

# Public Understanding of Sustainable Transport

A research report completed for the Department for Environment, Food and Rural Affairs by Scott Wilson, University of the West of England and Hall and Partners.

November 2007



University of the West of England

Hall & Partners Europe  
Brand and Communications Research

82 Charing Cross Road,  
London WC2H 0BA  
Telephone +44 (0)20 7173 4600



## **Public Understanding of Sustainable Transport**

**Final Report to the Department for Environment Food and Rural Affairs**

**November 2007**

Suggested citation for this report:

Richardson, J., Harrison, G, and Parkhurst, G. (2007). *Public Understanding of Sustainable Transport: A report to the Department for Environment, Food and Rural Affairs.*

This research was commissioned and funded by Defra. The views expressed reflect the research findings and the authors' interpretation; they do not necessarily reflect Defra policy or opinions.

Research team / organisation details

Scott Wilson  
8 Green Coat place  
London  
SW1P 1PL  
Tel 020 7798 5000  
Fax 020 7798 5001  
[www.scottwilson.com](http://www.scottwilson.com)

## TABLE OF CONTENTS

<b>Executive Summary .....</b>	<b>5</b>
<b>1 Introduction .....</b>	<b>11</b>
<b>2 Methodology .....</b>	<b>15</b>
<b>3 Consumers, understanding, assumptions and aspirations of sustainable transport .....</b>	<b>24</b>
<b>4 Consumer expectations.....</b>	<b>46</b>
<b>5 Consumer acceptance and the behaviour goals.....</b>	<b>50</b>
<b>6 Communicating with the consumer.....</b>	<b>60</b>
<b>7 Conclusions.....</b>	<b>68</b>
<b>8 Recommendations .....</b>	<b>77</b>
<b>Annex A: The Defra Segmentation .....</b>	<b>79</b>
<b>Annex B: Q Recruitment Questionnaire.....</b>	<b>82</b>
<b>Annex C: Workshop Discussion Guide.....</b>	<b>86</b>
<b>Annex D: Pre Task.....</b>	<b>88</b>
<b>Annex E: Mobility Biography Protocol .....</b>	<b>90</b>

# Glossary

---

Defra	Department for Environment, Food and Rural Affairs
SCP	Sustainable Consumption and production
SCR	Sustainable Consumption Roundtable
SEG	Socio Economic Group

# Executive Summary

---

## Introduction

Scott Wilson, The University of the West of England, Bristol and Hall and Partners were commissioned by Defra to undertake research on the Public Understanding of Sustainable Transport. The research involved a multiple method approach, combining 3 six-hour deliberative workshops, engaging 100 people and 12 individual mobility biographies with selected participants. The deliberative workshops were held in Birmingham, Winchester and York.

Recruitment to the workshops was carried out according to an equal representation of 6 segments: Greens, Consumers with a Conscience, Wastage Focussed, Currently Constrained, Basic Contributors and Long Term Restricted (see Annex A).

Environmental awareness and subsequent concern were found to be widespread across all groups. Some segments were more knowledgeable and opinionated than others were and this variety of engagement with the issues was expected. It is acknowledged by researchers and through the evidence from the exit questionnaires that involvement in the project itself may have altered participants, attitudes and future behaviour (possibly short term).

However, despite there being little obvious dissent to the concept of sustainable transport reported in the workshop or biographies, the actual change in behaviour in the past discussed in the Mobility Biographies as a result of this environmental awareness was largely in domains other than sustainable mobility; most obviously the recycling of household waste (see further discussion under Objective 9). Furthermore, a 'deep green' approach to environment generally appeared to be off putting.

## Understanding of sustainable transport

The term sustainable transport was unfamiliar to participants but they were aware of the links between transport and the environment even if it was only at a very general level. However, this awareness did not extend into a more detailed understanding of the specific impacts of an individual's travel decisions on the environment.

Perceptions of sustainable transport and potential to change behaviour were influenced more by lifestyle and 'individualism'. Convenience, quality of the experience and speed were important particularly to those that didn't use public transport. However, there was a minority, who were happy with public transport provision particularly the Wastage Focussed (who appear to have more time and can choose when and where to travel). Moreover, throughout the course of the workshops all groups were able to identify advantages to using public transport over the private car.

Detailed specific information about how transport choices affect the environment was limited in terms of both volume and accuracy. Despite, or perhaps due to, the popularity of television programmes on motoring, the participants emerged as having a weak grasp of the relative environmental credentials of different transport vehicles, and in particular, the large differences between relatively comparable cars sold in a complex market.

### **Assumptions of Sustainable Transport**

Transport was considered by workshop participants to be a problematic area for participants to have a genuine positive environmental impact. Other forms of 'green' behaviour such as reduced energy use, recycling and support for local farmers, for example, were identified by participants as being accessible and tangible ways to play a role in environmental sustainability.

Car travel, although thought to be the best value for money, was assumed to have the worse impacts on the environment. Empty buses and trains were thought to be bad for the environment. Walking and cycling were thought to be the most sustainable transport modes.

It was assumed that more sustainable transport would probably result in an unwelcome change in people's lifestyles such as loss of convenience and freedom, be more expensive and it would take more time having to use other modes such as public transport.

### **Consumer aspirations of sustainable transport**

All participants wanted comfortable fast and convenient modes of transport some talked about helicopters and chauffeur driven cars as an ideal, although they also recognised that these 'ultimate' forms of transport would also damage the environment.

Most participants aspired to car ownership because of its convenience, comfort, choice, status/image, freedom and perceived relative safety. Car

ownership was regarded as a normal thing to aspire to. However, all things being equal, including cost, many participants would like to minimise their impact on the environment as well. Ultimately it appears from the research that participants aspired to be lifted from the drudgery, delays and dirt of everyday travel and be healthier at the same time.

### **Consumer acceptance of sustainable transport and the behaviour goals**

Those participants that had traditionally never considered how they could play a role in limiting damage on their environment found their subsequent increased awareness and engagement genuinely interesting and motivating. However, although discussion on issues over behaviour and personal responsibility were interesting to participants, there was no real commitment made to change behaviour that would cause 'inconvenience' to lifestyle. This may be due to the focus on macro impact, rather than micro, local impact. Bringing issues home to people, in a way that directly affects their lifestyles is a way to get people to move sustainable transport up their list of priorities; for example, the impact on personal health from car fumes.

Based on the findings of the workshops, incentives, penalties, positives and benefits of NOT using the car, combined with a campaign of 'unacceptability' are considered effective methods by the researchers to move public attitude to change behaviour. People will not change their behaviour unless it is made easy for them to do so.

In terms of the behaviour goals walking and cycling less than three miles was the most acceptable, followed by purchasing more fuel efficient/low carbon cars and then public transport. Issues to be addressed to facilitate the acceptability of these goals included safety, cost, choice, and public information/education.

### **Conclusions**

Findings from the research need to be placed in the context of the data collection methodologies employed. All methodologies have strengths and weaknesses. Workshops involving members of the public are effective in encouraging debate about sustainable transport, including contrasting a range of views. However, they focus on individuals' current attitudes and behavioural constraints. And in making public statements, respondents are likely to emphasise their independence of action and personal agency, as these are generally desirable social attributes. Hence, the workshop methodology may identify behaviour as being more permanent than it is, and

as deriving more from free will and choice than it does in practice, when factors such as changing personal and household situations and changing monetary costs are fully taken into account. In also involving mobility biographies, the combined methodology is able to put the workshop findings in a context which emphasises that individuals also have past experiences in which their travel decisions reflected the needs and demands of others, unexpected events, and factors such as government policy, as well as free will and preference.

The public's discourse around transport behaviour often emphasises or implies permanence: 'I can't give up my car', 'buses don't run where I need to go'. However, the Mobility Biography findings confirm that behaviour changes towards more sustainable mobility do occur, but may not be permanent. More consideration might be given in the future as to whether transport policy initiatives might be targeted at specific life stages. For example, the Energy Savings Trust's 'Commit to Save 20%' campaign targets short car journeys made by motorists in general. An initiative more targeted to life-stage groups such as university students, might suggest they delay car ownership until they are in a different life stage when the benefits are greater compared to the environmental costs, *i.e.*, it may be more difficult in physical mobility terms and more expensive for a young family to access a public transport vehicle than it is a single adult, so the emissions and energy costs of car use are easier to justify.

Evidence from both the workshops and Mobility Biographies suggests that participants may be more prone to change behaviour if the benefit is a proximate one to the individual, his/her family, or the local community – such as improving local air quality, children's fitness, or saving money.

Environmental benefits for more remote goals, such as avoiding apparently small temperature changes decades from now are worrying, and guilt creating, but too hard to link with habitual daily behaviours for these to lead to change for many people, very often.

Nevertheless, this study suggests that the climate change debate is permeating wider society, but that much of the environment debate seems to be carried out in a fragmented and inconsistent manner, both by society and at the individual level. Despite this growing awareness amongst the participants and claims that environmental information is 'not new news', the dominant discourse from both the mobility biographies and the workshops still was that the environment alone is an insufficient motivator to change



behaviour. In other words it is probably only going to be a supporting factor in encouraging behaviour change.

Perhaps though climate change has created an opportunity to draw together different strands of environment and transport into a more coherent national debate on sustainable travel and mobility and a more 'joined up' policy approach, (for example, providing information, raising awareness of the issues and consequences, and providing incentives). Within this space created by the climate change debate, there may be an opportunity to use more strongly stated concerns such as cost savings and health to reinforce messages on using alternative travel modes to the car or indeed reducing the need to travel. Furthermore, there might also be a more sympathetic reception to a more coercive or persuasive role for government (e.g. differential legislation or high profile publicity campaigns) in achieving behaviour change.

Table 1 below summarises the findings and potential recommendations

Table 1: Summary of findings

<b>Segment</b>	<b>Perceptions</b>	<b>Behaviour</b>	<b>Recommendations</b>
<i>1. Green</i>	Knowledgeable, concerned, opinion leaders. Willing to consider other modes.	Use the car, not much evidence of compromising travel choice too much.	Willing to consider modal shift. Make public transport easier, cleaner safer. Much improved walking and cycling facilities.
<i>2. Consumers with a Conscience</i>	Concerned, about environment, also lifestyle issues such as health and time pressured.	Use the car, not much evidence of compromising travel choice too much.	Willing to consider modal shift. Need to deepen awareness of the whole picture, and how they can personally contribute, and change mode temporarily. Improve publicly transport, walking and cycling facilities.
<i>3. Wastage Focussed</i>	Concerned about next generation don't like waste open to environmental messages.	Tend to use public transport because of more time available and less willing to accept stress.	Probably already low impact may increase use if public transport was made better value, better quality, safer and easier to use.
<i>4. Currently Constrained</i>	Concerned about image aware of the environment but more as a future problem. Aspire to own a car.	Tend not to own a car due to expense.	Awareness raising, convince consumers that it is not essential to have a car at this particular time. If they do buy a car then they should consider environmental performance. Caring for the environment needs to be associated with a 'cooler' image.
<i>5. Basic Contributor</i>	Aware of the environment, most somewhat sceptical of the impact of travel but interested to know more.	Car drivers tend to consider public transport bad value for money and poor quality of experience. Don't tend / intend to walk and cycle much.	Likely to conform if sustainable transport becomes normalised, focus on local/personal impacts. Education important, influenced by children. Demonstrate immediate and local/personal benefit.
<i>6. Long Term</i>	Lowest awareness	Tend to have a	Car drivers hardest to change.

<i>Restricted</i>	of environment. Travel needed to address immediate socio economic needs.	high proportion of public transport users as well as drivers.	Demonstrate how they can have an immediate impact and what government is doing to help. Education of children, which may in turn influence adults. Need to make public transport cleaner safer and more convenient.
-------------------	---	---	---

# 1 Introduction

---

## Introduction

- 1.1 Sustainable Consumption and Production (SCP) is a ‘key priority’ policy area for the UK Government’s Department of Environment Food and Rural Affairs (Defra), recognised by both the Sustainable Consumption Roundtable (SCR) and the Government’s Sustainable Development Strategy “Securing the Future” (Defra, 2005). Within that strategy SCP is directly related to reconciling two of the guiding principles of the strategy:
- Living within environmental limits (respecting the environment, resources and biodiversity limits for future generations)
  - Achieving a sustainable economy (strong, stable and opportunities for all).
- 1.2 In short, SCP policy is concerned with breaking the link between economic growth and environmental degradation – “achieving more with less” (Defra, 2005). Breaking this link will require action from all stakeholders including Government and civil society organisations (e.g. business, academia, the media and NGOs). Moreover, it will also require the public to reduce their own individual impact, as research<sup>1</sup> shows that households (including private car use) account for 28% of total UK energy use, 50% of the public water supply, and generate 15% of controlled waste.
- 1.3 Policies aimed at reducing household environmental impact will require a greater understanding of the barriers and motivations for individual behaviour change. An on-going programme of research into behaviour change for sustainable consumption has already been established based on recommendations for behaviour goals from the SCR report, ‘I Will if You Will<sup>2</sup>’.
- 1.4 The SCR report suggested that the aim of Defra’s Citizen’s and Public Engagement Project should be to develop, “a strategic approach to effective engagement with citizens on one planet living in order to catalyse action

---

<sup>1</sup> Defra (2006) An Environmental Behaviour Strategy for Defra: A scoping Report. Internal Report

<sup>2</sup> Sustainable Consumption Round Table (2006) I Will if you Will. Sustainable Development Commission. [online] [http://www.sd-commission.org.uk/publications/downloads/I\\_Will\\_If\\_You\\_Will.pdf](http://www.sd-commission.org.uk/publications/downloads/I_Will_If_You_Will.pdf).

towards our priority behaviour goals on the environment, create a mandate for government action to support these goals and ensure that public interventions in these fields are integrated so as to maximise impact.”

1.5 In response to this, Defra has completed a scoping study, which begins to underpin the development of a behavioural change strategy. The report from this initial work describes the social marketing approach taken to developing a framework to encourage pro-environmental behaviour. It stated that analysis is also required on how positive behaviours are adopted, maintained and reinforced over time. It went on to say that a critical starting point is to build understanding of:

- “attitudes to, and understanding of, environmental issues;
- which environmental behaviours people currently undertake and the motivations for these (for example are people motivated by environmental issues or are health aspects, financial savings or avoiding guilt uppermost in decision making);
- responsiveness to certain behaviour goals;
- how to overcome barriers to change<sup>3</sup>.”

1.6 One key step in the social marketing approach adopted was to improve understanding of Defra’s audience (i.e. the public). The report described preliminary work segmenting the public into differentiated groups based on certain attributes including, current attitudes, values, and behaviours. It was argued that this would help build an understanding of the most effective ways of engaging different segments, which should lead to a more successful behaviour change strategy.

1.7 Another critical step was to develop a series of behaviour goals, which Defra could encourage members of the public to adopt. These stemmed from recommendations in the SCR report and consultation across Defra policy areas. To condense this list and establish a series of headline goals stakeholder workshops with NGOs, the research community, business, local and regional authorities were undertaken.

---

<sup>3</sup> Defra (2006) An Environmental Behaviour Strategy for Defra: A scoping Report. Internal Report

- 1.8 Defra then identified the need to conduct research to establish a baseline on the current public understanding of certain priority policy areas and commissioned research projects on: 'Public Understanding of Sustainable Transport (which is the subject of this report); Consumption of Food; Energy Use in the Home; Leisure and Tourism; and Finance and Investment.
- 1.9 The behaviour goals identified in the scoping report relating specifically to promoting sustainable transport and therefore a key focus for the research reported here are included in box 1 below.
- 1.10 This research project used qualitative techniques to appreciate the public's understanding of sustainable transport and explore opportunities for affecting behaviour change. This final report details the research methodology, discusses the findings, and proposes policy recommendations for Defra to consider. The findings from this research will feed into development of Defra's Pro-Environmental Behaviour Framework.

**Box 1: Travel Behaviour Goals**

- Walk or cycle for trips of less than 3 miles
- Switch to public transport
- Buy efficient/low carbon vehicles
- Drive more efficiently
- Switch car fuel (e.g. from petrol to bio-fuel, hybrid, electric or LPG).

## Objectives of the project

1.11 The objectives of the research are detailed in the box 2 below

### Box 2: objectives of the research

#### A. Primary Objectives

1. To unpack consumer understanding of the concept of sustainable transport (are any linkages made to One Planet Living; do people recognise the link between lifestyle and transport use).

2. To understand consumer assumptions of 'good' transport modes (is all modern transport though 'low impact'; which factors determine what people see as 'good' transport modes; where do emissions/carbon impact figure on people's car purchase decision list; do the same factors determine people's wider transport choice?).

3. To understand consumer aspirations with regard to vehicle choice, transport use, and other mobility behaviours.

4. To understand consumer expectations of the role for government, transport providers, car retailers and manufacturers in facilitating sustainable transport and introducing efficient means of mobility.

5. To understand consumers' acceptance of the need, and ability, to travel in sustainable ways (what they could do; what would they be willing to do; what are the barriers to change?).

6. To identify possible differences in understanding, assumptions, aspirations and expectations according to varying demographics.

7. To understand if information and opinion forming throughout the day has led any groups to re-evaluate their attitudes to transport and environmental issues – To inform future communication or behaviour change strategies.

#### B. Secondary Objectives

8. Who would be a trusted advisor to help consumers make efficient transport decisions?

9. Consumers views on the type of information that might influence their transport decisions (Are they prepared to incorporate environmental and social factors).

10. How environmental and social factors are perceived and taken into account, if at all, in consumers' transport decisions (and if not why).

11. The potential impact that new information (and different ways of presenting new information) on environmental and social effects would have on consumers.

## 2 Methodology

---

### Introduction

- 2.1 The research used a combination of 3 deliberative workshops and 12 mobility biographies. The workshops were held in 3 locations, Birmingham, Winchester and York. These locations were chosen to reflect the UK at large. It was not designed to facilitate comparison between different locations.
- 2.2 The qualitative nature of the research precluded the use of statistical analysis (including percentages) in the discussion and conclusions. The particular strengths of qualitative approaches are that they enable greater depth of insight than could be achieved in practice through a quantitative approach. Fundamentally, they also allow for participants' knowledge, attitudes, and beliefs to be revealed unprompted, thereby reducing biases associated with the researcher prejudging the response set or the participant seeking to comply with the researcher's expectations. The outputs of the research have different generalisability constraints to quantitative studies. They are particularly relevant for identifying the range of response on a topic and uncovering and explaining the mechanisms by which attitudes are held or behaviours adopted.
- 2.3 However, even if qualitative samples are effectively constructed to reflect the range of variation in a population, they are unlikely to be statistically representative. This means that no generalised inference about the magnitude of responses from a sample, for example how strongly it holds a particular view about reducing the motorway speed limit, can be made about what proportion of the wider population would actually share that view. It can be assumed, though, that reasons given by the sample as to why the motorway speed limited should be reduced, perhaps argued in terms of this being a simple measure to achieve with a relatively small cost, or because it influences safety as well as exhaust emissions, will be shared by a section of the wider population. The robustness of the logic offered by supporters of the opinion can then be examined. It may then be worthwhile to conduct further quantitative data collection to test the strength of that support.

## The Sample

- 2.4 Participants to the workshop were recruited by specialist market research recruitment firms according to a segmentation model under development by Defra. The segments included (Annex A contains a full description of each segment):
- Greens
  - Consumers with a conscience
  - Wastage focussed
  - Basic contributors
  - Currently constrained
  - Long term restricted.
- 2.5 A final segment 'disinterested', which was originally identified within Defra's segmentation model, was not used in this research, as Defra will consider means to address this group at a later date.
- 2.6 Recruitment questionnaires were prepared for each of the segments based on preliminary descriptions from the Pro-Environmental Scoping Report and in conjunction with recruitment questionnaires designed by the parallel 'Public Understanding' projects. The questionnaires included variables such as socio-economic group (SEG) and age, and used attitudinal statements, in order to position participants within a specific segment. An example questionnaire is reproduced in Annex B. Statements that contradicted the required segments attitude were also included, in order to ensure that certain attitudes from certain segments were ruled out. An example of a statement designed to screen out certain attitudes for the Currently Constrained segment is reproduced below. It was important that all respondents in this segment coded 3 or 4 (disagree or disagree completely) for this statement.

I believe that talk about environmental damage and global warming is hyped up and actually our environment is fine at the moment	1	2	3	4
--	---	---	---	---

- 2.7 Members of the public were excluded if: they had relatives who worked in



certain professions related to transport policy or market research; had attended market research groups in the last 6 months, or one related to climate change, or had attended more than 5 to date. The questionnaires also stipulated a mix of gender, ethnic minority and disability in order to capture as much of a representative sample as possible. Lifestage was also a criterion with some segments stipulating either pre or post-family environments.

- 2.8 The questionnaires were agreed with Defra and subsequently sent out to the team of recruiters in the 3 workshop locations. All respondents were recruited by telephone, the use of social networks (snowballing) and demographic information. The segments were very specific and it was important to ensure that personal questions could be asked in a robust and private environment.
- 2.9 Initial recruitment was then followed up with phone calls to remind people about the workshops, in order to ensure full turn out on the day and double check they had been recruited correctly.
- 2.10 Each workshop consisted of around 30 participants (Table 2 below shows the exact numbers) who were divided into the 6 segments described above. Each segment had 6 people in Birmingham and York and 5 in Winchester.

Table 2: numbers of participants at each workshop

Birmingham	York	Winchester	TOTAL
35 participants	35 participants	30 participants	100 participants

### **Design of the deliberative workshops**

- 2.11 As the emphasis was on gaining insight into the public’s understanding of sustainable transport across a wide range of specific research objectives, a deliberative approach was considered most appropriate. Enabling participants through knowledge sharing and debate ensures that lack of awareness, complicated issues, media bias and feelings of exclusion are minimised.
- 2.12 See Annex C for the deliberative workshop protocol used by the facilitators to structure and run the day. It includes details of the specific tasks the undertaken by the participants.
- 2.13 Each workshop was held on a Saturday to ensure good participation from all segments and that the momentum of the day was not interrupted by having to

re-convene the workshop across two evenings for example. This was important when considering wide-ranging issues such as transport, and when deliberating on a large amount of new information. A full-day (6 hour) session is more effective as it ensures that participants are able to learn, retain and deliberate on a range of issues in a dynamic environment without the interruptions of everyday life. Ultimately this means that conclusions can be drawn about the information provided and its impact on people's understanding.

- 2.14 By mixing small group deliberation (segmented) groups and larger, plenary, discussion, participants were able to digest and consider information in order to make informed rather than knee-jerk decisions. Table 3 below provides an outline of the structure of the workshop.

Table3: A brief overview of the day

Sessions	Action
Pre-task	All respondents to hand in completed pre-task (see Annex D)
Introductory session	Facilitators introduce themselves and explain purpose of research
Session 1 – Who we are ( <i>segment groups</i> )	Participants segment into DEFRA segmentation groups
	Complete Task Sheet 1 (group manifesto)
	Complete Task Sheet 1B (team definitions)
Session 2 – Feedback 1 ( <i>plenary session</i> )	Each group to present back response to Task Sheet questions (1 and 1B)
Coffee break	Participants free to leave room for 15 minutes
Session 3 – ‘Good’ and ‘Bad’ things about forms of travel ( <i>segment groups</i> )	Brainstorm transport options
	Map preferred transport methods on 'more or less preferred' line
	Complete Task Sheet 2 (What is 'sustainable travel'?)
	Supply each group with Briefing 1A (transport facts), allow time for consideration
	Reconsider Task Sheet 2 based on Briefing 1A
Session 4 - Feedback 2 ( <i>plenary session</i> )	Each group to present back response to Task Sheet questions (2)
Lunch	30 minute lunch break
Session 5 - Changing behaviour (segment groups)	In group discussion - How do you feel about changing how you travel?
	Supply each group with Briefing 1B facilitators to use to prompt for changes participants could make
	Complete Task Sheet 3A (possible behaviour changes)
	Transport diary (facilitators to probe on content)
	Complete Task Sheet 3B (transport influences)
Session 6 - Feedback 3 ( <i>plenary session</i> )	Each group to present back responses to Task Sheet questions (3A and 3B)

Session 7 - Whose role is it anyway? ( <i>Segment groups</i> )	Supply each group with Briefing 2 (current roles and responsibilities of Government, transport providers etc.)
	Complete Task Sheet 4 (roles and responsibilities)
Session 8 - Vote for a goal ( <i>segment groups</i> )	Complete Voting Form (top 3 behaviour goals and why)
Coffee break	Participants free to leave room for 15 minutes
Session 9 - Who are you now? ( <i>Plenary session</i> )	Participants to consider segment boards displayed around the room and choose where they belong
	Facilitators to inform participants of their original segments, probe on any changes
Exit questionnaire and travel expenses	All participants to complete Exit Questionnaire (record segment changes, evaluate session)

- 2.15 The plenary sessions served to introduce topics and establish objectives and debate feedback. These sessions served to unite the workshop as a whole and focus on the objectives of research. They also helped to clarify thinking and conclude on reactions to each of the issues that had been considered in the smaller segment groups.
- 2.16 The small, segment, groups were core to the day as they served as the workshops for debate and reaction to all of the specific issues that have to be considered. Two ‘briefings’ introduced new knowledge and specific issues that need to be considered when formulating new travel policy. The ‘information drops’ were accompanied by a specific task which asked the participants to react and consider the implications in detail. Segment groups were given time to consider the briefing documents and respond spontaneously with instructions from the lead facilitator. Groups at their tables organised their responses themselves. Facilitators were on hand to assist if required and moved around the tables to monitor discussion, probe and offer help where required.
- 2.17 These small, deliberative sessions enabled everyone to interrogate a range of issues and new information<sup>4</sup>, while also ensuring that all reactions could be recorded on task sheets provided.
- 2.18 These segment groups then reconvened as a main plenary session and delivered their feedback, reactions and specific answers to the tasks, which

---

<sup>4</sup> This approach attempts to minimise the potential of 2 or 3 ‘dominant’ voices leading the whole group and inhibiting others (which is more of a risk in small groups. It also helps to avoid the ‘group effect’, which is common in large-scale research initiatives, whereby the whole group can often skim subjects and issues in order to come to a conclusion that fits in with very generalised reactions. This research requires detail and specific examples

were then discussed by the workshop as a whole. These sessions were moderated by experienced facilitators.

### **Data Capture**

- 2.19 The workshops were designed to give maximum feedback from each segment recruited over the course of the day. Task sheets were devised that specifically asked each table to summarise their discussion and record the main facts. Participants completed the task sheets with facilitators on hand to help if required. The tasks themselves were directly attributable to the research objectives (box 2 above), which ensured that each response could be directly tracked.
- 2.20 The plenary group sessions were recorded on flip-charts by facilitators as participants responded individually (or as spokesperson for their segment group) to questions posed, making it possible to record all responses by hand (and backed up where possible with voice recording). Presenting response on a flip-chart for all participants to see provided stimulus for further discussion and development of our understanding within the group sessions.
- 2.21 Lastly, each participant completed an exit questionnaire, which asked them for their thoughts on sustainable transport at both the beginning and the end of day, which helped us recognise how their understanding of sustainable transport might have changed during the course of the day. The questionnaire asked them to focus on their attitudes to travel and what – if any – factors had contributed to a change in their attitudes. The data from the task sheets, flip chart notes, exit questionnaires and the recording were then transcribed for analysis.

### **Analysis**

- 2.22 All the researchers who were involved in the workshops joined an analysis and interpretation session that was used to uncover the over-arching themes and commonalities that emerged across the workshops and what they thought was informing these commonalities. The flip-chart notes were significant at this stage of the analysis.
- 2.23 After this session, researchers went back to the data to consider all of the responses, per segment and per location, using the task sheets. The changes

in attitude and understanding of all the segments recorded on the exit questionnaires were compared and contrasted with one another. The responses in the task sheets (by segment) were then cross referenced with the exit questionnaires in order to understand better what was affecting or driving change in understanding of sustainable transport amongst the participants.

## **Background to the mobility biographies**

### ***Design***

- 2.24 Focus group techniques provide snap shot information about participants' attitudes and behaviour and thus may fail to place findings clearly within the important context of the individual's life course. The life course information, on which mobility biographies focus, is fundamental to understanding fully the contextual factors around the attitudes an individual holds, and for placing specific actual or reported behaviours in a time-series of related behaviours and attitudes. See Annex E for the protocol for the Mobility Biography.

### ***Procedure***

- 2.25 In total 12 biographical interviews were conducted in accordance with the mobility biography approach<sup>5</sup>, employing one-to-one interviews lasting around 30 – 40 minutes and guided with an interviewers' protocol<sup>6</sup>. The protocol included questions about past travel and advisory prompts to the interviewer to seek whether specific attitudes and behaviours can be identified as being the result of the progression or intersection of particular life course trajectories.

### ***Data-recording and analysis***

- 2.26 Extensive notes were taken by hand during interviews. These were then typed up as transcripts as soon after the event as reasonably possible. Analyses involved identification and interpretation of past behaviours relevant to the research questions. These are reported in summary form in the present

---

<sup>5</sup> Lanzendorf, M. (2003). Mobility biographies: a new perspective for understanding travel behaviour. Proc. of 10th International Conference on Travel Behaviour Research, Lucerne, August 2003. International Association of Travel Behaviour Research.

<sup>6</sup> See Annex C

report, sometimes involving verbatim quotes where appropriate.

### **Sample**

- 2.27 The participants taking part in the mobility biography interviews were purposively chosen following reference to brief travel histories they completed specifically to enable recruitment for the mobility biography activity, and in advance of attending the deliberative workshops. Subjects were primarily selected by virtue of their travel having shown modal shift in the past, either short or long term, towards a more 'sustainable' mix. Approximately one in ten of the workshop participants (n=12) were involved as an additional activity to the deliberative workshop; most interviews took place at the end of the workshops, but a few took place during the lunch break.
- 2.28 Involvement in the workshops may have influenced data recall in the interviews. In particular, discussions in the day may have assisted recall or may have provided information to participants, which enabled them to explain more effectively or extensively their own behaviour. It may also have influenced the way in which they responded. In practice, however, both the responses in the interviews and in the wider workshops showed a low level of compliance with attitudes and opinions consistent with the objectives of sustainable transport, suggesting social pressure towards this response bias was not great.
- 2.29 A secondary factor in selection sought to achieve representation within the overall Mobility Biography sample of women, men, adults of different ages, and people from each of the six market segments and from different SEGs. The rationale for this selection was clearly not to provide a representative sample, but instead to ensure that the Mobility Biographies captured a broad range of data from different personal contexts.
- 2.30 The characteristics of the interviewees by gender, age, and segment are shown in Table 4 below. Participants' responses can be identified in the boxes presenting the Mobility Biography findings through references, which combine abbreviations, based on this information e.g. B1M17BC.

Table 4: Identification of participant's responses

<b>Interviewee</b>	<b>Gender</b>	<b>Age</b>	<b>Segment</b>	<b>Report ID</b>
B1	M	17	Basic Contributor	B1M17BC

B2	M	65	Wastage Focussed	B2M65WF
B3	M	50	Long-term Restricted	B3M50LR
B4	F	18	Currently Constrained	B4F18CU
Y1	F	37	Consumers with a Conscience	Y1F37CO
Y2	F	31	Long-term Restricted	Y2F31LR
Y3	F	65	Wastage Focussed	Y3F65WF
W1	F	27	Consumers with a Conscience	W1F27CU
W2	M	46	Green	W2M46G
W3	F	47	Basic Contributor	W3F47BC
W4	F	46	Consumers with a Conscience	W4F46CO
W5	F	56	Green	W5F56G
All	8F, 4M	17-65	2 per segment	

2.31 It needs to be emphasised, as in the case of all qualitative work, and particularly where purposive sampling is employed, that the objectives were to

- Uncover the mechanisms of change
- Understand the functioning of these mechanisms
- Suggest how our understanding of these mechanisms might inform and influence policy to enhance shifts in the wider population towards sustainable mobility.

2.32 Whilst the findings may be generalisable, in the sense that other members of the public are likely to encounter similar circumstances and respond in similar ways, it is clearly not known without further quantitative work how representative they are of overall behaviour.

### 3 Consumers, understanding, assumptions and aspirations of sustainable transport

**Summary:** All segments have a patchy understanding of sustainable transport. The term itself held little meaning. However, there was a general awareness of the environmental impact of travel, which was perhaps more than was expected by the authors (this could be down to the high profile of climate change in the media), although this understanding did not translate into more specific or tangible knowledge about an individual's own travel impacts. Car travel was assumed to have the worse impacts, but empty buses and trains are also thought to be bad for the environment. It was assumed that more sustainable transport will probably result in an unwelcome change in people's lifestyles. Walking and cycling were thought to be the most sustainable transport modes. Most participants aspired to car ownership because of its convenience, comfort, choice, status/image, freedom and perceived relative safety. Car ownership was regarded as a normal thing to aspire to. However, all things being equal, including cost, many participants would like to minimize their impact on the environment as well. Ultimately, it appears people aspire to be lifted from the drudgery, delays and dirt of everyday travel and be healthier at the same time.

- 3.1 This chapter reports participants' responses to three of the research objectives. These objectives focussed on consumers' understanding of sustainable transport, their assumptions of what are good transport modes, and their aspirations in regards to transport choice. Information from the mobility biographies is included in a box within each section / objective.

**To unpack consumer understanding of the concept of sustainable transport (are any linkages made to One Planet Living; do people recognise the link between lifestyle and transport use)**

- 3.2 None of the participants were familiar with the term 'sustainable transport'. This term was used at the end of the sessions in the exit questionnaires and many participants queried its meaning. When explained as 'transport that lessened the impact on the environment', participants were able to understand the concept. Therefore, while the concept was understood, the language used to describe it was still alien.

*'I had some thoughts about it and previously tried to walk/ride my bike instead of taking the car. Didn't really think about it under the heading of 'sustainable travel' more as environmental issues and cost issues for me.'* **Male, Wastage Focussed, Exit Questionnaire, York**



3.3 Participants' general understanding of the concept of sustainable transport (in their understanding of reducing the impact of travel on the environment) was part of a greater awareness of environmental concerns overall. They were aware that their own lifestyle could damage the environment and attributed this awareness to the media's concentration on these issues.

*'You are also causing this e.g. killing animals, causing global warming, disasters'.* **Flip Chart Notes, (Whole Group), York**

3.4 The general level of awareness and understanding shown by the participants did not extend to a more detailed knowledge of the actual environmental linkages between transport and human impact, via individual lifestyle choice. Participants had heard of concepts and language like 'environmentally friendly', 'carbon footprints' and 'climate change/global warming'. However, these concepts were still relatively new for participants to understand tangibly and in terms of personal impact to them.

*'The information given in some of the books were too formal and only described how pollution etc was going to affect us globally. If there were statistics showing what these problems will do to us personally it may take more affect.'* **Male, Consumer with a Conscience, Exit Questionnaire, York**

3.5 Despite this fairly low level of awareness around sustainable transport and individual cause and effect, participants felt they were slowly becoming more aware of the environment and how they can reduce their impact on it. In the opinion of the authors, this is considered most achievable in terms of recycling or using less energy as these were mentioned (unprompted by the facilitators) and appeared more readily understood in the workshop.

*"I do recycling, family has to come first over the environment generally."* **Basic Contributor, York**

3.6 Many participants realised that they still had little specific knowledge on sustainable transport issues and welcomed new information<sup>7</sup> on how their

---

<sup>7</sup> This was in response to the introduction of a briefing sheet prepared by the facilitators and given to the participants Table 3 in Chapter 2

behaviour was affecting the environment<sup>8</sup>. Many said that they had been unaware of how their transport choices affected the environment and found it very interesting to learn about how they could reduce this impact. This indicates that there was a desire to learn and become more engaged with the subject.

*"I knew I was concerned but didn't know why."* **Male, Wastage Focused, Exit Questionnaire, Birmingham**

*"I have to know more and feel that everyone should be the same."* **Male, Basic Contributor, Exit Questionnaire, York**

- 3.7 Participants also recognised, importantly, that environmental *awareness* was not the same as environmental *behaviour change* and felt that they were not yet ready to compromise their lifestyles (give up the car in most cases), for the benefit of the wider environment. They did not feel that alternative transport options, such as public transport, cycling or other initiatives (as described later) were realistic options to the car.

---

<sup>8</sup> However some participants also stated information on transport introduced during the workshop was not new news

**Mobility Biographies Box 3.1 - Linkages made by Respondents between their Transport Choices, Lifestyle and Environmental Protection in the Past (Objective 1: Understanding of sustainable transport)**

The mobility Biographies showed individuals drawing on personal experience in examining the mobility and lifestyle link. Some Mobility Biography participants had grown up in car-less households or households in which the father was the main user of the car, and some recalled this negatively (W4F46CO). But in addition to the practical benefits of car availability is a less tangible symbolic component related to social participation and opportunity; such as a 'rite of passage':

*"It was the thing to do"* (Y2F31LR)

*"It is natural when you're 17"* (B4F18CU)

*"I'm saving all my money for a car"* (B1M17BC)

Social norms about what symbolises a certain lifestyle had influenced this Mobility Biography participant's choice in the past, explained in terms of the association between car ownership, affluence and success leading to the purchase of a larger car as a reward:

*"My husband's car is bigger so I didn't need a big car as well... There was nothing wrong with her old car. I felt I 'deserved' a brand new car that was 'nice and shiny'."* (Y1F37CO)

However there are exceptions to the dominant norms. One Mobility Biography respondent (W3F47BC) described a gender-linked familial cycling 'norm' in which her mother, her daughter and she had maintained walking and cycling-dependent lives. The respondent recalled being summoned to a cycle shop at the age of 14 by her mother, who had wished to present her with her first new bike – this was recalled as an emotional occasion.

Her attachment to cycling existed despite male household members exhibiting strong car dependence and rejecting cycle use in particular. She recalled an ex-husband had "refused" to cycle on a family holiday to 'Centre Parks';

*"...he chose to push the pram instead".*

She had also sought to encourage her current husband, by buying him a gel saddle to overcome a specific concern, but cycling trips only occurred in the company of her daughter.

In another case a family's accepted norm have been challenged by a visit to the participant's brother in Germany, where *"It is normal for families in Germany to have one car where British ones have two"* (W4F46CO).

***Variations by segment***

3.8 Despite the low level of awareness around the issue of sustainable transport, there was some variation, by segments, regarding the level of impact an individual's transport choice could have on the environment. Lifestyle constraints and levels of engagement with environmental issues were the variables that contributed to this variation.

3.9 The Greens assumed that they knew a great deal about sustainable transport. They considered themselves pragmatic and realistic about what was achievable on an individual level and how to reduce their impact on the environment. This perhaps made them somewhat cynical with most of them feeling that sustainable transport was not achievable or helpful, in comparison with the other environmental behaviour changes people could adopt. They were very engaged with the issues and cited the media, government, politics and economics as reasons why it was too much of a 'global' issue to be applied to individuals in the UK.

*“We are aware of environment but are realistic that in everyday life we know the car is necessary. We work hard so are entitled to have leisure time.”* **Greens, Task Sheet 1B, York**

*“Travel is a necessary part of everyday life, but is every journey and mode of transport needed? As individuals people should question every journey i.e. can we get there easily without the car (papers, collecting kids etc.).”* **Greens, Task Sheet 1B, York**

*“We are aware of the environment but of people’s rights and needs as well.”* **Female, Greens, Birmingham**

*“Low carbon vehicles, needs to be masses, 1 or 2 won’t have effect. Need to make sacrifice and know it’s working.”* **Greens, Behaviour Change Top 3, Birmingham**

- 3.10 The Wastage Focussed segment agreed that their awareness and attitudes towards the environment and their impact on it was driven by economy rather than ideology. They felt that they had been brought up to be mindful of waste and saving money. The virtue of this (economically based) attitude, to them, would seem to preclude the need to consider environmental impact i.e. if we saved money by taking the bus and not owning a car, cars would never become a problem for the environment. As a result, they had a different standpoint from others in terms of what the concept meant to them.

*“Our manifesto will be to make better use of public transport because it should save you money in the long run. Public transport does need vastly improving; it needs to be cheaper and more convenient.”*  
**Wastage Focused, Task Sheet 1B, York**

- 3.11 Basic Contributors probably showed more environmental awareness than was expected but also a degree of laziness or selfishness. However, one workshop in particular (York) thought the environment was important. This segment also showed a significant change throughout the day in their attitude to sustainable transport<sup>9</sup> perhaps signifying the importance of the social norm for this group.

*“The majority of it [our daily travel] in terms of transport was the car. We didn’t always agree with that, most of us wouldn’t choose our car always”* **Male, Basic Contributor, York**

---

<sup>9</sup> An exit questionnaire asked participants to state their attitude to sustainable travel at the beginning of the day and at the end of the day.

**To understand consumer assumptions of ‘good’ transport modes (is all modern transport thought ‘low impact’; which factors determine what people see as ‘good’ transport modes; where do emissions/carbon impact figure on people’s car purchase decision list; do the same factors determine people’s wider transport choice?)**

- 3.12 There was a general assumption amongst most of the participants that their day-to-day transport choices did not have enough of an impact on the environment to warrant real behaviour changes from them. They did not consider that their use of petrol had any real impact when compared to the impact of global industry and air travel<sup>10</sup>. This ‘bigger picture’ awareness was also cited as a reason for their not seeking to change their current car use.

*“Until these policies deliver noticeable results (car share schemes that work, higher numbers of electric cars etc) I don’t think that changing my behaviour will make a difference.”* **Male, Currently Constrained, Exit Questionnaire, Winchester**

*‘More able to do something positive and helpful if you can relate to it. I can’t relate to rainforests. At least with day to day things - you have some control.’* **Flip Chart Notes, (Whole Group), Wastage Focussed, Birmingham**

- 3.13 Participants assumed that reducing the impact on their environment through their transport choice rested largely on not driving cars. They assumed that walking and cycling were the only truly ‘environmentally friendly’ options in an increasingly environmentally aware society. So, ‘sustainable transport’ was assumed to involve not driving your car as much, if at all, in the first instance.

*“Me personally I try my hardest, to do what I can, I don’t think I’ve thought about getting rid of one car, but about using the car less, when you have got other choices.”* **Female, Currently Constrained, York**

- 3.14 This focus on the car and the individual’s use of it implies that participants considered sustainable transport as largely an individual responsibility and burden. Discussions throughout the day led them to consider public transport and what the Government could do to facilitate sustainable transport – yet still the assumption was about the individual compromising their lifestyle in order to benefit the whole environment.

---

<sup>10</sup> Air transport was the subject of a parallel ‘Public Understanding’ and not discussed in depth as part of this research.

*“So if I am making a sacrifice I will make the sacrifice but I need everyone else to join in with me to make it effective.”* **Female, Green, Birmingham**

- 3.15 It should be noted that participants’ assumptions were also in the context of other ‘environmentally friendly’ assumptions. Recycling and reduced energy consumption were considered to be ‘easy wins’ for participants who were trying to reduce their impact on the environment. These were considered to be low impact and to not inhibit current lifestyle behaviours in an obvious way. Furthermore, they were considered more tangible in that participants could see the effect they were having i.e. the large amounts of waste they use or homes lit up excessively. Transport was considered to be less of an ‘easy win’ in that it was felt to compromise their current lifestyles and involve too much expense or disruption.

*“Our usual means of transport are car and train ... mainly for convenience, comfort, time and it is essential because some of us are not on a public [transport] service route.”* **Female, Greens, Birmingham**

*“A lot of us wanted to use public transport but it wasn’t always as cheap as we’d like it to be and it wasn’t particularly on time.”* **Male, Basic Contributor, York**

- 3.16 Essentially, all participants assumed that making travel changes (i.e. reduce their usage of cars) to help reduce the impact on the environment would probably mean a change to their lifestyles. At the start of the day most felt that any changes that they had to make to their lifestyle would definitely have a negative impact on their lifestyles.

*‘My lifestyle is first and my travel has to fit in with that –first and foremost.’* **Flipchart notes, Plenary after Task Sheet 3, Birmingham**

- 3.17 They assumed it would take longer to reach their destination if they were to walk, cycle, take the train or bus. Conditions were considered dirty, overcrowded and unsafe on public transport. Busses coaches and, trains were all recorded as potentially being dirty on task sheets in Birmingham by Greens, Long Term Restricted, Basic Contributors and Consumers with a Conscience. (Although it is not clear from when these perceptions arose,

whether they are based on experience or word of mouth) and that travelling by public transport would require much more effort on their part in terms of negotiating connections, not being able to carry luggage and no direct pick up/drop off to home.

*“...we haven’t got the alternatives. There is not a feasible alternative for us and time scales, standards, reliability. Like we said, we don’t want to spend the rest of our lives standing at a bus stop waiting – I would rather be driving to get there.”* **Female, Green, Birmingham**

- 3.18 For the less wealthy, (esp. younger), a fear of the additional expense of cars was a concern. Sustainable cars especially were thought to be more expensive than ordinary ones.

*“Cheaper –hybrid cars are too expensive”* **Task Sheet, Consumers with a Conscience, York**

- 3.19 However, after discussion on the pros and cons of different transport options, and consideration of the issues throughout the workshops participants did identify various positive lifestyle benefits from sustainable transport as opposed to barriers. For example:

- The ability to relax and enjoy a journey: On trains and buses, participants liked being able to read / work / sleep, which they missed by driving. This was especially noted by the Wastage Focussed and Consumers with a Conscience segments, who considered that the personal, emotional, benefits of alternative forms of travel could outweigh the functional benefits of immediacy and convenience inherent in car use.

***Is all modern transport thought ‘low impact’?***

- 3.20 The actual term ‘low impact’ was not used by the participants. Rather, transport use, in relation to its impact on the environment was considered in terms of how *bad* or *damaging* it was to the environment.
- 3.21 Low impact transport was thought to be anything that does not involve using petrol or diesel. Participants were increasingly aware of the impact of Carbon Dioxide and its relation to global warming and assumed that transport which uses carbon rich fuel sources was consequently bad.
- 3.22 However, despite this increasing awareness of climate change, there was

very little awareness or connection made to 'clean' forms of transport and fuels and subsequently little belief that there are better options available.

*"I think there was only two of us used the bike and that was for convenience and for sport. Walking was another one, that was [for] exercising and escaping traffic."* **Male, Basic Contributor, York**

***Which factors determine what people see as 'good' transport modes?***

- 3.23 'Good transport' was thought to be transport that did not pollute the environment. Therefore, cars, buses and planes were considered to be damaging in terms of the gasses they produced. The view on buses was problematic, however, as it was also considered more efficient in transporting passengers and thus producing less pollution per person than the car.

*"[The] Bus ... is relatively cheap and environmentally friendly compared to using the car ... there are less emissions per person as they are using the same vehicle."* **Male, Currently Constrained, York**

- 3.24 Walking and cycling were considered good transport modes as they relied on human effort, which was thought to be natural and therefore 'good'.
- 3.25 Transport modes were weighed up in terms of impact on the environment and reducing the amount that individuals affect the environment. So, buses and trains were ultimately considered 'good' because of their capacity to carry many people with a low fuel per person (thus having a lower impact on the environment). Planes and cars on the other hand were considered bad as their fuel to person ratio was considered inordinately high and therefore 'bad' for the environment. Equally, an empty bus could become 'bad' by unbalancing this ratio.

*"I would like to travel ... without damaging the environment, however, current transport is not good enough for me to not drive and get the bus."* **Male, Currently Constrained, Exit Questionnaire, Birmingham**

*"[Bus] cuts down congestion [and] economical if bus full"* **Greens, Flipchart Notes, (Whole Group), Winchester**

- 3.26 Despite this, there was a general assumption that private transport was a low impact area for climate change compared to other factors such as industry and aviation.



*“What difference are a few people in their cars going to make?”* **Male, Currently Constrained, Birmingham**

3.27 However, upon introducing new information<sup>11</sup> on the fact that transport contributes to 22% of the UK’s greenhouse gases<sup>12</sup>, many participants were surprised by the potential significance of transports impact on climate change. This implies that participants had underestimated the actual impact of ‘bad’ transport despite agreeing that it was ‘bad’ at a conceptual level.

*I didn’t realise trains were better than cars for CO2.”* **Male, Consumers with a Conscience, York**

3.28 While the primary petrol/diesel polluters of cars and buses were considered high impact, public transport modes were generally thought by most to be more economical, both in terms of the amount of people they carry and the fumes they emit.

3.29 There were a number of factors, which participants used to judge whether they considered a mode good or bad. During the workshops, participants listed a variety of transport modes and gave their responses to what was ‘good’ or ‘bad’ about each one. The following table (5) gives a summary of their responses, which showed a consistency across all 3 workshops and amongst all the groups recruited.

Table 5: Summary of participant responses by mode

Transport Mode	What is good	What is bad
Car	Convenient, reliable, in control, freedom to travel wherever/whenever, reflection of self/status, fast, can carry luggage/children, safe, private, personal	Expensive, congestion, exhaust fumes, cost (petrol, MOT, insurance, car)
Buses/public transport	Park & ride schemes, reduces congestion, older people get concessions, economical (if bus is full), can relax/enjoy journey	Anti-social/unsafe – aggressive/intimidating kids, dirty, unreliable, not direct, can’t carry luggage/-, poor route information, slow,
Cycling	Faster – can avoid congestion, healthy, cheap/ free, scenic, flexible, good for environment,	Danger – other road users, pollution from exhaust emissions, bikes get stolen, isolated cycle paths, tiring, can’t carry luggage/-, hard to find secure parking/storage,
Walking	Free, healthy, good for environment, pleasurable, leisure activity,	Bad weather, can’t carry luggage/-, not 24/7: dangerous at night, have to properly dressed, depended on age/fitness,

<sup>11</sup> A briefing sheet on the impacts of transport were prepared by the facilitators and given to the participants. See Table 3 in Chapter 2 for more information.

<sup>12</sup> Figure taken from information provided by Defra: **DEFRA TRANSPORT IMPACTS STATS - DATA from eDigest of Environment Stats.** at <http://www.defra.gov.uk/environment/statistics/index.htm>

Trains	Scenic, relaxing, fast, can work/own leisure time, long distances, no congestion, no responsibility	Unreliable, indirect, expensive, crowded, dirty,
Helicopters, Chauffeur driven cars and private jets	Direct, fast, in control, total autonomy – not having to consider anyone else	Expensive, bad for the environment

3.30 The car was regarded as the best mode of travel for meeting the speed and convenience criteria. It has the ability to take you directly from door to door without stopping (traffic permitting) and plenty of space to ensure room for baggage and belongings. Interestingly the car was generally thought to be good ‘value for money in spite of the cost; especially for those in the Currently Constrained and Basic Contributor segments. However, younger respondents often could not afford to own cars, which were perceived as expensive in terms of initial outgoing costs.

3.31 The corollary of the car as good value for money, was that public transport was often considered poor value for money, even though it was regularly cheaper than driving a car. It still felt like the expense was high in proportion to the inconvenience for the traveller and the extra time required, (especially for families, purchasing multiple tickets).

3.32 Moreover, the bus was seen as the worst mode of transport offering a poor quality of experience: old dirty buses, graffiti, impolite bus drivers, having to stand in peak periods etc., although despite this negative majority attitude some of the motorist participants used buses for some journeys, others were dependent on them.

*‘Dirty, unreliable, overcrowded, dangerous, inadequate routes’ Flip Chart notes (Whole group), Currently Constrained, Winchester.*

3.33 Location made a difference to participant’s responses with Birmingham and Winchester finding far more ‘good’ reasons for cars than participants in York did. This could possibly be due to their reliance on cars because of their rural location (Winchester) and the lack of public transport and close links with amenities (Birmingham).

3.34 As well as these crucial benefits of the car, negative associations with public transport, cycling and walking, made these options comparatively less

appealing. Many participants wanted to travel in safety. Female participants especially felt very vulnerable walking / cycling at night (and sometimes during the day as well). 'Youths' often found on inner city buses (and trains) were also thought to be threatening

*"Why does the bus driver now have to have a bullet proof window to protect him? It doesn't make me want to get on a bus!"* **Currently Constrained, Female, Birmingham**

- 3.35 Bad weather also meant other forms of transport were less appealing, especially cycling and walking but could also result in delays on buses and trains.

*"But I will walk more at weekends (only if the weather is fine)."* **Male, Consumers with a Conscience, Exit Questionnaires, Birmingham**

- 3.36 Transport modes that inhibited participant's ability to travel fast, independently and flexibly were, overall, considered to be 'inferior' as they contradicted their overall transport aspirations. There is more discussion of this in the next section.

***Where do emissions/carbon impact figure on people's car purchase decision list?***

- 3.37 Although participants were aware that transport modes that produced a high volume of carbon were bad, there was very little awareness of any gradient of environmental impact within this area. That was, participants were not aware that some vehicles had higher or lower carbon impact and were graded as such.

*"Don't believe that a car has more CO2 emissions than [a] train."* **Wastage Focussed, Briefing 1 Feedback, York**

- 3.38 Lack of awareness, overall, meant that they felt unable to comment on this and did not consider such a grading to be of specific importance or relevance to them. They had heard of 'hybrid cars' and 'eco-friendly' cars, for example, but did not consider these modes of transport to be serious rivals for standard cars. This is discussed more fully in the next section and in the subsequent Mobility Biography section.

- 3.39 However, on learning about the impact of individual makes of cars and the

carbon grading system, participants expressed an interest in having a car that would allow them to achieve an 'easy win' in terms of lessening their impact on the environment. This would mean not having to compromise on their use of cars while still allowing them to be 'environmentally friendly'.

*"Our typical members are someone who doesn't want to spend a lot of time travelling. They just want to hop in the cars. 'Its not that we don't care about environmental stuff, ideally we'd have green cars like hybrid cars."* **Male, Long Term Restricted, Birmingham**

***Do the same factors (that determine car choice) determine people's wider transport choice?***

- 3.40 The factors that determine car choice were concerned with cost, speed and aesthetics and this very much reflects the car as the ideal embodiment of the individual and their travel aspirations. (Discussed in more depth in the next section). However, other modes of transport such as buses, trains and cycling, for example, were still judged by speed and convenience (amongst other things).
- 3.41 Participants were clear in stating that environmental impact and carbon emissions were not significant considerations in their current transport choice. They tended to only comment on the fact that they disliked seeing excessive, black, exhaust fumes from buses or the build up of fumes in congestion but this was not a criteria for not choosing a form of transport - speed and convenience were considered far more important as decision making factors.

***Variations by segment***

- 3.42 The Consumers with a Conscience and Greens and Wastage Focussed assumed that walking and cycling to be healthier and lead to lower cost. The environmental benefits were also recognised. These assumptions helped make these segments more open to walking and cycling short distances, especially in York where there was good infrastructure for this.

*"Car – for most a necessity, but not environmentally friendly. Becoming more expensive with rising fuel costs, road tax, insurance."* **Task Sheet 2, Wastage Focussed, York**

*“[Cycling and walking] Quick, ‘green’ and free, healthier, pleasure’*  
**Task Sheet 1B, Green, York**

- 3.43 The Currently Constrained segment did not object, in principal, to more sustainable travel. However, they assumed environmentally sensitive behaviour would compromise their lifestyle in not allowing them to use their cars – this was their primary assumption about what the concept would mean for them. Personal responsibility was not a significant factor for this group – they felt impotent as individuals and considered that only mass participation would be meaningful.
- 3.44 The Long Term Restricted segment assumed their travel behaviour was insignificant and subsequently did not consider environmental factors in their travel choices. This view was to change over the day with engagement with the issue of sustainable transport leading them to aspire to sustainable transport behaviour – like using their cars less or seeing public transport as a positive transport option.

**Mobility Biographies Box 3.2 - Consumer Assumptions with regard to Vehicle Choice, Transport Use, and Other Mobility Behaviours in the Past (Objective 2 – Assumptions of sustainable transport)**

Evidence from the Mobility Biographies suggested that many consumers might be uncertain about whether the transport sector contribution to sustainable mobility is growing or reducing. There were few references to major technological change, such as to hybrid and fuel cell cars, seen as “the future” (B2M65WF). Some felt there was a sense that manufacturers were (W5F56G), or were suspected to be (Y2F31LR, Y3F65WF), making incremental improvements to environmental performance, and some interviewees did refer to specific technology, such as the catalytic converter (Y2F31LR, Y3F65WF, B2M65WF), or to the efficiency of diesel engines (W5F56G), which had influenced some purchases (W2M46G, Y3F65WF, Y2F31LR). One participant volunteered the view that automatic cars are less efficient than equivalent manual models (W5F56G) – a situation that is no longer universally true.

Others referred to experience in the street and felt exhaust fumes from all cars (Y3F65WF), or just more luxurious cars (W4F46CO), were often strong when queuing at traffic lights or that old cars and buses were still a problem (W3F47BC), so to them local air quality problems remained significant. Ironically, vehicle exhaust emissions could actually be a motivation to use cars and buses, as it was perceived that pedestrians and cyclists were more exposed. On a bicycle you might be

“...sat in traffic; breathing in fumes” (Y3F65WF).

More equivocal responses also recognised, however, that traffic growth could well be offsetting per-vehicle improvements (Y1F37CO) and that rising societal wealth was leading some people to switch to more polluting technology (W5F56G).

Perceived change with respect to public transport was also interesting. Trains were thought to have got cleaner (W5F56G, Y2F31LR), with two participants agreeing and explaining this was due to the replacement of diesel with electric trains (B3M50LR, Y3F65WF). (In fact there having been no major electrification substitution schemes implemented for decades and diesel emissions regulations are now much stricter for road vehicles than rail vehicles).

In terms of the importance of environmental factors when purchasing cars, there was evidence from the Mobility Biographies of participants ‘learning the hard way’. Indeed several of the interviewees of both genders had stories of disappointment over cars, which had been desirable, but turned out ‘thirsty’, even with “abysmal” fuel consumption (W2M46G).

In one case, a respondent regretted having accepted a ‘free’ car donated by a relative as it came with an unconsidered hidden cost in the form of much higher fuel consumption than the previous vehicle. The participant reported considering ways to reduce exposure to high fuel costs through downsizing or converting the vehicle to a lower-tax gas fuel (W4F46CO).

In another case, a car purchaser had been encouraged towards a ‘dream car’ by a salesperson. She had not considered fuel and also insurance costs or had them highlighted to her. Upon discovering how expensive the car was to run, she ultimately changed it for a more efficient version of the same model (W1F27CU).

The participant noted in the discussion of Objective 1 had also found her ‘reward’ car as she had been working hard and earned well in the previous period, and had then been shocked at the actual fuel costs in use (Y1F37CO). A similar case concerned a participant who had bought a bigger car in expectation of starting a family (Y2F31LR). A further male participant noted that he would carefully examine fuel consumption if he were to buy a vehicle in the future following negative experiences. In the past he

*“...wasn’t bothered about fuel consumption...just needed a van at the right price...I’d look at fuel consumption this time” (B3M50LR).*

**To understand consumer aspirations with regard to vehicle choice, transport use, and other mobility behaviours.’**

- 3.45 Participants’ primary aspirations were concerned with convenience, speed and freedom.

*‘Convenient, quicker, transport is best!’* **Task Sheet 1, Currently Constrained, Winchester**

- 3.46 However, overall, participants did feel that they wanted to reduce their impact on their environment as far as they could. Taking responsibility for the

environment was thought to be becoming the norm in society – for example through media coverage and attention, as well as government initiatives and public campaigns such as recycling.

- 3.47 Participants generally wanted to reduce the damaging affects that they were having on their environment, despite limited awareness about sustainable transport and the impact their travel choices were having on the environment. These aspirations were in line with their desire to help the environment and change their behaviour in other ways such as recycling or energy conservation. However, these aspirations were often overridden due to their practical, day-to-day, circumstances that proved to be barriers to engaging more with sustainable transport, such as needing a car to transport the children to school or to travel conveniently in the countryside.

*“It [the car] is a health hazard and it is healthy not to use the car and the sitting in traffic. I suppose you are not saying you are all green but you do want to do more for the environment and not using the car every day has to be better.”* **Female, Consumers with a Conscience, Winchester**

- 3.48 Many participants said that they would like to use their cars less and to be able to walk or cycle more. Some resented how their cars featured so much in their lives and seemed resigned to the fact that this would never be able to change for them. Giving up using their car was, for many, the only way to be environmentally sustainable in terms of their travel.

*“Obviously walking is more sociable and it is a cheaper way to travel and it is kinder to the environment and I mean we would like to use more public transport than we do now just purely because of the same things, the environment and emissions and stuff like that’... ‘but that isn’t really feasible ... because of time and work and lifestyles.”* **Female, Long Term Restricted, Birmingham**

- 3.49 These aspirations sat alongside the other environmental behaviours that they were being encouraged to exercise in their lifestyles (recycling/reducing carbon emissions). However, as discussed before personal, lifestyle factors like location, work, children, provision of public transport, for example, meant that these aspirations regarding sustainable transport were considered, currently, unachievable.

*“I do think because we are so set in our ways and we have got a standard of life that we live to we have to educate the children to change it and they can change it.”* **Female, Greens, Birmingham**

- 3.50 These factors demand speed, convenience and independence from the transport modes that are being used. So having to change buses and trains when no direct trains available and long wait times (more than 15 minutes) between services meant an increased sense of frustration for the traveller.

*“The majority of people enjoy driving their cars and they like the freedom and the convenience and they take their cars to work.”* **Male, Currently Constrained, Birmingham.**

- 3.51 Most participants expected a transport system to enable them to get from A-B in as fast a time as possible with as little hassle as possible. This was particularly important for those travelling to and from work. This was slightly less important for students and the older, Wastage Focussed, group who were more time rich and cash poor.

*‘Retired so free from pressures of life so don’t need to travel for speed’* **Wastage Focussed, Flip Chart Notes (Whole group), York**

- 3.52 These benefits of having more time and less pressure mirrored the participants’ ultimate aspirations to be lifted from the dirt, pollution and drudgery of car journeys and congestion. Not having to be a slave to time, to enjoy the view and to get some exercise were aspirations about travel that some participants held over and above the functional needs (and subsequent barriers to sustainable transport) that their lifestyles dictated for them.
- 3.53 These emotional benefits revealed that participants would be willing to undertake more sustainable modes of transport if only they could. Many participants considered walking and cycling to be optimum forms of travel and they felt ambivalent about their car use. Cars were seen as necessary for modern life in terms of transporting people and things, commuting and living in remote areas. Wherever possible, however, they opted to leave their cars at home.

*“We would all not use a car if we didn’t have to.”* **Female, Consumers with a Conscience, Birmingham**



*“Our usual means of transport from day to day was firstly the car due to time...time restraints and work commitments. A lot of us [around the table] would like to use the bike...Walking was another one, that was exercising and escaping traffic.”* **Male, Basic Contributor, York**

- 3.54 When considering what was good or bad about various forms of travel, many participants, in all the workshops, said that their ideal form of transport would be by helicopter, a chauffeur driven car or a private jet. While they recognised that this was an unrealistic, impractical and environmentally irresponsible form of transport, it was useful in identifying their aspirations in terms of travel, overall, which is to be: independent, convenient, to be able to move freely and quickly and to have total autonomy. Such aspirations subsequently find their closest realisation in the form of car travel.
- 3.55 These aspirations, despite gaining momentum throughout the day they were not considered as part of their car buying criteria. Participants looked for cost, size and looks in a vehicle. Performance and engine type were considered but only in terms of how fast the car could go and what it would be able to withstand.
- 3.56 Greater choice, cost, image and performance were aspirational issues for all types of cars. No participant wanted a car that did not deliver on these factors. However, if a car was too deliver on these factors, while also being environmentally sustainable, that would be the ultimate for them – they would lose nothing and would gain the feeling that they were also helping the environment. This implies that there is probably greater potential for purchasing hybrid cars in the future than these results imply.

*‘Low carbon vehicles have to be ‘sexy’ and look better though.’* **Male, Basic Contributor, Birmingham**

- 3.57 The quality of the travel experience also played a key role in participants transport aspirations. Factors such as controlled temperature, cleanliness, ability to relax, ability to listen to ones own choice of personal music, and being able to choose who you sat next to were thought to be important while using a mode of transport. The car was able to deliver on most of these aspirations though some preferred the train for its ability to let them relax and have a much more passive travelling experience.

### ***Variations by segment and lifestyle***

- 3.58 Although there was a great deal of homogeneity around the topic of sustainable transport, participants aspirations were always tempered by a variety of factors such as lifestage – availability of time, level of commitments to others, and money – and their exposure to good quality public transport infrastructure.
- 3.59 For example, participants in York seemed to generate slightly more positive responses to public transport, (perhaps this is due to factors such as: the history/culture of cycling, good cycle lane infrastructure, distances around the city small enough to walk and narrow streets mean ideal for walking vs. the car). Instead, both Winchester and Birmingham participants shared similar views and attitudes to travel (perception that public transport infrastructure was poor and reliance on the car was needed).
- 3.60 For some groups, especially Basic Contributors, Currently Constrained and Long-term Restricted, image played a role. The way you choose to travel was a reflection on the type of person you are - many in these groups considered the car to be aspirational in terms of social status. Where image was important, usually the car was the first choice as it allowed the most opportunity to express individuality.

*“As soon as I can pass my test, I’m going to get a car. I’m sick of having to get the bus everywhere with all those other people. I can listen to my music, relax and go where I want at last”* **Male, Long Term Restricted, Birmingham**

- 3.61 Basic Contributor’s tended to display greater aspirations towards technology and the most convenient forms of transport:

*“..we are the selfish party, our team slogan is everyone has the right to be independent and our manifesto is ‘our car is a must have, be it for work or leisure.’ Do what you want when you want and every car must come standard with sat nav and abolish all speed cameras and clean up public transport.”* **Male, Basic Contributor, Birmingham**

- 3.62 This view tended to be held most strongly at the beginning of the workshops but subsequent discussions lessened the strength of these aspirations:

*“...I am at least more informed now, I can have a think.” Male, Exit Questionnaire, Basic Contributor, Winchester*

*“Made me more aware of environmental issues when considering mode of transport.” **Female, Exit Questionnaire, Basic Contributor, Winchester***

- 3.63 The Currently Constrained segment essentially wanted car travel to be easier. Lifestyle (for example health) and environmental concerns did not feature highly in this group as an aspiration; cost, image and convenience did. However, this is not to say that they did not care about the environment - they just couldn't see how their behaviour could ever be adapted to benefit it. They would like to be able to be more environmentally friendly in this aspect of their lives but felt they had no ways of, currently, achieving this. Ultimately, this group was interested in still using their car – hybrid cars and fuel efficient models would enable them to be environmentally friendly without compromising their lifestyles. Many participants in this group were young which might help explain why image was important while issues like health were not.

*“The slogan we put was ‘Free and easy, ’ and the importance of being idle. The reason for that manifesto is that we looked for ease and convenience in most travel we choose. We want to travel from A to B with the minimum expense, but the ability to travel more environmentally friendly could again be good but at no extra expense”  
**Male, Currently Constrained, York***

- 3.64 The Wastage Focussed segment appeared to already have a lower carbon travel impact compared to some of the other groups as their transport behaviours tended to be focussed on more environmentally benign modes of transport, although this was informed more by cost than environmental concerns. Speed and convenience were less of an issue for them. Public transport was the most favoured form of travel as running a car all the time was considered expensive (e.g. petrol consumption, parking and insurance). Car journeys were restricted to shopping trips or excursions. They welcomed more moves towards sustainable transport and looked to build on their current transport aspirations of walking and taking the bus more. They did, however, recognise that they would still like the option to use their cars when it was practical only i.e. shopping trips.

*“In an ideal world, we would walk, bike or catch a bus. Use the car for pleasure and weekly shopping and use it less for going to town.” **Task Sheet 1B, Wastage Focussed, York***

- 3.65 Although cost was an important issue for the Long Term Restricted and thus many use public transport, many also aspire to be car owners. Cars were the favoured mode of travel, as they afforded them independence and freedom to do what they pleased. They valued being in their own space when they travelled in terms of being able to listen to music, smoke and travel as a family unit, for example. Those that used public transport were doing so due to economic reasons, preferring to drive wherever possible. The public transport (buses) they had to use was considered dirty and unreliable and they had a need for personal comfort and control. This was a factor in their praise and advocacy of cars. Criticisms of public transport tended to focus on issues such as cleanliness, whereas Consumers with a Conscience tended to cite lack of convenience as being the biggest barrier for them.

*“Car - listen to music, smoke” **Task Sheet 1, Currently Constrained, Birmingham.***

*“We prefer the car...we would like to see car tax and petrol prices reduced...Be kind to drivers, stop penalising them i.e. parking fines and speed cameras.” **Task Sheet 1B, Long Term Restricted, Winchester***

*“[Cars let you] be in control, own space, own timetable, reliable, personal, safety.” **Task Sheet 1B, Long Term Restricted, Birmingham***

- 3.66 There was less consensus in the Basic Contributor segment about their aspirations towards sustainable transport. Although they were all committed to travel that was convenient and reliable, their preferred modes of transport and how they would ideally like to travel were always informed by very real, functional barriers, which they struggled to move away from. Work and family commitments forced many to use their cars though single participants were quite happy using public transport as it worked out as a cheaper option for them.

*‘Forced to use the car due to work commitments which we don’t always agree with, most of us wouldn’t choose our car all the time, Some see the car as a way to escape, Some are keen on sport and would bike, Some choose to have large cars, Some would use public transport*

*more if it was cheaper and they had more time.'* **Basic Contributor, Task sheet 1, York**

- 3.67 Consumers with a Conscience were the most progressive and engaged with the impact of travel on the environment and in this respect had the highest aspirations for changing their travel behaviour. They wanted people to move away from the reliance on cars and wanted there to be greater choice and provision of alternate forms of transport. They were interested in changing society's transport behaviour for the benefit of the whole, rather than keep the rights of the individual at the forefront – which many in the Green segment were in favour of.

*"...to be flexible and relaxed about travel, really meaning that we [the segment group round the table] liked to be more...environmentally friendly, we would like to walk more than travel by public transport in an ideal world but that isn't really feasible. But that is what we would like to do."* **Female, Consumers with a Conscience, Birmingham**

- 3.68 The Consumers with a conscience were in favour of walking and cycling more and said that while these modes of transport benefited the environment, they also afforded personal and emotional benefits to the individual, as described previously. They did not consider such aspirations about transport to be extreme or unrealistic. Media and political activity had raised their awareness and made environmentally friendly behaviour a social imperative for them.

*"Wouldn't use the car if we didn't have to, prefer to walk, hate sitting in traffic, want to do more for the environment – would travel to Spain by train in order to see more of the country and better for the environment"* **Task sheet 1, Consumers with a Conscience, Winchester**

## 4 Consumer expectations

---

**Objective 4 - To understand consumer expectations of the role for government, transport providers, car retailers and manufacturers in facilitating sustainable transport and introducing efficient means of mobility**

**Summary:** Action on promoting sustainable travel was seen as something everyone needs to get involved in, business as well as government. Business in particular should facilitate staff through more flexible working time and provision of facilities to adopt more sustainable transport modes. Education was also seen as having a crucial role to play particularly for the young.

- 4.1 This Chapter reports findings on participants' expectations of the role of different stakeholders, such as the Government, transport providers, car retailers and manufacturers, in encouraging more sustainable patterns of transport.
- 4.2 Tackling sustainable transport was seen as something everyone needed to get involved in, in order to initiate change. However, interestingly those with the most responsibility were seen to be corporate organisations (to ensure their employees had sustainable transport options available to them), and Government, particularly its education responsibilities. Education, was seen as important both in the sense of ensuring that the next generation are brought up with the right attitude and don't develop bad habits, as well as raising awareness amongst the wider public of direct (and particularly local) impacts on unsustainable travel.
- 4.3 Charities were seen to have a role to keep things moving and ensure everyone was participating as much as they could. However, it appears that this role was not universal amongst participants, with some participants believing that it was the Governments responsibility.

*'Charity - Good to get many to spearhead (with funding) as they are sincere.'* **Flip Chart Notes, (Whole Group,) Birmingham**

*Not up to charities – money and time – need push - Government's responsibility'* **Flip Chart Notes, (Whole Group), Winchester**

4.4 Businesses were mentioned as having a role to encourage and enable staff to choose more sustainable modes of travel. They had a role to make facilities available for bikes at work and to allow people to have flexible working time to be able to car share.

*“Business – educate and inform staff, car share, cycle path, sponsor cycle lanes, sponsor school education”* **Green, Task Sheet 4 York**

4.5 There was little mention of the roles and responsibilities of vehicle manufacturers or retailers. This indicates that participants did not automatically see them as having a significant role to play. As mentioned above there was no awareness shown by participants in the workshop that cars now had to be sold with an energy rating. (Although nobody volunteered that they had bought a car recently).

4.6 The Green segment in Birmingham did tentatively suggest on a task sheet (asking about roles and responsibilities) that vehicle manufacturers might have a role to play in communicating the environmental impacts of transport. Later on during the plenary discussion where the question was asked who had a responsibility to educate the public on sustainable transport one of the green participants stated that Vehicle manufacturers do have a moral duty. The long term restricted group in Winchester also thought Vehicle manufacturers had a role in encouraging people to buy more fuel efficient cars

*“It could be vehicle manufacturers they have a sense of responsibility both moral and lawful”* **Male, Green, Birmingham**

#### ***Each role in more detail:***

4.7 Participants' Expectations **of Central Government:**

- Communication needs to be backed up by legislation e.g. congestion charging, higher tax for carbon cars producing cars and tax breaks for those that produce less. It is important to note that discussions on congestion charging took place in locations where participants had no experience of the scheme and had limited knowledge of its implications or logistics
- The Government should also raise awareness/educate the public on the negative affects of transport. One of the key aims of this is to help create

peer pressure that unsustainable transport is socially unacceptable. Participants considered that one of the most effective ways of doing this would be through children's education which in turn places pressure on parents

- The Government should create incentives to encourage positive behaviour e.g. tax breaks for carbon efficient cars, cheaper car insurance for car sharing, tax breaks for working from home.

*'Health benefits, tangible (cost savings) benefits, laws and regulations'*  
**Flip Chart Notes (whole group), York**

*"The Government should take the biggest responsibility to educate the public by funding local councils and schools to teach young children the dangers of global warming, so they are more aware at an earlier stage of their lives than we were, so it becomes natural to them to look after the planet."* **Female, Wastage Focussed, York**

*"Well it comes up to point three really that it is education through children and pestering of children to mums and dads and don't smoke because you are going to die and the more they pester adults then perhaps more positives will be done, maybe more than local or national government try to put more pressure on you."* **Male, Birmingham**

#### 4.8 Participants' Expectations of **Local Government**:

- Initiatives to enable communities to do their bit e.g. ensuring cycle paths are available, community car sharing schemes, free bike loans.

*'More Park and Ride, more cycle lanes, safer public transport, cheaper bus fares.'* **Flip Chart Notes (Whole group), Winchester**

#### 4.9 Participants' Expectations of **Public Transport Providers**:

- Ensure buses and trains are frequent and interlinked
- Ensure modes of public transport are clean, safe and friendly
- Make travel more pleasant / luxurious. For example, music on Virgin trains, more TVs on buses, waiting time screens at bus stops etc
- Introduce loyalty reward schemes e.g. train / bus miles. Examples given included an airmiles equivalent, or rewarding a set number of journeys with a free one.



*“To get people walking there would have to be an incentive and we have put down [on their task sheet] a free pedometer and you can strap it onto your ankle and away you walk and at the end of the month, post it off to the Government and they give you some beer tokens or free CD tokens.”* **Male, Basic Contributor, Birmingham**

#### 4.10 Participants Expectations of **Education**:

- School education is important to ensure positive behaviour is adopted from an early age
- In turn, children’s will ‘pester’ their parents to feel guilty and improve their behaviour.

*“If my kid told me he wanted to walk to school tomorrow instead of taking the car I would make the effort, but I probably wouldn’t suggest it myself.”* **Female, Currently Constrained, Birmingham**

#### 4.11 Participants’ Expectations of **Businesses**:

- Secure bicycle parking at work
- More flexible work hours to help encourage cycling.

#### 4.12 Participants’ Expectations of **Vehicle Manufacturers**:

- Information to prospective buyers and providing more choice in styles and performance.

## 5 Consumer acceptance and the behaviour goals

---

**Objective 5 - To understand consumers' acceptance of the need, and ability, to travel in sustainable ways (what they could do; what would they be willing to do; what are the barriers to change?)**

**Summary:** Sustainable transport was largely seen as impractical with participants generally opting for behaviour changes that would not impact significantly on their lifestyle. Difficulty was linked to the fact that participants were set in their ways and could not and/or would not alter their lifestyle. However, nearly everyone was interested in the idea of sustainable transport and they were certainly prepared to discuss options. In terms of the behaviour goals walking and cycling was the most popular one, followed by more efficient cars and public transport. Issues to be addressed to facilitate the acceptability of these goals included safety, cost, choice, and public information/education. The Mobility Biographies suggest that there is a significant amount of under reported churn in mobility behaviour, generally due to external factors, such as a temporary change in economic status. Furthermore, people already express preferences to walking and cycling behaviour all be it generally for leisure.

- 5.1 This chapter discusses the participants' willingness to adopt more sustainable modes of travel. It then discusses this acceptance in the context of the Defra behaviour goals; i.e. which ones are most likely to be acceptable and what are the issues associated with making them more acceptable.
- 5.2 Sustainable transport was seen as the most impractical of all the environment behaviour changes participants were being encouraged to make (by the media and the Government). For example, although the facilitators initiated no comparative discussions, many participants reported that they were already recycling.
- "I would have liked to be [not using the car so much] but efficiency and cost took precedent."* **Female, Wastage Focussed, Exit Questionnaire, Winchester**
- 5.3 The reasons for the perception, that changing current travel choices was too difficult, have already being discussed and are related to: the need for convenience, as participants reported that they feel time pressured; the fact that environment protection is not felt a priority for action, work and family commitments took greater precedence, and an unwillingness for participants

to compromise their lifestyles and image. Even the Greens and Consumers with a Conscience were only prepared to accept 'within reason', the need to travel more sustainably as although they were aware of the environmental issues surrounding transport, consideration for themselves took precedence over the wider picture.

*Its not that we don't care, about environmental stuff, ideally we'd have green cars like hybrid cars, but its just a lot more convenient. We could get the train but it would takes ages so we just hop in the car, its easier*  
**Male, Birmingham**

*"Our travelling experiences are basically restricted by how much time we've got."* **Male, Basic Contributor, York**

*'Control, convenience, reliability, hassle free'* **Task Sheet 2 (What makes the car preferable), Currently Constrained, Birmingham**

5.4 However, during the course of the workshop participants did appear interested and willing to be engaged in sustainable transport. Currently they were disengaged but were not disinterested. Therefore, one of the most significant barriers to acceptance seems to be that many just couldn't see how it could be made relevant to their lives.

5.5 Moreover, nearly all the participants found the discussion on sustainable transport very stimulating.

*There was some interesting facts and it was good meeting different people that expressed similar views and opinions* **Female, Basic Contributor, Exit Questionnaire, Winchester**

*I found it very interesting and informative, I do feel different towards travelling* **Female, Currently Constrained, Exit Questionnaire, York.**

5.6 This implies that there are opportunities to influence acceptance of the need to travel in more sustainable ways. Tangible benefits and local, mass, participation were the major ways in which participants would start considering behaviour change e.g. reduction in tax, school-walking schemes, congestion fines, educating the next generation (as it was to late for their generation) increased public transport.

*'More able to do something positive and helpful if you can relate to it. I can't relate to rainforests. At least within the day-to-day I can have some control.'* **Task Sheet 3, Long Term Restricted, Winchester**

### **Mobility Biographies Box 5.1 – Actual Behavioural Change – and Constraints on Change - in the Past (Objective 5)**

As noted in the discussion of Objective 2, factors relevant to sustainable mobility, notably the decision to reduce fuel costs by switching to diesel, had an influence on car choice in the past for Mobility Biography participants but style

“the look of it” (Y2F31LR)

still remained important for several contributors, although not for all, with the opposite view being

“A car is a car” (W3F47BC).

However, an interesting context which emerged from the Mobility Biographies concerning vehicle choice was that, whilst individual consumer aspiration and societal norms are clearly both important drivers of what vehicle is chosen in many cases, there are also instances where no choice is made by the motorist, because the vehicle is given (W3F47BC), or choices may be constrained, because the vehicle is provided by an employer (W4F46CO).

Even where the decision is notionally the choice of the individual, other family members may be the key consultant on which is the most suitable vehicle, and may often be the whole or part financier (B1M17BC). The latter point generates patronage obligations around the ‘choice’ where there may be a perceived need to keep the price down or follow particular advice ‘because Dad or Granny is paying for it’.

Some Mobility Biography participants reported mode switches to and from car as main mode in the past, such as one participant who had passed her car to her sister on going to University some distance away: her “banger” car was not seen as a reliable option for the long-distance drive whilst buses were thought to be better quality in that locality (W1F27CU).

Road safety concerns did emerge as suppressing the aspirations to cycling by some Mobility Biography respondents, who reported only cycling for leisure, generally on off-road paths, or explicitly avoiding cycling in the city centre:

“It is too busy with narrow streets” (Y1F37CO).

Similarly, another older female respondent reported she still enjoyed cycling for utility trips, but didn’t cycle so much in general now, due to her age, and not at all into the city centre due to safety and air pollution concerns (Y3F65WF). Another deterrent noted by others was unsafe or unsuitable cycle parking leading to fears that bikes would be stolen. For example, a subtle deterrent was raised by a participant employed as a teacher who noted that the only cycle parking facility at her workplace was with the pupils’ facility which she wouldn’t want to share with them, although lack of showering facilities and luggage had been other factors in not cycling (W1F27CU).

There were, however, interesting exceptions to those who reported constraints and deterrents, which underline the diversity of perceptions and behaviours. Participants referred to better provision of pedestrianisation and subways (W1F27CU), pedestrianisation and cycle stands (B4F18CU), pedestrian crossings and street-lighting (B3M50LR) and cycle lanes and tracks as having improved conditions for these modes over time.

One participant reported routinely walking home two miles down a country lane when finishing a night shift at 02.00. She would in fact cycle the same journey in the day; the only deterrent at night being that a deer or other wildlife might run out in front of her in the dark with the risk of collision (W3F47BC). A second respondent was ‘happy’ to walk up to three miles for utility journeys. Another benefit of walking was no risk of committing a drink/drive offence (B3M50LR). In a third case a participant’s household had chosen to reduce car ownership from two to one, and her husband had cycled on days then the car was not available, including in adverse weather. The reduction in car use was also made possible by the availability of an employer’s pool car being available for journeys for work (W4F6CO).

### ***Variations by Segment***

- 5.7 The wastage focussed segment was open to sustainable modes of transport and were concerned about the affect of CO<sub>2</sub> emissions on the environment, with their grandchildren’s welfare cited as their biggest worry.

*‘Our grandchildren’s welfare and future are our main concern now. We need to protect the environment for them.’* **Female, Wastage Focussed, Birmingham**

- 5.8 The Greens' transport attitudes were shaped by reliability and personal space, like most of the other segments. However, they seemed to be less absolute about these concerns and were generally more willing to consider choosing different modes, according to the nature of the journey. (E.g., the car for long distances, walking and biking for the city and public transport to keep cost down).

*Travel is a necessary part of everyday life, but is every journey and mode of transport needed? As individuals, people should question every journey i.e. can we get there easily without the car?* **Greens, Task Sheet 1, York**

- 5.9 The transport attitudes of Consumers with a Conscience tended to be slightly more informed by lifestyle issues. For example, health benefits were ranked highly in this group and this probably helps explain why they were more willing to consider walking and cycling. This segment was also willing to consider public transport if it was reliable and convenient. Preferred travel modes if money and time were not an issue included walking, not travelling (working at home) and using trains.
- 5.10 The currently constrained segment were interested in image, convenience and cost in terms of sustainable transport rather than the environmental issues of transport. A number of participants from this segment stated in the exit questionnaires that they would not change behaviour or perhaps only think about it.

*"I thought sustainable transport was limited & expensive, both in terms of time & cost.... I may think more about cutting down on short journeys. If it suits my lifestyle."* **Male Currently Constrained, Exit Questionnaire, Birmingham**

- 5.11 Basic Contributors participants appeared to prioritise other commitments over and above sustainable transport issues. However, the exit questionnaires for this segment showed that many had found the workshop very interesting and some of the information surprising. This perhaps reveals that this group may be easier to convince of the need to adopt more sustainable transport behaviours than some of the others.

*The workshop “Made me more aware of environmental issues when considering different modes of transport”* **Female, Basic Contributor, Exit Questionnaire Winchester**

- 5.12 The Long Term Restricted participants did not consider the impact on the environment of their transport choices. The exit questionnaires show that although there is a range of responses a significant number did not change their mind they also felt they had little power to change things.

*“No. Until these policies deliver noticeable results (car share schemes that work, higher numbers of electric cars etc) I don’t think that changing my behaviour will make a difference”* **Male, Long term Restricted, Exit Questionnaire, Winchester**

### **The Behaviour Goals**

- 5.13 The following section discusses the consumer acceptance of Defra’s 5 behaviour goals (see below) and looks at some possible additional goals as well.

- Walk or cycle for trips of less than 3 miles
- Switch to public transport
- Buy efficient/low carbon vehicles
- Drive more efficiently
- Switch car fuel (e.g. from petrol to bio-fuel, hybrid, electric or LPG).

- 5.14 Participants within their segments were asked to rank their top 3 behaviour goals. The results suggested that there was no clear pattern by segment. However, walking and cycling was the most popular goal across all groups (in terms of the ranking and numbers of times it was voted for). Buying efficient low carbon vehicles was the second most popular and public transport was the third most popular goal. This suggests there is some acceptance by all groups that some modal switch is required. Table 6 below summarise the details.

Table 6: The behaviour goals

Walk of cycle for trips less than 3 miles	This was the most popular goal. Participants said that it needed to be made “cooler” especially with the young and that schools should be targeted.
Buy efficient low carbon vehicles	This was ranked the second highest. As discussed above image, choice and cost all affect acceptability.
Switch to public transport	This goal was ranked the third highest. It was felt to have added benefit of being cost effective. In addition, information needs to be readily available. As discussed before image and issues like safety need to be addressed to make it more acceptable.
Drive more efficiently	This was the fourth most popular. The safety and insurance issues (presumably offering discounts for safer more efficient driving) appear to offer scope for making this more acceptable.
Switch car fuel	This was only identified by one segment the Long Term Restricted in Birmingham as a desirable goal and they placed it first. Strictly speaking, this gives it the highest average but as it was only voted for once its placing has been discounted slightly. There is some possibility that this goal was confused with buying efficient and low carbon goal but this is impossible to verify.

### ***Walk or Cycle for trips less than 3 miles***

- 5.15 The popularity of this goal was dependent on the nature of the journey and the weather. The workshop participants in Birmingham were the exception to this as they were less interested in moving away from cars and preferred to consider fuel-efficient cars – thereby adopting new technology that would have no impact on their current lifestyle.
- 5.16 In short, it appears that walking for short distances might be a realistic possibility, for participants, although this was dependent on how close they lived to local amenities (3 miles felt too much to walk for most participants). The additional health benefits of walking and cycling was an added motivation.
- 5.17 Participants stated that barriers and motivators were related to safety, image and time. Participants cited a number of factors that would need to change in order to make this goal more acceptable:
- More cycle lanes
  - More safe areas to cycle
  - More time allowed from work (as cycling takes longer)

- Cycling needs to be made more 'cool' in terms of lifestyle especially for younger groups (18-25 years)
- Better weather.

### ***Switch to public transport***

5.18 Some participants were open to switching to public transport but would expect a significant number of changes before they would do this. Prices would have to be cheaper and public transport would need to be more frequent. For example, buses would have to come at maximum of 15 minute intervals. Participants thought that there should be a greater (perhaps unrealistic) degree of flexibility in public transport provision. For example, the bus / train sizes should suit the amount of people travelling on board (so not overcrowded in rush hour, and half empty at other times). They would need to be clean, comfortable, include video surveillance and be well policed.

*'Buses are double decker and only a few people use them, so if you get regular buses instead and single ones would be better.'* **Long Term Restricted, Exit Questionnaire, Winchester**

5.19 To some extent public transport was seen as an insurance or back-up mode rather than a main mode, with walkers and cyclists using it on very wet days, and motorists turning to buses and trains for specific journeys where the traffic and parking conditions and convenience, or cost factors made it favourable.

5.20 Participants stated that barriers and motivators were related to cost, and convenience. Participants cited a number of factors that would need to change in order to make this goal more acceptable:

- More information to assist with planning journeys
- Shopping services provided to help people get heavy bags back to their house or flat
- Cheaper
- Smaller busses which take up less road space (as opposed to large part empty busses)
- Park and ride facilities with regular busses



- Direct bus routes
- Improve the travel experience make it less crowded, dirty and untidy
- More frequent services, which would lead to no loss in time over using the car.

***Buy efficient/low carbon vehicles***

5.21 Many participants also felt they would consider buying more efficient/low carbon vehicles in future. However, to make this acceptable, low carbon vehicles would have to be the same price / cheaper than ordinary cars. They would also have to have a greater range of models and styles of car to suit different types of people.

*‘Need wider variety of cars...price to come down.’* **Flip Chart Notes (Whole group), Birmingham**

5.22 Although reducing running cost was frequently mentioned as a criterion to encourage people to use more sustainable transport modes, fuel consumption did not appear to be a key criterion for purchasing a new car. This was shown most strongly in the mobility biographies. Where one participant purchased a new larger car and was shocked by the increased fuel consumption (See Mobility biography box 3.2). Furthermore, once increased fuel consumption became apparent participants did not necessarily then make a link to increased carbon emissions.

5.23 Even at the end of the session, it still seemed unlikely that participants would change their perception and actively seek out vehicles with lower carbon emissions when purchasing a new car, unless another benefit was attached, such as lower cost, or greater awareness, and or social pressure was applied.

5.24 Participants stated that barriers and motivators were related to availability, cost, variety and image. Participants cited a number of factors that would need to change in order to make this goal more acceptable:

- Need to have variety can choice of models as its no good just having one or two to chose from
- They need to be made sexy, participants reported that people need to want to buy them

- Need some form of reward for buying a low carbon more efficient car

***Drive more efficiently***

5.25 Once the benefits of driving more efficiently at a restricted speed were properly understood, it was seen as a simple and easy adjustment to make. However, in order for it to work, the benefits would have to be communicated clearly and it would have to be enforced by law (Most popular with the greens / older respondents).

5.26 Participants stated that barriers and motivators were related to safety and particular the need for government action. More specifically that there needed to be:

- Lower speed limits
- Tests every 4-5 years to help ensure that drivers were driving more efficiently
- More efficient driving should be a condition of car insurance
- Need to stress the benefits of increased child safety

***Switch car Fuel (e.g. from petrol to biofuel, hybrid, electric or LPG)***

5.27 Hybrid cars were thought to be too expensive to purchase and not enough variety of designs to choose from. Furthermore, when purchasing cars little importance seemed to be placed on the relative level of carbon emissions of the vehicle

“[Needs to be] *Cheaper – Hybrid cars are too expensive.*” **Task Sheet 3A, Consumers with a Conscience, York**

5.28 Participants stated that barriers and motivators were related to cost. More specifically that there needed to be:

- A reduction in price
- More choice

***Other possible behaviour goals***

5.29 During the course of the discussion about the behavioural goals, participants

also mentioned other potential ways that they could change their behaviour. These goals tended to focus on reducing the need to travel or numbers of trips. For example, working from home / Internet shopping was thought to be desirable for most groups when possible. Lift or car sharing was also mentioned by a significant number of participants especially in Birmingham. However, it was also seen as problematic by a number of people (presumably as it may undermine the convenience, freedom, autonomy and own space benefits of the car mentioned above).

*'Make less journeys – we need a tax break for working from home.'*  
**Task Sheet 3, Currently Constrained, Winchester**

5.30 Participants stated that the barriers and motivators for these additional goals were related to safety, image and time. More specifically that there needed to be:

- Company incentives for car sharing
- Companies need to allow more flexible working hours so people can share cars
- Need to have broadband and computers at home.

**Mobility Biographies Box 5.2 - A Longitudinal Perspective on the Behavioural Goals**

Evidence from the Mobility Biographies indicated the potential for walking and cycling; even amongst car dependent households, as walking and cycling had often been used more extensively in the past. These modes were also currently often used as leisure activities. Indeed, family leisure cycling was sometimes explicitly not accompanied by utility cycling for safety reasons, so a high-carbon mode might be used to access a leisure location such as forest paths (W4F46CO), or an exercise bike in a gym (B1M17BC). The finding nonetheless confirms the availability of cycles, technical ability, and desire to cycle in the right conditions.

Little information emerged spontaneously about car sharing. Indeed, respondents used this term spontaneously in a different way, to indicate whether couples or families owned one or more cars between them.

The Mobility Biographies provided information about travel behaviour changes that people had actually made in the past. A salient reminder here was that travel behaviour changes are fairly frequent, occur in all kinds of ways – both towards and away from cars - and with varying degrees of 'permanence', with respondents recalling periods of time in which car use had been increased or reduced for economic, built environment, household structure, and other reasons.

The potential for such changes will tend to be under-reported in 'snapshot' social research, as people will tend to answer with respect to their current situations, whilst behaviour change is most likely to occur because of unexpected, unpredictable change.

## 6 Communicating with the consumer

---

**Summary:** Although limited and patchy there was a higher level of awareness amongst participants of the environmental impacts of travel than might have been expected. Opinions did appear to shift slightly during the day with people being able to recognise the benefits of walking or public transport. Trusted advisors would need to be independent and have nothing to gain. In everyday life, fathers and friends were often consulted on car purchase decisions. Shock adverts based on participants own local travel impact and some government action was thought necessary to get people to change behaviour. In short, participants thought that there was a need to change people's acceptance of unsustainable travel behaviour.

6.1 This chapter analyses how participants' understanding is affected by the introduction of new information, who participants trust to speak on the subject of sustainable transport and the type of information that might influence them most. More specifically it addresses objectives:

- 7. To understand if information and opinion forming throughout the day has led any groups to re-evaluate their attitudes to transport and environmental issues – To inform future communication or behaviour change strategies
- 8. Who would be a trusted advisor to help consumers make efficient transport decisions?
- 9. Consumers views on the type of information that might influence their transport decisions (are they prepared to incorporate environmental and social factors)
- 11. The potential impact that new information (and different ways of presenting new information) on environmental and social effects would have on consumers.

**To understand if information and opinion forming throughout the day has led any groups to re-evaluate their attitudes to transport and environmental issues – To inform future communication or behaviour change strategies**

6.2 There was no evidence of a dramatic shift (most participants were already

aware of the problem). Interest and scrutiny of climate change reporting in the media was already fairly high.

- 6.3 Some participants stated that very little of the information shared over the day was 'new news'. However, relating the issues to their personal lives and being in a situation where they had to give serious thought to this topic, resulted in greater engagement and consideration for this area than any participant had previously reported.

*'Low carbon emission cars are a good idea. Made me more aware of different forms of travel.'* **Exit Questionnaire, Long Term Restricted, Birmingham**

- 6.4 Participants did shift their opinion due to the increased awareness, subsequent to the day's discussions. Analysis of exit questionnaires that asked participants how their attitudes had changed over the day showed that the Long Term Restricted, Greens and Basic Contributors showed the greatest positive change. Moreover, two thirds of Wastage Focussed, Currently Constrained and Consumers with a Conscience participants also thought the workshop had changed their understanding of sustainable transport.

*"The discussion has definitely given me something to think about, walking and cycling where time allows and watching out for reduced bus fares!!"* **Long Term Restricted, Exit Questionnaire, York**

*"Some things surprised me. Makes you reappraise how some things are important i.e. cycling and walking more."* **Basic Contributor, Exit Questionnaire, Winchester**

*"More positive if it results in some action."* **Green Exit Questionnaire, Birmingham**

*"Very interesting. I enjoyed talking about things with people who feel the same way."* **Consumers with Conscience, Exit Questionnaire, Birmingham**

- 6.5 Information shared by others in the whole group e.g. local initiatives (school walking bus) created the most interest. Suggesting that bottom up sources of information (from local people) may be more motivating than a wholly top down (government presented facts) approach. Furthermore, participants with

kids seemed to be more readily influenced than those without.

*“It would have to have an impact on our children or loved ones i.e. so if you drive slower, your carbon emissions will be reduced by x amount which means that your kids will probably live to see a 100 and if you don’t the chance are they will die younger...something along those lines.”* **Male, Basic Contributor, Birmingham**

- 6.6 Facts and figures tended to be treated with a degree of cynicism (arbitrary figures) and only had an impact when they could understand it tangibly. Participants needed to be interested in the effects of travel on the environment before figures could be used. I.e. one cannot rely on figures alone to tell the story for you.

*“A combination of the two: facts and pictures, but also emotions. A balance like the advert on the TV with all the black smoke, lots of people talk about that... You could do one about emissions.”* **Female, Consumers with a Conscience, Birmingham**

### **Who would be a trusted advisor to help consumers make efficient transport decisions?**

- 6.7 There was consensus across all segments that a ‘trusted advisor’ should inspire the public to travel more sustainably through sincerity and personal commitment. Participants felt that celebrities such as Jamie Oliver and Bono had set a precedent; both of who were thought to be good examples of personal conviction and commitment affecting a change in the behaviour and attitudes of the public. Jeremy Clarkson was also a popular figure particularly amongst more pro car segments (Basic Contributors and Long Term Restricted). However, some participant’s thought that only having one person as a trusted advisor was not enough as the issue was so big. Instead, they thought it should be about everyone doing their bit.
- 6.8 If there is to be anyone who is a “trusted advisor”, it must be someone who is completely independent of politics – they must have no personal gain (i.e. a fee or very obvious vested interest). This need for objectivity means that politicians were often rejected as an advisor. Education was seen as having a key role to play in influencing the next generation.

*'Charismatic, dedicated to the cause, not a politician, a 'people's person', knowledgeable, not from a charity i.e. 'hippyish', can be trusted'. Flip Chart Notes (Whole Group), York*

**Mobility Biographies Box 6.1 - Sources of Information Influencing Past Transport Decisions (Objective 8)**

The discussions in the deliberative workshops focussing around high profile public figures who might be trusted informants contrasted interestingly with reports by Mobility Biography participants about who had actually influenced decisions in the past. Fathers and husbands were identified as key informants and even decision takers. Fathers were presented by several daughters (Y2F31LR, B4F18CU) and one teenage son as valued and trusted advisors who could draw on past knowledge with particular types of car and life experience to negotiate with the seller...

*"My dad wouldn't let me buy a bad car" (B1M17BC).*

There was some natural scepticism towards the power of the sales representative.

*"My friend saw a car passing the showroom and had allowed herself to be talked into buying it on the spot" (W4F46CO).*

Similarly, women tended to rely on partners for information (Y3F65WF). One referred to her husband wishing to buy her a car but more in the sense of process than finance:

*"Only last night he was asking me if I wanted him to buy me a new car" (W3F47BC).*

Some Mobility Biography respondents referred to specific media sources and other sources of technical information as being relevant in car purchase decisions:

*"...magazines [distributed by manufacturers] seem to give much more information these days, not just shiny pictures" (Y2F31LR).*

The programme 'Top Gear' received mentions, although it could be regarded as "derogatory" to viewers (W5F56G).

Some respondents were aware of or had actually made use of the increased availability of official ratings about fuel consumption and tax bands (W1F27CU).

**Consumers views on the type of information that might influence their transport decisions (are they prepared to incorporate environmental and social factors)**

- 6.9 Key areas of information were crucial to re-evaluate behaviour. Participants need to know the immediate impact on the environment. Most participants were aware of the long term effects of global warming and although they do care, it feels too 'big' and distant for them to be able to do anything about it now. Consequently, they need to know exactly how it is affecting them right now i.e. breathing in carcinogenic gasses, which damage health.

*'Must relate to your own life e.g. sitting in a traffic jam on the way to school, kids breathing in the emissions.'* **Flip Chart Notes (Whole group), Winchester**

- 6.10 Participants also have to relate to the information on a personal level i.e. how does my small effort contribute/ help the bigger picture. This can be both:

- My negative behaviour e.g. by driving to the shops instead of walking, my car fumes are giving 2 more kids a year will get asthma on my street

*'Explain the terms – don't say 'carcinogenic' say 'these gases will give you and your family cancer.'* **Flip Chart Notes (Whole group), York**

- My positive behaviour e.g. if I got the train instead of driving to work would have the same positive impact on cleaning up the air as one tree.

*'Put the positives across, not all the negatives: the bigger picture of your changes, what you have achieved, should be enjoyable (make everyone feel good with a little push).'* **Flip Chart Notes (whole Group), Birmingham**

- 6.11 They also need to see or be reminded of the benefits/ improvements on their lifestyle, day-to-day. For example, cycling to work leads to health benefits; trains result in a more relaxing travel experience and or a quicker journey.
- 6.12 Furthermore, presenting the moral benefit, together with no negative impact to people's lifestyles, e.g. carbon neutral cars that are just as attractive/stylish as normal ones, could also be a useful way to present information.
- 6.13 In terms of the most appropriate way of presenting this information to the public, participants repeatedly referenced previous government public information campaigns (e.g. anti smoking, drink driving) as effective examples of changing their attitudes. Campaigns were seen to work in 2 stages:
- The campaigns informed them of the immediate harmful impact to themselves and others by their behaviour. Visual examples in particular were thought best at making the impact more tangible.

*"If I could actually see a road completely congested with cars just stuck there, and then an alternative picture of the same road with a few buses on it flowing smoothly and it told me there were the same amount of people on the road then I could really see the benefit if we all travelled by bus."* **Male Long Term Restricted, Birmingham**

- It was clear what they could do to improve their behaviour in a tangible, realistic way. I.e. walk instead of driving short journeys – think before you get in your car. The mainstream awareness of the negative impact results in talkability around these issues and as a result, people are criticised when they do not improve their habits/ behaviour. In short, it becomes the



social norm to do the right thing i.e. be aware of their carbon footprint and do everything in their power to reduce it.

*'Need to feel guilty as if you are not doing your bit – people are aware of things but always think it's someone else's problem.'* **Task sheet 4, Wastage Focussed, Winchester**

**Mobility Biographies Box 6.2 - Environmental and Social Factors as Motivators for Transport Decisions in the Past (Objective 9)**

During the Mobility Biographies, people described behaviour and lifestyle change in the past for environmentally-motivated reasons, but related to recycling and 'freecycling' behaviour (Y1F37CO, W2M46G, Y3F65WF), low energy lighting and avoiding too much packaging (Y2F31LR) rather than in terms of contributions to sustainable mobility. Health was also the more important factor in encouraging walking and cycling (B3M50LR). Participants volunteered that

"We were fitter and saved money when we only owned one car" (W4F46CO)

and

"It's the 'mad obesity thing' that has encouraged much more walking as part of a healthy lifestyle. [The Council is] encouraging this by resurfacing and pedestrianising areas to make them safer" (B4F18CU).

The implication of the following view is that the improved fitness is the only reason why one would wish to cycle in the street:

"I've got an exercise bicycle in my house; I don't need to [go out cycling]" (B2M65WF).

Past changes were described in terms of social and economic mechanisms. These related to changes in household composition or need such as the birth of children (Y2F31LR), with one new mother having felt compelled to take her test at the age of 28 (Y1F37CO), or changes in members' personal mobility (B2M65WF) or employment (B3M50LR) – or as noted in respect of in terms of chance and discovery mechanisms – being given a car unwanted by a relative, or rediscovering cycling on holiday. Only upon prompting did one respondent recognise, with hindsight, that she had moved to a more 'environmentally friendly' way of living (W3F47BC) although in another case the respondent did report she had tried to consider the environment in her transport choices in recent years, but had encountered a lack of alternative options (W5F56G).

One Mobility Biography respondent reported encountering strong resistance by family and friends to her 'low consumption' lifestyle choices. These choices were based on personal preference rather than significant environmental concern: she reported particularly enjoying walking and cycling, and the associated health benefits, but not enjoying shopping. Her friends wished her to spend more money on clothes and appearance in line with her social position. They had teased her for her travel choices; she recalled one person suggesting she

"...ought to become a postwoman then at least she would get paid for it [cycling]".

Her adult daughter had also encouraged her to acquire a car and had eventually given her a 'hand-me-down' car when she received a company car. An interesting and revealing exchange took place in the interview: the respondent initially reported not owning a car, but it gradually emerged that this donated car was parked on her daughter's drive – almost an adjacent property – but was now registered in the participant's name, who in effect had exclusive use of it, although it was used sparingly. However, she did not 'self perceive' as a car owner and was cognitively dissonant to the idea that she had become one due to social pressure; defining her independence through transport choices other than the car, and valuing the difference of not being a car-owner.

**The potential impact that new information (and different ways of presenting new information) on environmental and social effects would have on consumers**

- 6.14 There is real potential to change people's behaviour but it must be a consolidated campaign of communication and policy. It is important that communications are backed up by strong policy e.g. government commitment to improvements in public transport (more etc), taxes and incentives to penalise unsustainable travel behaviour and reward sustainable behaviour.

- 6.15 If sustainable transport became a social norm, those that currently do not consider their impact would almost certainly rethink their choices (walk for short journeys, consider hybrid cars).

*“So if there is a ground swell of local people and peer pressure which is driven by people, supported by government, whether it is local government on issues of environmental recycling that gives us the education to be aware, passed on to central government and it needs to be supported by good quality advertising. So there needs to be a proper campaign related to that.”* **Male, Green, Birmingham**

*“Social pressure...the no smoking ban has been brought about by social pressure and the vast majority don’t particularly want it...but there is a lot of social pressure to not only that but there could certainly be about environmental issues.”* **Male, Consumers with a Conscience, York**

*“Drink driving...now you know it’s wrong and you know the rules and it’s unacceptable.”* **Female, Wastage Focussed. Birmingham**

- 6.16 As reported above many participants stressed the importance of understanding the immediate impact or the local impact of their transport decisions, as this would be more likely to persuade and encourage them to change behaviour.

*“It would have to have an impact on our children or loved ones i.e. so if you drive slower your carbon emissions will be Reduced by X amount which means that your kids will probably live to see a 100 and if you don’t the chances are they will die at 75 or 80.”* **Male, Basic Contributor, Birmingham.**

- 6.17 On top of the immediate and local impact, it may be necessary to combine this with communications that have a degree of shock in order to have an impact. These shock style adverts were thought more likely to work if they were made to be personal or relevant to the individual rather than focussed on global impacts such as climate change. For example, the anti-smoking/drink driving adverts were cited as effective campaigns a number of times. Visual images are an important aid to enable people to conceptualise the issues.

*‘Has to be shocking and extreme. No ‘nicely nicely ‘ messages. Nobody pays attention to them.’* **Flip Chart Notes (Whole group), Winchester**

*'The alcohol ad for drink driving or the 'Kill Your Speed' ad with the little girl. Shock tactics stay with you – they get you on a personal level.'*  
**Flip Chart Notes (Whole group) York**

*'Shock tactics are better – like Government TV advertising. It gets you on a personal level.'* **Task sheet 4, Currently Constrained, York**

6.18 In summary the communications needs to address the following:

- Key messages - should be local not global that includes: emphasising small actions that are easily achievable (reducing engine revving); personal lifestyle benefits of the travel experience (cheaper, more relaxing, exercise), and in terms of environmental benefits emphasise the impacts of individuals' choices and the alternative options they may want to consider.
- Nature of the campaign should be based upon images and credible 'shock' tactics, which relate to personal or local issues (e.g. anti smoking campaigns) not global or less tangible ones.
- Supporting information - Statistics could be used to reinforce these key messages. They will need to be immediately visualised and understood and will probably appeal most to Greens and Consumers with a Conscience.

## 7 Conclusions

---

### Introduction

- 7.1 The vast majority of participants stated in their exit questionnaires that they found the day more than just interesting and enjoyable. There was a significant degree of awareness of environmental issues particularly climate change across the segments. This general level of awareness seemed to provide a backdrop to most of the discussion throughout the day.
- 7.2 The recruitment protocol excluded those who said they were disinterested in the issue. This may have influenced the fact that no participants voiced unqualified cynicism for the concept of sustainable transport. There were some participants who were sceptical about some of the figures introduced but no one who was belligerent enough to dismiss the whole event.
- 7.3 Across the segments, there were consistent factors that determined participants' attitudes towards their travel choices. Individualism was the overarching factor with many participants wanting and expecting to be able to exercise autonomy over how they travelled, regardless of the consequences<sup>13</sup>. As a result, participants tended to be dubious and cynical about how steps to reduce the impact of their travel choices could be meaningful unless a more collective approach was organised. Often individual steps were considered pointless.
- 7.4 The demands of lifestyle were considered much stronger than the demands of the environment and this short-term, day-to-day attitude was prevalent for all groups. Sympathy and concern (for the environment) were very different from real action or behaviour change.
- 7.5 Environmental awareness and subsequent concern were found to be widespread across all groups. Some segments were more knowledgeable and opinionated than others and this variety of engagement with the issues was expected. It is acknowledged both by researchers and researched that involvement in the project itself may have altered participants' attitudes and

---

<sup>13</sup> Some older and / or less confident people preferred to travel by public transport, as it was less stressful.

future behaviour.

- 7.6 However, despite there being little obvious dissent reported in the workshop or biographies, the actual behaviour change that participants reported as a result of their environmental awareness to date was in domains other than sustainable mobility; most obviously the recycling of household waste. Furthermore, a 'deep Green' approach to environment generally appeared to be off-putting.

### **Understanding and assumptions of sustainable transport**

- 7.7 Understanding of the term sustainable transport was patchy. Although there was a general level of awareness of environmental issues (particularly Climate Change) and awareness of some of the negative impacts of transport, there was little evidence of participants linking these together in coherent and consistent manner.
- 7.8 Moreover detailed specific information about how mobility decisions impact on the environment was limited in terms of both volume and accuracy. Despite, or perhaps due to, the popularity of television programmes on motoring, the public emerges as having a weak grasp of the relative environmental credentials of different transport vehicles, and in particular, the large differences between relatively comparable cars sold in a complex market.
- 7.9 In the absence of effective knowledge themselves, some consumers rely on relatives and retailers they trust, but may be over-rating the impartiality and or effectiveness of these informants.
- 7.10 Hence, the potential effectiveness of providing salient and accurate information about the effects of mobility decisions remains a largely untested and unexploited driver of individual change. A key unanswered question concerns how far sustainable mobility is able to follow the recycling 'transition'.

### **Consumer assumptions of sustainable transport**

- 7.11 Perceptions of sustainable transport and potential to change behaviour were influenced by lifestyle and 'individualism'. Convenience, quality of the experience and speed were important particularly to those that did not use public transport. However there was a minority, who were happy with public

transport provision particularly the Wastage Focussed (more time and can choose when and where to travel). Moreover, throughout the course of the day all groups were able to identify advantages to using public transport over the private car.

- 7.12 Car travel although thought to be the best value for money was assumed to have the worse impacts on the environment. However, empty buses and trains were also thought to be bad for the environment. Walking and cycling were thought to be the most sustainable transport modes.
- 7.13 It was assumed that more sustainable transport will probably result in an unwelcome change in people's lifestyles such as loss of convenience, freedom, be more expensive and it would take more time having to use other modes such as public transport.

### **Consumer aspirations of sustainable transport**

- 7.14 In terms of transport aspirations, all participants wanted comfortable fast and convenient modes of transport. Some talked about helicopters and chauffeur driven cars as an ideal, although they also recognised that these 'ultimate' forms of transport would also damage the environment.
- 7.15 Most participants aspired to car ownership because of its convenience, comfort, choice, status/image, freedom and perceived relative safety. Car ownership was regarded as a normal thing to aspire to. However, all things being equal, including cost, many participants would like to minimize their impact on the environment as well.
- 7.16 Ultimately aspirations are concerned with fast forms of unfettered travel, which are far removed from the behaviour goals suggested by Defra which try to promote less motorised individual travel, alternative fuel types and more efficient cars. Participants, it appears are more concerned about being lifted from the drudgery, delays and dirt of everyday travel and be healthier at the same time.

### **Consumer acceptance of the need to change behaviour**

- 7.17 Travel was considered a problematic area for individuals to have a genuine positive impact. Other forms of 'green' behaviour such as reduced energy use, recycling and support for local farmers, for example, were cited as being

accessible and tangible ways to play a role in environmental sustainability. Sustainable transport was not considered as accessible or easy to achieve for many. This suggests that it is the lack of access and options that cause at least some of the gap between people's attitudes and their behaviours.

- 7.18 Although there was evidence of environmental awareness, crucially, lifestyle, work and family commitments were more important across the segments (all be it to differing degrees). It appears people will engage with environmental behaviour only if it has no, perceived, negative impact on their current routine. Very few can justify the benefits of not using the car, for example, in order to help the environment.
- 7.19 Those segments that had traditionally never considered how they could play a role in limiting damage on their environment found their subsequent increased awareness and engagement genuinely interesting and motivating. However, although discussion on issues over behaviour and personal responsibility were interesting to participants, there was no real commitment made to change behaviour that would cause 'inconvenience' to lifestyle. This may be due to the focus on macro impact, rather than micro, local impact. Bringing issues home to people, in a way that directly affects their lifestyles is a way to get people to move sustainable transport up their list of priorities.
- 7.20 Providing more accessible transport options is another way to increase real behaviour change. Currently, public transport is perceived to be under-invested in and therefore, not a real priority for the government. It appears that irregular, dirty and unsafe buses and trains may signal a lack of prioritisation by the Government in public transport. Certainly, a number of non- and irregular users had these perceptions of public transport whether it was true or not.
- 7.21 Incentives, penalties, positives and benefits of NOT using the car, combined with a campaign of 'unacceptability' are considered effective methods to move public attitude to behaviour change.
- 7.22 In terms of the behaviour goals walking and cycling was the most popular one, followed by purchasing more fuel efficient/low carbon cars and then public transport. Issues to be addressed to facilitate the acceptability of these goals included safety, cost, choice, and public information/education.

7.23 The Mobility Biographies suggest that there is a significant amount of under reported churn in mobility behaviour, generally due to external factors, such as a temporary change in economic status. Furthermore, participants already expressed preferences to walking and cycling behaviour all be it generally for leisure. Both these last two factors imply that the practical barriers to travel behaviour change may not be as intractable as might be expected. It is perhaps the perceived cause of that change, (by the target group), which may be important to consider in a behaviour change strategy.

### **Types of information that may encourage behaviour change**

7.24 All segments need to understand that whatever efforts they make or are 'forced' to make are positive, and have real, tangible, impact on their environment. Positive benefits are a refreshing change from 'doom and gloom' messages and people feel more empowered to change their behaviour if it does not feel futile and pointless.

7.25 There has to be a need for 'inclusiveness'. There must be a sense that all people are taking part and changing their behaviour as this further ensures that people do not feel their actions are futile.

7.26 Analysis of the Defra segments, showed that there were varying levels of engagement towards helping the environment:

- Tendency for more educated (and wealthy) respondents to care more
- Tendency from students and less affluent respondents, especially in the Long Term Restricted segment, to feel that caring for the environment is a luxury for those with more money (to invest in more expensive hybrid cars etc) and for some with more time available (to use alternative mode of travel to the car).

7.27 That said, general awareness of all that environmental issues seemed to be becoming increasingly important and being environmentally friendly the 'responsible' way to think and behave. This environmental awareness although apparently not sufficient to encourage people to significantly alter travel behaviour does appear to be enough to permit reasoned debate and possibly create some space for more proactive measures.

7.28 However, even those that were the most environmentally conscious, didn't



want to be perceived as too 'right on', earnest and worthy (A hang-over from eco warrior days and hippies). At the end of the workshop, even those that had responded positively to the Green recruitment criteria did not want to be perceived in that way.

- 7.29 The Greens and Consumers with a Conscience, although not as green as may have been expected, did display more environmental concern and appeared more willing to choose different modes than other groups. They were also motivated by health and time. They probably need to be convinced there are genuine alternatives that fit their lifestyle aspirations.
- 7.30 Taking advantage of current interest and engagement with environmental impact is important in determining which segments to target – the Consumers with a Conscience and Wastage Focused could be powerful in de-stigmatising the 'green' aspect while also making the issue mainstream and acceptable. This process has begun already. The Basic Contributors and the Currently Constrained will eventually follow after their lack of interest/ engagement has become a stigma in itself.

### **Potential for behaviour change**

- 7.31 Fundamentally, people will opt for behaviour changes that will not affect significantly on their lifestyles. If convenience and reliability are promoted, then people may consider alternative modes. This means that current travel options and provisions have to be improved in an obvious way and made more accessible. People will not change their behaviours unless it is made easy for them to do so.
- 7.32 However, these findings need to be placed in the context of the data collection methodologies employed, and their relative strengths and weaknesses. Workshops involving members of the public are effective in encouraging debate about sustainable transport, including contrasting a range of views. However, they focus on individuals' current attitudes and behavioural constraints. And in making public statements, respondents are likely to emphasise their independence of action and personal agency, as these are generally desirable social attributes. Hence, the workshop methodology may identify behaviour as being more permanent than it is, and as deriving more from free will and choice than it does in practice, when factors such as

changing personal and household situations and changing monetary costs are fully taken into account. In also involving mobility biographies, the combined methodology is able to put the workshop findings in a context which emphasises that individuals also have past experiences and histories in which their travel decisions reflected the needs and demands of others, unexpected events, and factors such as government policy, as well as free will and preference.

- 7.33 Change is often unexpected, so by definition not easily represented in self-predictions about future behaviour. Our society tends to make positive attributions towards the concepts of freedom of choice and personal agency or 'being in control', and has more negative associations with compliance with authority or accepting constraint. In presenting themselves in society, to others, in a public workshop event, then, it may follow that participants emphasise the role they themselves play as individuals in controlling and determining their own behaviour and at the same time underplay the extent to which decisions taken by employers, relatives, and in particular government, would actually influence their behaviour. In other words, participants are likely to agree with the notional view 'I'll do it if I want to, not because the government tells me to or because I have to'.
- 7.34 The reality of constraints influencing behaviour did show through in the Mobility Biographies, however. In terms of psychological theories such as that of 'planned behaviour', then, external factors can be a powerful influence relative to an individual's attitudes, such as towards transport and the environment. Notably, where behaviour is changed in favour of pro-environmental goals, attitude change in support of those goals may also follow. Such adjustments would tend to occur to avoid uncomfortable 'cognitive dissonance' between the belief that the individual controls his or her own behaviour and the observation that he or she has been 'forced' to change behaviour. The easiest way to resolve this internal psychological conflict may be for the individual to change attitudes about the need to protect the environment and adopt a narrative that the behavioural change occurred in response to these attitudes.
- 7.35 Alternatively, though, there is a risk that an individual not changing behaviour towards environmental goals but experiencing strong social pressure to change behaviour may overcome dissonance by adopting beliefs that the

threat to the environment has been overstated, that the messengers are mislead, and that the logical thing for a rational person to do is to maintain current behaviour rather than make what may be seen as ‘needless sacrifices’.

- 7.36 The perceived scale and nature of the behavioural change required will influence the extent to which particular individuals demonstrate pro-environmental behaviour change or experience dissonance and possible denial that there is a problem. Notably, the public’s discourse around transport behaviour often emphasises or implies permanence: ‘I can’t give up my car’; ‘buses don’t run where I need to go’. However, the Mobility Biography findings confirm that behaviour changes towards more sustainable mobility do occur, but may not be permanent. Nonetheless, they are still desirable, as 100 people choosing ‘temporarily’ not to drive for a decade may be as valuable as 10 people ‘permanently’ vowing never to drive again.
- 7.37 A logical extension of the importance of life stage as an influence on behaviour is that more consideration might be given in the future as to whether transport policy initiatives might be targeted at specific life-stage groups. For example, the Energy Savings Trust’s ‘Commit to Save 20%’ campaign targets short car journeys made by motorists in general. An initiative more targeted to life-stage groups might instead target groups such as university students, suggesting they delay car ownership until they are in a different life stage when the benefits are greater compared to the environmental costs, *i.e.*, it may be more difficult in physical mobility terms and more expensive for a young family to access a public transport vehicle than it is a single adult, so the emissions and energy costs of car use are easier to justify.
- 7.38 Evidence from both the workshops and Mobility Biographies suggests that consumers may be more prone to change behaviour if the benefit is a proximate one to the individual, his/her family, or the local community – such as improving local air quality, children’s fitness, or saving the consumer money. Environmental benefits for more remote goals, such as avoiding apparently small temperature changes in decades’ time are worrying, and guilt creating, but too hard to link with habitual daily behaviours for these to change for many people, very often.

- 7.39 Nevertheless, this study suggests that the climate change debate is permeating wider society, but that much of the environment debate seems to be carried out in a fragmented and inconsistent manner, both by society and at the individual level. Despite this growing awareness and claims that environmental information is 'not new news', the dominant discourse from both the mobility biographies and the workshops still was that the environment alone is an insufficient motivator to change behaviour. In other words it is probably only going to be a supporting factor in encouraging behaviour change.
- 7.40 Perhaps though climate change has created an opportunity to draw together different strands of environment and transport into a more coherent national debate on sustainable transport and mobility and a more 'joined up' policy approach, (for example, providing information, raising awareness of the issues, and consequences, and providing incentives). Within this space created by the climate change debate, there may be an opportunity to use more strongly stated concerns such as cost savings and health to reinforce messages on using alternative travel modes to the car or indeed reducing the need to travel. Furthermore, there might also be a more sympathetic reception to a more coercive or persuasive role for government (shock adverts or legislation) in achieving behaviour change.
- 7.41 Policy will then need to tackle more than transport directly but also lifestyle choices such as choosing to live a long way from work, leisure and service locations. Interactions of transport with environmental, energy and land use planning policy areas and being able to show this to the public will be very important.

## 8 Recommendations

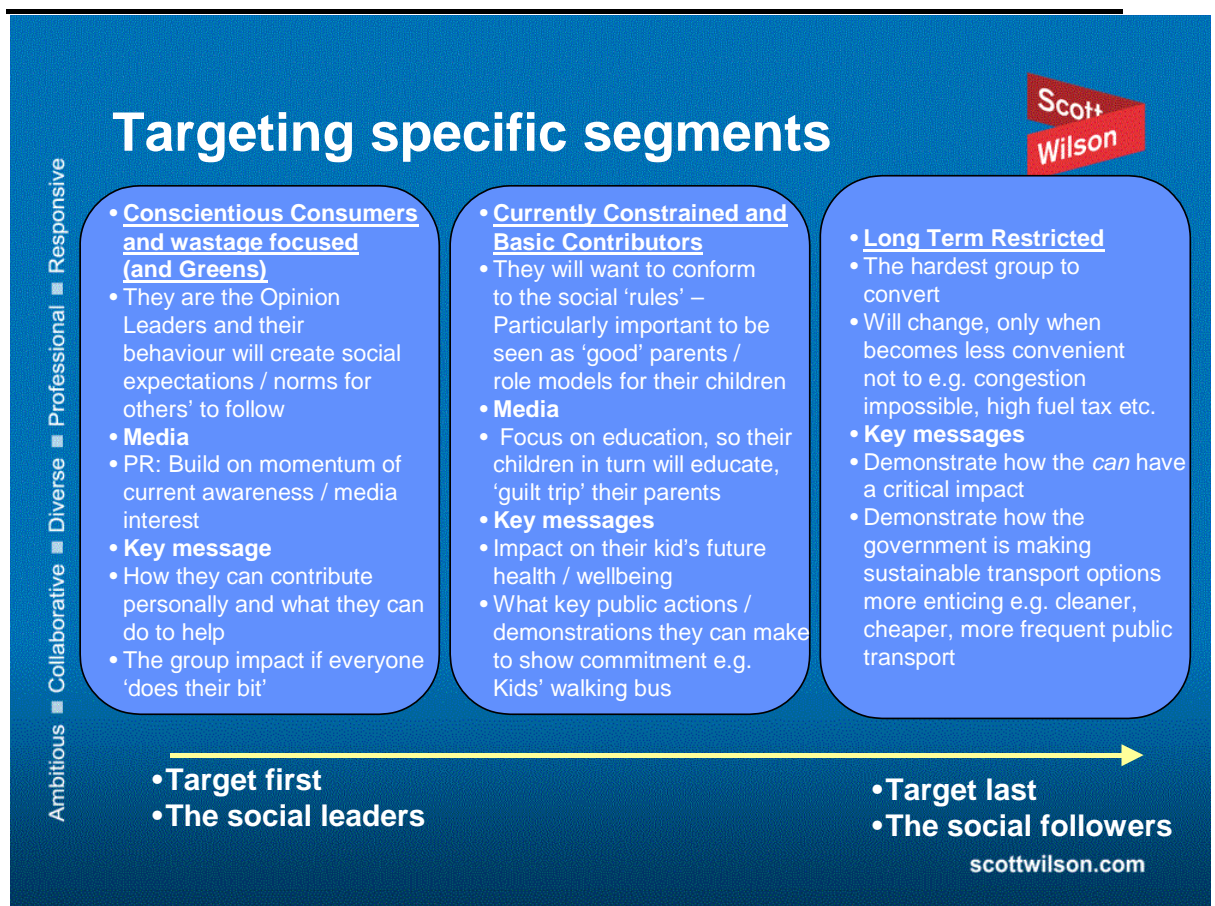
---

- 8.1 There is an opportunity to take advantage of the public's growing environmental awareness through climate change and more immediate actions such as recycling to focus the debate on the sustainability of different transport modes and individual responsibility for local environmental problems.
- 8.2 Messages should focus on the local, short-run, personally-relevant, measurable benefits of behaviour change. The bigger global goal needs to be addressed indirectly, through strategies, which suggest 'do this because your community will be healthier and more pleasant (and by the way it is also good for global warming)'.
- 8.3 Messages must seek to avoid the public reaching the simplistic view of travel behaviour change as irrevocable. Public information campaigns might emphasise particular life-stage groups and temporary mechanisms: students waiting until after study to own a car; parents having a car only whilst they have young children, retired people hiring a car for occasional pleasure trips.
- 8.4 More effective ways of reaching a full range of car consumers need to be found, to reach those whose interest in the technical specification of cars is low, and whom may too readily rely on informants with a vested interest, or otherwise specific viewpoint about the important consumer choice criteria which does not fairly reflect the cost to the individual and the environment.
- 8.5 Images and credible shock tactics may create the most interest. The influence of the anti smoking and drink driving campaigns was often mentioned. Drier information campaigns that use statistics may help reinforce the message particularly on 'lighter' Greens and Consumers with a Conscience.
- 8.6 Education particularly of children and the young should be undertaken to influence longer term behaviour change. Moreover, many participants reported the influence their children had on their own behaviour, thus implying it might also have some more immediate impacts although this is an area for further research.
- 8.7 Additional behaviour goals should be considered by Defra regarding reducing

the need to travel or the numbers of car trips taken by an individual. Home working, home delivery and lift sharing could all help achieve this goal. Defra should engage with employers and businesses to encourage them to provide facilities, and introduce more flexible working, and coordinate home deliveries.

8.8 Improving the quality of the public transport experience is also essential, in terms of safety, comfort and convenience. However, the extent of the complaints, particularly from those that don't use it, implies that the costs may be substantial.

8.9 Figure 1 below provides some thoughts on how different segments may be best targeted.



## **Annex A: The Defra Segmentation**

---

The text below is taken directly from a Report to Defra entitled: COI and DEFRA Environmental Segmentation – Qualitative Research<sup>14</sup>.

### ***Greens***

Greens tended to be slightly older and from a range of SEG, but slightly more BC1, although they also included E's.

Greens emerged as most future, but also present, focused. They were much more thoughtful than other segments about the impact of their behaviour on the future. Their view was the most global and related to many and varied aspects of the planet, whilst environmental issues were seen as a product of individuals and their actions.

They displayed multiple ethical considerations and concerns, along with a strong connection and overwhelming belief in individual responsibility and contribution, which they actively demonstrated through everyday practice. Complementary hobbies and lifestyle factors were more common and included animal welfare, gardening and outdoor pursuits.

### ***Consumers with a Conscience***

Consumers with a conscience were found across both sexes and a range of ages, but tended to be more A,B,C1,C2.

This segment had a slightly different focus to the Greens above, as theirs was more present than future, although consideration of the future was very evident, it was to a lesser degree. They also displayed a global view but, again, this was less pronounced.

They had a very clear sense of personal responsibility for the environment and were quite aspirational about being more 'green', but they weighed up and sometimes traded off all of this against other important personal needs, such as personal entitlement along with other responsibilities and drivers, such as safety, health and happiness. Consequently, they experienced some

---

<sup>14</sup> Define Research and Insight (2006) COI and DEFRA Environmental Segmentation - Qualitative Research Final report

conflict and sometimes struggled to justify and defend their attitudes and behaviours, resulting in some residual guilt. They tried to balance their, sometimes, conflicting needs with either pragmatism or, in their view, realism.

### ***Wastage Focussed***

Demographically, this Wastage Focused segment appeared to be older men or women and more C1,C2,D.

The Wastage Focused mindset was in the present and what they could do now but, unlike the Greens and Consumers with a Conscience, they also shared their general focus on the past more than the future. There was a traditionalist element to their mindset and they displayed quite strongly the 'protestant ethic' of avoiding waste at all costs, because either it was wholeheartedly disapproved of or due to guilt, feelings and the resulting need to compensate for today's excessive living.

They showed a very strong sense of personal and social responsibility, but this was more local and personal than global and focused more on 'my country' or in 'my back yard' and 'right action' people within their world.

### ***Basic Contributors***

Basic contributors were mixed gender and age, but more C1C2D.

This segment was focused very much on the present and was found to shy away from a global view until encouraged to think about the bigger picture.

Whilst they showed a strong desire to conform to social norms in this context, they were very keen not to be seen or labelled as a 'bad person', which they seemed to feel would be the inevitable consequence of inaction.

It was clear that they tended to judge what was 'acceptable' by comparing their range of activities and level of behaviour relative to others and they acted accordingly in order to avoid disapproval. They showed little sense of personal responsibility for the environment, but there was clear evidence of defensiveness and residual guilt regarding their perceived contribution to the environmental cause, which suggests that there is potential for building on their current 'basic' contribution.



---

### ***Long Term Restricted***

This segment was mixed gender and age, more C2DE and predominantly private or council renters.

The Long-term Restricted showed very little sense of personal responsibility for or guilt about the environment and this was not particularly surprising given their low or no income, along with all of life's other restraints, such as children, ill health, unemployment and so on. Their focus was very much in the here and now and their own narrow environment and purely local view, coping with their own life in the short term with little time or inclination to consider wider issues

### ***Currently Constrained***

This segment were typically ABC1C2 younger individuals, either students or quite early on in their careers and so on relatively lower incomes currently, but it also included those who found themselves in transition, either in terms of life stage or changing life style. They were more likely to be renting than home owners and this meant that their living situation was relatively temporary in nature, which made it more difficult for some in starting or establishing behaviours initially.

At this point in time, the focus of the Currently Constrained was on the present, but given their concerns about the environment they have potential to become more future orientated. At this point, their view was reasonably global and, again, showed potential for expansion. Given their current life circumstances of lower income and more temporary accommodation, they have a reduced sense of personal responsibility for the environment and there is evidence of them feeling defensive about this and struggling a little with residual guilt.

However, there is an expectation that they will be more proactive in the future, but for now they have had to be realistic and pragmatic about what they can achieve with out the balance they feel is lacking in their life.

## Annex B: Q Recruitment Questionnaire

---

FEBRUARY 2007 BASIC CONTRIBUTORS

---

**Q.1** We are conducting a research survey. First can you tell me if you or any member of your family or close friends work or have worked in any of the following occupations.

ADVERTISING AGENCIES	1	<b>CLOSE</b>
PR COMPANIES	2	<b>CLOSE</b>
MARKETING	3	<b>CLOSE</b>
MARKETING RESEARCH	4	<b>CLOSE</b>
JOURNALISM	5	<b>CLOSE</b>
PUBLISHING	6	<b>CLOSE</b>
LOCAL GOVERNMENT	7	<b>CLOSE</b>
CENTRAL GOVERNMENT	8	<b>CLOSE</b>
CIVIL SERVICE	9	<b>CLOSE</b>
AGRICULTURE / FARMING	10	<b>CLOSE</b>

**EXCLUDE ANY RESPONDENT WHO WORKS OR WHOSE FAMILY OR CLOSE FRIENDS WORK IN ANY OF THE ABOVE EXCLUDED PROFESSIONS/FIELDS**

**Q.2a** Have you ever attended a market research group discussion or depth interview?

YES 1  
NO 2

**Q.2b** [If Applicable] How recently have you attended a market research group discussion?

Write In \_\_\_\_\_

**Q.2c** [If applicable] How many market research group discussions have you ever attended?

Write In \_\_\_\_\_

**Q.2d** [If applicable] And regarding what subjects have you participated in market research group discussions?

Write In \_\_\_\_\_

**EXCLUDE ANY RESPONDENT WHO HAS ATTENDED A MARKET RESEARCH GROUP DISCUSSION WITHIN THE PAST SIX MONTHS**

**EXCLUDE ANY RESPONDENT WHO HAS ATTENDED MORE THAN FIVE MARKET RESEARCH GROUP DISCUSSIONS**

**EXCLUDE ANY RESPONDENT THAT HAS ATTENDED PREVIOUS RESEARCH REGARDING ENVIRONMENTAL ISSUES SUCH AS CLIMATE CHANGE OR RECYCLING**

Q.3 Gender

MALE 1  
-----  
FEMALE 2

**TWO/THREE RESPONDENTS MUST BE MALE  
TWO/THREE RESPONDENTS MUST BE FEMALE**

Q.4 Age

Write In \_\_\_\_\_

**ONE RESPONDENT MUST BE AGED 17-19.  
FOUR RESPONDENTS MUST BE AGED 20-65. RECRUIT A SPREAD OF AGES.**

Q.5 Ethnic Background

BLACK 1  
INDIAN 2  
WHITE 3  
PAKISTANI 4  
OTHER \_\_\_\_\_ 5

**ONE RESPONDENT MUST BE FROM AN ETHNIC MINORITY GROUP**

Q.5 Which, if any, of the following best describes your working status?

EMPLOYED FULL-TIME	<b>CONTINUE</b>
EMPLOYED PART-TIME, 30 HOURS OR LESS PER WEEK	<b>CONTINUE</b>
FULL-TIME HOMEMAKER	<b>CONTINUE</b>
RETIRED	<b>CONTINUE</b>
FULL-TIME STUDENT	<b>CLOSE</b>
UNEMPLOYED/ON DISABILITY	<b>CLOSE</b>

Q.6 On a scale of 1-5 where One is Agree Completely and Five is Disagree Completely, how would you respond to each of the following statements?

1. Agree Completely
2. Agree
3. Disagree
4. Disagree Completely

Environmental issues are very important to me and are something I think about when choosing how to go about my daily life	1	2	<b>3</b>	<b>4</b>
I think the environment is important but I don't	1	2	<b>3</b>	<b>4</b>

really know much about it or what I should be doing				
Environmentally Friendly behaviour is normal	1	2	3	4
I believe that talk about environmental damage and global warming is hyped up and actually our environment is fine at the moment	1	2	3	4
I feel that there are too many big global issues at the moment for anything I do to make too much difference. The answer lies with business and Government	1	2	3	4

**ALL RESPONDENTS MUST CODE WITHIN THE SHADED AREAS**

Q.7 Which, of the following statements most closely reflects your own beliefs?

<ul style="list-style-type: none"> <li>I take personal responsibility for the way I live my life, the things that I do and the impact this will have on the way of life for future generations.</li> <li>Conserving and being environmentally engaged is part of my lifestyle. I don't think many people are as committed.</li> </ul>	<b>CLOSE</b>
<ul style="list-style-type: none"> <li>I strive to make my life as high quality as possible - I enjoy putting effort into my house, the way I turn myself out, the food that I eat, the experiences that I have – all contribute to that quality</li> <li>Being responsible for the impact that I have on society and the planet is something that I think about, but I try my best, compromising if necessary, so that I've not got anything to feel guilty about</li> </ul>	<b>CLOSE</b>
<ul style="list-style-type: none"> <li>"Waste not, want not" sums up my general approach to life</li> <li>Saving money is something that is important to nearly everything that I do and benefiting the environment is an added bonus.</li> </ul>	<b>CLOSE</b>
<ul style="list-style-type: none"> <li>There's a limit to how much influence any one person has to change anything big in society.</li> <li>I'm quite pushed for time in everything I do so I tend to do things that don't alter my life too much. I would do more if I had the means or the time.</li> </ul>	<b>CLOSE</b>
<ul style="list-style-type: none"> <li>I do worry about things like ethics, the environment, politics and social responsibility but other things tend to take priority</li> <li>I agree in principal with changing your lifestyle for the better in terms of the environment but it's not something that is realistic for me on a day-to-day level.</li> </ul>	<b>CONTINUE</b>
<ul style="list-style-type: none"> <li>I don't have time to think about things like the community around me, people from elsewhere and the environment, my family and friends are more important to me</li> <li>There are other people who will address the big issues. I'm not a serious contributor to</li> </ul>	<b>CLOSE</b>

environmental problems.	
-------------------------	--

Q.8 If you could choose one of your favorite subject to talk about, what would it be and why? (*RECORD BELOW*)

---

---

---

---

---

**ALL RESPONDENTS MUST BE ABLE TO COME UP WITH CREATIVE AND ARTICULATE ANSWERS**

Q.9 Code Social Grading based upon CIE Occupation

A	1	<b>CLOSE</b>	
B	2	<b>CLOSE</b>	
-----			C1
	3	<b>CONTINUE</b>	
C2	4	<b>CONTINUE</b>	
-----			D
	5	<b>CLOSE</b>	
E	6	<b>CLOSE</b>	

**RECRUIT A SPREAD ACROSS SOCIAL GRADES C1C2**

RESPONDENT NAME \_\_\_\_\_

RESPONDENT ADDRESS \_\_\_\_\_

POSTAL CODE \_\_\_\_\_

DAYTIME TELEPHONE \_\_\_\_\_

EVENING TELEPHONE \_\_\_\_\_

E-MAIL \_\_\_\_\_

**I HAVE CONDUCTED THIS INTERVIEW IN ACCORDANCE WITH THE CODE OF CONDUCT LAID DOWN BY THE MARKET RESEARCH SOCIETY**

**INTERVIEWER'S SIGNATURE** \_\_\_\_\_



# Annex C: Workshop Discussion Guide

---

## Outline of the discussion guide used

### 1. Introduction (15mins)

*To introduce the session and explain logistics*

### 2. Different forms of travel brainstorm (15 mins)

*To unpack all the attitudes and behaviours to different forms of travel. To open up points of commonality and agreement in the segment groups*

### 3. Manifesto and preferred form of travel (40mins)

*To articulate each segment's attitudes and behaviours towards travel, in their own words*

- Hand out Task Sheet 1

Feedback session: (20mins) Go round each team and flipchart manifesto's

Positives and negatives for all forms of travel (15mins)

- Hand out Task Sheet 2:

Feedback session: (20mins)

### 4. Introduce Briefing 1 (20mins)

*To introduce information on the impact and use of all kinds of travel – to challenge and educate*

Feedback session (15mins)

- Get feedback on flipchart questions

### 5. Changing behaviour (45mins)

*To consider how/if any new information/discussion impacted on attitudes and behaviours towards travel. To ascertain what each segment would/would not/might/could do in terms of reducing their impact through travel on the environment*

- Hand out Task Sheet 3B – which has all the goals on it too

Feedback session

- Group feedback on top 3 goals and reasons

## 6. Information and media.

*To understand which messages have the most impact in terms of inhibiting damaging forms of travel or galvanising people to more sustainable forms of travel. Also, to consider which mediums/tone/authority has the most impact and why*

Whose should be changing behaviour? (30 mins)

## 7. Defra boards/segments

*To reaffirm/safety check the Defra segments against how individuals view themselves in relation to their attitudes and behaviours towards sustainable travel and the environment.*

Thank and close and all to fill in exit questionnaire

# Annex D: Pre Task

## Environment and Lifestyle research

Thank you very much for agreeing to help us on this project!

We are looking forward to meeting you and discovering more about who you are, your approach to life, your lifestyle and your attitude to things like the environment. But before we meet up, we'd like you to complete a simple task.

We need you to fill in this task sheet with as much honesty and detail as possible. This will really help us have a more interesting discussion when we meet up. Please have it to hand when we meet you.

Remembering what your feelings were for each of stage or choice you made will be helpful as will giving us examples of specific influences on you at the time.

This is not a test and hopefully should be fun and simple to do.

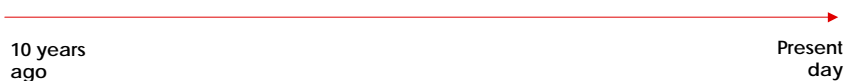
However If you do have any questions, feel free to call Gerry on 0207 1734517

So, this is what we would like you to do...



## 2 Please fill out this lifeline so we can understand how you have used transport over the last 10 years

- Please mark the date and type of transport you were using over this period of time. On the next page we will ask you to record the reasons and influences over your choices





**3** For each of your transport choices, please tell us why you chose each one and what the influences on you were

Day-to-day reasons & influences for using this transport

National/Global reasons and influences for using this transport – if at all

## Annex E: Mobility Biography Protocol

---

### Mobility Biographies: Discussion Guide for Interviewers

#### *Overall guidance*

Please remember that the overall aim of the data collection exercise is to add value to the deliberative workshops by collecting data about motivations for changes in attitudes, behaviour and related consumer choices over time. Information about current attitudes and behaviour is more effectively addressed by other methodologies and only relevant here as the culminating phase of a sequence.

The choice and phrasing of questions is suggested below, but will need to remain sensitive to the context of proceedings in the day. For example, if basic information has been provided earlier in the day then it would be appropriate to acknowledge that and indicate that the question seeks to develop/probe what has been provided.

#### *Discussion area 1: link between lifestyle and transport use*

“Can I start by checking how far you are a car user at the moment...”

- Confirm whether have access to a car now – and whether as driver or passenger and whether the interviewee has exclusive use or shares the vehicle.
- If no current access, confirm whether the interviewee has ever lived in a household with car.

If has been a car owner and driver for at least part of adult life

“Perhaps you could tell me about when you took your test?”

- age took test? Related to specific need e.g. job or general desire to become car user?

“After passing did you buy your own car... or perhaps you had a company car?”

- or was a car acquired to pass test

- 
- or has the person only driven a car owned/registered by someone else?

“Since passing your test how many periods of life have you been without a car (if any)?”

- prompt for circumstances
- how long periods lasted
- why periods ended

“Have there been periods of your life when you have relied more on other kinds of transport than cars?”

- walk
- cycle
- bus
- train

If has not been a car owner and driver for at least part

“Although you haven’t been a car owner, do you hold a licence?”

- prompt for why not obtained
- if obtained, prompt for why not led to car ownership

“Would you describe yourself as having relied on lifts from others a lot over the years, for example from family members?”

“Have you happily accepted these, or would you have preferred to be more independent in meeting your travel needs?”

“Which other kinds of transport, including walking have been important at different times in your life?”

“Have you felt disadvantaged by not being a car owner?”

## ***Discussion area 2: changing mobility consumption***

---

For car owners

“What factors have been most important to you when choosing a new or different car in the past?”

- check freedom of personal choice if a company-provided vehicle
- larger or small cars over time?
- more or less fuel efficient?
- Why?
- Conscious change?
- When change occur?

For all

“Looking back over your travel in the past, do you think you have generally increased or reduced the amount you walk?”

- conscious decision?
- why?

“What about the amount of cycling?”

- conscious decision?
- why?

“Or use of public transport?”

- conscious decision?
- why?

“Has concern about environmental issues been a factor in those changes?”

- how important?
- In what ways?
- Specific event?
- What events influential?

- 
- Gradual awareness of problems?

### ***Discussion 3: Changes in Effectiveness of Technologies***

For All

“Do you think, over time, that cars have become kinder to the environment?”

- in what ways better/worse?

“Is that based on your personal experience of using cars or what you have heard in the media?”

- prompt for details

For car owners

“When you have had a new car, or a second-hand one which was new to you, did it meet your expectations in terms of fuel consumption?”

- better/worse?

“What about the exhaust emissions, was it as clean as you expected?”

- or perhaps not noticed either way?

For All

“What about buses and trains? Have they become more ‘environmentally friendly’?”

- in what ways better/worse?

“Do you think it has become easier to cycle over the years?”

- In what ways and why?

“And to walk?”

- In what ways and why?

### ***Discussion 4: Main sources of information about travel***

“If you have bought or chosen a car in the past, can you remember what sources of information you used?”

- which ones influential?

---

“Has it become easier over time to find out how good different models of car are in terms of their emissions?”

- in what ways easier/harder?

“Do you recall any information campaigns in particular?”

“If you have needed information about using public transport in the past, have you tended to ask the council, or perhaps look on a website, or to ask friends or neighbours?”

- or other?
- How effective?

“Can you remember any specific times you needed to find out information – what you did?”

“What about cycling? Have you ever wanted to know more about where you can cycle safely?”

***Discussion 5: Overall importance of environmental/social concerns in the past***

“Overall, looking back over the past, do you think environmental factors have ever been important in your decisions about the amount you travel and which kinds of transport you use?”

- when become influential
- why influential
- what events led to that influence

“Do you think concerns about the environment have become more important for other people you know?”

“Do you think they have changed the way they travel at all, or just felt more concerned, perhaps guilty, without changing anything?”

- particular barriers to/releasers for change?

**Nobel House  
17 Smith Square  
LONDON SW1P 3 JR**

**[www.defra.gov.uk](http://www.defra.gov.uk)**

