56% respectively). Analysis of the SWLS shows that people living in these types of household were more than twice as likely than those living in any other type of household to say they were dissatisfied with life (36% and 37% respectively).

## **Greenspaces**

- 7.10 Moving on to greenspace, when asked how important it was to have public gardens, parks, countryside or other greenspaces nearby, most respondents (79%) said that it was very important, and 18% said that it was fairly important. Only 3% of respondents said that it was not very important or not at all important (see Figure 7.2).

## Figure 7.2: Importance of greenspace

Q. How important, if at all, is it to have public gardens, parks, countryside or other green spaces nearby?



Base: All respondents (3,054)

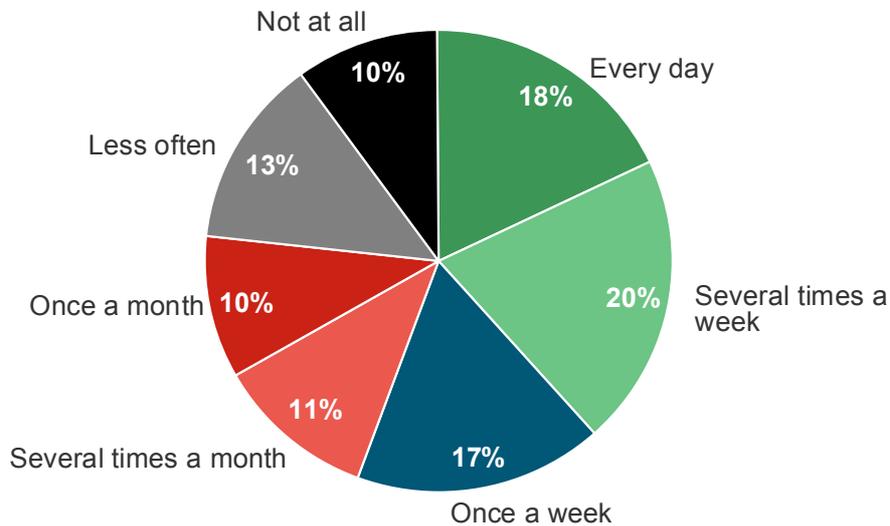
- 7.11 The perceived importance of greenspace was highest among people aged 25 years and over, those with a degree level qualification (87%), those in social groups ABC1 (83%), those with a child(ren) (82%), and those in the Deep Green typology grouping (87%). There were no significant differences with regard to the importance of greenspaces by the urban rural indicator.
- 7.12 When asked how often they visited greenspaces, 55% of respondents said they did so at least once a week, 22%<sup>47</sup> said at least once a month but less than once a week, 13% said less than once a month, and 10% said they never visited greenspaces (see Figure 7.3).

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<sup>47</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

### Figure 7.3: Use of greenspace

Q. How often, if at all, do you visit public gardens, parks, countryside or other green spaces on foot or by bike, even just to pass through them?



Base: All respondents (3,054)

7.13 Consistent with the higher importance they attach to greenspace, those most likely to visit such places at least once a week:

- belonged to social groups ABC1 (61%);
- lived in a rural area (61%);
- had a car available in their household (58%);
- were part of the most environmentally engaged grouping, the Deep Greens (68%);
- had children in their household (65%);
- lived in the least deprived areas (59%); and
- had Higher, HND/HNC or degree level qualifications (60%, 64% and 65%).

### Potential links between greenspace and wellbeing

7.14 To provide an analysis of the links between wellbeing and use of greenspace, this section uses the measure of wellbeing derived from the SWLS. As Table 7.1 shows, those who said they visit greenspace everyday, at least once a

week or at least sometimes, were more likely than those who never do so to say they were satisfied with life (82%<sup>48</sup>, 77%, and 78% respectively versus 68%). Conversely, those who *never* visit greenspace were nearly twice as likely as those who do so every day to say they were dissatisfied with life (27% versus 14%).

**Table 7.1: Satisfaction with Life Scale by use of greenspace**

	Everyday	At least once a week	Less often than once a week	Never	All
	%	%	%	%	%
Extremely satisfied	14	14	12	11	13
Satisfied	40	40	42	31	40
Slightly satisfied	27	24	24	26	25
Neutral	4	4	3	5	4
Slightly dissatisfied	9	11	11	15	11
Dissatisfied	4	6	6	7	6
Extremely dissatisfied	1	2	2	5	2
<i>N</i>	502	967	912	248	2,629

7.15 More specifically, regression modelling suggests that, after socio-economic factors are controlled for, visiting greenspace was a significant factor in determining differences in wellbeing, but only in the groups who comprise the two extremes – those said they visit greenspace *everyday* and those who *never* do so. This notwithstanding, the analysis shows that the key drivers of wellbeing were social class, economic status and property type (whether people stayed in a flat or a house).

### Improving wellbeing

7.16 Respondents were also asked which two or three things would most improve their wellbeing. Relative to other potential changes they could make to their lives, just over one in ten (11%) mentioned spending more time outdoors (see Figure 7.4). By comparison, people were twice as likely to say their wellbeing would be improved if they earned or had more money (27%), were healthier

<sup>48</sup>All figures are rounded to the nearest percentage point after any additions. See paragraph 2.25.

(23%), and spent more time with their family (20%). Other common responses included doing more exercise (17%) and working fewer hours (13%).

**Figure 7.4: Top 10 changes that would improve wellbeing**

Q. Which two or three of the following would do most to improve your wellbeing?



Base: All respondents (3,054)

7.17 There were no major subgroup differences with regards the types of changes that people felt would most improve their wellbeing.

## Conclusion

7.18 In the most part, people in Scotland were satisfied with their lives, although levels of satisfaction were lower among particular groups, most notably, people living in deprived areas, people living in social rented accommodation, and single parent and single adult households.

7.19 Nearly all people valued the importance of having greenspace nearby, and this was reflected in how often they said they use it – the majority visit greenspaces at least once a week. Further, analysis revealed that use of greenspace does affect levels of wellbeing, although it had less influence than other factors, including economic status, property type and social class. Reflecting this, people said that their wellbeing would be improved most if they had more money, better health and had more time with family. By comparison, spending more time outdoors was mentioned by fewer people.

## 8 CONCLUSIONS

- 8.1 Over the last few years the environment has re-emerged as a key issue on the Scottish political agenda, with the focus of debate on climate change shifting from whether the problem is actually happening to how it can best be addressed. In December 2008, the Scottish Government published the Climate Change (Scotland) Bill<sup>49</sup>. This includes a statutory target to reduce emissions by 80 per cent by 2050. While the need for action in relation to climate change is commonly recognised, there has been a paucity of information in Scotland to examine people's attitudes and behaviours in relation to this and other environmental issues. It is within this context that the Scottish Government Rural and Environment Analytical Services (REAS) Division, on behalf of the Greener Scotland Directorate and Climate Change Division, commissioned the Scottish Environmental Attitudes and Behaviours Survey (SEABS '08).
- 8.2 The overarching aim of the Scottish Environmental Attitudes and Behaviours Survey 2008 (SEABS'08) was to provide up-to-date, robust and targeted data about environmental attitudes and behaviour, which would allow intelligent analyses and policy responses as to whether, and how, government can bring about changes in behaviour, and so that the effects of government initiatives can be assessed and kept under review. The SEABS'08 serves the Scottish Government's 'Greener' and 'Wealthier and Fairer' strategic objectives.
- 8.3 In some respects, the findings provide grounds for optimism. Even though the fieldwork took place during a period when much media output was focused on the economy and the 'credit crunch', a considerable proportion of people mentioned the environment as an important issue globally. Perhaps, more importantly, most people recognised climate change as a problem, with a majority accepting the need for immediate and urgent action. Only a small minority of people did not accept the need for action. There also appears to be a committed minority of the public who are actively trying to persuade others to lead more environmentally friendly lifestyles.
- 8.4 Further, there are some signs that people are starting to change their behaviour and are taking action for the sake of the environment, with the majority of respondents saying that people they know are doing more to help the environment "these days". Recycling, in particular, appears to be commonplace, with a relatively high proportion of people reporting that they recycle various types of household waste. Where kerbside facilities are present, most people recycle. Although recycling is less common where kerbside facilities are not present, the majority of people still report that they recycle some household waste, some of the time. Similarly, a considerable proportion of people are reusing items such as shopping bags and plastic drinks bottles at least some of the time, and taking measures to save energy in the home such as using energy saving light bulbs.

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<sup>49</sup> <http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/index.htm>

- 8.5 In addition, there is evidence of changes in attitudes being reflected in changes in behaviour, with those who are attitudinally the most engaged being the most likely to make green lifestyle choices. In levels of recycling, for example, where kerbside facilities are not available, those who are most environmentally engaged are more likely to recycle often. They are also more likely to cycle, use buses, reuse household items (shopping bags, plastic food containers, wrapping paper, gift bags plastic bottles and batteries), buy groceries in shops other than supermarkets, buy some eco-friendly and fair-trade products, and take energy saving measures in the home (using energy saving light bulbs, hanging up washing to dry rather than using a tumble dryer and turning off the tap when cleaning their teeth). This suggests that if government can change attitudes to the environment, it may also have some success in affecting behavioural change.
- 8.6 Notwithstanding these positive findings, the survey also highlights significant challenges. Although people do consider the environment to be a salient issue globally, only a small proportion of people mentioned it as an important issue in Scotland. Similarly, over a third of people said that the environment was a low priority compared with other aspects in their life.
- 8.7 Reflecting these views, levels of participation in many forms of pro-environmental behaviour remain low: 44% of those who live a mile from work and have a car still choose to drive there; two thirds of people drive most days; almost half of people have flown for leisure in the last year; a third of people could not say how much they spend on gas or electricity at home; around half of respondents do not reuse shopping bags every time possible; the majority of those who had bought a washing machine or a fridge freezer in the last two years did not know its energy rating; only 1% use energy from micro-generation; and almost half of people never use eco-friendly cleaning products.
- 8.8 It is particularly notable that when respondents were asked what actions would most help to reduce climate change, recycling was mentioned more than any other action. It appears that people tended to mention relatively 'easy' actions as opposed to actions which demand more of a sacrifice on the part of the public. In short, while people are generally aware of, and profess to being concerned about climate change, it seems they may be more reluctant to adopt behaviours that require a significant change to their lifestyles. With regard to recycling - even though this is considered the action that would do most to reduce climate change - where kerbside recycling facilities are available to help minimise the effort required, still over a third of people do not always recycle their bottles.
- 8.9 Not making fundamental changes to behaviour is understandable. One of the key difficulties of promoting green behaviours is that the benefits are not necessarily obvious or immediate - one person's actions will not be significant enough to make any perceptible difference to climate change. At the same time, the effort and cost of green behaviours are by no means negligible, and environmental considerations have to be weighed against competing demands. That respondents in the survey consistently identified cost and

convenience as among the main considerations influencing their choice of behaviour illustrates the scale of the challenge in this respect.

- 8.10 As actions that require the least effort, cost, or thought tend to be the most common, it might be expected that actions that require a greater trade-off would only be undertaken by the most environmentally engaged. However, the survey found that while the most engaged take some action for the sake of the environment, they were no less likely to fly for leisure purposes, drive to work and drive to do the main grocery shopping. In other words, even those groups among whom recognition of the problem and the need for change is greatest, change in behaviour is limited: they may want to avert climate change and play their part, but at the same time they still want to fly to holiday destinations and drive to work.
- 8.11 While challenges ahead are undeniable, the survey results also provide an indication of ways in which environmental behaviour could be encouraged in the future. First, and as already noted, there are signs that environmental attitudes lead behaviour. As such, encouraging environmental engagement may go some way to promoting greener lifestyles. Conversely, the fact that environmental engagement was not significant in influencing other behaviours, such as driving to work, suggests that communications relating to these behaviours may be most effective if they focus, not on the need to protect the environment, but on other benefits such as the importance of a healthy lifestyle.
- 8.12 Second, the two greatest barriers to change, effort and cost, may also provide opportunities to shape the architecture of people's choices and therefore their behaviour. Not only may there be scope to make some environmentally friendly behaviour easier to adopt, there may also be areas where non-environmentally friendly options can be made more difficult. Similarly and where appropriate, highlighting potential cost-savings to be made from green behaviours (such as using energy saving light bulbs) may provide an effective means by which to 'sell' those behaviours to the public, particularly those who are most economically disadvantaged.
- 8.13 It is clear that the vast majority of people think that it is important to have greenspaces - parks, gardens and the countryside - nearby. And importantly, the survey analysis shows that wellbeing is linked to visiting greenspaces. This evidence expands our understanding of how 'environmental behaviours' can also enhance wellbeing, while also reducing carbon. De-carbonised behaviours may even go some way in fostering more environmentally friendly attitudes and behaviours.
- 8.14 As people are, to some extent, sceptical about the influence that they, as individuals can have, the potential role of government in shaping opinions and behaviour should not be underplayed. While a number of policy options presented to the public – for example paying more for green energy – elicited a sizeable degree of opposition, it is important to consider that this opposition may not be particularly steadfast. Before the introduction of the smoking ban in Scotland it would have been hard to imagine a majority of people supporting this measure but survey research conducted since the ban

indicates that in at least some parts of the country, support is now as high as 75%<sup>50</sup>. It is not inconceivable that public opinion on policies aimed at promoting green behaviour may be similarly malleable.

- 8.15 The evidence in this survey shows that the Scottish public is beginning to engage with the environment issue, and to participate in relatively 'easy' green behaviours such as recycling and reusing. The challenge moving forward will be to increase levels of engagement further among all sections of the public and specifically to persuade people of the need to make more significant lifestyles changes if environmental problems are to be tackled.

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<sup>50</sup> Ipsos MORI Edinburgh Omnibus Survey, Summer 2006.

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## APPENDIX A: THE QUESTIONNAIRE

### Scottish Attitudes and Behaviours Survey 2008 Final questionnaire

#### Section A: Introductory household characteristics

I'd like to start by asking some questions about you and your household.

- ASK ALL
- A2** SHOWCARD A1 Which of the items on this card would you say best describes your current situation? SINGLE CODE ONLY.

Self employed  
Employed full time  
Employed part time  
Looking after the home or family  
Permanently retired from work  
Unemployed and seeking work  
At school  
In further/higher education  
Government work or training scheme  
Permanently sick or disabled  
Unable to work due to short-term illness or injury  
Other  
Don't know  
Refused

- A3** Including yourself, how many adults are there in your household, aged 16+?  
WRITE IN NUMBER

---

Refused

- A4** How many children or babies are there in your household, aged under 16?  
WRITE IN NUMBER

---

Refused

ASK IF MORE THAN ONE ADULT IN H/H AT A3 (A3 >1).  
IF RESPONDENT ONLY, CHIEF INCOME EARNER = RESPONDENT

**A5 Who would you say is the chief income earner in this household?**

IF RELATED:

IF TWO EQUAL INCOMES TAKE THE ELDER PERSON

IF LIVING AS MARRIED TREAT AS MARRIED AND THEREFORE  
RELATED

IF UNRELATED:

TAKE THE RESPONDENT AS CHIEF INCOME EARNER

Respondent  
Someone else

Refused

**A1 CODE RESPONDENT'S GENDER. SINGLE CODE ONLY.**

Male

Female

**H5 Please could you tell me your age last birthday? WRITE IN  
NUMBER**

Numeric range (16 – 99)

Don't know

Refused

IF 2 OR MORE PEOPLE IN HOUSEHOLD (INCLUDING RESPONDENT), ASK FOR EACH OTHER HOUSEHOLD MEMBER. IF RESPONDENT ONLY, GO TO A9

**A6** IF 3+ PEOPLE IN HOUSEHOLD INCLUDING RESPONDENT, QUESTION TEXT TO READ: **Please could you tell me about the other people in the household, starting with the oldest.**

**What relationship is this person to (Highest income earner)? So they are [your/his/her...]**

IF 2 PEOPLE IN HOUSEHOLD INCLUDING RESPONDENT QUESTION TEXT TO READ:

**Could you tell me how {PERSON} is related to {PERSON}?**

- Person is the HIH
- Husband/wife/partner
- Son or daughter
- Stepson or daughter
- Foster child
- Son-in-law/daughter-in-law
- Parent
- Stepparent
- Parent-in-law
- Brother/sister
- Stepbrother/sister
- Brother/sister-in-law
- Grandchild
- Grandparent
- Boarder/lodger
- Other relative
- Other unrelated

Refused

**A7** ASK OR CODE IF OBVIOUS: **And are they male or female?**  
SINGLE CODE ONLY

- Male
- Female
- Refused

**A8** **And how old is he/she?**

ENTER AGE IN YEARS TO THE CLOSEST YEAR. IF LESS THAN 6 MONTHS OLD, ENTER 0.

NUMERIC RANGE 0...99

Don't know  
Refused

**A9** ASK ALL  
SHOWCARD A2  
**In which of these ways does your household occupy this accommodation?**  
SINGLE CODE ONLY

Buying with mortgage/loan  
Own it outright  
Part rent/part mortgage  
Rents (including rents paid by housing benefit) from:  
- Local authority/Council  
- Scottish Homes  
- Housing Association/Housing co-operative or charitable trust  
- Employer of a household member (organisation)  
- Another organisation  
- Relative/friend of household member  
- Employer of a household member (individual)  
- Individual private landlord  
- Other (PLEASE WRITE IN)  
Living here rent free  
Other (PLEASE WRITE IN)  
Don't know  
Refused

INTERVIEWER CODE  
**A10** **Is the household's accommodation?:**  
SINGLE CODE ONLY

1. a house or bungalow
2. a flat, maisonette or apartment
3. a room/rooms
4. other

IF HOUSE OR BUNGALOW (CODE 1 AT A10)  
**A11** **Type of house/bungalow**  
SINGLE CODE ONLY

1. detached
2. semi-detached
3. or terraced/end of terrace?

IF A FLAT, MAISONETTE OR APARTMENT (CODE 2 AT A10)

**A12 Type of flat/maisonette**  
SINGLE CODE ONLY

1. Tenement
2. 4-in-a block
3. In a purpose built block of flats
4. Part of a converted or shared house
5. In a commercial building

INTERVIEWER CODE

IF A FLAT, MAISONETTE OR APARTMENT (CODE 2 AT A10)

**A13 Entry level of dwelling**  
SINGLE CODE ONLY

1. Basement
2. Ground floor
3. First floor
4. Second floor
5. Third floor
6. Fourth floor or higher

IF OTHER (CODE 4 AT A10)

**A14 Type of accommodation**  
SINGLE CODE ONLY

1. a caravan, mobile home or houseboat
2. some other kind of accommodation? (Specify)

ASK ALL

**A15 Do you know roughly when your home was built?**  
PROMPT IF NECESSARY. SINGLE CODE ONLY.

- Pre 1919
- 1919 – 1944
- 1945 -1964
- 1965 – 1982
- post 1982
- Don't know
- Refused

ASK ALL

**A16 Do you have a garden?**

PROMPT IF NECESSARY. SINGLE CODE ONLY

Yes – own garden

Yes – garden shared with others

Yes – both a garden shared with others and own garden

No

Don't know

Refused

ASK ALL

**A17 Are there any cars normally available for private use by you or members of your household?**

EXCLUDE CARS THAT ARE NORMALLY KEPT OR OWNED BY SOMEONE OUTSIDE THE HOUSEHOLD (E.G. SON OR DAUGHTER LIVING NEARBY) INCLUDE ANY COMPANY CAR AVAILABLE FOR PRIVATE USE.

Yes

No

Refused

IF YES: **How many cars are normally available for private use by members of your household?** WRITE IN NUMBER

None

Refused

## Section B: relative importance of issues; greenspace

ROTATE ORDER OF QUESTIONS B1a/B1b AND B2a /B2b – HALF THE SAMPLE ARE ASKED B1 FIRST AND THE OTHER HALF ARE ASKED B2 FIRST.

ASK ALL

**B1a** Moving on, what do you see as the most important issue facing Scotland today? DO NOT PROMPT, BUT PROBE FULLY. SINGLE CODE ONLY

**B1b** EXCLUDE ANY MENTIONED AT B1a And what do you see as other important issues facing Scotland today? DO NOT PROMPT, BUT PROBE FULLY. MULTICODE OK

Ageing population

AIDS

Animal welfare

Bird flu/Flu pandemic

Common Market/EU/Europe/EURO

Countryside/rural life

Crime/law & order/violence/ vandalism/anti-social (yob) behaviour

Drug abuse

Economy/economic situation/'credit crisis'/crunch

Education/schools

Environment/climate change/global warming/pollution

Family breakdown/lack of discipline taught to young people

GM/GM (Genetically Modified) foods

Housing

Immigration/immigrants (race relations)

Inflation/rising cost of living

Lack of facilities/opportunities for young people/young people have nothing to do

Local government/council tax

Low pay/minimum wage/fair wages

Morality/individual behaviour

National Health Service/Hospitals/ Health care

Nuclear weapons/nuclear war/disarmament

Obesity/ill health

Pensions/social security/benefits

Petrol prices/fuel prices

Pound/exchange rate/value of pound

Poverty/inequality

Privatisation

Public services in general

Rising energy prices

Scottish Independence/constitution

Taxation  
Terrorism/war in Iraq/Afghanistan/foreign affairs  
Trade unions/strikes  
Transport/public transport  
Unemployment/factory closure/lack of industry  
Other (PLEASE WRITE IN)  
None  
Don't know  
Refused

ASK ALL

**B2a And what do you see as the most important issue facing the world today?**

DO NOT PROMPT, BUT PROBE FULLY. SINGLE CODE ONLY

**B2b EXCLUDE ANY MENTIONED AT B2a And what do you see as other important issues facing the world today?**

DO NOT PROMPT, BUT PROBE FULLY. MULTICODE OK

AIDS  
Bird flu/flu pandemic  
Consumption/wasting/using up natural resources  
Democracy  
Distribution of wealth/aid to poorer countries  
Economy/economic situation/'credit crisis/crunch'  
Energy  
Environment/climate change/global warming/pollution  
Food prices  
Globalisation  
Health  
Homelessness  
Immigration/immigrants (race relations)  
Inflation/prices  
Morality/individual behaviour  
Nuclear weapons/nuclear war/disarmament  
Overpopulation  
Petrol prices/fuel  
Poverty/inequality  
Religious conflict  
Terrorism/war in Iraq/Afghanistan/foreign affairs  
Third world debt  
World hunger/famine/access to clean water  
Other (PLEASE WRITE IN)  
None  
Don't know  
Refused

ASK ALL

**B3a** There is a lot of talk these days about environmental problems. When people talk about environmental problems, what do you see as the most significant problem? DO NOT PROMPT, BUT PROBE FULLY. SINGLE CODE ONLY

**B3b** EXCLUDE ANY MENTIONED AT B3a And what do you see as other environmental problems? DO NOT PROMPT, BUT PROBE FULLY. MULTICODE OK

Acid rain  
Broken glass  
Building on greenspace/greenbelts  
Carbon footprint/carbon offsetting  
Changes in weather/freak weather e.g. flooding, cyclone, Tsunami  
Climate change/ global warming/ greenhouse effect /melting ice  
Co<sub>2</sub> emissions  
Consumption/wasting/using up natural resources  
Damage to ozone layer  
Difficulty in travelling by means other than car  
Discarded needles or syringes  
Dog fouling  
Heavy traffic  
Household waste/disposal ("Throwaway generation")  
Illegally dumped cars, fridges, sofas/fly tipping  
Lack of joined-up approach to tackling environment problems  
Landfill sites  
Mobile phone masts  
Noise or smell from factories  
Nuclear power/radioactive waste  
Oil spills  
Other countries e.g. China/India/USA  
Over-fishing  
Pollution from air travel  
Pollution from factories/industry  
Pollution from road traffic/congestion  
Pollution of rivers and seas  
Pollution of seashore and beaches  
Protection/destruction/extinction of wildlife - plants, animals, rainforests  
Pylons  
Recycling  
Rising sea levels  
Sewage  
Spraying of crops and fields/ Use of insecticides/fertilisers  
Uneven or dangerous pavements  
Untidy or overgrown gardens or waste land

Vacant and derelict buildings  
Vandalism and graffiti  
Other (PLEASE WRITE IN)  
None  
Don't know  
Refused

(Greenspace questions)

ASK ALL  
SHOWCARD B1

- B4** **How often, if at all, do you visit public gardens, parks, countryside or other greenspaces on foot or by bike, even just to pass through them?** IF RESPONDENT ASKS FOR CLARIFICATION SAY: "BY GREENSPACE WE MEAN ANY AREA OF GRASS THAT IS PLEASANT, EXCLUDING DOMESTIC GARDENS. PLEASE INCLUDE ALL FORMAL AND INFORMAL USES OF GREENSPACE".  
SINGLE CODE ONLY.

Every day  
Several times a week  
Once a week  
Several times a month  
Once a month  
Less often  
Not at all  
Don't know  
Refused

ASK ALL  
SHOWCARD B2

- B5** **And how important, if at all, is it to you to have public gardens, parks, countryside or other greenspaces nearby?**  
SINGLE CODE ONLY.

Very important  
Fairly important  
Not very important  
Not at all important  
Don't know  
Refused

## Section C: Behaviours

In a moment I'd like to ask you some questions about your attitudes to a range of issues but before I do, I'd like to know about some of the things you do. I'd like to stress that there are no right or wrong answers, so please be honest in your answers. This is the only way the Scottish Government will be able to get a true picture of what people do and think.

### Travel and transport

First I'd like to ask some questions about transport and travel.

#### **C1 About how far, in miles, do you live from ...**

PROMPT IF NECESSARY: **Please give your best estimate.**

INTERVIEWER: RECORD JOURNEYS OF HALF A MILE OR LESS AS 'Half a mile or less'

IF RESPONDENT DOES NOT TRAVEL TO WORK/STUDY/ (E.G. WORKS/STUDIES AT HOME) THEN CODE AS "Not applicable"

1. IF WORKING (CODE 1, 2 OR 3 AT A2) **your usual place of work?**
2. IF STUDYING (CODE 7, 8 OR 9 AT A2) **the place where you study?**
3. **the place where you do your main food and grocery shopping?**
4. **the closest place where you could do your main food and grocery shopping?**

Numeric (miles)

Half a mile or less

INCLUDE FOR ITEM 3 ONLY: Shopping is delivered

Not applicable

Don't know

Refused

ASK IF VALUE GIVEN, HALF A MILE OR LESS OR DON'T KNOW AT C1  
**C2 And how do you usually get to...?**

1. IF WORKING (CODE 1, 2 OR 3 AT A2) **your usual place of work?**
2. IF STUDYING (CODE 7, 8 OR 9 AT A2) **the place where you study?**
3. ASK IF NOT SHOPPING IS DELIVERED (C1/3 CODE 3) **the place where you do your main food and grocery shopping?**

IF MORE THAN ONE MODE OF TRANSPORT, PROMPT FOR MODE USED FOR THE PART OF JOURNEY THAT IS FURTHEST IN DISTANCE.

IF CANNOT SPECIFY ONE MODE ONLY, RECORD AS 'OTHER' AND RECORD MODES.

SINGLE CODE ONLY.

Drive  
Get a lift with someone from household  
Get a lift with someone outside household  
Motorcycle/moped/scooter  
Taxi/minicab  
Bus  
Train  
Underground  
Cycle  
Walk  
Other (PLEASE WRITE IN)  
Don't know  
Refused

IF HAVE CHILDREN (CODE >0 AT A4) AND THEY ARE AGED 4 OR ABOVE (CODE 4 OR MORE AT A8)  
**C3 Does your child/do any of your children usually go to school or college in a car?**

SINGLE CODE ONLY

Yes  
No  
Children do not go to school  
Don't know  
Refused

ASK ALL

Now, I'd now like to ask a few questions about public transport.....

SHOWCARD C1								
<b>C4 How often, if at all, do you use the following types of transport for any ki of journey in Scotland? READ OUT. SINGLE CODE EACH ROW.</b>								
	Most days	Once or twice a week	About once a fortnight	About once a month	Several times a year	About once a year or less	Never	Don't know
<b>Car or van as a driver</b>	1	2	3	4	5	6	7	8
<b>Car or van as a passenger</b>	1	2	3	4	5	6	7	8
<b>Motorbike, scooter or moped</b>	1	2	3	4	5	6	7	8
<b>Bus</b>	1	2	3	4	5	6	7	8
<b>Train</b>	1	2	3	4	5	6	7	8
<b>Underground</b>	1	2	3	4	5	6	7	8
<b>Taxi</b>	1	2	3	4	5	6	7	8
<b>Bicycle</b>	1	2	3	4	5	6	7	8
<b>Walking (for at least 10 minutes)</b>	1	2	3	4	5	6	7	8

ASK IF NOT NEVER (CODE 7) AT C4 FOR BUS OR/AND IF NOT NEVER (CODE 7) AT C4 FOR TRAINS

**C5** SHOWCARD C2 **Now I'd like you to tell me which, if any, of these ways have you used to get travel information or advice for [local buses/trains/if both, local buses then repeat for trains] in the past twelve months. Just read out the letter or letters that apply. MULTICODE OK**

- A Looking at a paper timetable, including timetables at bus stops/train stations
- B Looking for information on services and times on the internet/a website
- C Getting travel information via a text or WAP on your mobile phone
- D Calling travel information provider e.g. Traveline, bus station etc
- E Asking at Travel Information Centre at bus/train stations
- F Asking at Travel Information Centre in a public place NOT at bus/train stations
- G Electronic kiosks/terminals for public use at bus/train stations
- H Electronic kiosks/terminals for public use in a public place NOT at bus/train stations
- I Electronic kiosks/terminals available at your place of work
- J Digital TV interactive services
- K Asking a friend/relative
- L Something else
- None of these
- Don't know
- Refused

ASK ALL

SHOWCARD C2 AGAIN

**C6 If you were to make a bus or train journey that you had never made before, would you find out about the times of the service by any of these methods? Just read out the letter or letters that apply. MULTICODE OK**

- A Looking at a paper timetable, including timetables at bus stops/train stations
- B Looking for information on services and times on the internet/a website
- C Getting travel information via a text or WAP on your mobile phone
- D Calling travel information provider e.g. Traveline, bus station etc
- E Asking at Travel Information Centre at bus/train stations
- F Asking at Travel Information Centre in a public place NOT at bus/train stations
- G Electronic kiosks/terminals for public use at bus/train stations
- H Electronic kiosks/terminals for public use in a public place NOT at bus/train stations
- I Electronic kiosks/terminals available at your place of work
- J Digital TV interactive services
- K Asking a friend/relative
- L Something else
- None of these
- Don't know
- Refused

ASK ALL

**C7 Next a few questions about air travel. At the moment, I'm just interested in air travel for leisure, holidays and visiting friends or family, not air travel for work or business purposes.**

**Have you taken any flights in the last 12 months, that is since [text sub: [Month of interview] 2007], for leisure, holidays or visiting friends or family?**

SINGLE CODE ONLY

Yes

No

Don't know

Refused

IF YES (CODE 1) at C7

**C8 How many journeys for leisure, holidays and visiting friends or family have you made {INSERT OPTION} by air in the last 12 months, that is since [text sub: [Month of interview] 2007]? Please count the outward and return flight and any transfers as one journey.**

1. within Scotland
2. to elsewhere within the UK
3. to other European countries

**4. to countries outside Europe**

Numeric range (0 to 99)  
Don't know  
Refused

ASK ALL  
**C9 This time I'm interested in air travel for work or business purposes only.**

**Have you taken any flights in the last 12 months, that is since [text sub: [Month of interview] 2007], for work or business purposes? SINGLE CODE ONLY.**

Yes  
No  
Don't know  
Refused

IF YES (CODE 1) at C9  
**C10 How many journeys for work or business purposes have you made {INSERT OPTION} by air in the last 12 months, that is since [text sub: [Month of interview] 2007]? Please count the outward and return flight and any transfers as one journey.**

- 1. within Scotland**
- 2. to elsewhere within the UK**
- 3. to other European countries**
- 4. to countries outside Europe**

Numeric range (0 to 99)  
Don't know  
Refused

## Energy efficiency in the home

Now on a different subject, I'd now like to ask some questions about the energy your household uses

**C11** ASK ALL  
SHOWCARD C3 **Which of these types of fuel does your household use for lighting, heating and power? STRESS NOT JUST FOR HEATING**  
MULTICODE OK

Electricity  
Gas  
Heating oil  
Solid Fuel (coal/wood/peat)  
Bottled Gas  
Bulk liquid propane gas  
Paraffin  
Other fuel (PLEASE WRITE IN)  
Don't know  
Refused

**C12** ASK FOR EACH FUEL CODED AT C11. EMPHASISE THAT WE ARE NOT ASKING THEM TO SPECIFY AN AMOUNT, JUST TO SAY WHETHER OR NOT THEY WOULD BE ABLE TO GIVE AN AMOUNT'

**And thinking about the cost of your households fuel bills...To the nearest £20 do you think you could accurately estimate the amount that you spend each month on [Fuel type]**

Yes  
No  
Refused

**C13** ASK IF USE ELECTRICITY (CODE 1) AT C11  
**Ignoring any increases in the cost of electricity in the last year, compared with a year ago, do you think you are using more, less, or about the same amount of electricity?**

More  
Less  
About the same  
Don't know  
Refused

**C14** ASK IF USE GAS (CODE 2) AT C11  
**[And] Ignoring any increases in the cost of gas in the last year, compared with a year ago, do you think you are using more, less, or about the same amount of gas?**  
SINGLE CODE ONLY

More  
Less  
About the same  
Don't know  
Refused

**C15** ASK ALL WHO HAVE GAS/ELECTRICITY/BOTH (CODES 1/2 AT C11)  
**In the last year [have you/has your household] considered changing your supplier of [gas/electricity/gas then repeat for electricity]?**

Yes, No, NA, Don't know, Refused – Gas  
Yes, No, NA, Don't know, Refused - Electricity

**C16** ASK ALL WHO HAVE GAS/ELECTRICITY AND CONSIDERED CHANGING SUPPLIER (CODE 1 AT C15)  
**And in the last year, has [have you/has your household] changed your supplier of [gas/electricity]?** SINGLE CODE ONLY

Yes  
No  
Don't know  
Refused

**C17** ASK ALL  
**Does your dwelling use energy supplied by the national grid, a source individual to the dwelling, or a source for your local community?**  
MULTICODE OK

Energy supplied by the national grid  
Energy supplied from a source individual to the dwelling  
Energy supplied from a source for your local community  
Refused  
IF DON'T KNOW, CODE AS THE NATIONAL GRID (CODE 1).

**C18** ASK IF ENERGY SUPPLIED FROM A SOURCE INDIVIDUAL TO THE DWELLING OR FROM A SOURCE FOR THE LOCAL COMMUNITY (CODES 2 or 3 AT C17)

SHOWCARD C4 **From which, if any, of these sources does your dwelling obtain energy?** MULTICODE OK

Photo voltaics  
Solar panels  
Air and Ground source heat pumps  
Wind Turbines  
Utilisation of landfill gases  
Geo-thermal energy  
Biomass  
Hydro  
Combined heating and Power  
Diesel/oil  
Wood/peat  
Other (please PLEASE WRITE IN)  
Don't know  
None  
Refused

**C19** ASK ALL  
EXCLUDE ANY MENTIONED AT C18

SHOWCARD C5 **Do you think your home is suitable for any of these ways of generating energy?**

Photo voltaics  
Solar panels  
Air and Ground source heat pumps  
Micro wind turbines

Yes  
Maybe  
No  
Don't know/never heard of  
Refused

**C20** ASK FOR EACH WAY OF GENERATING ENERGY CODED YES (1) AT C19.

SHOWCARD C5 AGAIN **Thinking about the form/s of generating energy you think your home is suitable for, has your household ever looked into installing this/these?**

Photo voltaics  
Solar panels  
Air and Ground source heat pumps  
Micro wind turbines

Yes  
No  
Thought about it, but not done anything  
Don't know  
Refused

**C21** ASK ALL

**Which, if any, of the following has your household bought in the last TWO years?**

READ OUT.

**Fridge or freezer or fridge-freezer**

**Washing machine**

**Television**

**Dish washer**

Yes  
No  
Don't Know  
Refused

**C22** ASK FOR EACH MENTIONED AT C21

**Do you know what the energy efficiency rating of your new [item] is?**

DO NOT PROMPT. SINGLE CODE ONLY

A+

A

B

C

D

E

F

G

Can't remember but know it was high

Don't Know

Refused

**C23** ASK ALL. RANDOMISE ORDER.  
SHOWCARD C6. I'm going to read out a number of things people have told us they do. Please could you tell me how often you personally do each?  
READ OUT. SINGLE CODE EACH.

1. Turn off the heating when you go out for a few hours in the winter
2. Turn off the tap when brushing your teeth
3. Use energy saving light bulbs where possible
4. Hang your washing up to dry rather than using a tumble dryer in the summer
5. Leave lights on in rooms that aren't being used
6. Fill the kettle with more water than you are going to use

Always  
Most of the time  
Sometimes  
Rarely  
Never  
Not applicable/cannot do this  
Don't know  
Refused

**C24** SHOWCARD C7. This time, rather than thinking about you personally, I'd like you to think about everyone in Scotland. I'm going to read out each of the actions again and I'd like you to tell me how important you think it is that people do them?  
READ OUT. SINGLE CODE EACH.

1. Turn off the heating when they go out for a few hours in the winter
2. Turn off the tap when brushing their teeth
3. Use energy saving light bulbs where possible
4. Hang their washing up to dry rather than using a tumble dryer in the summer
5. Turn off lights in rooms that aren't being used
6. Avoid filling the kettle with more water than they are going to use

Very important  
Fairly important  
Not very important  
Not at all important  
Don't know  
Refused

**Reduce and reuse**

**C25** ASK ALL  
SHOWCARD C8. **Now on a different subject, how often, if at all, does your household make use of ...?**  
READ OUT. SINGLE CODE EACH.  
**A home composting heap/bin or worm farm/wormery**  
**Kerbside garden waste recycling collection**  
**Kerbside bottle recycling collection**  
**Other bottle recycling facilities**  
**Kerbside can recycling collection**  
**Other can recycling facilities**  
**Kerbside paper recycling collection**  
**Other paper recycling facilities**

Every time  
Most times  
Sometimes  
Rarely  
Never  
Service not provided in my area  
Don't know  
Not applicable  
Refused

**C26** ASK ALL . RANDOMISE ORDER.  
SHOWCARD C8 AGAIN. **And how often, if at all, does your household....?**  
READ OUT. SINGLE CODE ONLY.  
**Use rechargeable batteries**  
**Reuse wrapping paper/gift bags**  
**Reuse plastic drink bottles**  
**Reuse plastic food containers**  
**Donate items to charity shops**  
ASK IF HAVE CHILDREN (A4 >0)**Use washable/reusable nappies**  
**Use its own shopping bags/boxes**

Every time  
Most times  
Sometimes  
Rarely  
Never

Don't know  
Not applicable  
Refused

**Eco friendly purchasing**

Now I'd like to ask you a few questions about your household's shopping behaviour.

ASK IF MORE THAN ONE ADULT IN THE HOUSEHOLD AT A3 (A3 >1)  
SHOWCARD C9

**C27 How much involvement do you have in decisions on what groceries your household buys? SINGLE CODE ONLY**

I make all the decisions  
I make most of the decisions  
I have a bit of involvement  
I am not involved in decisions  
Don't know  
Refused

SHOWCARD C10.

**C28 At which of these types of shop does your household do grocery shopping at least once a month? MULTICODE OK**

Supermarket  
Online  
Small independent shops (Greengrocer/Butcher/Fishmonger/Bakery)  
Farmers market/Farm shop  
Market  
Convenience store/corner shop  
Have vegetable box delivered  
Health food shop  
Other type of shop (PLEASE WRITE IN)  
Don't know  
Refused

INCLUDE ALL MENTIONED AT C28. ASK IF MORE THAN ONE TYPE AT C28. OTHERS GO TO C30  
SHOWCARD C10 AGAIN.

**C29 Where does your household do most of its grocery shopping? SINGLE CODE ONLY**

Supermarket  
Online  
Small independent shops (Greengrocer/Butcher/Fishmonger/Bakery)

- Farmers market/Farm shop
- Market
- Convenience store/corner shop
- Have vegetable box delivered
- Health food shop
- Other type of shop (PLEASE WRITE IN)
- Don't know
- Refused

**C30** SHOWCARD C11. **Which, if any, of these products have you heard of? Please just read out the letter or letters that apply.**

MULTICODE OK

- A. Fair trade products
- B. Fish certified by Marine Stewardship Council/Fish from sustainable sources
- C. Timber products certified by Forestry Stewardship Council/ Timber from sustainable sources
- D. Scotch Lamb
- E. Scotch Beef
- F. Specially Selected Pork
- G. Freedom food
- H. LEAF marque food
- None of these
- Don't know
- Refused

ASK FOR EACH PRODUCT HEARD OF AT C30. IF NONE HEARD OF OR DON'T KNOW (CODES 7 OR 8), GO TO C32  
SHOWCARD C11 AGAIN

**C31** **And which, if any, of the products that you have heard of [do you/does your household] make a conscious effort to buy? Please just read out the letter or letters that apply.**

MULTICODE OK

- A. Fair trade products
- B. Fish certified by Marine Stewardship Council/Fish from sustainable sources
- C. Timber products certified by Forestry Stewardship Council/ Timber from sustainable sources
- D. Scotch Lamb
- E. Scotch Beef
- F. Specially Selected Pork
- G. Freedom food
- H. LEAF marque food
- None of these
- Don't know
- Refused

ASK ALL

SHOWCARD C12

**C32 How often, if at all, [do you/does your household] use?**  
READ OUT. SINGLE CODE EACH.

**Free range eggs**

**Recycled toilet paper**

**Organic carrots**

**Organic cows' milk**

**Free range poultry**

**Eco-friendly cleaning products**

**Eco-friendly clothing (e.g. organic cotton)**

Every time

Most times

Sometimes

Rarely

Never

Whenever they are available

Don't know

Not applicable

Refused

**C33 Would you describe yourself as a vegetarian or a vegan?**

DO NOT PROMPT.

SINGLE CODE ONLY

Yes – Vegetarian

Yes – Vegetarian who eats fish

Yes – Vegetarian who eats chicken

Yes – Vegetarian who eats both fish and chicken

Yes - Vegan

No

Don't know

Refused

## **Climate change**

**C34** ASK ALL

SHOWCARD C13

**On another topic, there is a lot of talk these days about climate change. How much, if anything, would you say you know about it?**

SINGLE CODE ONLY

A great deal

A fair amount

Not very much

Have heard of it but know nothing about it

Have never heard of it

Don't know

Refused

**C35** ASK ALL WHO KNOW A GREAT DEAL/ A FAIR AMOUNT ABOUT/ NOT VERY MUCH ABOUT CLIMATE CHANGE (CODES 1, 2 OR 3 AT C34)  
DO NOT PROMPT. MULTICODE OK

**From what you know or have heard about climate change, what would you say are the main causes of it?**

Aerosols/CFCs

Building on greenspace/greenbelt

Burning fossil fuel for energy

Carbon dioxide emissions

Destruction of forests/cutting down trees

Emissions from cars/road transport

Emissions from planes

Emissions from power stations/factories/industry

Hole in the ozone layer

Mobile phones

Pollution from other countries (e.g. China, India, U.S.A)

Rockets

Smoking

Use of gas and electricity by industry

Use of gas and electricity in the home

Nothing, it is a natural process

Impossible to say as even scientists can't agree

I don't believe in climate change

Other WRITE IN

Don't know

Refused

**C36** ASK ALL WHO KNOW A GREAT DEAL/ A FAIR AMOUNT ABOUT/ NOT VERY MUCH ABOUT CLIMATE CHANGE (CODES 1, 2 OR 3 AT C34)  
DO NOT PROMPT

**And from what you know or have heard what would you say are the main effects of climate change? MULTICODE OK.**

A hole in the ozone layer  
Air pollution  
Changes in weather /seasons  
Global warming  
Increased skin cancer  
Melting ice caps/glaciers/rises in sea levels  
More flooding/drought  
More wind  
Reduction in plant and animal species  
Water pollution  
Water shortages  
Other WRITE IN  
Don't know  
Refused

**C37** ASK ALL  
SHOWCARD C14

**On this card are some statements people have made about climate change. Which of these statements, if any, comes closest to your own view? SINGLE CODE ONLY.**

Climate change is an immediate and urgent problem  
Climate change is more of a problem for the future  
Climate change is not really a problem  
I'm still not convinced that climate change is happening  
None of these  
Don't know  
Refused

ASK ALL

SHOWCARD C15.

**C38 From which sources, if any, would you say you have received information about climate change? MULTICODE OK**

SHOWCARD C15 AGAIN.

**C39 INCLUDE ALL MENTIONED AT C38 And which one source would you say has been the most significant for you? SINGLE CODE ONLY**

Broadsheet newspapers

Tabloid newspapers

Books

Specialist/scientific magazines

TV/radio news

TV/radio documentaries

Other TV/radio programmes

Internet sites:

BBC/other news website

Environmental organisation's website

Scottish Government website

Other internet site (WRITE IN)

Leaflets/other publications produced by government

My child/ren

Personal experience/things I have seen around me

Word of mouth (friends, family etc.)

Other WRITE IN

None of the above

Don't know

Refused

ASK ALL

SHOWCARD C16

**C40a Which of the following would you trust most to give you correct information about climate change? MULTICODE OK**

SHOWCARD C16 AGAIN

**C40b EXCLUDE ANY MENTIONED AT C40a**

**And which would you trust the least? MULTICODE OK**

The Scottish Government  
The UK Government  
Business and industry  
Environmental groups/charities  
Television news programmes  
Broadsheet newspapers  
Tabloid newspapers  
Government scientists  
Independent scientists  
Other WRITE IN  
None of the above  
Don't know  
Refused

ASK ALL WHO KNOW SOMETHING ABOUT CLIMATE CHANGE (1-3 AT C34)

SHOWCARD C17

**C41 Which *two* or *three* of the actions on this list do you think would do the most to help reduce climate change? CODE UP TO THREE ONLY.**

Recycling  
Buying fewer products generally  
Avoiding creating waste in the first place  
Making fewer car journeys  
Using less electricity  
Taking fewer foreign holidays  
Walking or cycling  
Using public transport  
Buying locally grown food rather than food produced abroad  
People having fewer children  
Using a more fuel efficient car  
Reusing bottles/containers  
Using water sparingly  
Buying organic produce

None of these  
Don't know  
Refused

ASK ALL. RANDOMISE ORDER.

**C42** There are many things that Scotland might do to try to help the environment. Which, if any, of the following would you support?  
READ OUT. SINGLE CODE EACH.

**Charging car owners to drive in city centres (congestion charging)**

**Introducing water meter so that people only pay for the amount of water they use, rather than being charged a flat rate**

**Require shops to charge up to 10p for a carrier bag**

**Yes**  
**No**  
**Don't know**  
**Refused**

## Section D: Behavioural barriers

Before I ask you about your attitudes to a range of issues, I'd like to ask you why you do what you said you do.

**D1** ASK ALL WHO DRIVE TO THEIR USUAL PLACE OF WORK/STUDY(C2/1 OR 2 CODE 1)

**You said earlier you drive to your [work/place of study]. Why do you choose to drive instead of using alternative options?**

**DO NOT PROMPT, BUT PROBE FULLY: Any other reasons?**

MULTICODE OK.

It is quicker/more convenient

Gives greater flexibility

More comfortable

Share the journey with someone else

Public transport takes too long

Public transport is too unreliable

No direct public transport here

I work unsociable hours

Dropping children off at school

Need car for work

Don't like to sit with/talk to anyone else

Public transport is too expensive

Poor health

Just don't like public transport

Listen to the radio

Other (PLEASE WRITE IN)

Don't know

Refused

**D2** ASK ALL WHO DRIVE TO DO THEIR MAIN FOOD AND GROCERY SHOPPING (C2/3 CODE 1)

**You said earlier you drive to do your main food and grocery shopping.**

**Why do you choose to drive instead of using alternative options?**

DO NOT PROMPT, BUT PROBE FULLY: **Any other reasons?**

MULTICODE OK.

It is quicker/more convenient

Gives greater flexibility

Easier when you have kids

More comfortable

Public transport takes too long

Public transport is too unreliable

No direct public transport here

Poor health

Too far to walk to/from the bus stop/train station

Dropping children off at school

Public transport is too expensive

I work unsociable hours

Just don't like public transport

Shopping is too heavy to carry on public transport/on foot

Other (PLEASE WRITE IN)

Don't know

Refused

ASK IF YES (CODE 1) AT C3

**D3** **What are the main reasons your children are usually driven to school or college?**

DO NOT PROMPT, BUT PROBE FULLY: **Any others?**

MULTICODE OK.

It is combined with another journey

There are no practical alternatives

Lift share with friends/neighbours

It is the quickest way

It is the most convenient way

I don't feel it's safe for them to go on their own/with other people

Another reason (PLEASE WRITE IN)

None of these

Don't know

Refused

IF ANY JOURNEYS WITHIN SCOTLAND OR ELSEWHERE WITHIN THE UK FOR LEISURE, HOLIDAYS AND VISITING FRIENDS OR FAMILY (C8/1 OR 2 >1)

**D4** **Now, moving on to the [flight/flights] you said you made within Scotland or elsewhere within the UK for leisure, holidays and visiting friends and family. Thinking of the most recent journey you made in the last 12 months, why did you decide to fly rather than use another form of transport?**

DO NOT PROMPT, BUT PROBE FULLY: **What other reasons did you have for flying? Any others?** MULTICODE OK.

Quicker  
Cheaper  
Easiest/most convenient  
Like flying  
No alternative  
More comfortable than alternatives  
Alternatives are poor services/unreliable  
No specific reason – didn't consider alternatives  
Other (PLEASE WRITE IN)  
Don't know  
Refused

IF ANY JOURNEYS WITHIN SCOTLAND OR ELSEWHERE WITHIN THE UK FOR WORK OR BUSINESS PURPOSES (C10/1 OR 2 >1)

**D5** **[Now, moving on to the/And also the] [flight/flights] you said you made within Scotland or elsewhere within the UK for work or business purposes. Thinking of the most recent journey you made in the last 12 months, why did you decide to fly rather than use another form of transport?**

DO NOT PROMPT, BUT PROBE FULLY: **What other reasons did you have for flying? Any others?** MULTICODE OK.

Quicker  
Cheaper  
Easiest/most convenient  
Like flying  
No alternative  
More comfortable than alternatives  
Alternatives are poor services/unreliable  
My work is /I am a member of a frequent flyer loyalty scheme e.g. British Airways "On Business"/"Executive Club"  
No specific reason – didn't consider alternatives  
Other (PLEASE WRITE IN)

Don't know  
Refused

**D6** ASK IF USING MORE (CODE 1) OR LESS (CODE 2) ELECTICITY THAN A YEAR AGO AT C13

**You said earlier that your household is now using [more/less] electricity than it did a year ago. For what reasons are you using [more/less] electricity?**

DO NOT PROMPT. MULTICODE OK.

(MORE)

Changes to the number/type of occupants

Moved property

Change to property

More household appliances (HD television etc.)

Other (PLEASE WRITE IN)

Don't know

Refused

(LESS)

Increased cost

Environmental concerns

Change to property

Moved property

Improved insulation/double glazing etc.

More aware of behaviour because of ad campaigns/news/media

Other (PLEASE WRITE IN)

Don't know

Refused

**D7** ASK IF USING MORE (CODE 1) OR LESS (CODE 2) GAS THAN A YEAR AGO AT C14

**You said earlier that your household is now using [more/less] gas than it did a year ago. For what reasons are you using [more/less] gas?**

DO NOT PROMPT. MULTICODE OK

(MORE)

Changes to the number/type of occupants

Moved property

Change to the property

More household appliances

Other (PLEASE WRITE IN)

Don't know

Refused

(LESS)  
Increased cost  
Environmental concerns  
Change to property  
Moved property  
Improved insulation/double glazing etc.  
More aware of behaviour because of ad campaigns/news/media  
Other (PLEASE WRITE IN)

**D8** ASK ALL WHO HAVE CONSIDERED CHANGING SUPPLIER (CODE 1 AT C15)

**You said that in the last year your [household/landlord] has considered changing your supplier of [gas/electricity/gas then repeat for electricity]. Why was this? DO NOT PROMPT. MULTICODE OK.**

Cost  
Customer Service  
Environmental considerations  
Moved property  
Other (PLEASE WRITE IN)  
Don't know  
Refused

**D9** ASK ALL WHO SAY RARELY/NEVER TURN OFF HEATING WHEN THEY GO OUT FOR A FEW HOURS IN THE WINTER (C23/1 CODE 4 OR 5)

**You said you [rarely/never] turn off the heating when you go out for a few hours in the winter. Why do you not turn off the heating when you go out for few hours in the winter more often?**

**DO NOT PROMPT, BUT PROBE FULLY: Any other reasons? MULTICODE OK.**

Too cold to turn heating down  
Don't know how to turn it down  
Can't turn it down  
Not bothered about saving energy  
Need the heating on to dry clothes in house  
Only turn heating on when need to  
Heating is set using a timer  
Want to be warm and comfortable when I come home/home comforts  
No reason, just don't think about it  
Other (PLEASE WRITE IN)  
Don't know  
Refused

**D10** ASK ALL WHO SAY RARELY/NEVER HANG WASHING UP TO DRY(C23/4 CODE 4 OR 5)

**You said you [rarely/never] hang washing up to dry rather than use a tumble drier in the summer. Why do you not hang washing up to dry rather than using a tumble dryer more often?**

DO NOT PROMPT, BUT PROBE FULLY: **Any other reasons?**  
MULTICODE OK.

Don't have the time to hang up washing  
Don't have enough space indoors to hang up all washing  
Don't have an outside drying space  
It's easier to put washing in the tumble dryer  
No choice because of the bad weather  
Washing never dries properly so need to use tumble drier  
Fearful that washing will be stolen outside  
Causes dampness/humidity in my house  
Not bothered  
No reason, just don't think about it  
Other (PLEASE WRITE IN)  
Don't know  
Refused

**D11** ASK ALL WHO DO NOT USE OWN SHOPPING BAGS BOXES EVERY TIME (C26/7 NOT EQUAL TO 1, 6, 7 OR 8)

**You said your household do not use its own shopping bags or boxes every time you do the shopping. Why does your household not use its own shopping bags and boxes more often? DO NOT PROMPT, BUT PROBE FULLY: Any other reasons? MULTICODE OK.**

Forget to take them when we go shopping  
Don't like having to carry them around  
Laziness  
I don't need them: they have them at the shop.  
Don't have any to take: put them in the bin when I/we get them  
Don't plan when we will shop/tend to shop spontaneously  
Don't like the way reused bags/boxes look  
Other (PLEASE WRITE IN)  
No reason, just don't think about it  
No reason, just don't want to  
Don't know  
Refused

**D12 ASK ALL**

**What if anything stops you from buying food produced locally rather than food produced in other countries? By locally, I mean in Scotland. DO NOT PROMPT, BUT PROBE FULLY: Any other reasons? MULTICODE OK.**

I don't buy the food for my household

I just don't want to

I don't have time to think about where the food I buy is produced

Locally produced food is not available where I do my shopping

Locally produced food is more expensive

I don't like locally produced food as much as other food

I don't know which food is locally produced and which isn't

I like to eat a variety of foods

I'm not aware of where I can get locally produced food

Locally produced food is not available in my area

I buy whichever food looks the nicest

I/my household only buy specific brands

Nothing, I just don't think about/pay attention to where the food I buy is produced

Nothing, I already buy as much locally produced food as I can

Just don't want to

Other (PLEASE WRITE IN)

Don't know

Refused

## Section E: Attitudes and wellbeing

I'd now like to ask you some questions about your attitudes to a range of issues.

SHOWCARD E1. ASK ALL.

**E2** Which, if any, of these statements would you say applies to you? You can choose as many or as few as you like.  
MULTICODE OK.

- A) I discuss the environment and climate change with people I know
- B) I've noticed that people I know are doing more to help the environment these days
- C) I try to persuade people I know to do more to help the environment
- D) I've suggested improvements at my workplace to help the environment
- None of these

SHOWCARD E2. RANDOMISE ORDER. ASK ALL.

**E3** I'm now going to read out a number of statements. To what extent do you agree or disagree with each? SINGLE CODE FOR EACH.

Strongly agree		Tend to disagree
Tend to agree		Strongly disagree
Neither agree nor disagree		Don't know

- 1) Nuclear power-stations are more environmentally friendly than coal and gas power-stations.
- 2) Windfarms do more damage than good to our natural environment.
- 3) We need nuclear power along with other forms of energy.
- 4) New hydro-electric schemes and windfarms should only be allowed if they don't lead to more pylons being built across Scotland.
- 5) Scotland's energy should only come from renewable sources such as hydro schemes and windfarms, and not from nuclear power-stations or coal and gas.
- 6) I'd be happy to pay more for my electricity if I knew that it was produced in a more environmentally friendly way.

START OF CASI SECTION

**\*Timestamp.**

**CASI Instructions. READ OUT.**

**I now have some questions for you to answer yourself on the computer. These are a bit more private than the questions I have asked you so far, so you may feel more comfortable filling these in yourself.**

**Instructions about which keys to press will be shown on the computer screen.**

**If you press the wrong key I can tell you how to change the answers.**

**When you get to the end, please tell me and we'll continue with me asking you some more questions.**

**I'd like to remind you that all the information you give us in this interview is completely confidential and will not be shared with anyone outside the research team.**

ASK ALL. RANDOMISE ORDER.

**E1** On the following pages are some things people have said. To what extent do you agree or disagree with each statement? PLEASE SELECT ONE BOX FOR EACH STATEMENT.

Strongly agree	Tend to disagree
Tend to agree	Strongly disagree
Neither agree nor disagree	Don't know
	Not applicable

- 1) It would be difficult for me to reduce my car use
- 2) It is important to build more roads to reduce congestion
- 3) People should be allowed to use their cars as much as they like
- 4) I would only travel by bus if I had no other choice
- 5) I switch off my engine when I am stuck in a traffic jam
- 6) It's too impractical to travel by bus with shopping or large bags
- 7) People can't rely on trains to get them somewhere on time
- 8) Travel by public transport is convenient for me
- 9) I don't give much thought to the amount of rubbish and waste that is produced by my household
- 10) Reusing bottles and food containers is unhygienic
- 11) I don't really think about the amount of packaging on products I buy
- 12) I often buy second hand goods in charity shops/on the internet
- 13) My household regularly throws out food because it has gone out of date
- 14) I try not to buy products from a company whose ethics I disagree with

- 15) I would favour a system that penalised people if they didn't recycle everything they could
- 16) I make an effort to buy things from local producers
- 17) I wouldn't sacrifice my home comforts to save energy
- 18) I don't pay much attention to the amount of water I use at home
- 19) The environment is a low priority for me compared with a lot of other things in my life
- 20) The effects of climate change are too far in the future to really worry me
- 21) I do worry about the changes to the countryside and the loss of native animals and plants
- 22) It's not worth me doing things to help the environment if others don't do the same
- 23) It's not worth Scotland trying to combat climate change, because other countries will just cancel out what we do
- 24) The so-called 'environmental crisis' facing humanity has been greatly exaggerated
- 25) I don't believe my behaviour and everyday lifestyle contribute to climate change
- 26) Many people feel it is important today to be seen to be concerned about the environment
- 27) I would try to do more to stop climate change if other people did more too
- 28) Climate change will only have an impact on other countries, there is no need for me to worry
- 29) Tackling climate change shouldn't come at the expense of the Scottish economy

## Wellbeing

ASK ALL

- E4** The next few questions ask about some different aspects of your life. All things considered, how satisfied are you with your life as a whole nowadays? Please enter the appropriate number using the scale, where 0 means extremely dissatisfied and 10 means extremely satisfied.

0 (Extremely dissatisfied) - 10 (Extremely satisfied)

Don't know

Refused

ASK ALL. RANDOMISE ORDER.

- E5** On the following pages are five statements that you may agree or disagree with. Please indicate to what extent you agree or disagree with each. Please be open and honest in your responding. PLEASE SELECT ONE BOX FOR EACH STATEMENT.

Strongly agree

Slightly agree

Disagree

Agree

Neither agree nor disagree

Strongly disagree

Slightly disagree

Don't know

- 1) **In most ways my life is close to my ideal**
  - 2) **The conditions of my life are excellent.**
  - 3) **I am satisfied with my life.**
  - 4) **So far I have managed to get the important things I want in life.**
  - 5) **If I could live my life over, I would change almost nothing.**
-

ASK ALL. RANDOMISE ORDER.

**E6** Which two or three of the following would do most to improve your wellbeing?

PLEASE SELECT UP TO THREE BOXES ONLY

- Living in a nicer neighbourhood
- Having a partner
- Having better neighbours
- Having a pet
- Working fewer hours
- Having less commuting time
- Having a better working environment
- Moving house/area
- Spending more time with family
- Spending more times with friends
- Spending time volunteering
- Having more time to travel
- Getting more sleep
- Doing more exercise/physical activity
- Spending more time outdoors
- Having more religious faith/more time spent in religious activities

- Achieving better balance between work and home life
- Having happy marriage/civil partnership
- Having children/more children
- Earning/having more money
- Improving my health
- Losing weight
- Gaining more qualifications
- Changing jobs/getting a job
- Spending less time doing housework
- Other
- Nothing, I'm as happy as I can be
- Don't know

**Thank you for completing this section. Please return the computer to the interviewer.**

END OF CASI SECTION

## Section H: Household and respondent characteristics

Finally, I'd like to finish by asking some questions about your current circumstances....

ASK ALL  
SHOW CARD H1

**H1 Are you a member of, or do you make regular donations to, any of the organisations on this card?**

MULTICODE OK

British Trust for Conservation Volunteers (BTCV)  
Christian Aid  
Civic Trust  
Friends of the Earth  
Greenpeace  
Historic Scotland  
John Muir Trust  
National Trust/The National Trust for Scotland  
Oxfam  
Ramblers Association  
Royal Society for the Protection of Birds (RSPB)  
Royal Botanic Garden  
Scottish Women's Rural Institute (SWRI)  
Scottish Wildlife Trust  
Stop Climate Chaos  
The Woodland Trust  
WWF  
None of these  
Another organisation concerned with the environment (PLEASE WRITE IN)  
Don't know  
Refused

**H2 Thinking back over the last 12 months, have you given up any time to help any clubs, charities, campaigns or organisations? I mean in an unpaid capacity. SINGLE CODE ONLY**

Yes  
No  
Don't know  
Refused

ASK IF INVOLVED IN VOLUNTARY WORK (YES (CODE 1) AT H2)  
SHOWCARD H2

**H3** **Again thinking of the group or organisation you give most unpaid help to, what kind of work or activities do you generally do? MULTICODE OK. PROBE FULLY. Any others? Any others?**

Raising money  
Committee work  
Office work or administration  
Providing advice or assistance to others  
IT Support  
Education or training or coaching  
Advocacy  
Campaigning  
Providing transport or driving  
Visiting, buddying or befriending people  
Counselling  
Helping to organize or run events or activities  
Providing direct services (e.g. meals on wheels, doing odd jobs) etc.  
Representing others  
Managing, organising or co-ordinating other unpaid helpers  
Generally helping out  
Doing whatever is required  
Other (PLEASE WRITE IN)  
None  
Don't Know  
Refused

ASK ALL  
SHOWCARD H3

**H4 What is your ethnic group? Looking at this card, please choose one section from A to E and choose one category which best describes your ethnic group or background. SINGLE CODE ONLY.**

**A WHITE**

Scottish  
English  
Welsh  
Northern Irish  
British  
Irish  
Gypsy/Traveller  
Polish  
Any other white ethnic group (PLEASE WRITE IN)

**B MIXED**

Any mixed background (PLEASE WRITE IN)

**C ASIAN, ASIAN SCOTTISH OR ASIAN BRITISH**

Pakistani, Pakistani Scottish or Pakistani British  
Indian, Indian Scottish or Indian British  
Bangladeshi, Bangladeshi Scottish or Bangladeshi British  
Chinese, Chinese Scottish or Chinese British  
Other (PLEASE WRITE IN)

**D AFRICAN, CARIBBEAN OR BLACK**

African, African Scottish or African British  
Caribbean, Caribbean Scottish or Caribbean British  
Black, Black Scottish or Black British  
Other (PLEASE WRITE IN)

**E OTHER ETHNIC GROUP**

Arab  
Other (PLEASE WRITE IN)

Refused

ASK ALL  
SHOWCARD H4

**H6**

**Could I just check, do you have any long-standing illness, health problem or disability that limits your daily activities or the kind of work that you can do?**

**By disability as opposed to ill-health, I mean a physical or mental impairment, which has a substantial and long-term adverse effect on your ability to carry out normal day-to-day activities.**

SINGLE CODE ONLY

Yes, disability

Yes, illness or health problem

Yes, both disability and illness or health problem

No, neither

Don't know

Refused

ASK ALL  
SHOWCARD H5

**H7 I am now going to ask you about your household income. I only need to know an approximate amount, to see if this influences people's views and experiences.**

**Please can you tell me your overall HOUSEHOLD income – that is, from all people in the household – from all sources in the last year? This includes earnings from employment or self-employment, income from benefits and pensions, and income from other sources such as interest and savings.**

**Please look at this card and tell me which letter represents your TOTAL HOUSEHOLD INCOME in the last year from all sources BEFORE tax and other deductions. SINGLE CODE ONLY**

<b>Annual</b>	<b>Weekly</b>	<b>Monthly</b>
A. Under £2,500	Under £50	Under £200
B. £2,500 - £4,999	£50 - £99	£200 - £399
C. £5,000 - £9,999	£100 - £199	£400 - £829
D. £10,000 - £14,999	£200 - £289	£830 - £1,249
E. £15,000 - £19,999	£290 - £389	£1,250 - £1,649
F. £20,000 - £24,999	£390 - £489	£1,650 - £2,099
G. £25,000 - £29,999	£490 - £579	£2,100 - £2,499
H. £30,000 - £34,999	£580 - £679	£2,500 - £2,899
I. £35,000 - £39,999	£680 - £769	£2,900 - £3,349
J. £40,000 - £44,999	£770 - £869	£3,350 - £3,749
K. £45,000 - £49,999	£870 - £969	£3,750 - £4,149
L. £50,000 - £59,999	£970 - £1,149	£4,150 - £4,999
M. £60,000 - £74,999	£1,150 - £1,449	£5,000 - £6,249
N. £75,000 - £99,999	£1,450 - £1,919	£6,250 - £8,299
O. £100,000 or more	£1,920 or more	£8,300 or more
Don't know		
Refused		

ASK ALL  
**H8** SHOWCARD H6  
**Which, if any, of these state benefits are you currently receiving in your own right?**  
ADD IF NECESSARY: **That is where you are the named recipient**  
MULTICODE OK.

Unemployment related benefits, or National Insurance Credits  
Income support (not as an unemployed person)  
Sickness or disability benefits (not including tax credits)  
State Pension  
Family related benefits (excluding Child Benefit and tax credits)  
Child benefit  
Cold weather payment  
Housing, or Council tax benefits  
Tax credits  
Other (PLEASE WRITE IN)  
None of these  
Don't know  
Refused

**H9** SHOWCARD H7

**Please could you look at this card and tell me which, if any, of these educational qualifications you have. Just read out the letter or letters that apply.** MULTICODE OK

A - School Leaving Certificate, NQ Unit  
B - O Grade, Standard Grade, GCSE, GCE O level,  
CSE, NQ Access 3 Cluster, Intermediate 1, Intermediate 2,  
Senior Certificate or equivalent  
C - GNVQ/GSVQ Foundation or Intermediate, SVQ  
Level 1, SVQ Level 2, SCOTVEC/National Certificate  
Module, City and Guilds Craft, RSA Diploma or equivalent  
D - Higher Grade, Advanced Higher, CSYS, A Level,  
AS Level, Advanced Senior Certificate or equivalent  
E - GNVQ/GSVQ Advanced, SVQ Level 3, ONC, OND,  
SCOTVEC National Diploma, City and Guilds Advanced  
Craft, RSA Advanced Diploma or equivalent  
F - HNC, HND, SVQ Level 4, RSA Higher Diploma  
or equivalent  
G - First Degree, Higher degree, SVQ Level 5  
or equivalent  
H - Professional qualifications e.g. teaching, accountancy  
\* J - No qualifications  
L - Other school qualifications not already mentioned  
M - Other post-school but pre-Higher Education  
qualifications not already mentioned  
N - Other higher education qualifications  
not already mentioned  
Don't know

Refusal

**H10** ASK ALL

**Do you read any daily newspapers at least 3 times a week?**

ADD IF NECESSARY: **This would include any regional or local daily paper**  
SINGLE CODE ONLY

Yes  
No  
Don't know  
Refused

ASK ALL WHO READ ANY DAILY NEWSPAPERS (CODE 1 AT H10)  
SHOWCARD H8

**H11** **Which one of the following daily newspapers do you read most often?**

SINGLE CODE ONLY.

(Scottish) Daily Express  
(Scottish) Daily Mail  
(Scottish) Daily Mirror  
Daily Star  
The Sun  
Daily Record  
Daily Telegraph  
Financial Times  
The Guardian  
The Independent  
The Times  
The Scotsman  
The (Glasgow) Herald  
The (Aberdeen) Press and Journal  
The Courier/ Dundee Courier  
Metro  
Record PM  
Other Scottish regional or local daily morning paper (WRITE IN)  
OTHER (WRITE IN)  
None of these  
Don't know  
Refused

## H12 Occupation of Chief Income Earner

Position/rank/grade

Industry/type of company

Quals/degree/apprenticeship

Number of staff responsible for

PROBE FULLY AND CODE FROM ABOVE

CLASS

A	1
B	2
C1	3
C2	4
D	5
E	6

---

## APPENDIX B: BARRIERS TO GREEN BEHAVIOUR – RESPONSE LISTINGS

The following tables show the top ten responses to the questions that aimed to gauge why people do not always choose to adapt their behaviour in ways that may be helpful to the environment. When interpreting the tables it is important to note that the percentages may not sum to 100%. The reasons for this are two fold: the questions were multiple response, meaning respondents could choose more than one answer; and the tables include listings of the top ten responses only, meaning that some responses are not shown.

**Table B.1: Top 10 reasons for driving to work**

	%
It is quicker/more convenient	50
Need car for work	20
No direct public transport here	18
Public transport takes too long	13
Too far/impractical to walk or cycle	10
Gives greater flexibility	9
I work unsociable hours	7
More comfortable	4
Public transport is too expensive	3
Dropping children off at school	3
<i>N: All who drive to their usual place of work or study</i>	<i>851</i>

**Table B.2: Top 10 reasons for driving to do main food and grocery shopping**

	%
It is quicker/more convenient	54
Shopping is too heavy to carry on public transport/on foot	44
No direct public transport here	13
Gives greater flexibility	7
Public transport takes too long	6
Easier when you have children	6
Poor health	5
Too far to walk to/from the bus stop/train station	5
Public transport is too unreliable	4
More comfortable	3
<i>N: All who drive to do their main food and grocery shopping</i>	<i>1,721</i>

**Table B.3: Top 10 reasons for driving children to school**

	%
It is combined with another journey	31
There are no practical alternatives	24
It is the quickest/most convenient	30
I don't feel it's safe for them to go on their own/ with other people	11
Lift share with friends/neighbours	4
Distance/too far to walk	3
Health/disability	2
Weather	2
Other	3
Don't know	2
<i>N: All who have children who go to school or college in a car</i>	<i>174</i>

**Table B.4: Top 10 reasons for flying to a destination within Scotland and the UK for leisure, holidays and visiting friends and family**

	%
Quicker/easiest/most convenient	74
Cheaper	27
No alternative	10
More comfortable than alternatives	4
Alternatives are poor services/unreliable	2
No specific reason – didn't consider alternatives	1
Arranged by someone else	1
Like flying	1
Flight was a gift	1
Don't know	2
<i>N: All who made journeys by air within Scotland or elsewhere within the UK for leisure, holidays or visiting friends or family</i>	<i>590</i>

**Table B.5: Top 10 reasons for flying to a destination within Scotland and the UK for work or business purposes**

	%
Quicker/easiest/most convenient	67
No alternative	16
Cheaper	16
My work/I am a member of a frequent flyer loyalty scheme	5
Company policy/work decided	3
No specific reason – didn't consider alternatives	3
More comfortable than alternatives	2
Alternatives are poor services/unreliable	2
Booked for me	1
Like flying	1
<i>N: All who made journeys by air within Scotland or elsewhere within the UK for work or business purposes</i>	236

**Table B.6: Top 10 reasons for using more electricity than 1 year ago**

	%
More household appliances	30
Changes to number/type of occupants	19
Moved property	8
Change to the property	6
Weather	6
At home more now	2
Disability/illness/health reasons	1
Because of inefficient/broken heating system	1
Other	3
Don't know	25
<i>N: All who are using more electricity than a year ago</i>	483

**Table B.7: Top 10 reasons for using less electricity than 1 year ago**

	%
Increased cost/to save money	67
Environmental concerns	16
More aware of behaviour because of ad campaigns/news/media	11
Improved insulation/double glazing etc.	9
Moved property	4
Change to property	4
Fewer people in house now/live on my own	3
Introduction of energy saving devices/lightbulbs etc.	1
Changed behaviour/turn things off/don't use certain appliances	1
Don't know	2
<i>N: All who are using less electricity than a year ago</i>	649

**Table B.8: Top 10 reasons for using more gas than 1 year ago**

	%
Changes to the number/type of occupants	21
More household appliances	12
Change to the property	10
Moved property	10
Weather/weather has been colder	8
At home more now	3
Health/disability	2
Need more heat/have heating on more	2
Other	2
Don't know	32
<i>N: All who are using more gas than a year ago</i>	346

**Table B.9: Top 10 reasons for using less gas than 1 year ago**

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	%
Increased cost/to save money	68
Environmental concerns	13
Improved insulation/double glazing etc.	9
More aware of behaviour because of ad campaigns/news/media	8
Change to property	5
Moved property	4
Changes to the number/type of occupants	3
Have a new/more efficient boiler	2
Warmer/not as cold	1
Don't know	3
<i>N: All who are using less gas than a year ago</i>	<i>513</i>

---

**Table B.10: Reasons<sup>51</sup> for considering changing supplier of gas**

---

	%
Cost	89
Customer service	5
Environmental considerations	3
Moved property	2
To make energy a single supplier	*
Contacted/approached by supplier	*
Scottish Power being taken over	*
Other	1
Don't know	4
<i>N: All who have considered changing their supplier of gas</i>	<i>755</i>

---

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<sup>51</sup> It is not possible to show the top ten reasons for this question as only 9 reasons were given.

**Table B.11: Reasons<sup>52</sup> for considering changing supplier of electricity**

	%
Cost	88
Customer service	5
Environmental considerations	4
Moved property	2
To make energy a single supplier	*
Contacted/approached by supplier	*
Scottish Power being taken over	*
Other	1
Don't know	4
<i>N: All who have considered changing their supplier of electricity</i>	866

**Table B.12: Top 10 reasons for not turning off the heating when they go out for a few hours in the winter**

	%
Heating is set using a timer	41
Too cold to turn heating down	21
Want to be warm and comfortable/home comforts	17
Only turn heating on when need to	5
No reason, I just don't think about it	5
Can't turn it down	5
Costs too much to reheat/cheaper to keep it on	4
Need the heating on to dry clothes in house	2
Not bothered about saving energy	1
Don't know how to turn it down	1
<i>N: All who say they rarely or never turn off the heating when they go out for a few hours in the winter</i>	991

---

<sup>52</sup> It is not possible to show the top ten reasons for this question as only 9 reasons were given.

**Table B.13: Top 10 reasons for not hanging washing up to dry rather than using a tumble drier**

	%
Don't have anywhere to hang up washing	29
Don't have time to hang up washing	14
It's easier to put washing in the tumble drier	12
No reason, just don't think about it	11
No choice because of bad weather	8
Not bothered	5
Washing never dries properly so need to use tumble drier	3
Causes dampness/humidity in the house	3
Disability/health reasons	2
Don't know	9
<i>N: All who say they rarely or never hang their washing up to dry rather than using a tumble drier in the summer</i>	<b>238</b>

**Table B.14: Top 10 reasons for not using own shopping bags and boxes more often**

	%
Forget to take them when we go shopping	54
Laziness	9
No reason, I just don't think about it	9
Don't plan when we will shop/tend to shop spontaneously	7
I don't need them: they have them at the shop	6
Don't like having to carry them around	5
No reason, just don't want to	4
Don't have any to take: put them in the bin when I/we get them	2
Use them for other things/as bin liners/for other waste products	1
Don't know	5
<i>N: All who do not use their own shopping bags or boxes every time they do shopping</i>	<b>1,516</b>

**Table B.15: Things that prevent people from buying food produced locally (in Scotland) rather than food produced in other countries – top 10 mentions**

	%
Nothing, I already buy as much locally produced food as I can	34
Locally produced food is more expensive	21
Locally produced food is not available where I do my shopping/in my area	13
I like to eat a variety of foods	7
Nothing, I just don't think about/pay attention to where the food I buy is produced	7
I don't know which food is locally produced and which isn't	4
I but whichever looks the nicest	4
I don't have time to think about where the food I buy is produced	4
I don't buy the food for my household	3
I'm not aware of where I can get locally produced food	3
<i>N: All</i>	<i>3,054</i>

## APPENDIX C: RESULTS TO CASI ATTITUDINAL STATEMENTS

The following table shows the full list of responses to the battery of 29 attitudinal statements included in the CASI section of the questionnaire. Percentages that do not sum to 100% are due to computer rounding.

**Table C.1: Responses to the 29 attitudinal statements asked in the self-completion section**

	Agree strongly	Tend to agree	Neither agree nor disagree	Tend to disagree	Strongly disagree	Not applicable	Don't know
	%	%	%	%	%	%	%
The effects of climate change are too far in the future to really worry me	4	17	10	30	36	1	1
It's not worth Scotland trying to combat climate change, because other countries will just cancel out what we do	6	15	11	33	32	1	2
The so-called 'environmental crisis' facing humanity has been greatly exaggerated	7	19	14	30	25	*	5
It's not worth me doing things to help the environment if others don't do the same	5	17	9	35	33	*	1
Climate change will only have an impact on other countries, there is no need for me to worry	2	5	7	29	56	1	2
I don't believe my behaviour and everyday lifestyle contribute to climate change	7	28	15	33	15	*	1
The environment is a low priority for me compared with a lot of other things in my life	7	29	17	30	16	*	*
Tackling climate change shouldn't come at the expense of the Scottish economy	14	31	19	24	8	*	3
I don't give much thought to the amount of rubbish and waste that is produced by my household	3	19	7	37	34	*	*
It is important to build more roads to reduce congestion	10	27	18	27	15	1	2
I wouldn't sacrifice my home comforts to save energy	7	29	17	35	11	*	1
I don't pay much attention to the amount of water I use at home	8	34	9	31	17	*	*

	<b>Agree strongly</b>	<b>Tend to agree</b>	<b>Neither agree nor disagree</b>	<b>Tend to disagree</b>	<b>Strongly disagree</b>	<b>Not applicable</b>	<b>Don't know</b>
My household regularly throws out food because it has gone out of date	8	30	7	29	25	1	*
Reusing bottles and food containers is unhygienic	4	12	9	36	37	*	1
I don't really think about the amount of packaging on products I buy	7	29	9	30	24	1	*
I switch off my engine when I am stuck in a traffic jam	8	16	7	20	12	37	1
It's too impractical to travel by bus with shopping or large bags	29	38	8	15	8	2	1
I would only travel by bus if I had no other choice	18	31	7	22	18	3	*
It would be difficult for me to reduce my car use	18	25	6	15	5	31	1
People can't rely on trains to get them somewhere on time	10	28	18	25	9	5	6
Travel by public transport is convenient for me	21	28	8	20	21	2	*
I would favour a system that penalised people if they didn't recycle everything they could	11	28	15	28	16	*	1
I would try to do more to stop climate change if other people did more too	11	38	17	22	10	1	1
I try not to buy products from a company whose ethics I disagree with	22	36	23	10	5	1	2
People should be allowed to use their cars as much as they like	15	38	16	19	10	1	1
Many people feel it is important today to be seen to be concerned about the environment	18	57	13	9	2	*	1
I do worry about the changes to the countryside and the loss of native animals and plants	38	39	8	8	6	*	*
I make an effort to buy things from local producers	16	40	19	18	3	2	1
I often buy second hand goods in charity shops/on the internet	13	29	10	21	23	4	*

Base: All respondents who completed the CASI section (2,673)

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Government

# Scottish Environmental Attitudes and Behaviours Survey 2008 – Technical Report

Environment



social  
research

**SCOTTISH ENVIRONMENTAL ATTITUDES AND  
BEHAVIOURS SURVEY 2008 -  
TECHNICAL REPORT**

**Sara Davidson, Chris Martin and Steven Treanor, Ipsos MORI**

**Technical Annex by Prof. Gillian Raab**

Scottish Government Social Research  
2009

This report is available on the Scottish Government Social Research website only [www.scotland.gov.uk/socialresearch](http://www.scotland.gov.uk/socialresearch).

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# 1 INTRODUCTION AND BACKGROUND

- 1.1 The Scottish Government Rural and Environment Analytical Services (REAS) Division on behalf of the Greener Scotland Directorate and Climate Change Division commissioned Ipsos MORI to undertake the Scottish Environmental Attitudes and Behaviours Survey 2008 (SEABS'08).
- 1.2 The over-arching aim of SEABS'08 was to produce dedicated, sound and up-to-date robust social survey data on environmental attitudes and behaviours, supporting the development and delivery of environmental policy, relating specifically to climate change, sustainable development and wellbeing, but also of relevance to other policy areas. Specific objectives for the survey were to:
- provide robust information on individual environmental attitudes and individual and household behaviours of adults (aged 16+ across Scotland);
  - enable disaggregation of such information in terms of sub-groups;
  - enable detection of trends over time;
  - allow more detailed surveys or follow-up surveys, if required, of sub-samples from the main survey sample; and
  - devise appropriate dissemination, presentation and use of results.
- 1.3 The Scottish Government, prior to the commissioning of SEABS'08, undertook a scoping study of available evidence, that identified the need for dedicated up-to-date robust Scottish evidence on both environmental attitudes and behaviours. It is, however, worth noting two prior surveys in particular, that informed to a greater or lesser extent, SEABS'08. Namely, DEFRA's *Survey of Attitudes, Knowledge and Behaviour in relation to the Environment 2007*<sup>1</sup>, and *Public Attitudes to the Environment in Scotland 2002*<sup>2</sup> undertaken for the Scottish Executive.
- 1.4 This report outlines the technical approach followed for SEABS'08. The survey was undertaken among a quota sample of the Scottish adult population between 18 August and 15 November 2008, and involved interviews with 3,054 people aged 16 years and over. A full results report and summary research findings paper are also available at: <http://www.scotland.gov.uk/Resource/Doc/263223/0078735.pdf>.
- 1.5 SEABS'08 was undertaken using quota sampling rather like the Defra 2007 study. This approach differs from several national surveys undertaken for the Scottish Government where random pre-selected sampling is used. Analysis of the quality and precision of the information obtained from the survey was commissioned by the Scottish Government and undertaken by Gillian Raab. It is included as an annex to this technical report, and presents further analysis on the use of the quota sample and its consequences for bias and precision.

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<sup>1</sup> [www.defra.gov.uk/environment/statistics/pubatt/](http://www.defra.gov.uk/environment/statistics/pubatt/)

<sup>2</sup> <http://www.scotland.gov.uk/Publications/2005/01/20589/50843>

## 2 SAMPLING APPROACH

- 2.1 This chapter details the sampling approach used, the weighting methodology, and summarises how the achieved sample matches estimates from the Scottish Household Survey (SHS). However, before turning to the detail of the sampling approach, it is worth outlining the long running debate on the relative merits of quota and random pre-selected sampling approaches.

### Random versus quota sampling

- 2.2 The main difference between random and quota sampling is the way in which respondents are selected to be included in a survey. In a random sample, the responding unit – the household and/or person within the household – is chosen at random. Therefore, each member of the study population has a known chance of being selected. It is generally assumed that a representative sample will be achieved if this method of sampling is used. As the selection of respondents is determined in advance and independent of respondent characteristics, the sample will be representative and provide reliable estimates on all variables. However, this is dependent on a high response rate, which in practice is not always achieved.
- 2.3 Quota samples use a different approach to selecting respondents and achieving representativeness. In quota sampling, representativeness is defined as achieving a sample that matches the population on a relatively small number of known population characteristics such as age, sex and working status. It is then assumed that a sample that is representative on these characteristics is also representative on other unknown characteristics – which for this survey are attitudes and behaviours in relation to the environment.
- 2.4 Whereas random samples should provide representativeness across all variables, quota samples can really only ensure representativeness on the variables used as quota controls and on variables that are closely correlated with them. On other variables, quota samples rely on an assumption of more general representativeness. Since respondents are selected into a quota sample on the basis of a relatively small number of characteristics, it is possible for a quota sample to match the population on these characteristics but to vary from population characteristics on other, non-quota characteristics. The extent to which this happens can be checked by comparing non-quota variables with external sources such as census data.
- 2.5 The advantage probability sampling has over quota sampling is that it underpins classical survey sampling theory which requires no further assumptions to be made about the sampling process. This theory can be used to demonstrate *why* probability samples are free of sample selection bias and can be used to calculate standard errors, confidence intervals, and the significance of differences between estimates.
- 2.6 If we were to appeal to sampling theory, we would suppose that a random sample would provide more reliable estimates than a quota sample. However, sampling theory is based on a perfect survey – one unaffected by problems of

sample coverage, non-response, interviewer errors, sampling errors and so on. In practice, random samples are affected by these issues and these need to be considered when comparing sampling methods.

- 2.7 In addition, while sampling theory does not acknowledge the potential of non-random sampling designs to provide reliable estimates, the research industry knows from decades of practice – such as repeated comparison of surveys of voting intention with actual election outcomes – that quota samples are capable of providing estimates that match actual population figures with a high degree of accuracy.
- 2.8 A number of studies have compared results obtained from quota surveys with those from random probability surveys and other trusted data sources<sup>3</sup>. The overwhelming message from these studies is that data from quota and random probability samples are, in the main, comparable: most comparisons reported in the referenced studies showed no or small differences between sample types. These studies present evidence suggesting that the number of significant differences arising from comparisons between probability sample results and quota sample results are in-line with chance expectation. While some real differences were found, most observed differences were not large enough to be of major practical concern given the purposes of the surveys.
- 2.9 Quota sampling methods may not have the full theoretical underpinnings of probability sampling methods, but they do have considerable empirical backing: in practice, *they do generally work*.
- 2.10 Quota samples also have one particular advantage over random pre-selected samples that is especially relevant to SEABS'08. As there is no requirement to make repeat visits to the same address, the number of miles that the interviewers need to travel – normally by car – to obtain the interviews is much less for quota surveys than for random pre-selected surveys. This means that a quota survey will have a much smaller carbon footprint than a random pre-selected survey of the same size.

### **Sampling approach**

- 2.11 The survey was undertaken among a quota sample of the Scottish adult population (aged 16+), using a rigorous approach to ensure representativeness. The first stage of the sampling approach, the stratification and selection of Primary Sampling Units (PSU) mirrors the processes used in

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<sup>3</sup> For example - Moser, C. and Stuart, A. (1953) "An experimental study of quota sampling." *Journal of the Royal Statistical Society*, series A, Vol. 116 No. 4.

Stephenson, C.,B. (1979) "Probability sampling with quotas: wan experiment." *Public Opinion Quarterly*, Vol. 43, No 4.

Marsh, C. and Scarbrough, E. (1990) "Testing nine hypotheses about quota sampling". *Journal of the Market Research Society*, Vol. 32 No.4.

Orton, S. (1994) "Evidence of efficiency of quota samples." *Survey Methods Newsletter*, Vol. 15, No 1

Groves, R. et al (2004) *Survey methodology*. New York: Wiley.

Myant, K. and Hope, S. (2006) "A comparison of quota and random samples for measuring sport participation." Research report for the Scottish Executive.

probability designs. It is only at the second stage, where addresses would be selected in a probability sample, that the SEABS'08 sampling approach differs from a classic probability design.

- 2.12 The sample was drawn from the small user file from Postcode Address File (PAF), expanded using the Multiple Occupancy Indicator to equalise the probability of dwellings being selected within properties appearing only once on the PAF. This contains addresses to which the Post Office delivers fewer than 25 items of mail a day and is the best available source for Scotland's household population.
- 2.13 Datazones were employed as the primary sampling units because of their links with the urban/rural classification. A proportionate sample was drawn from all Datazones in mainland Scotland and the larger islands of Skye, Mull, Uist, Lewis and Harris, Islay, mainland Orkney and mainland Shetland. Sampling units were selected with probability proportionate to household population, stratified by region and within region by urban/rural classification.
- 2.14 In order to minimise the clustering effect on the achieved sample, a relatively large number of primary sampling units were selected, with a relatively small target number of interviews set in each. Namely, 388 Datazones were selected with a target of 8 interviews in each<sup>4</sup>.
- 2.15 Each individual Datazone was allocated a unique sample point number; and, in each, interviewer quotas were based on three demographic variables, and one key behavioural variable:
- Sex (two bands: male and female)
  - Age (four bands: 16 to 24; 25 to 34; 35 to 54; and 55 and over)
  - Working status (two bands: working full time and not working full time)
  - Car ownership (two bands: car owned by household or no car in household)<sup>5</sup>

## Weighting

- 2.16 The data was weighted to ensure that the achieved sample on the quota variables was in line with the population in the sample frame using rim weighting. A small number of cases were missing information on the quota variables (N < 10 for each variable). In these instances, a weight of 1 was given to the case.
- 2.17 Table 2.1 shows the weighted and the non-weighted profile of the achieved sample on the four quota variables and compares these with the

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<sup>4</sup> There are around 6,500 Datazones in Scotland with an average population of 839 in each.

<sup>5</sup> The interviewer quotas for the DEFRA's *Survey of Attitudes, Knowledge and Behaviour in relation to the Environment 2007* were based on sex, age and working status but did not include car ownership.

characteristics of the Scottish population given by the 2001 census. Women, those without a car available to the household, and those aged 25 to 34 years were slightly under-represented in the unweighted profile compared to the weighted profile.

- 2.18 Overall, as the quotas were almost always met, the effect of the weights was small, with the weights ranging from 0.81 to 1.41. As noted in the annex to this technical report, the effect of the weighting on the precision of the survey estimates is very small, and would increase the standard errors of survey estimates by 1% (a design factor of 1.01).

**Table 2.1: Weighted versus unweighted profile of the sample**

	SEABS 2008 Unweighted profile	SEABS 2008 Weighted profile	2001 census data
	%	%	%
<b>Sex</b>			
Male	49	47	47
Female	51	53	53
<b>Car in household</b>			
Car in household	71	66	66
No car in household	29	34	34
<b>Age</b>			
16-24	13	14	14
25-34	14	17	17
35-54	36	36	36
55 and over	36	33	33
<b>Economic status</b>			
Working full time <sup>6</sup>	42	42	42
Not working full time	58	58	58

<sup>6</sup> This includes those people who were self-employed.

- 2.19 The survey was weighted to estimates from the 2001 census rather than any other potential sources of population information such as the Scottish Household Survey (SHS). The SHS suggests that car availability in Scotland has increased since 2001 with the latest published SHS figures<sup>7</sup> estimating car availability at 70%, compared to a figure of 66% in the 2001 census.
- 2.20 An alternative weighting strategy would have been to use the SHS estimate of car availability across Scotland to weight the data. The effect of using the SHS estimate of car availability in the weighting approach was tested on over 50 findings in SEABS'08.
- 2.21 Almost all estimates would be completely unaffected by such a change to the weighting approach. Where change would occur, with the exception of patterns of travel by car, this would be by one per cent at the most. The alternative strategy would change the estimate for the proportion of workers who drive to work from 56% to 58%, the proportion of people who drive to do their main grocery shopping from 54% to 57%, and the proportion of people who drive most days from 45% to 47%.
- 2.22 The weights used for the main report did not take account of any or differential non-response to the CASI section of the questionnaire by the quota variables. Overall, 13% of respondents did not complete the CASI section of the SEABS'08 questionnaire. However, analysis undertaken suggested that the effect of differential non-response was minimal, with almost all estimates unaffected and the maximum effect being less than one per cent<sup>8</sup>.

### **Achieved sample**

- 2.23 The target number of interviews for the survey was 3,000 and the total number achieved was 3,054.
- 2.24 As noted previously, since respondents are selected into a quota sample on the basis of a relatively small number of characteristics, it is important to confirm not only that the distribution of the quota variables match the population, but also that non-quota characteristics are in line with other estimates. Table 2.2 illustrates the weighted profile of the sample on six other variables – tenure, method of travel to work, highest qualification, economic status, dwelling type and household type – that can be compared against the latest published results in the Scottish Household Survey<sup>9</sup>. Overall, there is little difference in the estimates from each source. As Table 2.2 shows, the sample appears particularly robust with regard to highest qualification achieved, economic status and dwelling.
- 2.25 Compared to the SHS, the largest differences are seen by tenure, travel to work, and household type. With regard to tenure, while the SHS gave an estimate of 66% for owner occupation, the estimate for SEABS'08 was slightly

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<sup>7</sup> See 2007 SHS Annual report at [www.scotland.gov.uk/shs](http://www.scotland.gov.uk/shs)

<sup>8</sup> Alternative weights to correct for non-response will be made available along with the SPSS data.

<sup>9</sup> Comparisons made with the latest available figures from the SHS based on 2007 fieldwork.

lower at 62%. Additionally, SEABS'08 under-estimates people who drive to work (56% versus 63%), and single pensioner households (11% versus 16%).

- 2.26 The annex to the technical report presents further analysis of the representativeness of the achieved sample. It suggests that, “the quotas have gone a long way to making the sample representative” and, that while some differences remain, “these differences are small and unlikely to impact greatly on the results”.

**Table 2.2: Percentages on selected characteristics in achieved sample compared with SHS 2007 estimates**

	<b>SEABS 2008 Weighted profile</b>	<b>SHS 2007</b>
	<b>%</b>	<b>%</b>
<b>Tenure</b>		
Owner occupied	62	66
Social rented	26	24
Private rented	9	8
Other	3	2
<b>Travel to work</b>		
Walk	16	12
Drive	56	63
Lift	6	6
Bike	2	2
Bus	12	12
Rail	5	4
Other	2	2
<b>Highest qualification level</b>		
Degree, Professional Qualification	25	26
HNC/HND or equivalent	9	11
Higher, A level or equivalent	14	17
O Grade, Standard Grade or equivalent	26	23
None/other	24	22
Unknown	2	1
<b>Economic status</b>		
Self employed	5	6
Full time employment	37	35
Part time employment	9	11
Looking after home/family	8	7
Permanently retired from work	24	27
Unemployed and seeking work	6	3
At school	1	1
Higher/further education	5	4
Government work/training scheme	*	0
Permanently sick or disabled	4	5

	<b>SEABS 2008</b>	<b>SHS</b>
	<b>Weighted profile</b>	<b>2007</b>
Unable to work due to short term ill-health	1	1
Other	0	1
<b>Dwelling type</b>		
House	68	67
Flat	31	32
Other	1	1
<b>Household type</b>		
Single adult	14	16
Small adult	17	17
Single parent	5	6
Single pensioner	11	16
Small family	17	13
Older smaller household	14	16
Large adult household	13	9
Large family	9	7

### 3 QUESTIONNAIRE DESIGN

#### Questionnaire content and structure

- 3.1 The starting point in terms of identifying content for the SEABS'08 survey questionnaire was DEFRA's (2007) '*Survey of Attitudes, Knowledge and Behaviour in relation to the Environment*'<sup>10</sup> and a related DEFRA-commissioned omnibus survey module. Following a review of these questionnaires and other relevant studies, together with the SEABS'08 study objectives, Ipsos MORI Scotland, working in collaboration with the SG Project Management Team and the Greener Scotland and Climate Change Divisions, produced a draft SEABS'08 questionnaire. The draft was presented to the SEABS'08 Scottish Government Advisory Group, and the Scottish Environment Social Evidence Group<sup>11</sup> (SESEG) for discussion. It was subsequently refined and a revised version agreed.
- 3.2 Specific topics covered in the questionnaire were as follows:
- the salience of the environment and of specific environmental issues;
  - awareness of, and attitudes towards, climate change;
  - travel behaviour;
  - energy consumption;
  - reusing and recycling;
  - eco-purchasing;
  - wellbeing; and
  - use and perceived importance of greenspace.
- 3.3 In addition to the data requirements set out in the project brief, four key considerations underpinned decisions on the choice of survey content. Firstly, to ensure the efficient use of space in the survey, it was important to avoid simply duplicating questions from other quantitative research studies that have been conducted over recent years – for example, the Scottish Waste Awareness Group has undertaken various surveys looking in detail at the public's recycling behaviour. Secondly, all questions in the survey had to be policy-relevant; that is, they needed to focus on issues that are of particular interest for the Scottish Government. Thirdly, and where relevant, the survey questions had to be tailored to the Scottish context – this was particularly relevant in relation to items focusing on energy use in the home and transport, where there was reason to believe that the behaviour of Scots might differ markedly to that of people living elsewhere in the UK. Fourth, because there is an intention that the survey will be repeated in the long term, it was important that the questionnaire was 'future proof' and did not include questions that are likely to be irrelevant in a few years time.

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<sup>10</sup> [www.defra.gov.uk/environment/statistics/pubatt/](http://www.defra.gov.uk/environment/statistics/pubatt/)

<sup>11</sup> Current membership of SESEG include representatives from: the Forestry Commission/Forest Research; Greenspace Scotland; Sustainable Development Commission Scotland; Scottish Natural Heritage; Scottish Environmental Protection Agency; SPICe; SNIFFER; and Waste Aware Scotland.

- 3.4 In designing the questionnaire, it was important to be mindful of the potential effects of social desirability bias. Social desirability effects refer to evidence that survey respondents' answers to questions are, at times, related to their perceptions of the social acceptability or political correctness of their answers. Therefore, the survey was not introduced to respondents as being about the environment specifically but more generally about "what the people of Scotland do and think". This was to try to ensure that those who were more enthusiastic in their environmental viewpoint were no more or less likely to participate than those with a more sceptical or disengaged attitude towards the environment.
- 3.5 The structure of the questionnaire was designed to elicit as accurate as possible an account of public engagement with the environment issue. The core, environmental part of the questionnaire was divided into three consecutive sections. The first section focused on participation in environmental behaviours; the second on barriers to participation in environmental behaviours; and the third on environmental attitudes. There were two key reasons for this choice of ordering. First, the barriers questions were designed to be asked of respondents who reported that they did not or rarely performed particular environmental behaviours. Had these questions been asked in tandem with the questions measuring participation in environmental behaviours, rather than being kept entirely separate, respondents may have grown used to this pattern as the interview progressed and realised that they could avoid having to answer barriers questions by giving 'green' responses to the behavioural questions. Second, the attitudinal questions were placed after the behavioural questions so that respondents would not be tempted to 'adjust' their self reported levels of participation in environmental behaviours to bring these into line with any green attitudes they expressed earlier in the questionnaire.
- 3.6 To minimise such social desirability effects, a section of the survey covering some of the attitudinal questions in the questionnaire was designed to be administered via CASI (Computer Assisted Self-Interviewing), whereby the respondent is invited to key their answers directly into the CAPI machine.

### **Cognitive testing**

- 3.7 Cognitive testing of the questionnaire was undertaken to ensure that all questions and response options were understood in the way intended. Cognitive question testing is a helpful process in assessing whether a survey instrument will be successful in eliciting the required information. In essence, it tests whether respondents will understand the questions and response options in the way that they are intended.
- 3.8 The cognitive testing was undertaken among 20 members of the public between 19th May and 6th June 2008. The sample was drawn from the Scottish Household Survey (SHS) respondent database which is comprised of approximately 10,000 individuals who have taken part in the SHS within the last two years and agreed to be re-contacted for future research exercises.

The sample was selected to include a cross-section of the public in terms of age, sex, household type and size, car ownership and location.

- 3.9 Members of the sample were telephoned and asked if they would be willing to participate in the study; and a convenient time was arranged for an interview. The 20 respondents who took part included:
- ten Men and ten women;
  - seven people aged 16 to 34 years, seven aged 35 to 59 years and six aged 60 years and over;
  - ten people living in an urban area (seven in Edinburgh and three in Glasgow), five in semi-urban areas and five living in a rural location;
  - thirteen people living in a house and seven living in a flat; and
  - twelve people with access to a car and eight without.
- 3.10 All interviews were carried out face to face by a core member of the Ipsos MORI project team. A combination of interviewer observation and retrospective probing techniques were used to identify potential problems with the questionnaire. For the testing of attitudinal questions, 'think aloud' techniques were also used.
- 3.11 On completion of the cognitive testing, Ipsos MORI submitted a report to the Scottish Government which summarised the main findings to emerge from the exercise, together with recommendations for changes to the questionnaire. Most of these changes were minimal and typically took the form of slight alterations to the wording of questions and precodes. All of the recommendations were accepted by the Scottish Government.

### **Survey pilot**

- 3.12 The revised questionnaire was piloted between 21<sup>st</sup> July and 3<sup>rd</sup> August 2008 to provide a final check of the clarity of questions and to ensure that the CAPI script had been correctly programmed.
- 3.13 A total of 13 pilot sample points were drawn across Scotland, with the aim of achieving 100 interviews in total (eight in each point). The sample was not intended to be representative of the Scottish population but rather was drawn purposively to ensure the questionnaire would be tested among a range of respondents in different areas of Scotland (urban/rural, north/south). However, reflecting the approach that would be used in the main survey, quotas were set on age, sex, working status and car ownership.
- 3.14 The pilot interviews were undertaken by a selected team of experienced Ipsos MORI survey interviewers. In advance of fieldwork, the interviewers were briefed by telephone by a member of the Ipsos MORI project team. 103 pilot interviews were achieved.

- 3.15 On completion of the fieldwork, the interviewers were invited to a debriefing session where they were asked to provide feedback on the questionnaire. On the basis of their comments, Ipsos MORI produced a pilot report for the Scottish Government which made recommendations for some final amendments to the questionnaire. Again, these amendments were minimal and all were agreed by the Scottish Government.

## **4 FIELDWORK**

4.1 Fieldwork took place between 18<sup>th</sup> August and 15<sup>th</sup> November 2008.

### **Interviewer briefing**

4.2 Prior to fieldwork commencing, all interviewers were briefed in person about the survey. The briefing was given by the Ipsos MORI project director and covered the following:

- introduction and background to the survey;
- the survey method;
- the survey questionnaire (with specific guidance on administering the CASI section);
- the potential for social desirability bias and the need to combat this; and
- survey administration.

### **Quality control and supervision**

4.3 Quality control procedures were put in place to ensure all interviews were carried out to a high standard and that the selection of addresses was carried out appropriately.

4.4 At any one point during fieldwork, around 10% of interviewers were accompanied in the field by area managers and supervised as they undertook their interviews. This ensured that interviewers were not following poor practice and provided an opportunity for supervisors to give their colleagues advice on aspects such as maximising response rates.

4.5 10% of interviews on the survey were back-checked, whereby field staff contacted the respondents concerned to check that the interview had been carried out properly. This involved confirming the length of the interview, when it took place, and that key questions were asked accurately and coded. All of the back-checking was carried out by telephone and post, using contact information provided by respondents during their interview.

4.6 Because the survey was undertaken by Computer Assisted Personal Interviewing (CAPI), there was no need for manual checking of completed questionnaires. As noted in the previous chapter, the CAPI script was set up to control for many of the errors that could have been made using a paper questionnaire (routing and logic checks in particular).

4.7 During fieldwork, progress updates were sent to the Scottish Government on a fortnightly basis detailing the number of interviews achieved and comparing this against the expected target for that stage in the fieldwork. Additionally, profile checks were run on the achieved interviews and sent to the Scottish Government. These checks compared the profile of the achieved sample against the target quotas set.

## 5 CODING AND DATA PROCESSING

- 5.1 As all interviews were conducted using Computer Assisted Personal Interviewing (CAPI), interviewer and respondent errors were minimised by ensuring, through automatic routing, that the script takes the interviewers directly to the correct questions, driven by earlier responses to questions. This helps to ensure the data is complete, minimising the need for corrective editing.
- 5.2 The process for interpreting and coding open text responses was a manual one. As there were no completely open questions in the CAPI script, the coding required was minimal. Coding frames were drawn up based on a systematic analysis of responses from the first 100 completed interviews. These were then tested to see if these code-frames worked on the next set of 100 answers to ensure that they covered the needs of the survey (i.e. there would be no 'others' or 'other specify' answers exceeding 10%) and amended where necessary.
- 5.3 Established procedures for checking the consistency of the open-ended response coding were used. These checks involved 10% of all open-ended responses being blind coded by a separate coder and the resulting codes compared. Responses to questions were also reviewed ensuring that any possible back-coding into the pre-code list had been undertaken.
- 5.4 For the purposes of analysis, computer tables were prepared to a specification agreed with the Scottish Government. In the tables, responses to each survey question were analysed against a number of variables, namely:
- sex
  - age (four groups: 16 to 24 years, 25 to 34 years, 35 to 54 years, and 55 years and over)
  - employment status (four groups: working, not working, studying/training scheme, retired, plus breakdown of working into full-time and part time)
  - children in household (two groups: yes and no)
  - socio-economic group of chief income earner (two groups: ABC1 and C2DE<sup>12</sup>)
  - most important issue facing Scotland (two groups: mentioned environment, didn't mention environment)
  - tenure (four groups: owner occupier, rent from social landlord, rent from private landlord, other)

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<sup>12</sup> Social grades ABC1 includes: people in supervisory or clerical and junior managerial, administrative or professional positions (C1); intermediate managerial, administrative or professional positions (B); and higher managerial, administrative or professional positions (A). Social grades C2DE includes: skilled manual workers (C2); semi and unskilled manual workers (D); and casual or lowest grade workers, pensioners and others who depend on the state for their income (E).

- dwelling type (two groups: house or bungalow, and flat maisonette or apartment)
- car in household (two groups: yes and no)
- household type (eight groups: single adult, small adult, single parent, single pensioner, small family, older smaller households, large adult household, large family)
- highest level of qualification obtained (five groups: Degree or professional qualification, HNC/HND or equivalent, Higher, A level or equivalent, O, Standard Grade or equivalent and no qualifications)
- typology of environmental engagement (five groups: Deep Greens, Light Greens, Shallow Greens, the Distanced and the Disengaged)
- use of greenspace (four groups: everyday, at least once a week, less often than once a week and not at all)
- wellbeing (Satisfaction with life scale (SWLS) – three groups: satisfied, neutral and dissatisfied)<sup>13</sup>
- 6-fold Urban/Rural indicator (two groups: urban and rural)<sup>14</sup>
- Scottish Index of Multiple Deprivation (SIMD) (three groups: most deprived 20% datazones, least deprived 20% datazones and others).

5.5 In addition to the general tables, the data was exported to SPSS. The data file was provided to the project manager at the Scottish Government as a SPSS sav file.

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<sup>13</sup> This was created using the accepted methodology, outlined at [/www.psych.uiuc.edu/~ediener/hottopic/hottopic.html](http://www.psych.uiuc.edu/~ediener/hottopic/hottopic.html)

<sup>14</sup> Large Urban Areas, Other Urban Areas and Accessible Small Towns were collapsed in the Urban classification while the remaining three categories were collapsed into the Rural classification.

## 6 DATA ANALYSIS APPROACH

- 6.1 The data analysis in the study was driven by two main aims. First, to describe the prevalence of various attitudes and behaviours in relation to the environment across Scotland and within particular sub-groups. This chapter details the reporting conventions used in the main report for this.
- 6.2 Secondly, to analyse what drives environmental attitudes and behaviours. This was undertaken primarily by creating a typology of environmental engagement and analysing whether this typology was significant in determining different behaviours. This chapter details our approach to the creation of the typology and how it was used in the modelling of behaviour.

### Reporting conventions in main report

- 6.3 Where percentages do not sum to 100% this may be due to computer rounding, multiple answers, or the exclusion of don't know or not applicable responses.
- 6.4 In some instances, reported figures combine two or more response categories, for example, combining "every day", "two or three times a week", and "once a week" to present the figures for "at least once a week". The figure given for the combined category has been rounded after the addition and therefore may not exactly sum to the figures given for the individual response categories. For example, 18.3% of respondents said that the environment was *the most* important issue facing the world, and a further 16.4% said that it was *an* important issue. While these figures are reported separately in the main report as 18% and 16%, the combined total of any mention of the environment as an important issue facing the world is reported in the text as 35% (18.3% plus 16.4% rounded to the nearest percentage point).
- 6.5 As noted previously, while no established theoretical framework exists to generate confidence intervals for quota sample estimates, experimental studies and comparisons have shown the robustness of such estimates. Therefore, throughout the report, differences between sub-groups are commented upon only where these are statistically significant. Significance levels were calculated at the  $p < 0.05$  level – i.e. where we can be 95% confident that such a difference has not occurred by chance. Design effects were not included in these calculations.

### Methods for examining whether environmental attitudes affect behaviour

#### *Creating the environmental engagement typology*

- 6.6 A typology of environment engagement was created to provide a clearer analysis of the types of people who may be more open to messages aimed at changing behaviour, and to facilitate understanding of the link between attitudes and behaviours.
- 6.7 The segmentation approach used to develop the typology, aimed to divide the public into different groups based on their attitudes towards the environment.

The groupings were determined using responses to four questions on attitudes to climate change and the environment, namely:

- the importance of the environment versus other issues in Scotland, and globally;
- views on the immediacy of the threat of climate change; and
- reported levels of knowledge about climate change.

6.8 The typology segmented people into a hierarchy of five groupings:

- Deep Greens (14%): These are people who: said unprompted that the environment was an important issue in Scotland or the most important issue in the world; believed that climate change is an immediate and urgent problem; and said they know a great deal or a fair amount about climate change. These people are the most engaged with the issues and are likely to be the most proactive in terms of adopting new or alternative behaviours.
- Light Greens (14%): People who believe that climate change is an immediate and urgent problem and an important issue globally, but who do not necessarily feel well informed about climate change or think that it is an important issue in Scotland. This group could be referred to as "aspiring greens". They may be interested in adopting new behaviours but tend to be more passive than those who are highly engaged.
- Shallow Greens (30%): These are people who said that climate change is an immediate and urgent problem, but not one of the most important issues globally or in Scotland. These people accept that climate change is an issue, but may not be convinced of the need to take more than minimal action at present.
- Distanced (30%): This group believe that climate change is more of a problem for the future or hold no views on climate change. It is unlikely that this group will readily accept the need for anything more than minor or relatively easy changes to their lifestyle.
- Disengaged (14%): These are people who are not convinced that climate change is happening or, that if it is happening, believe it is not a problem. This group are likely to be the most resistant to messages about changing their behaviour.

6.9 While the rationale behind the typology approach is broadly similar to that undertaken by DEFRA<sup>15</sup>, the approach to the creation of the typology groupings differed from the DEFRA study for both practical and, to a lesser extent, theoretical reasons. The DEFRA segmentation approach was based on analysis of a batch of attitudinal questions. While some of these questions were also asked in SEABS'08, some were not. Of the 17 questions that were

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<sup>15</sup> See [www.defra.gov.uk/evidence/social/behaviour/pdf/behaviours-jan08-report.pdf](http://www.defra.gov.uk/evidence/social/behaviour/pdf/behaviours-jan08-report.pdf).

used in DEFRA's segmentation, 5 were included unchanged in SEABS'08, while a further one was included asking about Scotland rather than Britain. This precluded the possibility of replicating exactly the segmentation approach followed by DEFRA. Additionally, the attitudinal questions common to both surveys and that had been used in the DEFRA segmentation approach were asked in the CASI section of the SEABS'08 interview. As around 10% of respondents declined to answer this section of the questionnaire, a typology based on these questions would only provide data for a proportion of respondents, and therefore reduce the potential sample size for analysis.

- 6.10 The SEABS'08 typology was constructed to comprise attitudinal questions only, with the intention that it could then be used to explore whether groups with different attitudes tend to display differing patterns of behaviour. The DEFRA segmentation, in contrast, is less clearly focused on attitudes. For example, it incorporates the statement, "I would only travel by bus if I had no other choice". Arguably this – and some of the other statements in the DEFRA model – contain both an attitudinal and a behavioural element. As such, it does not offer a typology that is purely reflecting attitudes, the rationale behind the typology used for the present study.
- 6.11 An alternative approach to developing the typology would have been to use the attitudinal statements in the CASI section of the questionnaire. Factor analysis of the responses to these suggested that they cluster around different topics, such as transport, recycling and waste. Eight attitudinal statements, detailed in Figure 4.5 of the main report, and that correlated most closely to a single factor, could be taken to purely represent attitudes on environmental engagement. These were:
- Tackling climate change shouldn't come at the expense of the Scottish economy.
  - The environment is a low priority for me compared with a lot of other things in my life.
  - I don't believe my behaviour and everyday lifestyle contribute to climate change.
  - The so-called environmental crisis facing humanity has been greatly exaggerated.
  - It's not worth Scotland trying to combat climate change because other countries will just cancel out what we do.
  - It's not worth me doing things to help the environment if others don't do the same.
  - The effects of climate change are too far in the future to really worry me.
  - Climate change will only have an impact on other countries, there is no need for me to worry.

6.12 The typology was compared against the combined responses to these eight statements to assess its robustness. Answers to each statement were given a score from 1 for agree strongly (a negative response in terms of environmental attitudes) to 5 for disagree strongly (a positive response). These scores were then added to create an overall standardised score. There was a high correlation between these standardised scores and the typology (see Table 6.1).

**Table 6.1: Environmental engagement typology by banded standardised score from eight attitudinal statements.**

Standardised score from attitudinal statements	Deep Greens	Light Greens	Shallow Greens	Distant Greens	Disengaged	Total
	%	%	%	%	%	%
0-15	0	1	1	7	12	4
16-20	3	5	9	29	37	17
21-25	12	21	26	34	34	27
26-30	39	45	43	24	11	33
31-35	47	28	21	5	6	19
	100	100	100	100	100	100

6.13 It is worth emphasising that the boundaries between typology groups, both in the DEFRA'07 survey and in the SEABS'08 typologies, are not totally distinctive. Attitudes, and therefore data on attitudes, tend to be less exact and bounded than behaviours and behavioural data. While it is unlikely that a respondent would give a different response to the number of children in the household if asked at two different occasions, it is highly possible that responses to attitudinal questions may vary day to day.

6.14 As noted previously, one of the objectives of SEABS'08 was to allow detection of trends over time. The use of the four questions to construct the typology has an additional potential advantage over using the attitudinal statements with regard to this objective, in that it would be easier and most cost efficient to replicate in other surveys where it may be of benefit to analyse the data by the typology of environmental engagement.

***Use of regression analysis to examine significance of typology to behaviour***

6.15 Logistic regression was used to model the likelihood of undertaking various behaviours – for example, recycling bottles – and to examine, in particular, whether the typology groups differed in their behaviour after the other socio-

economic factors had been controlled for<sup>16</sup>. As environmental engagement is closely linked to educational attainment and social class, by including in the regression models these variables, it is possible to separate the effect of each. This helps overcome the risk that the effect of one variable (social class for example) is confused with the effect of another (environmental engagement for example). In other words, the use of regression modelling helps examine whether positive environmental attitudes have a measurable effect on behaviour.

- 6.16 The following variables were routinely included in each of the regression models: age, gender, social class, economic status, educational attainment, presence of children in the household, urban/rural indicator, tenure, and property type.
- 6.17 Table 6.2 shows example output from the logistic regression model of whether people ever<sup>17</sup> use kerbside bottle recycling facilities when present. The first column indicates the different predictor factors included in the model. These include 'binary' variables such as sex (either/or variables), continuous variables such as income (variables that are measured numerically), and categorical factors such as tenure (variables including a number of different categories). Some continuous variables, age for example, have been grouped into bands and treated as categorical variables. This is to ensure that any non-linear relationships in these variables are reflected in the regression models.
- 6.18 A value of less than 0.05 in the fourth column suggests that this factor is significant. So, as the figure for flat (vs. house) is less than 0.05, it follows that, after controlling for the effect of all other factors in the model, the likelihood of those living in flats using kerbside bottle recycling facilities is different from those living in houses.
- 6.19 The second column, headed 'Beta' indicates the direction of the effect. A negative value indicates that those in the first category, for example those living in flat, are less likely to recycle bottles using kerbside facilities than those living in houses.

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<sup>16</sup> The logistic regression models were run using the weighted data without taking into account the effect of the survey design. The impact of the survey design on the logistic regression models is discussed further in the annex. The effect of allowing for the survey design on the error estimates is shown in the second set of columns and is discussed in the Annex section 4.4.

<sup>17</sup> "Every time", "Most times", "Sometimes" and "Rarely" compared with "Never" responses.

**Table 6.2: Example output from the logistic regression model: Whether use kerbside bottle recycling facilities where present – ever versus never. (N = 1939)**

	Weighted logistic regression			Allowing for survey design <sup>18</sup>		
	Beta	S.E. of B	Sig. <sup>19</sup>	S.E. of B	Sig.	Design factor
<b>Educational qualifications (vrs none)</b>			<b>0.40</b>		<b>0.43</b>	
Degree	-0.33	0.19	0.09	0.20	0.10	1.04
HNC/HND	0.05	0.24	0.83	0.24	0.83	1.00
Higher	-0.06	0.21	0.79	0.23	0.81	1.08
O', Standard	0.03	0.16	0.86	0.17	0.86	1.06
<b>Economic status (against working)</b>			<b>0.61</b>		<b>0.60</b>	
Retired	-0.17	0.23	0.47	0.22	0.45	0.94
Inactive	0.15	0.17	0.38	0.18	0.41	1.08
Studying or training	0.05	0.28	0.86	0.32	0.88	1.08
<b>Flat (against House)</b>	-0.43	0.13	0.00	0.17	0.01	1.34
<b>Age (against 16-24)</b>			<b>0.39</b>		<b>0.41</b>	
25-34	-0.18	0.22	0.41	0.23	0.44	1.06
35-54	-0.13	0.21	0.55	0.23	0.58	1.09
55+	0.26	0.28	0.34	0.28	0.35	0.99
<b>Vegetarian (against non vegetarian)</b>	-0.31	0.25	0.21	0.26	0.22	1.04
<b>White (vrs non-white)</b>	-0.06	0.37	0.87	0.38	0.87	1.04
<b>Male (vrs female)</b>	-0.08	0.11	0.47	0.10	0.41	0.90
<b>Rural urban indicator (against remote rural)</b>			<b>0.00</b>		<b>0.00</b>	
Large Urban	0.32	0.31	0.31	0.44	0.47	1.36
Other Urban	0.96	0.32	0.00	0.46	0.04	1.41
Accessible Small Towns	1.28	0.37	0.00	0.51	0.01	1.34
Accessible Rural	1.15	0.36	0.00	0.49	0.02	1.33
Remote Small towns	1.12	0.43	0.01	0.60	0.06	1.35
<b>Car available (vrs not)</b>	0.33	0.14	0.02	0.15	0.02	1.06
<b>Tenure (against Owner-occupier)</b>			<b>0.36</b>		<b>0.47</b>	
Social Rented	-0.17	0.15	0.26	0.16	0.29	1.08
Private rented	-0.36	0.22	0.10	0.25	0.14	1.08
Other	-0.24	0.32	0.45	0.32	0.44	1.03
<b>Typology (vrs Deep Greens)</b>			<b>0.62</b>		<b>0.59</b>	
Light Green	-0.08	0.22	0.71	0.23	0.72	1.05
Shallow Green	0.07	0.19	0.71	0.20	0.72	1.04
Distant Green	-0.01	0.19	0.95	0.20	0.96	1.07
Disengaged	-0.22	0.22	0.32	0.21	0.30	0.96
<b>Children in household (vrs not)</b>	-0.09	0.12	0.43	0.12	0.43	1.05
<b>Income</b>	0.01	0.01	0.37	0.01	0.18	1.03
<b>Social Group (against Es)</b>			<b>0.01</b>		<b>0.02</b>	
A	1.30	0.50	0.01	0.51	0.01	1.00
B	0.95	0.26	0.00	0.27	0.00	1.03
C1	0.62	0.21	0.00	0.23	0.01	1.08
C2	0.55	0.21	0.01	0.23	0.01	1.09
D	0.42	0.21	0.04	0.22	0.05	1.08

<sup>18</sup> These error estimates are more accurate than the first three columns, but in this case differ very little except for the urban/rural indicator and tenure. See annex for a discussion of design factors.

<sup>19</sup> Values in italics are significance level for composite tests of any difference between the categories.

- 6.20 With categorical factors, such as social group, logistic regression models compare different categories against a reference category. In the model presented above, Social Group E has been set as the reference category. Overall, all other Social Groups are more likely than those in Social Group E to recycle bottles using kerbside facilities.
- 6.21 Table 6.2 also suggests that the typology is *not* significant in determining whether people use kerbside bottle recycling facilities once the other factors have been controlled for<sup>20</sup>. So, while there may be significant differences in the proportion of, for example, Deep Greens and the Disengaged who use kerbside bottle recycling facilities, it is not environmental attitudes but rather other factors (social class, whether household has a car, dwelling type, and social group) that is driving behaviour.
- 6.22 In contrast, the typology of environmental attitudes *is* a significant factor in determining use of non-kerbside bottle recycling facilities (see Table 6.3), whereas property type and Social Group are not. Therefore, as noted in the main report, it is possible to conclude that while environmental engagement influences use of non-kerbside facilities, it does not (measurably) drive use of kerbside facilities.

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<sup>20</sup> This pattern also holds when the logistic regression compares those who use them “Every time” against those who said “Most times”, “Sometimes”, “Rarely”, or “Never” responses.

**Table 6.3: Example output from the logistic regression model: Whether use non-kerbside bottle recycling facilities when kerbside facilities are not present – ever versus never (N=840).**

	Weighted logistic regression			Allowing for survey design <sup>21</sup>		
	Beta	S.E. of B	Sig. <sup>22</sup>	S.E. of B	Sig.	Design factor
<b>Educational qualifications (vrs none)</b>			<b>0.01</b>		<b>0.01</b>	
Degree	0.95	0.35	0.01	0.38	0.01	1.04
HNC/HND	-0.07	0.39	0.86	0.45	0.88	1.12
Higher	0.30	0.34	0.38	0.36	0.40	0.97
O', Standard	-0.24	0.25	0.34	0.25	0.34	0.99
<b>Economic status (against working)</b>			<b>0.73</b>		<b>0.83</b>	
Retired	-0.12	0.38	0.75	0.37	0.74	1.00
Inactive	0.01	0.28	0.98	0.28	0.98	0.99
Studying or training	0.51	0.48	0.28	0.57	0.37	1.00
<b>Flat (against House)</b>	0.05	0.23	0.82	0.28	0.85	1.22
<b>Age (against 16-24)</b>			<b>0.56</b>		<b>0.60</b>	
25-34	0.36	0.34	0.30	0.35	0.31	1.03
35-54	0.44	0.31	0.15	0.31	0.16	0.95
55+	0.01	0.43	0.98	0.43	0.98	0.96
<b>Vegetarian (against non vegetarian)</b>	0.55	0.35	0.12	0.31	0.08	0.92
<b>White (vrs non-white)</b>	-0.10	0.56	0.86	0.73	0.89	1.08
<b>Male (vrs female)</b>	-0.04	0.19	0.84	0.19	0.85	1.06
<b>Rural urban indicator (against remote rural)</b>			<b>0.00</b>		<b>0.00</b>	
Large Urban	-1.67	0.33	0.00	0.38	0.00	1.12
Other Urban	0.14	0.34	0.69	0.36	0.71	1.05
Accessible Small Towns	-0.59	0.41	0.15	0.37	0.11	0.98
Accessible Rural	0.13	0.41	0.74	0.45	0.77	1.09
Remote Small towns	-0.20	0.49	0.68	0.36	0.57	0.78
<b>Car available (vrs not)</b>	0.41	0.22	0.06	0.21	0.05	0.98
<b>Tenure (against Owner-occupier)</b>			<b>0.44</b>		<b>0.55</b>	
Social Rented	-0.09	0.25	0.72	0.27	0.74	1.10
Private rented	0.28	0.34	0.41	0.44	0.52	1.19
Other	0.76	0.61	0.22	0.62	0.23	0.99
<b>Typology (vrs Deep Greens)</b>			<b>0.01</b>		<b>0.01</b>	
Light Green	-0.76	0.39	0.05	0.38	0.04	0.92
Shallow Green	-0.97	0.35	0.01	0.34	0.00	0.92
Distant Green	-1.31	0.36	0.00	0.37	0.00	0.98
Disengaged	-0.94	0.40	0.02	0.36	0.01	0.87
<b>Children in household (vrs not)</b>	-0.44	0.22	0.05	0.24	0.07	1.07
<b>Income</b>	0.02	0.02	0.33	0.02	0.33	1.02
<b>Social Group (against Es)</b>			<b>0.35</b>		<b>0.24</b>	
A	0.09	0.81	0.91	0.90	0.92	1.14
B	0.37	0.41	0.37	0.41	0.37	1.02
C1	0.68	0.35	0.05	0.31	0.03	0.93
C2	0.23	0.34	0.49	0.34	0.49	1.04
D	0.48	0.33	0.15	0.32	0.13	0.97

<sup>21</sup> These error estimates are more accurate than the first three columns, but there is little difference here except for tenure. See annex for a discussion of the methodology and design factors.

<sup>22</sup> Values in italics are the significance level for the composite tests of any difference between the categories.

## 7 SUMMARY

- 7.1 This report outlines the technical approach employed for SEABS'08. The over-arching aim of SEABS was to produce dedicated, sound and up-to-date robust social survey data on environmental attitudes and behaviours. The research methods employed ensured the robustness of the results in terms of reliability, validity and relevance.
- 7.2 The starting point in terms of identifying content for the SEABS 2008 survey questionnaire was DEFRA's (2007) '*Survey of Attitudes, Knowledge and Behaviour in relation to the Environment*'<sup>23</sup> and a related DEFRA-commissioned omnibus survey module. One of the key aims of the SEABS'08 questionnaire development was to ensure that it was sensitive to the Scottish context. Ipsos MORI Scotland, working in collaboration with the SG Project Management Team and the Greener Scotland and Climate Change Divisions, produced a draft SEABS questionnaire. The draft was presented to the SEABS Scottish Government Advisory Group, and the Scottish Environment Social Evidence Group<sup>24</sup> (SESEG) for discussion. It was subsequently refined and a revised version was agreed.
- 7.3 Specific topics covered in the questionnaire were as follows:
- the salience of the environment and of specific environmental issues;
  - awareness of, and attitudes towards, climate change;
  - travel behaviour;
  - energy consumption;
  - reusing and recycling;
  - eco-purchasing;
  - wellbeing; and
  - use and perceived importance of greenspace.
- 7.4 Cognitive testing of the questionnaire was undertaken among 20 members of the public to ensure that all questions and response options were understood in the way intended. The revised questionnaire was then piloted with 103 respondents to provide a final check of the clarity of questions and to ensure that the CAPI script had been correctly programmed.
- 7.5 The main survey fieldwork was undertaken among a quota sample of the Scottish adult population between 18 August and 15 November 2008, and involved interviews with 3,054 people aged 16 years and over. Prior to fieldwork commencing, all interviewers were briefed in person about the survey.
- 7.6 The sample was drawn from the small user file from the Postcode Address File. Datazones were employed as the primary sampling units because of

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<sup>23</sup> [www.defra.gov.uk/environment/statistics/pubatt/](http://www.defra.gov.uk/environment/statistics/pubatt/)

<sup>24</sup> Current membership of SESEG include representatives from: the Forestry Commission/Forest Research; Greenspace Scotland; Sustainable Development Commission Scotland; Scottish Natural Heritage; Scottish Environmental Protection Agency; SPICe; SNIFFER; and Waste Aware Scotland.

their links with the urban/rural classification. To minimise the clustering effect on the achieved sample, a relatively large number of primary sampling units were selected with a relatively small target number of interviews set in each.

- 7.7 Interviewer quotas were based on three demographic variables, and one key behavioural variable: sex, age, working status, and car ownership. The data was weighted to ensure that the achieved sample on the quota variables was in line with the population.
- 7.8 The data analysis in the study was driven by two main aims. First, to describe the prevalence of various attitudes and behaviours in relation to the environment across Scotland and within particular sub-groups. Secondly, to analyse what drives environmental attitudes and behaviours. This was undertaken primarily by creating a typology of environmental engagement and analysing whether this typology was significant in determining different behaviours.
- 7.9 In addition to the technical approach to the survey presented in this report, full survey results are available at:  
<http://www.scotland.gov.uk/Resource/Doc/263223/0078735.pdf>

# ANNEX: SCOTTISH ENVIRONMENTAL ATTITUDES AND BEHAVIOURS SURVEY 2008 – TECHNICAL ANNEX ON SURVEY DESIGN

Gillian Raab

## 1. Introduction and overview

- 1.1 This technical annex provides details of the sampling design and its probable impact on the quality and precision of information obtained from the survey. It comments in some detail on the use of a quota sample and its consequences for bias and precision. The quota design appears to have delivered a survey sample of quality comparable to what would have been achieved with a probability sample. The major impact of the design on the precision of estimates from the survey is the clustering of answers to questions within the small areas used as sampling units. Detailed tables for this are provided along with recommendations on how to adjust for the sample design in the analysis.

## 2. Survey design

- 2.1 Historically, quota samples have been shown to have the potential to produce very biased results. For example, in a 1945 survey of reading habits<sup>25</sup> where the interviewers selected households to interview and applied quotas by age, sex and socio-economic status, the results obtained were shown to be very different from census returns on key variables, such as education. There are other examples from around that time, including electoral polls, which showed similar results. It is thought that these results were part of the motivation for survey organisations turning to probability sampling. However, more recent developments in survey sampling have modified this view.<sup>26</sup> In theory, the biggest disadvantage of quota sampling is that a biased sample of respondents may be selected. This can happen in two ways:

1. Non-responding individuals or households are ignored and the next one meeting the quota is selected.
2. The interviewer selects the people or households to be interviewed.

These factors can also affect probability samples and non-response is an increasing problem. The common practice of substituting new addresses for non-responders adds to this problem. It can now be argued that a rigorously designed quota sample can be as good as a probability sample for lower cost.

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<sup>25</sup> Link and Hopf, *People and Books*, 1945.

<sup>26</sup> King B, Quota, Representative, and Other Methods of Purposive Sampling Standard Article, in *Encyclopaedia of Biostatistics*, Wiley, 2005 accessible at <http://mrw.interscience.wiley.com/emrw/9780470011812/eob/article/b2a16052/current/pdf>

- 2.2 This survey has used a rigorous approach to quota sampling which should have minimised the extent to which interviewers have a choice in selecting respondents. The first stage of selecting the sampling points was a probability sample stratified by local authority and rurality. For each sampling point, interviewers had a list of addresses within fairly small areas and the quotas were set on four different characteristics, thus limiting the interviewers' choices. Any departures from the planned quotas have been adjusted for in the analysis by reweighting to the marginal totals used to assign them. The survey has also collected a range of other data to assess the quality of the sample (see Chapter 2 of the main report and the following section).
- 2.3 A criticism of quota samples is that classical sampling theory, based on selection probabilities, cannot be invoked and so no error estimates are available. However, another model based approach can be used to justify the calculation of sampling errors and it leads effectively to the same results as the classical approach<sup>27</sup>. The assumption required for this approach is that the sample selected, based on the quota, would be expected to give the same answers to survey questions (on average) as those who would have matched the quotas and were not selected.

### **3. How well did the sample match the quotas and population totals?**

- 3.1 The quotas specified 8 interviews per sampling point. Exactly 8 interviews were achieved for 70.4% of the sampling points, 9 interviews in a further 10.3% and 7 interviews in a further 5.7%. The quotas varied very little by sex between sampling points, somewhat more by age groups and by full-time or self-employed status, and to the greatest extent by car ownership. Table 1 gives the quotas for the 388 sampling points and the proportions compared to the correct number for points where exactly 8 interviews were obtained.

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<sup>27</sup> Deville JC (1991), "A Theory of Quota Surveys", *Survey Methodology*, Vol. 17, pp 163-181.

**Table 1 : Quotas and achieved sample for sampling points**

Characteristic	Number of interviews in quota for 388 sampling points									Compared to quota for 273 points with 8 interviews		
	0	1	2	3	4	5	6	7	8	correct number	fewer	more
Men	0	0	0	0	46	341	1	0	0	58%	22%	18%
Age												
16-24	0	340	23	6	4	3	1	0	1	56%	30%	14%
25-34	3	275	94	11	5	0	0	0	0	44%	36%	19%
35-44	2	8	96	212	69	1	0	0	0	44%	26%	31%
55+	3	37	113	188	41	6	0	0	0	59%	12%	39%
Car availability	0	3	11	38	63	85	79	87	22	35%	24%	41%
Working full time or self employed	1	5	48	179	127	27	1	0	0	42%	30%	27%

3.2 The small imbalance from the design was corrected via weighting back to the 2001 census household population totals. The most extreme contributions to the weighting were car ownership (car owners average weight 0.93, non car owners 1.16) and ages 25-34 (average weight 1.19) and 55+ (average weight 0.91). Chapter 2 of the main report presents comparisons with the Scottish Household Survey data, a probability sample carried out by the same field force with a very similar design to this survey. The results are very reassuring. Table 2 presents comparisons to the current household population estimates by age and sex<sup>28</sup> and with a more detailed age breakdown than was used in defining the quotas. The standard errors of the percentages from the survey were around 0.5%, so only the over-representation of women aged 25-34 and the under-representation of 55 to 64 year olds was evident. These differences were also seen when comparing with the 2001 census totals.

<sup>28</sup> GRO Scotland Household population estimates 2006 based, available at <http://www.gro-scotland.gov.uk/statistics/publications-and-data/household-projections-statistics/household-projections-for-scotland-2006-based/background-information.html>

**Table 2:** Percentages of population by age and sex sample compared to 2007 household population estimates.

Age group	Survey weighted percentages (Total 100%)		Population estimated percentages (total 100%)		Difference survey - population	
	Male	Female	Male	Female	Male	Female
16-24	7.3	6.6	7.2	6.9	0.1	-0.3
25-34	8.1	10.8	7.4	7.5	0.8	<b>3.3</b>
35-44	7.7	8.9	8.7	9.5	-1.1	-0.7
45-54	9.0	8.5	8.6	9.1	0.5	-0.6
55-64	5.5	6.3	7.4	7.8	<b>-2.0</b>	<b>-1.5</b>
65-74	5.9	6.3	5.1	6.0	0.8	0.3
75+	3.8	5.3	3.4	5.4	0.5	-0.1

3.3 Although the sampling frame is households, the survey is seeking a population sample. Had it been a probability sample of households it would have been necessary to weight by household size to get population estimates and thus to incur a loss of precision from uneven weights. A stringent test of how well the quotas have delivered a representative sample is to consider household composition for respondents. Table 3 compares the survey and the census by household composition.

**Table 3:** Percentage of survey (weighted) and of 2001 census populations by number of adults and type of household.

	Survey people	Census people	Difference Survey - census	Census households
<b>Number of adults</b>				
One adult	29.8	23.9	5.9	43.4
More than one adult	70.2	76.1	-5.9	56.6
<b>Type of household</b>				
Single person	25.2	18.1	7.1	32.9
Lone parent	4.6	5.8	-1.2	10.5
Couple no children	24.6	28.9	-4.3	12.9
Couple with children	18.0	18.4	-0.3	23.2
Other	27.6	28.8	-1.3	20.5

The quotas have gone a long way to making the sample representative of people in households, rather than households. Some differences remain with single people being somewhat over-represented and couples without children under-represented. These differences are small and unlikely to have much impact on the results.

#### **4. Impact of the design on the precision of estimates from the survey**

- 4.1 Three aspects of the survey design will influence the precision of estimates: weighting, clustering and stratification. The range of weights here was small (0.81 to 1.44) and this aspect by itself would increase the standard errors of survey estimates by a design factor of only 1.01 (1%). Clustering is the aspect of the survey design that has the largest influence on estimate precision. For estimation of population proportions, means or totals this will differ according to whether the question of interest has answers that are clustered by sampling point. With an average of just under 8 interviews per sampling point, an answer that was maximally clustered would have a design effect of 8 and standard errors increased by a design factor of its square root (2.8). The sampling points for the survey were selected with stratification by local authority and by urban rural classification. This could have the effect of improving the precision of estimates. With 32 local authorities and 6 urban-rural groups, many with no points selected, categories were pooled to provide a set of 50 strata that could be used in the analysis. The stratification had only a very minor influence on the precision of estimates. Adjustment for stratification has been incorporated into the design factors quoted here, but it could have been omitted and very similar results would have been obtained.
- 4.2 Standard software packages such as SPSS, SAS and STATA now provide options for analysing complex surveys with the appropriate adjustments for survey design, although for SPSS an additional licence is required. We recommend that these programs should be used and details will be provided in the user guide for the survey. For the benefit of people unable to use these programs, the tables in the next section give design factors for estimates of population proportions selected questions. Most questions on environmental attitudes have design effects of 1.3 or lower. Questions on knowledge and awareness had larger design factors, as had some questions on environmental behaviour, generally where these would have been influenced by local circumstances.
- 4.3 The impact of the survey design on comparisons of proportions or on regression coefficients is generally much lower than their impact on population proportions. The impact depends on both the clustering of the outcome and of the factors that are used in the comparison. If the factor is not clustered the clustering of the outcome will not matter and design factors for regression coefficients will be close to 1.0. When both the outcome and the factor are clustered the standard error of the regression coefficient may be inflated by a design factor, but this will generally be less than those for the individual variables.
- 4.4 When analyses are carried out on subgroups of the data the design factors are generally reduced compared to what they would have been for the full data set. This comes about because the effective cluster size is smaller than that for the full survey. Tables 6.2 and 6.3 of the Survey Technical Report are examples of regression analyses for sub-samples. We can see that the survey design has had very little effect on the precision of estimates compared to what would have been achieved from a simple random sample. The only factor where it makes any real difference to the standard error of the coefficient is housing type, which

is likely to be highly clustered by sampling point and the urban rural indicator in Table 6.2.

- 4.5 Design factors for demographic variables are given below to guide an analyst without the ability to use an appropriate survey analysis package. These are only general rules and individual analyses may differ. For example, to test a worst-case scenario, a comparison between a highly clustered item (awareness of Scotch beef) was compared by a very clustered factor (urban/rural classification). Most regression coefficients had design factors close to 1.0, when a larger one was expected. This was because Scotch beef awareness was only clustered in urban areas with virtually 100% of rural respondents reporting being aware of it.

## 5. Tables of design factors

### ***Design factors for all-Scotland estimates of environmental attitudes, knowledge and behaviours***

- 5.1 These tables give the design factors for the proportions in the population of selected measures of environmental knowledge, attitudes and behaviour as well as some important demographic variables. The selection of design factors to present was based on those highlighted in the main report. Design effects are not quoted for categories affecting only a very small proportion of respondents. Such measures would almost always have design factors very close to 1.0 unless they were very localised (e.g. people who read the *Dundee Courier*) and thus affected by clustering. To obtain standard errors and confidence intervals for the population proportions, the procedure is as follows:

- Calculate the weighted proportion ( $p$ ) or percentage ( $P$ ).
- Get the standard error of  $p$  or  $P$  from the usual formulae  $\sqrt{p(1-p)/N}$  or  $\sqrt{P(100-P)/N}$  where  $N$  is the sample size (here usually 3054).
- Multiply the standard error by the design factor and calculate confidence intervals from the new value as usual.

Figures 3.1 and 3.2 in the main report (Questions B1 and B2) present data on how importantly people rated various environmental issues.

**Table 4:** Design factors for selected entries in Figures 3.1 and 3.2

Issue	How important was each of these issues			
	Facing Scotland		Facing the world	
	Most important issue	Other issues	Most important issue	Other issues
Economy / credit crunch	1.29	1.24	1.30	1.18
Crime / anti-social behaviour	1.30	1.27		
Scottish constitution	1.10	0.99		
Unemployment / lack of industry	1.09	1.13		
Drug abuse	1.31	1.39		
Environment/ climate change/ global warming	1.13	1.14	1.12	1.07
Terrorism/ wars			1.16	1.22
Poverty inequality			1.01	1.23

Environmental factors have a fairly low design factor and this was confirmed by the design factor for the salience scale where the category with the highest design factor (1.2) was for those with the lowest salience (no mention).

- 5.2 None of the environmental attitudes reported in chapters 4 or 5 of the main report have large design factors, with the majority being around 1.1. The classification of 'greenness' is given as an example in Table 5.

**Table 5:** Design factors for the hierarchical classification

Hierarchical classification	% in group	Standard Error	Design factor
Disengaged	12.9	0.7	1.13
Light greens	30.2	1.0	1.23
Shallow greens	29.4	1.0	1.18
Distanced	14.0	0.7	1.13
Disengaged	13.6	0.7	1.13

There were substantial design factors for the extremes of environmental knowledge (1.40 for "Heard of climate change but know nothing about it" and 1.92 for "Never heard of climate change"). But questions about detailed knowledge for those who knew something about climate change all had design factors around 1.0. Design factors were more pronounced for awareness of specific items and for some environmental behaviours. Design factors for the environmental behaviours from Tables 5.9 (Q23) and 5.18 and 5.19 (Q 25) of the main report are shown in Table 6. Some behaviours have large design factors, probably due to the clustering of housing types or of local provision of services.

**Table 6:** Design factors for behaviours from Questions 23 and 25.

Question	Design factor for answers to question		
	How often do you personally do the following		
	Always	Never	Cannot/ service not provided / not applicable
<b>Q23 Table 5.9</b>			
Turn off heating	1.44	1.34	1.54
Turn off tap	1.22	1.23	1.12
Use energy saving bulbs	1.29	1.13	1.01
Hang out washing	1.56	1.18	2.00
Turn off lights	1.18	1.28	1.07
Avoid filling kettle	1.20	1.22	1.01
<b>Q25 (Tables 5.18 and 5.19)</b>			
Composting (those with gardens)	1.30	1.59	1.86
Kerbside garden waste	1.57	1.61	1.73
Kerbside bottle recycling	1.66	1.59	1.80
Other bottle recycling	1.48	1.54	1.54
Kerbside can recycling	1.57	1.50	1.76
Kerbside paper recycling	1.66	1.44	1.86
Other paper recycling	1.75	1.77	1.69
<b>Q26 Table 5.23</b>			
Reuse plastic bottles	1.27	1.27	1.01
Plastic food containers	1.36	1.28	1.16
Reuse wrapping paper	1.25	1.25	1.23
Own shopping bags/boxes	1.24	1.24	1.18
Donate to charity shops	1.36	1.24	1.56
Rechargeable batteries	1.19	1.22	1.48

In chapter 6 of the main report questions on sources of information have design factors in the range 1.2 to 1.4, while the corresponding questions on degree of trust have lower factors effects between 1.0 and 1.3. Questions on alternative energy sources (Figure 6.3, Q E3) also had design factors in the range 1.0 to 1.3, except for the “don’t know” option with higher values at around 1.4. Questions on support for government policies (Figure 6.4 QC42) all have design factors of around 1.2.

### ***Design factors for demographic variables***

5.3 Design factors for demographics are not important in themselves, but they determine how comparisons and regressions with demographic variables will be affected by the sample design. The balance by sex gave the proportions of male or female a design factor of 0.68; while those for age groups, number of adults, number of children and proportion working full-time were all close to 1.0. This means that no design adjustment is needed for comparisons or regression coefficients using these variables, indeed comparisons by sex will be more precise than the equivalent random sample.

The demographic variable most affected by clustering was the urban/rural indicator, since it is defined at the cluster level. Due to clustering alone this has a design factor of 2.8 (the square root of the average cluster size). The design factors for other demographic variables are given in Table 7.

**Table 7:** Design factors for demographic variables with appreciable design factors.

<b>Factor</b>	<b>%</b>	<b>Design factor</b>
<b>Highest qualification</b>		
None/Unknown	25.9	1.43
O grade	25.8	1.36
Higher	14.5	1.17
HNC/D	8.4	1.23
Degree	25.4	1.06
<b>Socio-economic group</b>		
A	2.2	1.13
B	18.8	1.41
C1	30.0	1.26
C2	20.7	1.13
D	16.7	1.31
E	11.6	1.31
<b>Grouped socioeconomic</b>		
A B C1 vs others	51.0	1.45
<b>Car available</b>		
No car	34.3	1.26
<b>Tenure</b>		
own outright or mortgage	61.0	1.59
Local Authority rent	17.5	1.62
Rent housing association etc	8.4	1.70
Other	13.1	1.52
<b>Housing type</b>		
A house or bungalow	68.0	1.88
A flat, maisonette or apartment	31.2	1.87
A room/rooms	0.6	1.90
Other	0.2	1.10

## **6. Conclusion to Technical Annex**

- 6.1 The quota design for the SEABS'08 appears to have delivered a survey sample of quality comparable to what would have been achieved with a probability sample. The major impact of the design on the precision of estimates from the survey is the clustering of answers to questions within the small areas used as sampling units. Detailed tables for this have been provided in this annex, along with recommendations on how to adjust for the sample design in the analysis.

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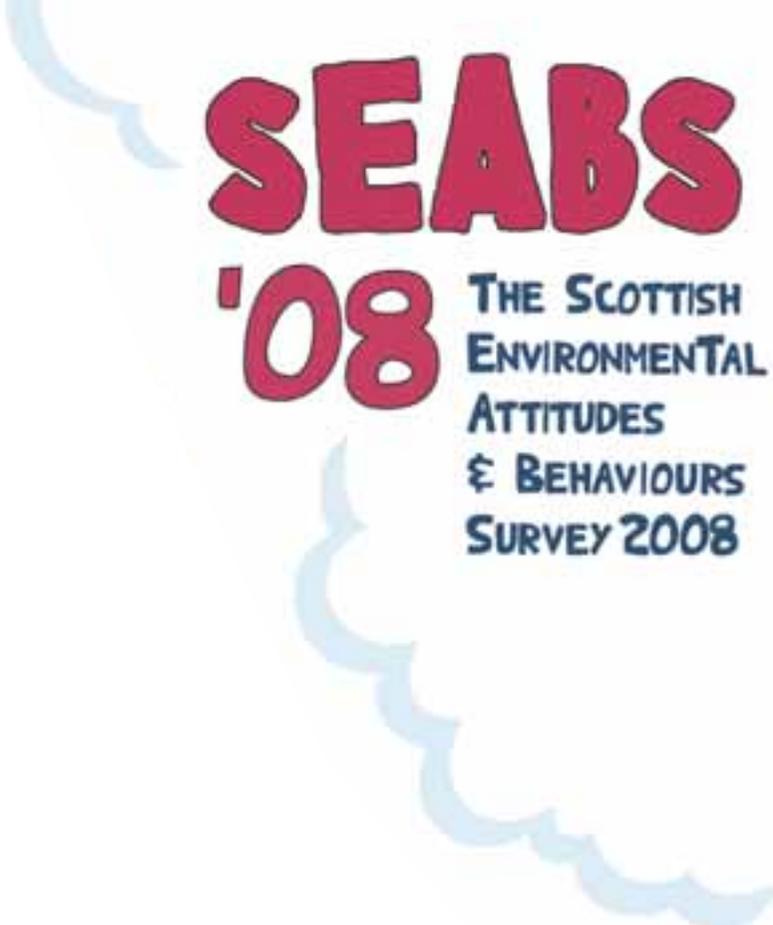
RR Donnelley B60148 3/09



# SEABS

'08 THE SCOTTISH  
ENVIRONMENTAL  
ATTITUDES  
& BEHAVIOURS  
SURVEY 2008





# SEABS

'08 THE SCOTTISH  
ENVIRONMENTAL  
ATTITUDES  
& BEHAVIOURS  
SURVEY 2008



The Children's Climate Change Project 2008 was brought together by WWF Scotland, The Children's Parliament and Children in Scotland, to engage young people in the global debate on climate change and particularly the national debate on the Scottish Climate Change Bill being developed by Scottish Government. The project was supported by Scottish Government and the Scottish Commissioner for Children and Young People. Twenty MCPs (Members of the Children's Parliament) aged between 9-14 years old from the Western Isles, Fife, Edinburgh and South Ayrshire formed the core group. The children also engaged with children and adults back in their home communities. The mural captures the views of children. More information available at

<http://scotland.wwf.org.uk>

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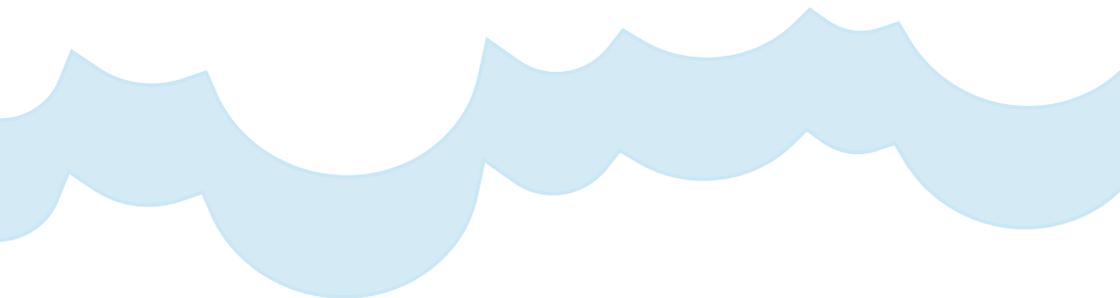
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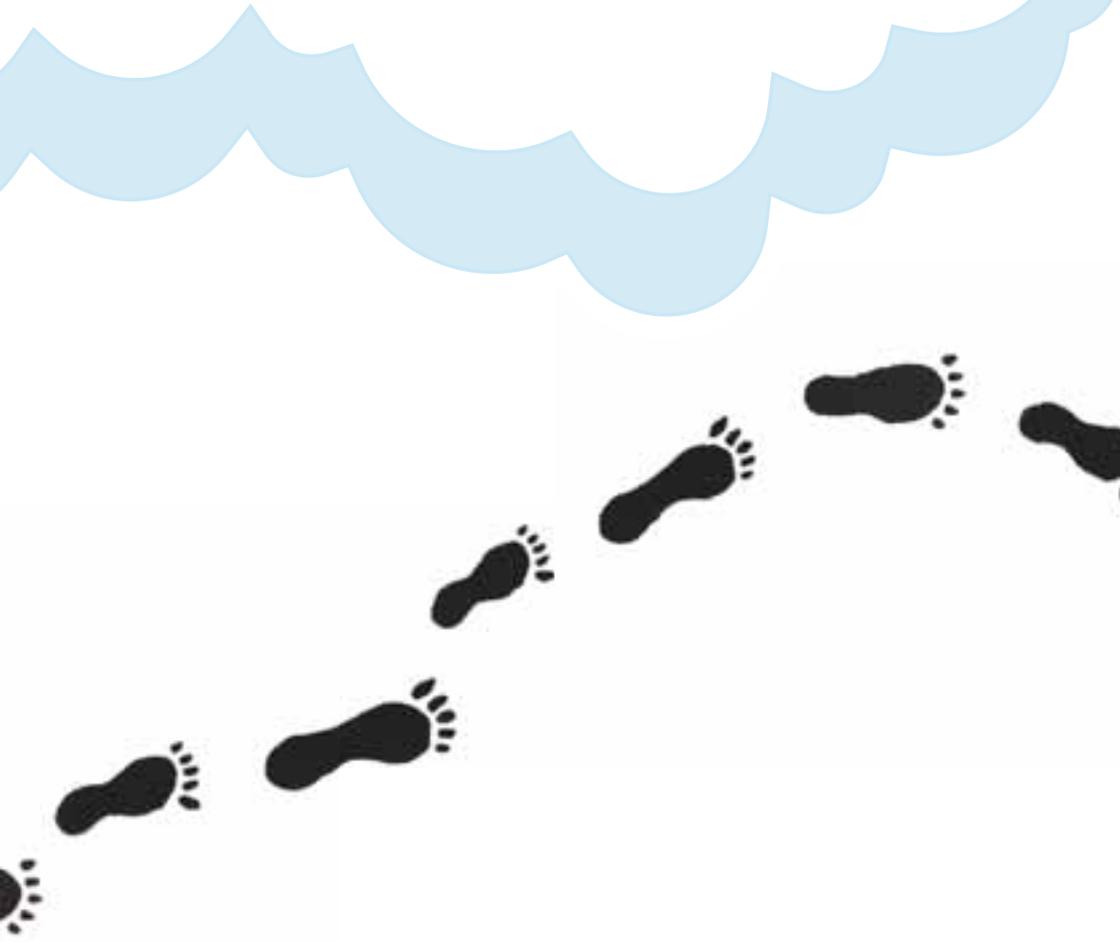
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# INTRO- DUCTION



This headline report presents the topline results from the Scottish Environmental Attitudes and Behaviours Survey 2008 (SEABS'08), focussing on attitudes to the environment, patterns of behaviour and behavioural barriers.

The SEABS'08 is a nationally representative survey of just over 3000 adults in Scotland. Fieldwork was undertaken by Ipsos MORI from August – November 2008. A full SEABS'08 report and summary research findings paper are available online, from the Scottish Government website (see <http://www.scotland.gov.uk/Publications/Recent>).



# TYOLOGY OF ENVIRONMENTAL ENGAGEMENT

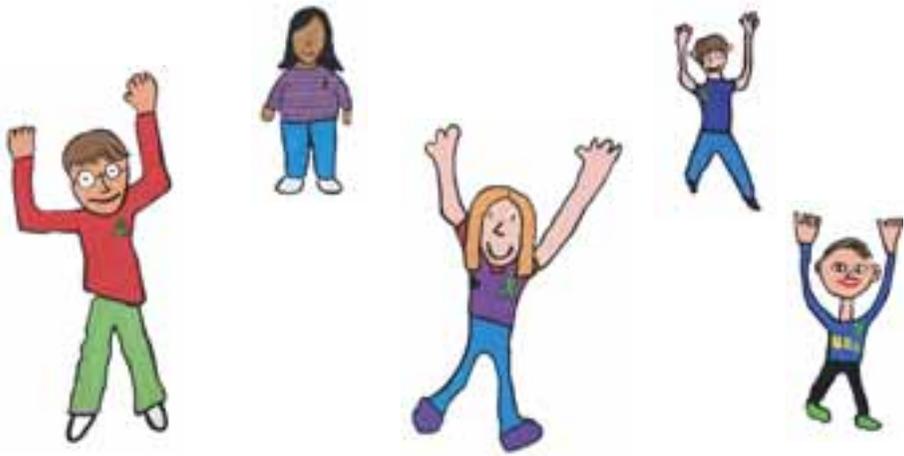
A tyology of environment engagement was created, segmenting people into a hierarchy of five groups:

## **DEEP GREENS:**

These are people who: said that the environment was an important issue in Scotland or the most important issue in the world; believed that climate change is an immediate and urgent problem; and said they know a great deal or a fair amount about climate change. These people are engaged with the issues and are likely to be the most proactive in terms of adopting new or alternative pro-environmental behaviours.

## **LIGHT GREENS:**

People who believe that climate change is an immediate and urgent problem and an important issue globally, but who do not necessary feel well informed about climate change or think that it is an important issue in Scotland. This group could be referred to as “aspiring greens”. They may be interested in adopting new behaviours but tend to be more passive than those who are highly engaged.



## SHALLOW GREENS:

These are people who said that climate change is an immediate and urgent problem, but not one of the most important issues globally or in Scotland. These people accept that climate change is an issue, but may not be convinced of the need to take more than minimal action at present.

## DISTANCED:

This group believe that climate change is more of a problem for the future or hold no views on climate change. It is unlikely that this group will readily accept the need for anything more than minor or relatively easy changes to their lifestyle.

## DISENGAGED:

These are people who are not convinced that climate change is happening or, that if it is happening, believe it is not a problem. This group is likely to be the most resistant to messages about changing their behaviour.

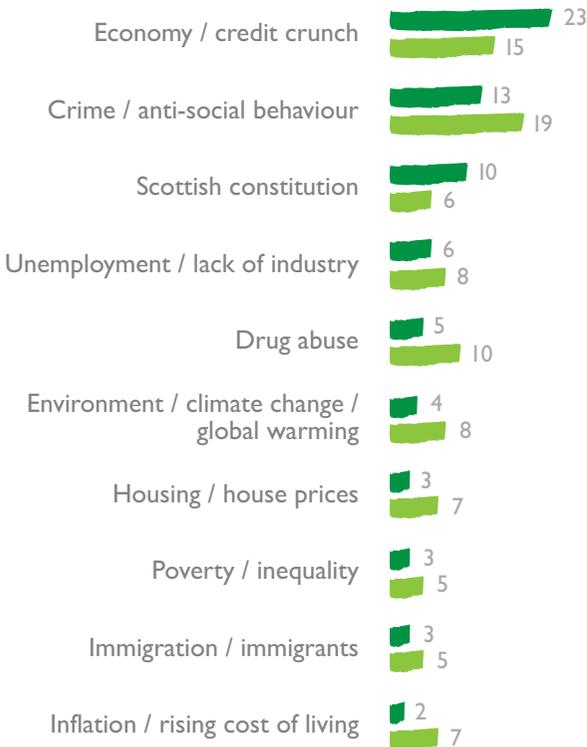


# ATTITUDES TO THE ENVIRONMENT

## IMPORTANCE OF ENVIRONMENTAL ISSUES

Overall, 12% of respondents considered the environment or environmental issues (such as global warming or climate change) as one of the most important issues facing Scotland today, with 4% saying that the environment is the *single most important* issue. Respondents were more likely to mention issues relating to the economy and the 'credit crunch' (38%), crime, law and order and anti-social behaviour (32%), and the Scottish constitution (17%).\*

\* The 17% figure for the 'Scottish Constitution' response reflects that all figures are rounded to the nearest percentage point after additions.



Base: All respondents (3,054)

**Figure 1:** Most important issues facing Scotland – top 10 responses

■ % most important issue  
■ % other issues

Q. What do you see as the most important issue facing Scotland today?

Q. And what do you see as other important issues facing Scotland today?

The environment was mentioned more often when respondents were asked what were the most important issues facing the world, with around a third of respondents (35%) reporting this. Respondents were most likely to view international conflict (such as terrorism and the wars in Iraq and Afghanistan) as an important issue facing the world (43%), while 35% mentioned the economy.

When asked about environmental issues specifically, climate change/global warming was mentioned more than any other issue (41%). The second most commonly mentioned issue was weather patterns/freak weather (19%). Other issues included: household waste (18%), consumption of natural resources (15%) and CO<sub>2</sub> emissions (15%).

# KNOWLEDGE OF CLIMATE CHANGE, ITS CAUSES AND EFFECTS

Most respondents said they knew something about climate change. Just over two-fifths (43%) said they know a fair amount, and 5% said they know a great deal about climate change. Two-fifths (40%) said they know not very much. In contrast, 10% said that they had heard of climate change but knew nothing about it. Only 1% of respondents in Scotland have never heard of climate change.

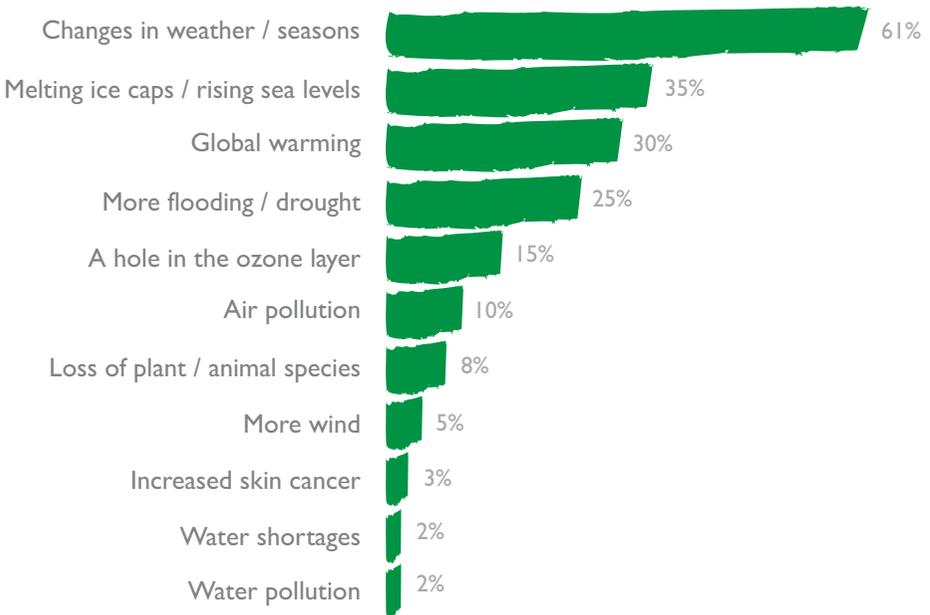
Those who said they know at least something about climate change were asked what they thought were the main causes of climate change. Emissions, including emissions from cars and road transport (35%); general CO<sub>2</sub> emissions (34%); and factories and power stations (30%) were the most common responses.

Respondents who said they knew something about climate change were also asked what the effects of climate change were. The majority of respondents mentioned changes in weather (61%). Melting ice caps and rises in sea levels were mentioned by 35% of respondents, global warming by 30%, and more flooding and droughts by 25%.



## Figure 2: Perceived effects of climate change

Q. From what you know or have heard, what would you say are the main effects of climate change?



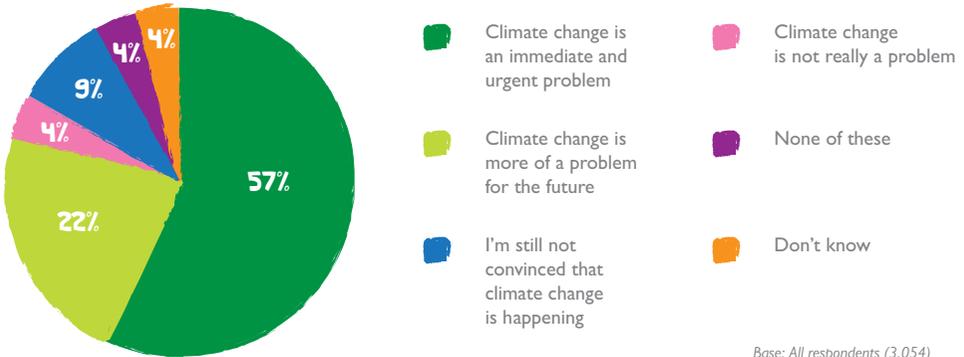
Base: All who know a great deal, a fair amount or not very much about climate change (2,699).

# IMMEDIACY OF THE THREAT OF CLIMATE CHANGE AND VIEWS ON THE USEFULNESS OF INDIVIDUAL CHANGES

The majority of respondents (57%) said climate change is an immediate and urgent problem. Around a fifth of respondents (22%) said that climate change is more of a problem for the future. Fewer respondents said that climate change is not really a problem (4%) or are not convinced that climate change is happening (9%).

**Figure 3:** Perceived immediacy of the threat from climate change

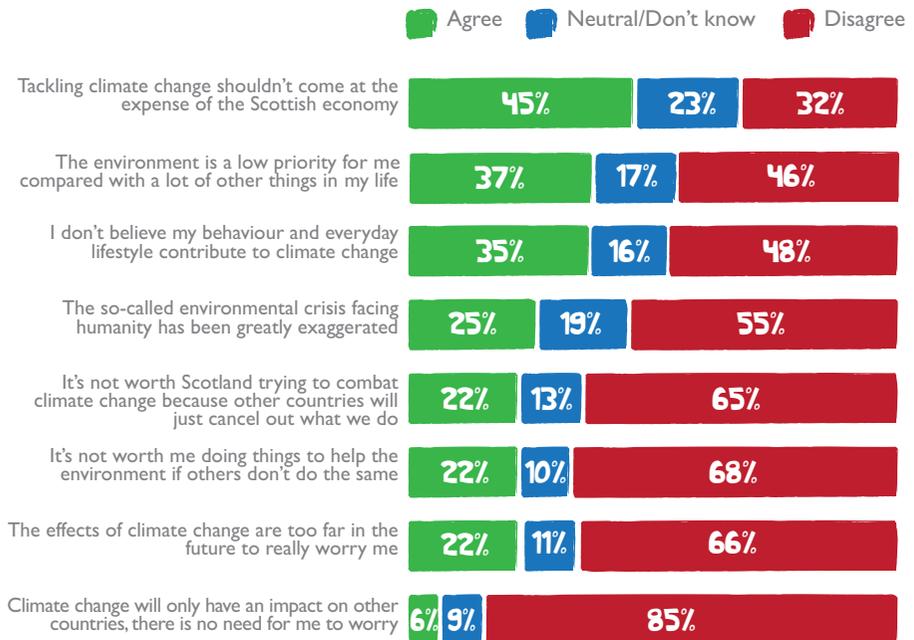
Q. Which of these statements, if any, comes closest to your view?



Respondents were asked if they agreed with the statement, “It is not worth Scotland trying to combat climate change, because other countries will just cancel out what we do”. Overall, 22% agreed with this statement and 65% disagreed. When asked if they agreed that “it’s not worth me doing things to help the environment if others don’t do the same”, 22% agreed and 68% disagreed.

## Figure 4: Agreement/disagreement with statements about climate change and the environment

Q. To what extent do you agree or disagree with each statement?



Base: All who completed the CASI section (2,673)

Respondents were asked what two or three actions they thought would most help reduce climate change. The most commonly mentioned actions were recycling (45%), avoiding creating waste in the first place (36%), using a more fuel-efficient car (32%) and making fewer car journeys (28%).

# BEHAVIOUR AND BAR

## TRAVEL BEHAVIOURS- TRAVEL BY CAR

Driving by car is the most common mode of transport for respondents to travel to work and do grocery shopping. The majority of respondents in employment travel to work in a car, either themselves (56%) or by getting a lift from someone else (6%). In comparison, 16% walk, 12% travel by bus and 5% travel by train.

Respondents who drive to work were asked why they choose to drive rather than use alternative modes of transport. Respondents were most likely to say:

- Travel by car is quicker and more convenient (50%).
- They need the car for work (20%).
- There is a lack of, or problems with, public transport services; including no direct public transport services (18%), or public transport takes too long (13%).



# OUR CARRIERS

Similarly, the majority of respondents drive (54% drive themselves, 9% get a lift) to the place where they do their main food and grocery shopping. Other most common modes of transport to do the main food and grocery shopping were walking (22%) and using a bus (11%).

As was the case with those who drive to work, the main reasons given by respondents who drive to do their main food and grocery shopping is that the car is quicker and more convenient (54%). Overall, 44% said it is too heavy to carry shopping on public transport or by foot.

The prominence of driving in respondents' lives is reflected by how often respondents use different modes of transport. Nearly half (45%) said they use a car as a driver *most days*, while a further 15% use a car as a passenger *most days*. By comparison 18% of respondents said they use the bus *most days* and 3% said they use the train *most days*. Overall, 27% of respondents *never* use buses.

Deep Greens and Light Greens were more likely to cycle to work than Shallow Greens, the Distanced and the Disengaged.





## TRAVEL BEHAVIOURS- TRAVEL BY AIR

Just under half of respondents (46%) have taken a flight in the last 12 months for holidays or visiting friends or family. The most common destination for leisure journeys made by air was Europe. Overall, 33% of respondents had flown to Europe in the last 12 months, while 17% had flown to somewhere in the UK (outside Scotland), 15% to outside of Europe, and 4% had flown within Scotland.

Respondents who made a flight within the UK or Scotland for holidays or visiting friends or family were asked why they used air travel rather than using alternative modes of transport. Respondents were most likely to give one of two reasons: it is quicker/easiest/most convenient (74%); and flying is cheaper than alternative options (27%).



Compared to flights taken for holidays or visiting friends or family, respondents were less likely to have taken flights for work or business purposes, with 17% of workers saying they have taken a flight for this reason in the last twelve months. The most common destination for work journeys made by air was to somewhere in the UK, outside of Scotland. Overall, 12% of working respondents had flown to somewhere in the UK (outside Scotland), while 7% had flown to somewhere within Europe, 5% to outside of Europe, and 4% had flown within Scotland for work in the last twelve months.

The reasons respondents give for using air travel within the UK for work or business purposes rather than other means are that it is: quicker/easiest/most convenient (67%); it is cheaper (16%); and that there was no alternative (16%).

# HOUSEHOLD ENERGY USE

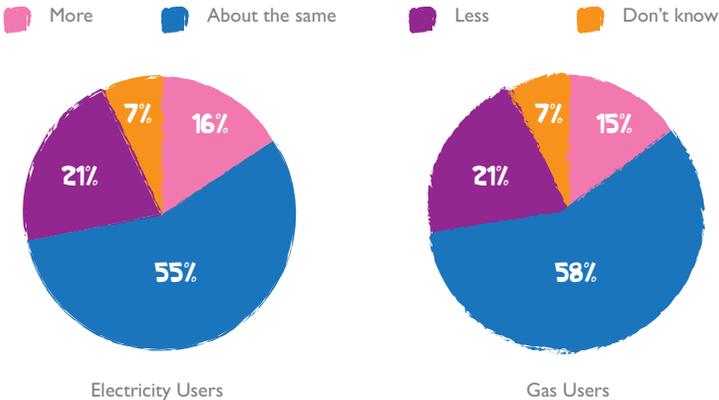
Nearly all respondents in Scotland use electricity (98%) or gas (79%) for lighting, heating and power. Only a small proportion of respondents (less than 1%) said they obtain fuel from micro-generation.

Asked about their current use of gas and electricity compared with a year ago, respondents who use these types of fuel were most likely to say they were using about the same amount (electricity users – 55% and gas users – 58%). Overall, 21% said they were using less electricity/gas now compared with one year ago. Fewer respondents said they were now using more gas and electricity (15% and 16% respectively) than a year ago.

**Figure 5:** Amount of electricity and gas used compared with a year ago

Q. Ignoring any increases in the cost of electricity in the last year, compared with a year ago, do you think you are using more, less, or about the same amount of electricity?

Q. Ignoring any increases in the cost of gas in the last year, compared with a year ago, do you think you are using more, less, or about the same amount of gas?



Base: All who use electricity (3,007); all who use gas (2,408)

Analysis by the engagement typology finds that the **Deep Green** grouping were more likely than all of the other groupings to say they use less electricity and/or gas than a year ago.

Those who thought they were using more electricity now than 12 months ago were asked why they were doing so. The most common reasons were: more electrical appliances in the household (30%); and a change to the number of respondents living in the household (19%). A quarter of respondents (25%) said they did not know why they were now using more electricity.

Similarly, those who said they were using more gas than they did 12 months ago were asked why this was the case. Again, the two most common reasons were a change in the number of occupants living in the household (21%) and an increase in the number of household appliances (12%). Around a third of respondents (32%) said they did not know why they were using more gas.

Respondents who said they were using less electricity or gas were also asked why they were doing so. Respondents gave two key reasons:

- As a result of the increased cost/to save money (electricity – 67%; gas – 68%).
- Environmental concerns (electricity – 16%; gas – 13%).

While the majority of respondents said they could accurately estimate, to the nearest £20, the amount that they spend on each month on gas and electricity (66% and 68% respectively), a significant minority – around a third (34% and 32% respectively) of respondents – said they could not.



# IMPORTANCE OF EVERYDAY ENERGY-SAVING BEHAVIOURS

Respondents were presented with a list of day-to-day energy-saving behaviours and were asked how important they think it is that people do each. Most respondents said that it's important that people:

- 94%** Turn off lights in rooms that aren't being used.
- 91%** Hang their washing up to dry rather than using a tumble dryer in the summer.
- 90%** Use energy saving light bulbs where possible.
- 83%** Avoid filling the kettle with more water than they are going to use.
- 73%** Turn off the heating when they go out for a few hours in the winter.
- 72%** Turn off the tap when brushing their teeth.

However, a proportion of respondents said it is not important for respondents to turn off the heating when they go out for a few hours in the winter (25%) or turn off the tap when brushing their teeth (27%).

The most engaged typology groupings were generally more likely than the less engaged groupings to rate each of the behaviours as important.

## RECYCLE, REDUCE, REUSE

Respondents were also asked how often they reuse a variety of everyday items. Most respondents sometimes use their own shopping bags or boxes, with 48% saying they use them *every time*. Similarly, the majority of respondents claim to carry out the following behaviours *every time*:

**28%** Donate items to the charity shop.

**21%** Reuse wrapping paper/gift bags.

**23%** Reuse plastic food containers.

**17%** Use rechargeable batteries.

**16%** Reuse plastic drink bottles.

A significant proportion of respondents said that they never use rechargeable batteries **38%**, plastic drinks bottles **36%**, wrapping paper/gift bags **24%** and plastic food containers **25%**.

Respondents who said they did not use their own shopping bags or boxes every time were asked why they did not do so more often. The reason most commonly given was that they forget to take them with them when they go shopping **54%**. Respondents were less likely to mention other reasons, including: laziness **9%**; they just do not think about it **9%**; they do not plan when they go shopping **7%**; and the shop supplies bags/boxes so they do not need to bring their own **6%**.

Respondents were more likely to make use of kerbside recycling services than other recycling facilities, such as bottle banks. Kerbside paper recycling collection services, where available, were used by **84%** of respondents at least sometimes; with **76%** saying they use such facilities every time.

By comparison, they use other recycling services and facilities less often:

**72%** use the kerbside garden waste recycling collection, where available, every time.

**63%** use the kerbside can recycling collection, where available, every time.

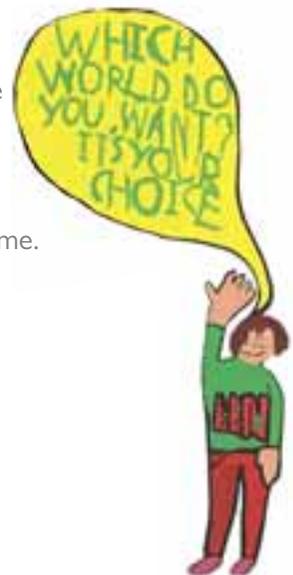
**60%** use the kerbside bottle recycling collection where available every time.

**44%** use other bottle recycling facilities, where kerbside services are not provided, every time.

**41%** use other paper recycling facilities, where kerbside services are not provided, every time.

**33%** use other can recycling facilities, where kerbside services are not provided, every time.

**19%** of respondents with a garden use a home composting heap or bin, or worm farm every time.



# KNOWLEDGE OF WHITE GOODS' ENERGY EFFICIENCY RATINGS

Respondents were asked whether they have bought a number of white goods in the past two years and, if so, whether they were aware of the energy efficiency rating of their new item. For the three items most commonly purchased in the past two years – television; fridge or freezer or fridge freezer; and washing machine – the majority of respondents said they did not know what the energy efficiency was (82%, 54% and 53% respectively).

# GROCCER SHOPPING

Asked about the types of products they buy, respondents were most likely to buy (at least sometimes): free-range eggs (76%); free-range poultry (52%) and eco-friendly cleaning products (40%). Just under half buy (at least sometimes) recycled toilet paper (39%) and organic carrots (34%). Respondents were far less likely to purchase eco-friendly clothing (18%) or organic cows' milk (12%).

Respondents were asked what, if anything, stops them from buying food produced locally – in Scotland – rather than food produced in other countries. A third (34%) of respondents said they already buy as much locally produced food as they can. Around a fifth (21%) said that locally produced food is more expensive, while 13% said locally produced food is not available in their area. Less than one in ten respondents said they like to eat a variety of foods (7%) or do not pay much attention to where the food they buy is produced (7%).



Supermarkets were by far the most popular places to buy groceries, with almost all (97%) respondents saying they visit supermarkets at least once a month, and around half (52%) saying they do *most* of their grocery shopping in supermarkets. Meanwhile, around two in five respondents said they visit small independent shops (40%) and convenience stores or corner shops (35%). Very few people said they regularly buy groceries from other types of shop – for example, only around one in ten said they visit farmers' markets (9%) or health food shops (7%) at least once a month. **Deep Greens** were the grouping most likely to visit shops other than supermarkets.

# MEETING THE CHALLENGE





FORCE!



COOL 2 BE ECO



CHANGE!!

In order to explore a few of the various policy options available to policy makers to meet the challenge, respondents were asked whether they supported a variety of hypothetical policy developments:

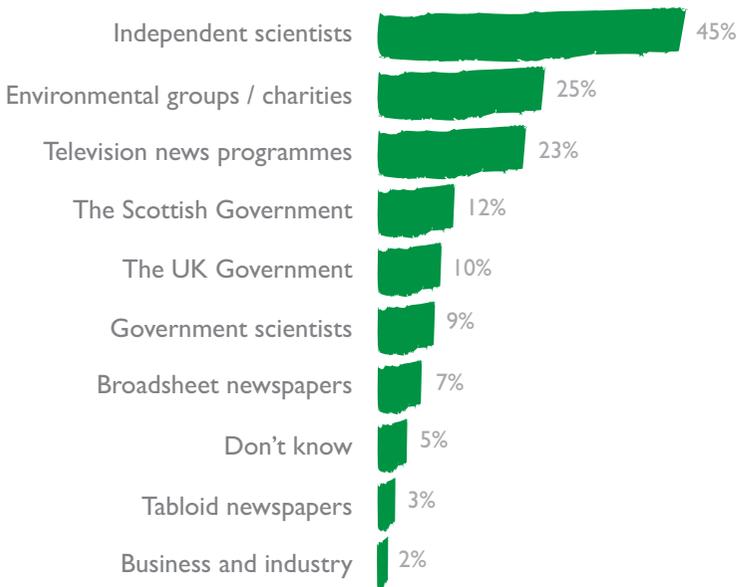
- Requiring shops to charge 10p for a carrier bag was supported by 61% of respondents, and opposed by 37%.
- Introducing water meters so that respondents pay for the amount they use was supported by 49% of respondents, and opposed by 45%.
- Charging car owners to drive in city centres (congestion charging) was supported by 40% of respondents and opposed by 55%.

Respondents were asked what sources they would trust the most to provide them with correct information about climate change. The most commonly mentioned sources were:

- 45% independent scientists
- 25% environmental groups or charities
- 23% television news programmes
- 12% Scottish Government

**Figure 6:** Most trusted sources of information on climate change

Q. Which of the following, if any, would you trust most to give you correct information about climate change?



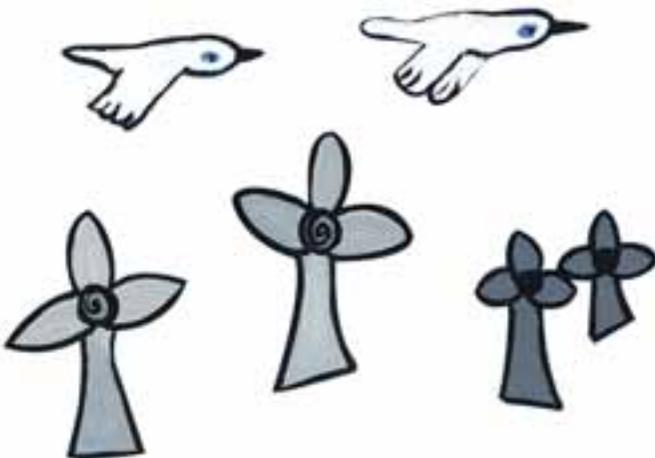
Base: All respondents (3,054)

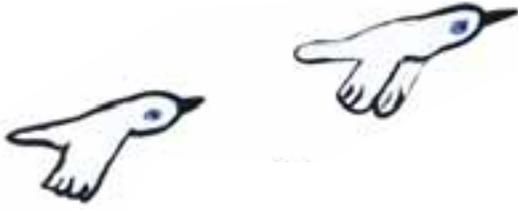
When asked who they would trust the least, the most commonly mentioned sources were the UK Government (34%), tabloid newspapers (34%), business and industry (22%) and the Scottish Government (17%).

# ENERGY SOURCES

Respondents were asked whether they agreed or disagreed with a number of statements relating to the value and impact of renewable energy sources, as well as nuclear energy, *vis a vis* traditional energy

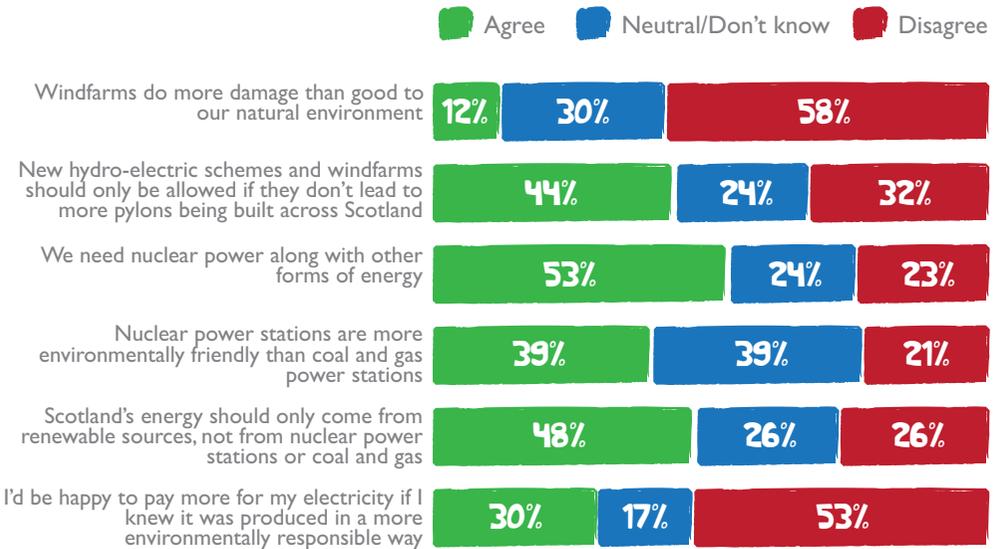
sources. Results are shown in figure 7. In general, those who were the most environmentally engaged held ‘greener’ views than less engaged groupings.





**Figure 7:** Perceptions of alternative energy sources

Q. To what extent do you agree or disagree?



Base: All respondents (3,054)



# GREENSPACE

Respondents were asked how often they visit public gardens, parks, countryside or other greenspaces. When asked how often they visited greenspaces, 55% of respondents said they did so at least once a week, 22% said at least once a month but less than once a week, 13% said less than once a month, and 10% said they never visited greenspaces.

Most respondents (79%) said that it was very important to them to have gardens, parks, countryside or other greenspaces nearby, while 18% said it was fairly important. Only 2% said that this was not very important and 1% that this was not at all important.

# WELL- BEING

Respondents were asked whether they agreed or disagreed with five statements related to their wellbeing:

**I am satisfied with my life:**

80% agreed while 13% disagreed.

**So far I have managed to get the important things I want in life:**

79% agreed while 14% disagreed.

**In most ways my life is close to my ideal:**

69% agreed while 20% disagreed.

**The conditions of my life are excellent:**

65% agreed while 23% disagreed.

**If I could live my life over, I would change almost nothing:**

54% agreed while 36% disagreed.

Respondents were also asked what two or three things would most improve their wellbeing.

**Figure 8:** Top 10 changes that would improve wellbeing

Q. Which two or three of the following would do most to improve your wellbeing?



The responses most commonly given were: earning/having more money (27%), improved health (23%), spending more time with family (20%), doing more exercise/physical activity (17%), working fewer hours (13%), spending more time with friends (12%), losing weight (12%), and spending more time outdoors (11%).

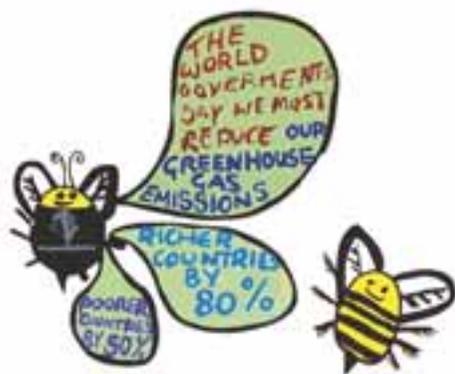
## LINKS BETWEEN GREENSPACE AND WELLBEING

Those who said they visit greenspace everyday, at least once a week or at least sometimes, were more likely than those who never do so to say they were satisfied with life (82%, 77%, and 78% respectively versus 68%). Conversely, those who *never* visit greenspace were nearly twice as likely as those who do so every day to say they were dissatisfied with life (27% versus 14%).

# FOR ADVICE ON GREENER BEHAVIOURS SEE

[http://infoscotland.com/gogreener/CCC\\_FirstPage.jsp](http://infoscotland.com/gogreener/CCC_FirstPage.jsp)

<http://www.scotland.gov.uk/Topics/Environment/climatechange>





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## **SHOWCARD A1**

**Self employed**

**Employed full time**

**Employed part time**

**Looking after the home or family**

**Permanently retired from work**

**Unemployed and seeking work**

**At school**

**In further/higher education**

**Government work or training scheme**

**Permanently sick or disabled**

**Unable to work due to short-term illness or injury**

**Reverse**

**SHOWCARD A1 (R)**

**Unable to work due to short-term illness or injury**

**Permanently sick or disabled**

**Government work or training scheme**

**In further/higher education**

**At school**

**Unemployed and seeking work**

**Permanently retired from work**

**Looking after the home or family**

**Employed part time**

**Employed full time**

**Self employed**

## **SHOWCARD A2**

**Buying with mortgage/loan**

**Own it outright**

**Part rent/part mortgage**

**Rents (including rent paid by housing benefit) from:**

- Local authority/council**
- Scottish Homes**
- Housing association/housing co-operative or charitable trust**
- Employer of a household member (organisation)**
- Another organisation**
- Relative/friend of household member**
- Employer of a household member (individual)**
- Individual private landlord**
- Other**

**Living here rent free**

**Reverse**

**SHOWCARD A2 (R)**

**Living here rent free**

**Rents (including rent paid by housing benefit) from:**

- Other
- Individual private landlord
- Employer of a household member (individual)
- Relative/friend of household member
- Another organisation
- Employer of a household member (organisation)
- Housing association/housing co-operative or charitable trust
- Scottish Homes
- Local authority/council

**Part rent/part mortgage**

**Own it outright**

**Buying with mortgage/loan**

## **SHOWCARD B1**

**Every day**

**Several times a week**

**Once a week**

**Several times a month**

**Once a month**

**Less often**

**Not at all**

**Reverse**

**SHOWCARD B1 (R)**

**Not at all**

**Less often**

**Once a month**

**Several times a month**

**Once a week**

**Several times a week**

**Every day**

## **SHOWCARD B2**

**Very important**

**Fairly important**

**Not very important**

**Not at all important**

**SHOWCARD B2 (R)**

**Reverse**

**Not at all important**

**Not very important**

**Fairly important**

**Very important**

## **SHOWCARD C1**

**Most days**

**Once or twice a week**

**About once a fortnight**

**About once a month**

**Several times a year**

**About once a year or less**

**Never**

**Reverse**

**SHOWCARD C1 (R)**

**Never**

**About once a year or less**

**Several times a year**

**About once a month**

**About once a fortnight**

**Once or twice a week**

**Most days**

## **SHOWCARD C2**

- A Looking at a paper timetable, including timetables at bus stops/train stations**
- B Looking for information on services and times on the internet/a website**
- C Getting information via text or WAP on your mobile phone**
- D Calling travel information provider, e.g. TraveLine, bus station etc**
- E Asking at Travel Information Centre at bus/train station**
- F Asking at Travel Information Centre in a public place NOT at bus/train station**
- G Electronic kiosks/terminals for public use at bus/train stations**
- H Electronic kiosks/terminals for public use in a public place NOT at bus/train stations**
- I Electronic kiosks/terminals at your place of work**
- J Digital TV interactive services**
- K Asking a friend/relative**
- L Something else**

**SHOWCARD C2 (R)**

- L Something else**
- K Asking a friend/relative**
- J Digital TV interactive services**
- I Electronic kiosks/terminals at your place of work**
- H Electronic kiosks/terminals for public use in a public place NOT at bus/train stations**
- G Electronic kiosks/terminals for public use at bus/train stations**
- F Asking at Travel Information Centre in a public place NOT at bus/train station**
- E Asking at Travel Information Centre at bus/train station**
- D Calling travel information provider, e.g. TraveLine, bus station etc**
- C Getting information via text or WAP on your mobile phone**
- B Looking for information on services and times on the internet/a website**
- A Looking at a paper timetable, including timetables at bus stops/train stations**

## **SHOWCARD C3**

**Electricity**

**Gas**

**Heating oil**

**Solid fuel (coal/wood/peat)**

**Bottled gas**

**Bulk liquid propane gas**

**Paraffin**

## **SHOWCARD C3 (R)**

**Reverse**

**Paraffin**

**Bulk liquid propane gas**

**Bottled gas**

**Solid fuel (coal/wood/peat)**

**Heating oil**

**Gas**

**Electricity**

## **SHOWCARD C4**

**Photo voltaics**

**Solar panels**

**Air and Ground source heat pumps**

**Wind turbines**

**Utilisation of landfill gases**

**Geo-thermal energy**

**Biomass**

**Hydro**

**Combined heating and power**

**Diesel/oil**

**Wood/peat**

## **SHOWCARD C4 (R)**

**Reverse**

**Wood/peat**

**Diesel/oil**

**Combined heating and power**

**Hydro**

**Biomass**

**Geo-thermal energy**

**Utilisation of landfill gases**

**Wind turbines**

**Air and Ground source heat pumps**

**Solar panels**

**Photo voltaics**

# **SHOWCARD C5**

**Photo voltaics**

**Solar Panels**

**Air & Ground source heat pumps**

**Micro wind turbines**

## **SHOWCARD C5 (R)**

**Reverse**

**Micro wind turbines**

**Air & Ground source heat pumps**

**Solar Panels**

**Photo voltaics**

## **SHOWCARD C6**

**Always**

**Most of the time**

**Sometimes**

**Rarely**

**Never**

**SHOWCARD C6 (R)**

**Reverse**

**Never**

**Rarely**

**Sometimes**

**Most of the time**

**Always**

## **SHOWCARD C7**

**Very important**

**Fairly important**

**Not very important**

**Not at all important**

**SHOWCARD C7 (R)**

**Reverse**

**Not at all important**

**Not very important**

**Fairly important**

**Very important**

## **SHOWCARD C8**

**Every time**

**Most times**

**Sometimes**

**Rarely**

**Never**

**Service not provided in my area**

**Reverse**

**SHOWCARD C8 (R)**

**Service not provided in my area**

**Never**

**Rarely**

**Sometimes**

**Most times**

**Every time**

## **SHOWCARD C9**

**I make all the decisions**

**I make most of the decisions**

**I have a bit of involvement**

**I am not involved in decisions**

**Reverse**

**SHOWCARD C9 (R)**

**I am not involved in decisions**

**I have a bit of involvement**

**I make most of the decisions**

**I make all the decisions**

# **SHOWCARD C10**

**Supermarket**

**Online**

**Small independent shops  
(Greengrocer/Butcher/Fishmonger/Bakery)**

**Farmers market/Farm shop**

**Market**

**Convenience store/corner shop**

**Have vegetable box delivered**

**Health food shop**

**Reverse**

**SHOWCARD C10 (R)**

**Health food shop**

**Have vegetable box delivered**

**Convenience store/corner shop**

**Market**

**Farmers market/Farm shop**

**Small independent shops  
(Greengrocer/Butcher/Fishmonger/Bakery)**

**Online**

**Supermarket**

## **SHOWCARD C11**

- A Fair trade products**
  
- B Fish certified by Marine Stewardship Council/Fish from sustainable sources**
  
- C Timber products certified by Forestry Stewardship Council/Timber from sustainable sources**
  
- D Scotch Lamb**
  
- E Scotch Beef**
  
- F Specially Selected Pork**
  
- G Freedom food**
  
- H LEAF marque food**

**Reverse**

**SHOWCARD C11 (R)**

- H LEAF marque food**
  
- G Freedom food**
  
- F Specially Selected Pork**
  
- E Scotch Beef**
  
- D Scotch Lamb**
  
- C Timber products certified by Forestry Stewardship Council/Timber from sustainable sources**
  
- B Fish certified by Marine Stewardship Council/Fish from sustainable sources**
  
- A Fair trade products**

## **SHOWCARD C12**

**Every time**

**Most times**

**Sometimes**

**Rarely**

**Never**

**Whenever they are available**

**SHOWCARD C12 (R)**

**Reverse**

**Whenever they are available**

**Never**

**Rarely**

**Sometimes**

**Most times**

**Every time**

## **SHOWCARD C13**

**A great deal**

**A fair amount**

**Not very much**

**Have heard of it, but know nothing about it**

**Have never heard of it**

**Reverse**

**SHOWCARD C13 (R)**

**Have never heard of it**

**Have heard of it, but know nothing about it**

**Not very much**

**A fair amount**

**A great deal**

## **SHOWCARD C14**

**Climate change is an immediate and urgent problem**

**Climate change is more of a problem for the future**

**Climate change is not really a problem**

**I'm still not convinced that climate change is happening**

**None of these**

**Reverse**

**SHOWCARD C14 (R)**

**I'm still not convinced that climate change is happening**

**Climate change is not really a problem**

**Climate change is more of a problem for the future**

**Climate change is an immediate and urgent problem**

**None of these**

## **SHOWCARD C15**

**Broadsheet newspapers**

**Tabloid newspapers**

**Books**

**Specialist/scientific magazines**

**TV/radio news**

**TV/radio documentaries**

**Other TV/radio programmes**

**Internet sites:**

- BBC/other news website**
- Environmental organisation's website**
- Scottish Government website**
- other internet site**

**Leaflets/other publications produced by government**

**My child/ren**

**Personal experience/things I have seen around me**

**Word of mouth (friends, family etc.)**

**SHOWCARD C15 (R)**

**Word of mouth (friends, family etc.)**

**Personal experience/things I have seen around me**

**My child/ren**

**Leaflets/other publications produced by government**

**Internet sites:**

- other internet site**
- Scottish Government website**
- Environmental organisation's website**
- BBC/other news website**

**Other TV/radio programmes**

**TV/radio documentaries**

**TV/radio news**

**Specialist/scientific magazines**

**Books**

**Tabloid newspapers**

**Broadsheet newspapers**

## **SHOWCARD C16**

**The Scottish Government**

**The UK Government**

**Business and industry**

**Environmental groups/charities**

**Television news programmes**

**Broadsheet newspapers**

**Tabloid newspapers**

**Government scientists**

**Independent scientists**

**Reverse**

**SHOWCARD C16 (R)**

**Independent scientists**

**Government scientists**

**Tabloid newspapers**

**Broadsheet newspapers**

**Television news programmes**

**Environmental groups/charities**

**Business and industry**

**The UK Government**

**The Scottish Government**

## **SHOWCARD C17**

**Recycling**

**Buying fewer products generally**

**Avoiding creating waste in the first place**

**Making fewer car journeys**

**Using less electricity**

**Taking fewer foreign holidays**

**Walking or cycling**

**Using public transport**

**Buying locally grown food rather than food produced abroad**

**People having fewer children**

**Using a more fuel efficient car**

**Reusing bottles/containers**

**Using water sparingly**

**Buying organic produce**

**SHOWCARD C17 (R)**

**Buying organic produce**

**Using water sparingly**

**Reusing bottles/containers**

**Using a more fuel efficient car**

**People having fewer children**

**Buying locally grown food rather than food produced abroad**

**Using public transport**

**Walking or cycling**

**Taking fewer foreign holidays**

**Using less electricity**

**Making fewer car journeys**

**Avoiding creating waste in the first place**

**Buying fewer products generally**

**Recycling**

## **SHOWCARD E1**

- A I discuss the environment and climate change with people I know**
  
- B I've noticed that people I know are doing more to help the environment these days**
  
- C I try to persuade people I know to do more to help the environment**
  
- D I've suggested improvements at my workplace to help the environment**

**Reverse**

**SHOWCARD E1 (R)**

- D I've suggested improvements at my workplace to help the environment**
  
- C I try to persuade people I know to do more to help the environment**
  
- B I've noticed that people I know are doing more to help the environment these days**
  
- A I discuss the environment and climate change with people I know**

## **SHOWCARD E2**

**Strongly agree**

**Tend to agree**

**Neither agree nor disagree**

**Tend to disagree**

**Strongly disagree**

**SHOWCARD E2 (R)**

**Reverse**

**Strongly disagree**

**Tend to disagree**

**Neither agree nor disagree**

**Tend to agree**

**Strongly agree**

## **SHOWCARD H1**

**British Trust for Conservation Volunteers (BTCV)**

**Christian Aid**

**Civic Trust**

**Friends of the Earth**

**Greenpeace**

**Historic Scotland**

**John Muir Trust**

**National Trust/National Trust for Scotland**

**Oxfam**

**Ramblers Association**

**Royal Society for the Protection of Birds (RSPB)**

**Royal Botanic Garden**

**Scottish Women's Rural Institute (SWRI)**

**Scottish Wildlife Trust**

**Stop Climate Chaos**

**The Woodland Trust**

**WWF**

**Reverse**

**SHOWCARD H1 (R)**

**WWF**

**The Woodland Trust**

**Stop Climate Chaos**

**Scottish Wildlife Trust**

**Scottish Women's Rural Institute (SWRI)**

**Royal Botanic Garden**

**Royal Society for the Protection of Birds (RSPB)**

**Ramblers Association**

**Oxfam**

**National Trust/The National Trust for Scotland**

**John Muir Trust**

**Historic Scotland**

**Greenpeace**

**Friends of the Earth**

**Civic Trust**

**Christian Aid**

**British Trust for Conservation Volunteers (BTCV)**

## **SHOWCARD H2**

**Raising money**

**Committee work**

**Office work or administration**

**Providing advice or assistance to others**

**IT support**

**Education or training or coaching**

**Advocacy**

**Campaigning**

**Providing transport or driving**

**Visiting, buddying or befriending people**

**Counselling**

**Helping to organize or run events or activities**

**Providing direct services (e.g. meals on wheels, doing odd jobs) etc.**

**Representing others**

**Managing, organizing or co-ordinating other unpaid helpers**

**Generally helping out**

**Doing whatever is required**

**SHOWCARD H2 (R)**

**Doing whatever is required**

**Generally helping out**

**Managing, organizing or co-ordinating other unpaid helpers**

**Representing others**

**Providing direct services (e.g. meals on wheels, doing odd jobs) etc.**

**Helping to organize or run events or activities**

**Counselling**

**Visiting, buddying or befriending people**

**Providing transport or driving**

**Campaigning**

**Advocacy**

**Education or training or coaching**

**IT support**

**Providing advice or assistance to others**

**Office work or administration**

**Committee work**

**Raising money**

## SHOWCARD H3

### **A WHITE**

Scottish  
English  
Welsh  
Northern Irish  
British  
Irish  
Gypsy/Traveller  
Polish  
Any other white ethnic group

### **B MIXED**

Any mixed background

### **C ASIAN, ASIAN SCOTTISH OR ASIAN BRITISH**

Pakistani, Pakistani Scottish or Pakistani British  
Indian, Indian Scottish or Indian British  
Bangladeshi, Bangladeshi Scottish or Bangladeshi British  
Chinese, Chinese Scottish or Chinese British  
Other

### **D AFRICAN, CARIBBEAN OR BLACK**

African, African Scottish or African British  
Caribbean, Caribbean Scottish or Caribbean British  
Black, Black Scottish or Black British  
Other

### **E OTHER ETHNIC GROUP**

Arab  
Other

**SHOWCARD H3 (R)**

**A WHITE**

Scottish  
English  
Welsh  
Northern Irish  
British  
Irish  
Gypsy/Traveller  
Polish  
Any other white ethnic group

**B MIXED**

Any mixed background

**C ASIAN, ASIAN SCOTTISH OR ASIAN BRITISH**

Pakistani, Pakistani Scottish or Pakistani British  
Indian, Indian Scottish or Indian British  
Bangladeshi, Bangladeshi Scottish or Bangladeshi British  
Chinese, Chinese Scottish or Chinese British  
Other

**D AFRICAN, CARIBBEAN OR BLACK**

African, African Scottish or African British  
Caribbean, Caribbean Scottish or Caribbean British  
Black, Black Scottish or Black British  
Other

**E OTHER ETHNIC GROUP**

Arab  
Other

## **SHOWCARD H4**

**Yes, disability**

**Yes, illness or health problem**

**Yes, both disability and illness or health problem**

**No, neither**

**Reverse**

**SHOWCARD H4 (R)**

**Yes, disability**

**Yes, illness or health problem**

**Yes, both disability and illness or health problem**

**No, neither**

## SHOWCARD H5

	<b>Annual</b>	<b>Weekly</b>	<b>Monthly</b>
<b>A</b>	<b>Under £2,500</b>	<b>Under £50</b>	<b>Under £200</b>
<b>B</b>	<b>£2,500 - £4,999</b>	<b>£50 - £99</b>	<b>£200 - £399</b>
<b>C</b>	<b>£5000 - £9,999</b>	<b>£100 - £199</b>	<b>£400 - £829</b>
<b>D</b>	<b>£10,000 - £14,999</b>	<b>£200 - £289</b>	<b>£830 - £1,249</b>
<b>E</b>	<b>£15,000 - £19,999</b>	<b>£290 - £389</b>	<b>£1,250 - £1,649</b>
<b>F</b>	<b>£20,000 - £24,999</b>	<b>£390 - £489</b>	<b>£1,650 - £2,099</b>
<b>G</b>	<b>£25,000 - £29,999</b>	<b>£490 - £579</b>	<b>£2,100 - £2,499</b>
<b>H</b>	<b>£30,000 - £34,999</b>	<b>£580 - £679</b>	<b>£2,500 - £2,899</b>
<b>I</b>	<b>£35,000 - £39,999</b>	<b>£680 - £769</b>	<b>£2,900 - £3,349</b>
<b>J</b>	<b>£40,000 - £44,999</b>	<b>£770 - £869</b>	<b>£3,350 - £3,749</b>
<b>K</b>	<b>£45,000 - £49,999</b>	<b>£870 - £969</b>	<b>£3,750 - £4,149</b>
<b>L</b>	<b>£50,000 - £59,999</b>	<b>£970 - £1,149</b>	<b>£4,150 - £4,999</b>
<b>M</b>	<b>£60,000 - £74,999</b>	<b>£1,150 - £1,449</b>	<b>£5,000 - £6,249</b>
<b>N</b>	<b>£75,000 - £99,999</b>	<b>£1,450 - £1,919</b>	<b>£6,250 - £8,299</b>
<b>O</b>	<b>£100,000 or more</b>	<b>£1,920 or more</b>	<b>£8,300 or more</b>

## SHOWCARD H5 (R)

	<b>Annual</b>	<b>Weekly</b>	<b>Monthly</b>
<b>A</b>	<b>Under £2,500</b>	<b>Under £50</b>	<b>Under £200</b>
<b>B</b>	<b>£2,500 - £4,999</b>	<b>£50 - £99</b>	<b>£200 - £399</b>
<b>C</b>	<b>£5000 - £9,999</b>	<b>£100 - £199</b>	<b>£400 - £829</b>
<b>D</b>	<b>£10,000 - £14,999</b>	<b>£200 - £289</b>	<b>£830 - £1,249</b>
<b>E</b>	<b>£15,000 - £19,999</b>	<b>£290 - £389</b>	<b>£1,250 - £1,649</b>
<b>F</b>	<b>£20,000 - £24,999</b>	<b>£390 - £489</b>	<b>£1,650 - £2,099</b>
<b>G</b>	<b>£25,000 - £29,999</b>	<b>£490 - £579</b>	<b>£2,100 - £2,499</b>
<b>H</b>	<b>£30,000 - £34,999</b>	<b>£580 - £679</b>	<b>£2,500 - £2,899</b>
<b>I</b>	<b>£35,000 - £39,999</b>	<b>£680 - £769</b>	<b>£2,900 - £3,349</b>
<b>J</b>	<b>£40,000 - £44,999</b>	<b>£770 - £869</b>	<b>£3,350 - £3,749</b>
<b>K</b>	<b>£45,000 - £49,999</b>	<b>£870 - £969</b>	<b>£3,750 - £4,149</b>
<b>L</b>	<b>£50,000 - £59,999</b>	<b>£970 - £1,149</b>	<b>£4,150 - £4,999</b>
<b>M</b>	<b>£60,000 - £74,999</b>	<b>£1,150 - £1,449</b>	<b>£5,000 - £6,249</b>
<b>N</b>	<b>£75,000 - £99,999</b>	<b>£1,450 - £1,919</b>	<b>£6,250 - £8,299</b>
<b>O</b>	<b>£100,000 or more</b>	<b>£1,920 or more</b>	<b>£8,300 or more</b>

## **SHOWCARD H6**

**Unemployment related benefits, or National Insurance Credits**

**Income Support (not as an unemployed person)**

**Sickness or disability benefits (not including tax credits)**

**State pension**

**Family related benefits (excluding Child Benefit and tax credits)**

**Child Benefit**

**Cold weather payment**

**Housing or Council Tax benefits**

**Tax Credits**

## **SHOWCARD H6 (R)**

**Reverse**

**Tax Credits**

**Housing or Council Tax benefits**

**Cold weather payment**

**Child Benefit**

**Family related benefits (excluding Child Benefit and tax credits)**

**State pension**

**Sickness or disability benefits (not including tax credits)**

**Income Support (not as an unemployed person)**

**Unemployment related benefits, or National Insurance Credits**

## **SHOWCARD H7**

- A School Leaving Certificate, NQ Unit**
  
- B O Grade, Standard Grade, GCSE, GCE O level, CSE, NQ Access 3 Cluster, Intermediate 1, Intermediate 2, Senior Certificate or equivalent**
  
- C GNVQ/GSVQ Foundation or Intermediate, SVQ Level 1, SVQ Level 2, SCOTVEC/National Certificate module, City and Guilds Craft, RSA Diploma or equivalent**
  
- D Higher Grade, Advanced Higher, CSYS, A level, AS level, Advanced Senior Certificate or equivalent**
  
- E GNVQ/GSVQ Advanced, SVQ Level 3, ONC, OND, SCOTVEC National Diploma, City and Guilds Advanced Craft, RSA Advanced Diploma or equivalent**
  
- F HNC, HND, SVQ Level 4, RSA Higher Diploma or equivalent**
  
- G First Degree, Higher Degree, SVQ Level or equivalent**
  
- H Professional qualifications e.g. teaching, accountancy**
  
- J No qualifications**
  
- L Other school qualifications not already mentioned**
  
- M Other post-school but pre-Higher Education qualifications not already mentioned**
  
- N Other Higher Education qualifications not already mentioned**

**SHOWCARD H7 (R)**

- A** School Leaving Certificate, NQ Unit
- B** O Grade, Standard Grade, GCSE, GCE O level, CSE, NQ Access 3 Cluster, Intermediate 1, Intermediate 2, Senior Certificate or equivalent
- C** GNVQ/GSVQ Foundation or Intermediate, SVQ Level 1, SVQ Level 2, SCOTVEC/National Certificate module, City and Guilds Craft, RSA Diploma or equivalent
- D** Higher Grade, Advanced Higher, CSYS, A level, AS level, Advanced Senior Certificate or equivalent
- E** GNVQ/GSVQ Advanced, SVQ Level 3, ONC, OND, SCOTVEC National Diploma, City and Guilds Advanced Craft, RSA Advanced Diploma or equivalent
- F** HNC, HND, SVQ Level 4, RSA Higher Diploma or equivalent
- G** First Degree, Higher Degree, SVQ Level or equivalent
- H** Professional qualifications e.g. teaching, accountancy
- J** No qualifications
- L** Other school qualifications not already mentioned
- M** Other post-school but pre-Higher Education qualifications not already mentioned
- N** Other Higher Education qualifications not already mentioned

## **SHOWCARD H8**

**(Scottish) Daily Express**

**(Scottish) Daily Mail**

**(Scottish) Daily Mirror**

**Daily Star**

**The Sun**

**Daily Record**

**Daily Telegraph**

**Financial Times**

**The Guardian**

**The Independent**

**The Times**

**The Scotsman**

**The (Glasgow) Herald**

**The (Aberdeen) Press and Journal**

**The Courier/Dundee Courier**

**Metro**

**Record PM**

**Other Scottish regional or local daily morning paper**

**Reverse**

**SHOWCARD H8 (R)**

**Other Scottish regional or local daily morning paper**

**Record PM**

**Metro**

**The Courier/Dundee Courier**

**The (Aberdeen) Press and Journal**

**The (Glasgow) Herald**

**The Scotsman**

**The Times**

**The Independent**

**The Guardian**

**Financial Times**

**Daily Telegraph**

**Daily Record**

**The Sun**

**Daily Star**

**(Scottish) Daily Mirror**

**(Scottish) Daily Mail**

**(Scottish) Daily Express**