

“Every little bit helps...”

**Overcoming the challenges to
researching, promoting and
implementing sustainable lifestyles**

**Centre for Sustainable Development
University of Westminster
March 2004**

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Contents	Page
Executive summary	i
Introduction	1
1. Understanding a ‘sustainable lifestyle’	3
Defining sustainability	3
Defining lifestyle	3
Defining sustainable lifestyle	4
Influencing lifestyles to enhance sustainability	5
2. Why do we need to change existing lifestyles?	7
The environmental impacts of existing lifestyles	7
Mapping individual behaviour	8
Social and economic aspects of sustainable changes to lifestyle	9
3. Measuring a sustainable lifestyle	11
Background	11
Sustainability indicators	11
Developing an indicator set to measure sustainable lifestyles	13
Availability of data	16
Addressing gaps in the data	17
4. Issues to be considered when promoting sustainable lifestyles	19
Introduction	19
People’s sense of personal responsibility	19
Cost and convenience	20
Lifestyle aspirations	20
5. What a sustainable lifestyle might look like and how to make it attractive	22
What would a more sustainable lifestyle look like?	22
Who wants a sustainable lifestyle?	23
How to make a sustainable lifestyle attractive	23
6. Sustainable lifestyles: project recommendations	26
7. Conclusion	28
References	29
Figures	
1. Lifestyle umbrella of consumption clusters	8
2. Criteria involved in decision making for food choices	9
3. Resource flows and sustainability impacts for lifestyle	12
4. Indicator sets to measure the sustainability of lifestyles	14
5. Overview of data availability	16
6. General lessons from the <i>Are You Doing Your Bit?</i> campaign	24

Executive summary

Findings

One of the key challenges of the early twenty-first century is to reconcile the need to reduce the levels of energy and environmental resources we consume, while at the same time improving the quality of life for all.

Researchers from the Centre for Sustainable Development (CfSD) at the University of Westminster have examined how it might be possible to measure, promote and implement sustainable lifestyles. The study found that:

- There is a range of significant environmental impacts associated with how individuals currently live which urgently need to be addressed. However people will resist making changes to their lifestyle if they feel that their quality of life will be undermined or reduced in some way. The way in which recycling has become accepted suggests that it is possible to introduce actions to reduce environmental impacts which individuals are willing to take, but they must involve minimal inconvenience or extra cost.
- Reducing the amount of resources that individuals consume through their existing lifestyles is an important part of moving towards sustainable lifestyles. However, resource use is currently inequitable and any approach to increasing the sustainability of lifestyles will need to take into account this uneven lack of access to resources.
- There is substantial variation in the availability of data that are required to support policies designed to implement sustainable lifestyles. Some areas, like energy, have surveys that allow for good, coherent analyses. However other crucial resource issues, for example water and its use, have a dearth of suitable data on which to base decisions about how to bring about more sustainable lifestyles. It is imperative that all necessary information is collated and made available so that suitable policies can be developed and actions prioritised.
- Although government attempts to promote and facilitate sustainable lifestyles may be motivated by an urgency to address pressing environmental concerns, these initiatives need to reflect what influences lifestyle change. The most effective approach is likely to involve the targeting of different strategies at various consumer groups. This kind of multifaceted approach will require more disaggregated data than is currently available, both to identify target groups and to assess the effects of policy interventions.
- Individuals obtain much of their knowledge about the environment at a local level, especially in their workplaces. Any campaigns to change behaviour at home should also be simultaneously promoted via workplaces to promote a feeling of normality, equal responsibility and effectiveness. To avoid

confusion, government needs to coordinate its approach to promoting messages about sustainable lifestyles.

Background

When representatives from around the world gathered at Johannesburg in 2002 for the UN World Summit on sustainable development, one of the issues on the agenda was how to curb the over-consumption of wealthy societies. One outcome of the summit was an instruction to national governments to produce sustainable consumption and production strategies. In September 2003 the UK government launched a framework which sets out how it proposes to change consumption and production patterns.

The publication of this study by the Centre for Sustainable Development at the University of Westminster is therefore a timely contribution to the overall debate on how to research, promote and implement more sustainable lifestyles, particularly in wealthy countries including the UK.

This research defines sustainable lifestyles in the following way:

Sustainable lifestyles are patterns of action and consumption, used by people to affiliate and differentiate themselves from other people, which:

- Meet basic needs
- Provide a better quality of life
- Minimise the use of natural resources and emissions of waste and pollutants over the lifecycle
- Do not jeopardise the needs of future generations.

One of the primary motivators for individuals who live in a society which values the acquisition of commodities is to increase consumption in order to achieve the highest possible quality of life. Hence, as environmentalism has become entwined with images of denial, such as not driving and using less water, it has fallen out of line with what society considers to be normal behaviour (Schulze, 1997).

To be effective, any attempts to change lifestyle patterns in the interests of sustainability will therefore need to:

1. Understand why people consume products in the way that they do.
2. Promote an awareness of the positive impact which changing that consumption pattern will have on an individual's quality of life.
3. Establish the likelihood of a person's willingness to participate in change.

Why do we need to change existing lifestyles?

There is a range of significant environmental impacts that are generated by existing lifestyles in the UK. These include:

- Unsustainable and rising levels of water consumption (PIU, 2001a; EA, 2001)

- Increasing levels of urbanisation in the UK and loss of greenfield sites and old growth forests (McLaren et al, 1998)
- High levels of domestic energy use, from space and water heating, and the increasing use of electrical appliances (PIU, 2002; DETR, 2000a; EEP, 1997)
- High levels of passenger car use causing climate change, air pollution, congestion and health problems (EA, 2001; DETR, 2000a)
- Increasing levels of air travel causing climate change and air pollution (DETR, 2000a)
- Rising levels of household waste and low levels of recycling (PIU, 2001a; EA, 2001)
- Fish stock depletion through high levels of consumption of certain types of fish (MSC, 2002)
- High levels of meat and dairy produce consumption and the corresponding impacts on land consumption and health (McLaren et al, 1998; Lorek and Spangenberg, 2000)
- Increasing transportation of non-seasonal foods and imports, and high levels of food processing (Sustain, 2001)
- Land pollution and biodiversity loss through intensive agricultural practices, and a corresponding need to shift to more sustainably produced food (Lorek and Spangenberg, 2000).

Reducing the level of resources that existing lifestyles consume is an important step in moving towards sustainable lifestyles. However, on its own, this will not be sufficient. The definition cited earlier also argued that a sustainable lifestyle must meet basic needs and provide a better quality of life. Where an individual does not have their basic needs met (such as decent housing or sufficient food) then, however low their resource consumption might be, they are not able to live a sustainable lifestyle. For example, the observation that an individual is consuming gas or electricity at an environmentally acceptable level may be a consequence of that individual not being able to afford to heat their dwelling adequately.

Improving quality of life is also an important consideration, particularly for people living in deprived areas. The Government's Neighbourhood Renewal Unit has recognised that 'local environmental issues are key considerations for people locally and are crucial to improving quality of life' (NRU: ODPM 2003).

We need to change the pattern and mix of existing lifestyles, not just because they are environmentally damaging, but also because of the poverty and poor quality of life experienced by some individuals. Incorporating these social and economic issues into an examination of sustainable lifestyles is complex but essential, and is only partly possible with existing available data.

Developing an indicator set to measure sustainable lifestyles

The table overleaf illustrates the set of state, driving force and response indicators recommended by this project to measure the sustainability of lifestyles. These are based on a full analysis of the availability of data for, and relevancy of, each indicator.

A possible set of sustainability indicators to measure lifestyles

State	Driving force	Response
Energy use (domestic)		
*Units of electricity used per household per week	*Ownership of various electrical appliances (e.g. freezer, tumble drier)	*Percentage of electricity generation from renewable resources Percentage of low energy light-bulbs per household Ownership of energy efficient goods
*Units of gas used per household per week	*Average SAP rating *Average spot indoor temperature (°C) Average number of baths/power showers per person per week	*Percentage of households with insulation *Percentage of households with double glazing
		*Percentage of households using gas as main heating source Percentage of households using gas for cooking
Energy use (transport)		
*Litres of fuel used per person per week for personal transport	*Average number of cars owned per household *Average engine size *Average distance travelled per person per week by mode (e.g. car, public transport, walking)	*Percentage using clean fuel/hybrid cars *Percentage of population with access to frequent public transport services
*Passenger kilometres by air per person per year (short, medium, long-haul)	Average length of flight Average fuel consumption per person Average frequency per person	Percentage of people holidaying domestically Percentage of businesses using tele-conferencing in place of business travel
Freight – food miles: average distance travelled per kilogram of food consumed	Weight of non-seasonal of fruit and vegetables purchased per person per week (gm/week) Weight of processed food purchased per person per week (gm/week)	Percentage of food consumed which is locally produced
Water		
Litres of water consumed per household per week	Average number of baths/power showers per person per week Litres of water per household per week drawn from mains water supply to water garden	Percentage of households with metered water Percentage of houses with hippos/low flush toilets Percentage of houses with rainwater butts

State	Driving force	Response
Household consumption		
*Household consumption of non-food items per week (£/week) • *By sector	Frequency of replacement of clothing, durable and electrical goods	Percentage share of sector spending on environmentally labelled goods
*Total weight of food purchased per person per week (Kg/week) • *Meat and meat products • *Dairy and dairy products • *Fish and fish products • Processed food	*Average household incomes	Percentage share of organically produced food Percentage share of fairly traded food Percentage share of locally produced food
Waste		
Kg of waste generated per household per week	Volume and composition of household domestic consumption	Percentage of households with home composting or using a composting scheme Percentage of households with doorstep recycling collection
Land use		
Average plot size per dwelling (house and garden) *Average floorspace per person (m ²)	*Average number of household occupants *Average household incomes	Percentage of households living in flats Percentage of second homes owned
Quality of life		
*Average life expectancy	Average fitness of the population *Proportion of people living in sub-standard housing	Proportion of the population taking active physical exercise per week Proportion of the population who smoke
Percentage of population feeling their neighbourhood to be unsafe	Reported crime rates (assaults, burglaries)	Proportion of streets with high quality street lighting Number of CCTV cameras per 1000 population
*Percentage who feel capable of influencing decisions relating to their local area	*Average voter turnout for local elections	Number of people involved in local community/ voluntary activities

Note: Those indicators that have a data source – and have therefore been developed as quantifiable rather than ideal indicators – are marked with an asterisk (*)

Improve data availability

This project recommends that there are three actions necessary to improve the collection and management of data resources:

- Official national surveys should be adjusted to include relevant questions about the purchasing of food and goods that enable the degree of sustainability to be assessed
- Commercial businesses, in particular large retailers, should be approached to provide any data they collect relating to the consumption of environmentally-friendly and eco-labelled goods, in the context of overall patterns of consumption
- A full national survey on lifestyle sustainability should be developed.

What would a sustainable lifestyle look like?

The research undertaken for this project suggests that the most effective changes for moving individuals towards a more sustainable lifestyle include:

- | | |
|--|---|
| • Living in multiple person households | • Compost organic matter |
| • Modal shift or reduce air travel | • Dispose toxic materials safely |
| • Modal shift from cars to public transport | • Fit a toilet water-saving device |
| • Walking short distances | • Install low flow taps and showers |
| • Using smaller, fuel efficient cars and car share | • Collect rain water for garden watering |
| • Switch from fossil fuels to renewable energy | • Reduce meat and dairy consumption |
| • Switch from electric to gas cookers and condensing boilers | • Reduce fish consumption and purchase fish from sustainable stocks |
| • Insulate homes and fit double glazing | • Purchase locally grown produce |
| • Reduce the temperature of the home environment | • Purchase food grown using more sustainable methods of production |
| • Purchase energy efficient appliances and do not leave appliances in standby mode | • Reduce levels of highly processed food |
| • Reduce the temperature of wash cycles to 40°C | • Purchase certified sustainable wood and paper products |
| • Recycle household waste | |

The role of government

The government needs to demonstrate leadership on issues such as waste reduction; energy efficiency and water use where it is clear what actions should to be taken.

What individuals require is simple information, with limited uncertainty, to encourage them to undertake lifestyle change. If awareness raising is to play a part in facilitating lifestyle change then it must be provided by an apparently trustworthy, independent and authoritative source. For this to happen it is

essential to re-establish trust in the government; the public will allow the government to limit certain aspects of lifestyle practice where it recognises that this is best for the country as a whole. Without this trust, it will be difficult for the government to promote lifestyle change with any success.

“Every little bit helps...”

**Overcoming the challenges to
researching, promoting and
implementing sustainable lifestyles**

Introduction

This summary report attempts to provide a greater understanding about how we might research, promote and implement sustainable lifestyles. It synthesises three separate working documents produced as part of a research project on Sustainable Lifestyles, funded through the New Horizons Programme by the Department for Transport. These working papers are:

- *Sustainable Lifestyles: concepts and issues*
- *Indicators for Sustainable Lifestyles: an exploratory analysis*
- *Barriers and Motivators for Sustainable Lifestyles: an exploratory analysis.*¹

The purpose of the project was to:

- Determine what adopting a sustainable lifestyle would involve
- Ascertain how different lifestyles could be measured for their sustainability using readily available statistical data
- Understand the factors which limit or facilitate the adoption of sustainable lifestyles.

The research was based on an analysis of lifestyles in the UK and involved the collection of quantitative and qualitative information through:

- A literature review and interviews with key thinkers and actors in the area of sustainable lifestyles
- Four focus groups held in London and rural Leicestershire composed equally of men and women, with an emphasis on those who owned or rented their own accommodation. Focus groups members were recruited using a questionnaire designed to filter out those with a high degree of environmental commitment or an extreme animosity towards environmental actions.

Structure of the report

Chapter one defines the concept of 'sustainable lifestyle'.

Chapter two describes the environmental impacts of existing lifestyles and sets out the social and economic context in which these impacts need to be addressed.

Chapter three analyses the issues which need to be considered when promoting sustainable lifestyles.

¹ The working papers are available to download at www.wmin.ac.uk/cfsd. Where relevant, this report notes links to the working papers.

Chapter four proposes sets of indicators for measuring the sustainability of lifestyles, and discusses how gaps in existing data might be overcome.

Chapter five describes what a sustainable lifestyle might consist of and how individuals could be persuaded to adopt it.

Chapter six sets out the recommendations of the project.

Chapter seven highlights the overall conclusions of the project.

1. Understanding a 'sustainable lifestyle'

This chapter proposes a working definition of a 'sustainable lifestyle' and highlights the interactions and tensions between the two areas of 'lifestyle' and 'sustainability'. It also discusses what needs to be done to ensure that efforts to change lifestyles patterns in the interest of sustainability are effective.

Defining sustainability

For the purposes of this project the most useful concept of sustainability has been that developed by the International Institute for Environment and Development in conjunction with the UN, which defines sustainable consumption as:

'...the use of goods and services that respond to basic needs and bring a better quality of life, whilst minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the lifecycle, so as not to jeopardise the needs of future generations.' (cited in UNEP, 2001)

This explanation clarifies the environmental aspects of consumption as well as highlighting the social and inter-generational aspects of sustainability. While it does not explicitly describe the economic strand of sustainability, it accepts the need for improving quality of life.²

Defining lifestyle

Many of us may not think of our life in terms of having a 'lifestyle' – it is a word that is often associated with the lives of the rich and glamorous. However it can be argued that everyone has a lifestyle since what this term describes is an accumulation of patterns of behaviour, resource use and consumption, as well as choices about employment and the best ways to live. Traditionally lifestyles have been fairly circumscribed by social class and types of employment, and for much of the world this remains true. While contemporary lifestyles in developed countries have not been completely decoupled from social class and basic wants, the diversity of choices and the level of wealth experienced by the majority of these populations have meant that lifestyles are now viewed as being something more than a pre-determined way of life (Featherstone, 1991; Bauman, 1992; Chaney, 1996). Lifestyles can be regarded as:

'...patterns of action that differentiate people ... people use lifestyles in everyday life to identify and explain wider complexes of identity and affiliation.' (Chaney, 1996)

² For more information on the development of this definition see the working paper *Sustainable lifestyles: concepts and issues* (2002) available at www.wmin.ac.uk/cfsd

Nearly all lifestyles in the UK include an element of choice about the best ways to live and the most appropriate methods to fulfil needs and individual desires. While lifestyles are about much more than the products and services that are consumed, the solutions to wants and needs are increasingly met through the consumption of goods and services (Bauman, 1992). This 'commodification' of lifestyles offers a plethora of consumption choices. The average household now consumes 4,300 products annually (Incpen, 2001), with a large supermarket offering up to 12,000 different products (Bedford and Burgess, 1999); hence the possibilities for different ways to live are myriad.

As patterns of consumption replace employment type as the primary social marker (Miller, 1995), the goods and services that individuals and households consume become the most important elements in demonstrating social class, wealth and identity. They become the means by which individuals express their values and their desires as well as the way individuals are judged by others (Giddens, 1991).

This understanding of the importance of lifestyles as social markers is helpful in understanding environmental behaviours and underlines the complexities involved with lifestyle change programmes such as those promoting healthy eating, anti-smoking and environmental awareness. For example, work by psychologists Sadalla and Krull (1995) revealed that (American) consumers preferred to save energy by purchasing energy-efficient technologies rather than engaging in energy saving behaviours which limited their potential for 'conspicuous consumption'

The intricate links between the multiple behavioural and consumer choices that make up lifestyles, and the environmental and social impacts of these choices, need to be explored if sustainable lifestyles are to be promoted as acceptable.

Defining 'sustainable lifestyle'

We are not aware of previous work to define the term 'sustainable lifestyle'. The definitions of 'sustainable consumption' and 'lifestyle' set out above have therefore been amalgamated to create a working definition:

Sustainable lifestyles are patterns of action and consumption, used by people to affiliate and differentiate themselves from other people, which:

- Meet basic needs
- Provide a better quality of life
- Minimise the use of natural resources and emissions of waste and pollutants over the lifecycle
- Do not jeopardise the needs of future generations.

The scope of sustainable lifestyles research is therefore extremely wide, incorporating everything that a person does in their life with all the social, economic and environmental impacts of their actions and consumption

practices. This report largely concentrates on the consumption of products and services, and the actions that surround that consumption, although not all aspects of lifestyles are defined by consumption.

The aspects of a sustainable lifestyle that relate to **sustainability** involve:

- Use of resources (water, land and energy, as well as chemicals, metals, minerals, and living resources)
- Impacts that the use of a resource has in terms of land, water, air, noise and visual pollution, waste, biodiversity loss, and renewable and non-renewable resource depletion.

Lifestyle choices also affect other aspects of sustainability such as social equity, health and wealth (both personal and GNP). Sustainability implies that everyone should have access to resources and be free from ill-health caused by other people's lifestyles. However, the environment and people's health are affected both by the resource inputs to lifestyles and the waste/pollution outputs from lifestyles. The distribution of resource use and the impacts of this use affects human health and has consequences for equality.

The aspects of a sustainable lifestyles that focus on **lifestyle** are:

- The products and services which individuals consume: each British individual consumes thousands of products to facilitate their lifestyle, choosing these from the tens of thousands of products on offer. Each product will have a different set of impacts on sustainability.
- The patterns of action involved in the consumption and disposal of these products and services: these include things such as cooking and the decisions about how to cook a meal (steam, bake, fry; putting lids on pans; using a gas or electric cooker) as well as the decisions about what to do with any waste (throw it away or compost it).

Individual actions involved in lifestyles are too numerous to list (for example brushing teeth, mowing the lawn, watching television) as are the products that are available to consume.

Influencing lifestyles to enhance sustainability

Many behavioural and consumption practices are habitual, adding to the ease and comfort of life (turning lights on, buying certain types of staple groceries), other products are consumed consciously to add to the enjoyment of life or personal fulfilment (a foreign holiday or smart suit). In other words, consciously or unconsciously, every product or service consumed is chosen because in some way it facilitates the meeting of basic needs or adds to the quality of an individual's life. Changing the way that people consume, use and dispose of products to increase environmental and social sustainability will therefore have some form of impact on their quality of life.

In the past this has not always been recognised in attempts to change behaviour. For example lifestyle change campaigns that have adopted a 'top

down' approach of determining lifestyle change solutions, with a belief that providing the individual with information sufficient to generate lifestyle change, have had limited success (Restorik, 2001).

Therefore to be effective, any attempts to change lifestyle patterns in the interests of sustainability will need to:

- Understand why people consume products in the way that they do
- Promote an awareness of the positive impact which changing that consumption pattern will have on an individual's quality of life
- Establish the likelihood of an individual's willingness to participate in change.

2. Why do we need to change existing lifestyles?

This chapter examines the environmental impact of existing lifestyles. It uses the concept of 'consumption clusters' to help map individual behaviour and consequent environmental impacts. It also briefly describes the economic and social issues that need to be considered if these environmental impacts are to be tackled in a sustainable way.

The environmental impacts of existing lifestyles

The previous chapter suggested that we make lifestyle choices to reflect a particular image of ourselves. However there are wider implications of the personal decisions that we make, particularly their collective environmental impacts. These include:

- Unsustainable and rising levels of water consumption (PIU, 2001a; EA, 2001)
- Increasing levels of urbanisation in the UK and loss of greenfield sites and old growth forests (McLaren et al, 1998)
- High levels of domestic energy use, from space and water heating, and the increasing use of electrical appliances (PIU, 2002; DETR, 2000a; EEP, 1997)
- High levels of passenger car usage causing climate change, air pollution, congestion and health problems (EA, 2001; DETR, 2000a)
- Increasing levels of air travel causing climate change and air pollution (DETR, 2000a)
- Rising levels of household waste and low levels of recycling (PIU, 2001a; EA, 2001)
- Fish stock depletion through high levels of consumption of certain types of fish (MSC, 2002)
- High levels of meat and dairy produce consumption and the corresponding impacts on land consumption and health (McLaren et al, 1998; Lorek and Spangenberg, 2000)
- Increasing transportation of non-seasonal foods and imports, and high levels of food processing (Sustain, 2001)
- Land pollution and biodiversity loss through intensive agricultural practices, and a corresponding need to shift to more sustainably produced food (Lorek and Spangenberg, 2000).

Total levels of goods consumption, and their overall impact on resource use and the subsequent levels of waste and pollution, are also of obvious concern to research on sustainable lifestyles.

There are certain consumer choices which have disproportionately high environmental consequences. These include:

- Tropical hardwood furnishings and their impact on rainforest biodiversity loss (McLaren et al, 1998)
- Cut flowers and their high energy and pesticide intensity (Nonhebel and Moll, 2001)
- Selected luxury items outside the purchasing power of most individuals, for example private aircraft and luxury yachts and their corresponding energy use and air/water pollution (Brower and Leon, 1999).

Mapping individual behaviour

Consumption clusters group patterns of action and purchasing according to areas of consumption such as clothing or food. Each consumption cluster includes the relevant patterns of action and the products and services that are consumed and disposed. For example, the consumption cluster for housing includes issues relating to the construction and maintenance of a dwelling such as the materials used, amount of building waste, levels of insulation and space heating, the different kinds of energy it uses and so on.

Figure 1 shows the consumption clusters that relate to this analysis of lifestyle. Work by Lorek and Spangenberg (2000) suggests that the clusters shown in this diagram account for around 95 per cent of environmental impacts from household consumption, with the nutrition, housing and transport clusters accounting for 70 per cent of those impacts.

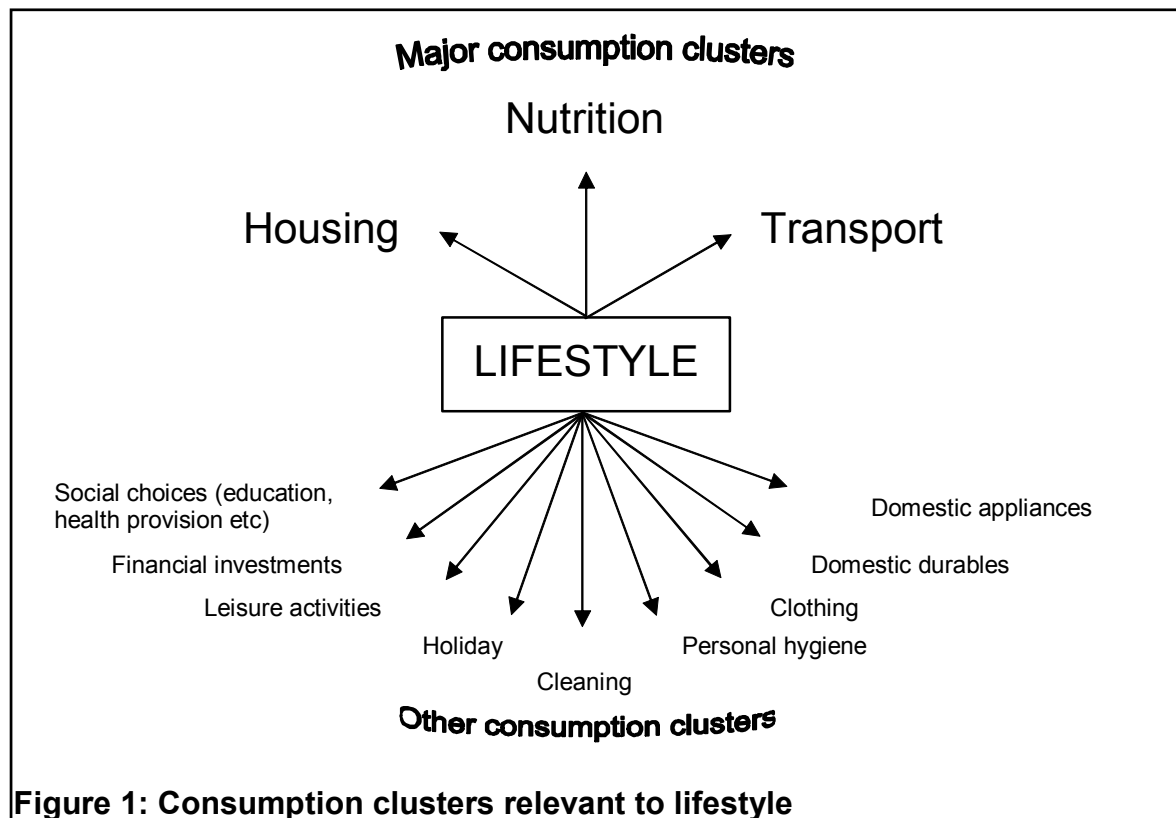


Figure 1: Consumption clusters relevant to lifestyle

The analysis of consumption clusters has identified the major environmental impacts related to the majority of individual consumption clusters, and the related lifestyle choices. Each consumption cluster will have its own set of criteria for decision making; for example, Figure 2 highlights the criteria on which we make decisions about food purchases.

Opportunities for promoting environmental action will depend on the criteria being used for product choices, and related patterns of use and disposal, with different consumption clusters having varying levels of acceptability for social and environmental considerations (Bedford, 1999).

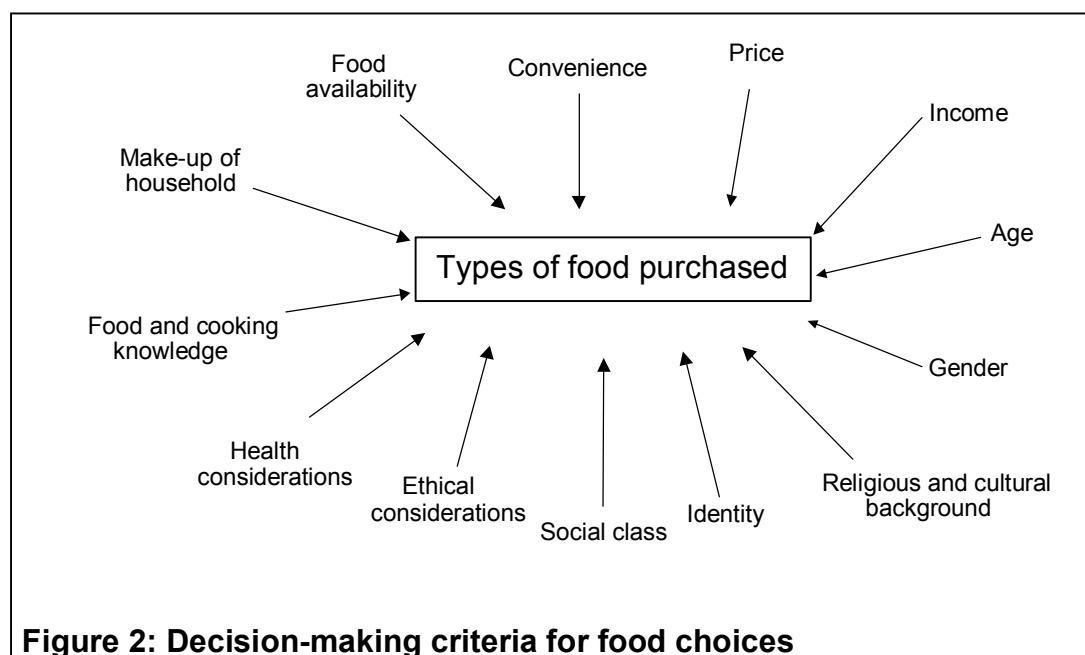


Figure 2: Decision-making criteria for food choices

Social and economic aspects of sustainable changes to lifestyle

The concepts used to measure the sustainable levels of resources or assimilative capacities of natural systems are primarily measurements of environmental sustainability, for example maximum sustainable yields for fish or the assimilative capacities of the earth's atmosphere for carbon dioxide.

While reducing the level of resources that existing lifestyles consume is an important part of moving towards sustainable lifestyles, on its own this will not be sufficient. There are social and economic, as well as environmental, dimensions to sustainability. The definition cited earlier also argued that a sustainable lifestyle must meet basic needs and provide a better quality of life. Where an individual does not currently have their basic needs met (such as decent housing or sufficient food) then, however low their resource consumption might be, they are not able to live a sustainable lifestyle. For example, evidence that an individual has an environmentally acceptable level of gas or electricity consumption may be a consequence of that individual not being able to afford to heat their dwelling properly.

Improving quality of life is also an important objective when considering the promotion of sustainable lifestyles, particularly for people living in deprived areas. The Government's Neighbourhood Renewal Unit has recognised this by noting that 'local environmental issues are key considerations for people locally and are crucial to improving quality of life' (ODPM:NRU, 2003).

We need to change the nature of existing lifestyles, not just because they are environmentally damaging, but also because of the poverty and poor quality of life experienced by some individuals. Incorporating these social and economic issues into an examination of sustainable lifestyles is complex but essential, and more importantly, only partially possible with existing data.

3. Measuring a sustainable lifestyle

This chapter explores the use of indicators to measure the sustainability of lifestyles. It examines what data are required and their availability. Although gaps in data exist, this chapter demonstrates that it is possible to suggest a set of sustainability indicators that could be used to establish whether lifestyles in the UK are becoming more or less sustainable. It also considers mechanisms to address gaps in the data.

Background

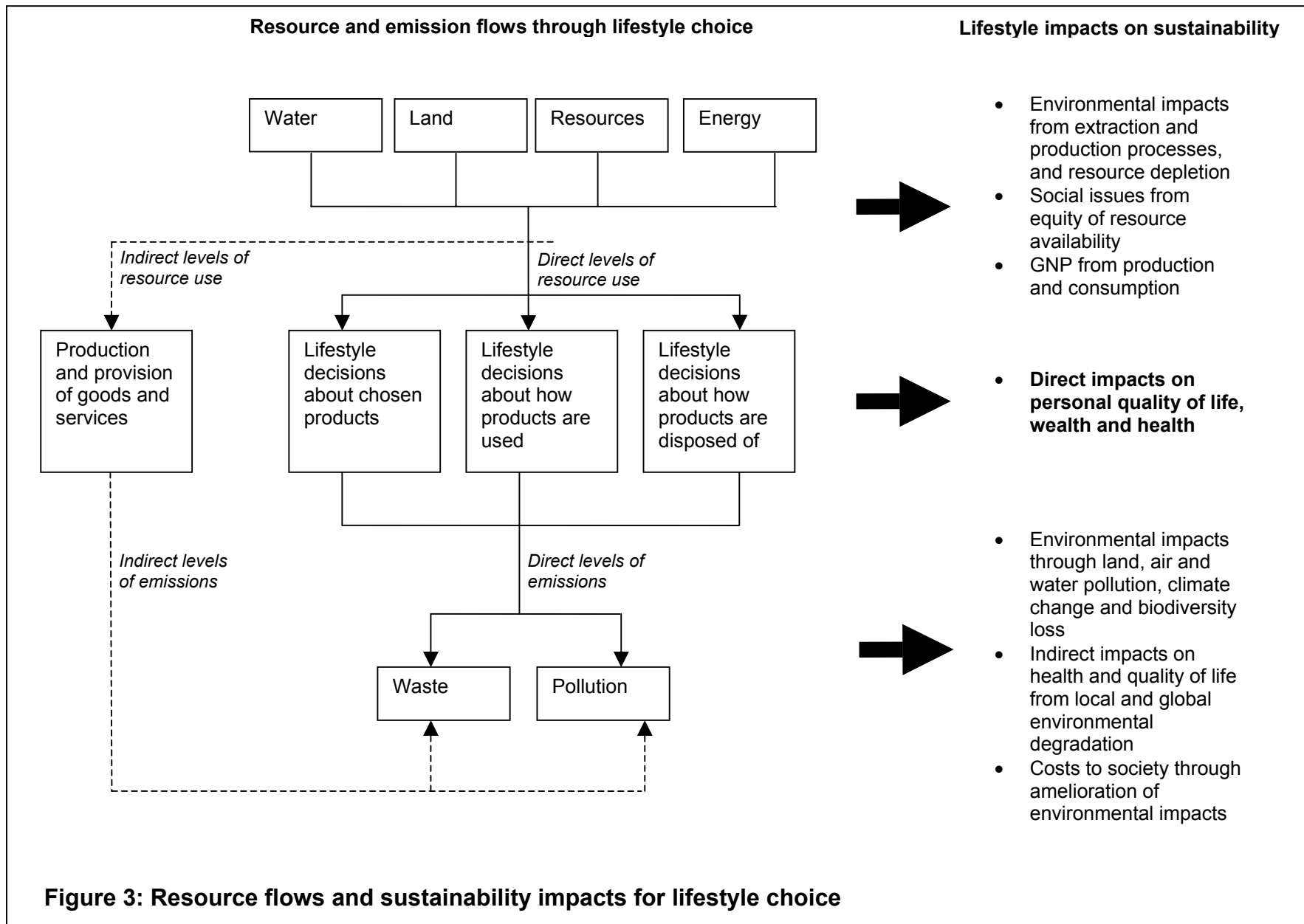
Figure 3 is a simplified model of resource flows and corresponding impacts. The main part of the diagram illustrates the use of resources and the emissions of waste throughout the lifecycle of products and services. This approach highlights that our choice of product or service, the way these products or services are used and the decisions about their final disposal all have an impact on overall levels of resource inputs and waste and pollution emissions.

The column on the right side of the diagram describes the corresponding environmental and quality of life impacts of the way we use resources. These impacts occur through the different periods in a product's lifecycle, from resource extraction and the manufacture of goods to their consumption and disposal.

Sustainability indicators

While sustainability indicators rarely measure absolute levels of sustainability, they are becoming increasingly common tools for assessing whether or not various phenomena are moving along the path towards (or away from) sustainability (Bell and Morse, 2001). Sustainability indicators can be used to assess aggregate consumption against the upper limits of resource use, for example maximum sustainable yields for fish stocks. Other types of indicators include: assimilative capacities for natural systems, environmental space levels for resource use, and ecological footprinting for total measurements of sustainability for national, regional and individual consumption.

Sustainability indicators are available to measure sustainability at local (community), regional, national and international levels (DETR, 1999; UNCSD, 1998; OECD, 1999a). There are also sets of indicators available for some of the major resources and consumption clusters that this project suggests are the most important for further study, namely: transport (OECD, 1999b), energy use (OECD, 1999c) and food (Safe Alliance, 1999).



The types of sustainability indicators most commonly used are driving force (also called pressure) and state indicators. Driving force indicators are used to measure the cause of a problem (for example the number of passenger cars) while state indicators are used to measure the effects (such as volumes of low level ozone in cities) (Bell and Morse, 1999). Increasingly agencies have begun to use pressure-state-response models of sustainability indicators which can analyse the causes, effects and related policy responses for social and environmental phenomena (UNCSD, 1998; OECD, 1999a).

The value of indicators lies in their ability to convey complex information in an easily understood form. However in this simplicity also lies a major criticism: some see indicators as an overly reductionist measure of complex phenomena (Bell and Morse, 1999).

Developing an indicator set to measure sustainable lifestyles

The environmental impacts cited in Chapter 2 have been grouped into seven different areas, with indicators developed for each:

- Energy use – domestic
- Energy use – transport
- Water use
- Household consumption
- Waste and recycling
- Land use
- Quality of life

Using these themes, Figure 4 proposes a set of state, driving force and response indicators – identified by this project – which could be used to measure the sustainability of lifestyles. These are based on an analysis of the availability of data for, and relevancy of, each indicator.³ Those indicators for which a data source exists are marked with an asterisk. The others have been included because they would allow for measurement at an individual or lifestyle level.

The **state** indicators offer an analysis of the levels of environmental impact resulting from differing lifestyles, and the comparative level of social and economic sustainability. The **driving force** indicators represent the major causes of high levels of resource use and pollution. The **response** indicators measure both the structural responses necessary for the promotion of lifestyle sustainability (for example the availability of public transport) and individual responses (such as home insulation).

³ For a full description of the rationale behind the selection of these indicators refer to the report *Indicators for sustainable lifestyles: an exploratory analysis* (2002) available at www.wmin.ac.uk/cfsd

Figure 4: A possible set of sustainability indicators to measure lifestyles

State	Driving force	Response
Energy use (domestic)		
*Units of electricity used per household per week	*Ownership of various electrical appliances (e.g. freezer, tumble drier)	*Percentage of electricity generated from renewable resources Percentage of low energy light-bulbs used.per household Ownership of energy efficient goods
*Units of gas used per household per week	*Average SAP rating *Average spot indoor temperature (°C) Average number of baths/power showers per person per week	*Percentage of households with insulation *Percentage of households with double glazing
		*Percentage of households using gas as main heating source Percentage of households using gas for cooking
Energy use (transport)		
*Litres of fuel used per person per week for personal transport	*Average number of cars owned per household *Average engine size *Average distance travelled per person per week by mode (e.g. car, public transport, walking)	*Percentage using clean fuel/hybrid cars *Percentage of population with access to frequent public transport services
*Passenger kilometres by air per person per year (short, medium, long-haul)	Average length of flight Average fuel consumption per person Average frequency per person	Percentage of people holidaying domestically Percentage of businesses using tele-conferencing in place of business travel
Freight – food miles: average distance travelled per kilogram of food consumed	Weight of non-seasonal of fruit and vegetables purchased per person per week (gm/week) Weight of processed food purchased per person per week (gm/week)	Percentage of food consumed which is locally produced
Water		
Litres of water consumed per household per week	Average number of baths/power showers per person per week Litres of water per household per week drawn from mains water supply to water garden	Percentage of households with metered water Percentage of houses with hippos/low flush toilets Percentage of houses with rainwater butts

State	Driving force	Response
Household consumption		
*Household consumption of non-food items per week (£/week) • *By sector	Frequency of replacement of clothing, durable and electrical goods	Percentage share of sector spending on environmentally labelled goods
*Total weight of food purchased per person per week (Kg/week) • *Meat and meat products • *Dairy and dairy products • *Fish and fish products • Processed food	*Average household incomes	Percentage share of organically produced food Percentage share of fairly traded food Percentage share of locally produced food
Waste		
Kg of waste generated per household per week	Volume and composition of household domestic consumption	Percentage of households with home composting or using a composting scheme Percentage of households with doorstep recycling collection
Land use		
Average plot size per dwelling (house and garden) *Average floorspace per person (m ²)	*Average number of household occupants *Average household incomes	Percentage of households living in flats Percentage of second homes owned
Quality of life		
*Average life expectancy	Average fitness of the population *Proportion of people living in sub-standard housing	Proportion of the population taking active physical exercise per week Proportion of the population who smoke
Percentage of population feeling their neighbourhood to be unsafe	Reported crime rates (assaults, burglaries)	Proportion of streets with high quality street lighting Number of CCTV cameras per 1000 population
*Percentage who feel capable of influencing decisions relating to their local area	*Average voter turnout for local elections	Number of people involved in local community/ voluntary activities

Note: Those indicators that have a data source – and have therefore been developed as quantifiable rather than ideal indicators – are marked with an asterisk (*)

In practice, state, driving force and response indicators are frequently difficult to separate categorically: for example, the average number of household occupants could be viewed as being both a state indicator and a driving force indicator leading to increasing land development. However this classification system has been maintained because the category of 'response indicators' is very useful for suggesting potential ways forward and is also helpful for analysing whether the take-up of environmental actions actively reduces environmental impacts or not.⁴

The selection of indicators presented in Figure 4 has taken into account the availability of information wherever possible. It also highlights a number of data gaps; because of the lack of robust data it is not yet possible to undertake a comprehensive analysis of the sustainability of different lifestyles.

Availability of data

There is substantial variation in the availability of data capable of supporting meaningful indicators across the various sectors (see Figure 5).

Indicator sets to measure sustainable lifestyles	Indicators		
	State	Driving force	Response
Energy use (domestic)	✓	✓	-
Energy use (transport)	-	✓	✓
Water	✗	✗	✗
Household consumption	-	✗	✗
Waste	✗	✗	✗
Land use	✗	-	✗
Quality of life	✓	✗	✗

Key to table	
Good	✓
Average	-
Poor	✗

Figure 5: Overview of data availability for indicator sets

While some areas, mainly those involving energy, have had surveys conducted that allow for good, coherent analyses of lifestyle sustainability, other areas have either little relevant data or no data at all. This leads to two questions:

1. How necessary are the data?
2. How should the data be collected and by whom?

The primary factor determining the need for additional data should be whether they increase our understanding of how to develop lifestyle sustainability. For example, much of the per capita information showing the average levels of

⁴ It should be noted that the government's commitment to publishing sustainability indicators (the flagship is the annual series of headline indicators) is pioneering both in terms of the analysis and presentation of data, allowing for an easily understood explanation of the driving forces of the levels of environmental impacts.

resource consumption and so on across the population as a whole is already provided by other indicator sets. What is required by those seeking to improve lifestyle sustainability are greater levels of disaggregated information to assist the understanding of which sectors of society create the greatest environmental impacts - and why.

The issue is further complicated by the fact that currently the responsibility for improving lifestyle sustainability rests with a range of agencies. For example, waste and recycling are the responsibility of local government, with regional statistics on these being collated by the Chartered Institute of Public Finance and Accounts. OFWAT collates data relating to water use provided by different water companies, while the Environment Agency provides advice on water conservation. Thus it is apparent that the components of a sustainable lifestyle are currently measured and promoted by several government departments and associated agencies in an *ad hoc* pattern.

There are certain aspects of lifestyle sustainability that can be addressed by general campaigns such as *Are You Doing Your Bit?*, a governmental awareness-raising campaign. (DETR 2000b). However, to reduce many environmental impacts, it is likely that more could be achieved by using a series of targeted schemes aimed at different lifestyle groups rather than through campaigns of this type. For example, improving domestic energy efficiency may involve:

- Providing loans for those sectors of society unable to afford the lump sum required to insulate their homes, *in addition to*
- Promoting energy efficient goods as the most desirable models for those groups with a large disposable income who are concerned about being seen to have the latest gadgets.

It can be seen that a multifaceted approach requires more disaggregated data than is currently available, both to identify target groups and to assess the effects of policy interventions. The establishment of sets of indicators that permit the drawing together of data from the different agencies and allow all agencies access to statistics that reveal the current levels of impact from contemporary lifestyles is essential. Only this type of coordinated approach will reveal the most important aspects of consumption and behaviour that need to be addressed to increase lifestyle sustainability.

Addressing gaps in the data

Based on the above, this project **recommends** three actions which are required in order to improve the collection and management of data resources.

First, in line with the government's commitment to ensuring that sustainability issues are considered by all departments, national surveys should be adjusted to include relevant questions about the purchase of food and goods that enable their level of sustainability to be assessed. OFWAT and local government currently have an obligation to collect limited information on water use and waste. Overall responsibility for the collection and collation of detailed levels of information about

these areas should be placed with one authority such as the Environment Agency. This should include an analysis of use based on the sets of socioeconomic characteristics employed by the Family Expenditure Survey and the National Travel Survey to ensure cross sectoral comparability.

Secondly, the cooperation of businesses, in particular large retailers, should be sought to ensure the release of data they collect relating to the consumption of environmentally-friendly and eco-labelled goods, in the context of overall consumption patterns. It is likely that there will be concerns about the publication of sensitive data that have been collected for commercial advantage, however this information is essential for accurate assessment of lifestyle sustainability.

Thirdly, given the scale of the task involved in collecting coherent and consistent data from a variety of disparate sources, the establishment of a special survey on lifestyle sustainability is indicated. This could take a variety of forms depending on how important it is to have frequent data. If the data were to be used intensively across government and among external agencies, an annual Sustainable Lifestyle Survey would be relevant. If the purpose was the provision of baseline sets of figures from which future policy could be developed, then a dedicated edition of the General Household Survey to consider the environmental, economic and social aspects related to sustainable lifestyles would be of particular value.

4. Issues to be considered when promoting sustainable lifestyles

This chapter sets out issues that need to be considered when trying to encourage lifestyle change. These issues include: the level of people's current sense of responsibility about the need for them to take action, the difference in cost and convenience between existing lifestyles and a more sustainable one, and the trends inherent in current lifestyle aspirations.

Background

The environmental impacts of existing lifestyles in the UK were summarised in Chapter 2. Despite awareness of these impacts, people will still expect to maintain or improve their quality of life. To achieve lifestyle change it is therefore necessary to understand what motivates individuals to take action and how they decide what they buy or use. This chapter addresses three significant issues:

- People's sense of responsibility about the need for individual action to reduce environmental problems
- The cost and convenience of proposed lifestyle changes compared with existing lifestyle choices
- Current lifestyle aspirations.⁵

People's sense of personal responsibility

Two primary motivators affect the individual's willingness to act (Newhouse, 1990; Axelrod and Lehman, 1993; Eden, 1995). The first is knowing that everyone is equally engaged in taking responsibility for environmental activities, rather than other sectors (like business or other countries) becoming 'free loaders' - reaping the benefits of individuals' actions while not acting themselves. The second is receiving feedback on the positive effects which result from personal actions.

Environmental NGOs and retailers suggest that environmental consumer action is most likely to be triggered if health concerns or the welfare of particular species are involved, providing the consumer with a clear sense of the impacts of their actions (Bedford and Burgess, 1999). For example, consumers are known to prefer paper recycling to other forms of recycling as they are able to visualise trees being cut down (Mori, 1999).

Focus group analysis undertaken for this project made it clear that, although there is a level of resistance to sustainable lifestyles, the message that environmental change is the responsibility of all appears to have been accepted. All groups acknowledged that they needed to play a part although some individual group members maintained that they would not take voluntary action.

⁵ The focus group research on which this chapter is based is described in more detail in the working paper *Barriers and motivators for sustainable lifestyles: an exploratory analysis* (2002) available at www.wmin.ac.uk/cfsd

It is evident that there is an element of truth in the argument that it is difficult to change habitual behaviours and normalised values, especially when there are so many actions and consumption practices that are perceived as needing to be changed. But this is about more than just an unwillingness to take personal responsibility for the environment. It is also a consequence of the timescales on which environmental problems and solutions are seen to be operating. The apparently slow response rate to sustainability issues allows individuals to feel that major changes are not going to affect them, and that there is little impetus or urgency to undertake lifestyle change.

Cost and convenience

The pricing of goods and services and the convenience of any action are significant factors in the take-up of sustainable solutions. Where socially or environmentally sustainable goods and behaviours cost more, are less efficient or inconvenient, it becomes irrational for the individual to participate in sustainability on a voluntary basis. Conversely, any sustainable alternative that is cheaper, more efficient and convenient to undertake may encourage use, regardless of the individual's social or environmental concerns. This last point appears to influence much government policy on the environment, leading to the promotion of so-called win-win solutions and green taxes as a 'carrot and stick' approach to increasing sustainability.

The focus group members indicated that the public perceives environmentalism as being both personally and economically costly. The success of those opposing green taxes on domestic fuel and petrol has also led the individual to believe that they can use their power to ensure that environmental costs do not fall on them directly.

Lifestyle aspirations

Once people possess goods that make them content, they are reluctant to do without them. Groups within society place value on goods and services in different ways (Karp, 1996). Those with more materialistic values will derive much of their satisfaction with life from their possessions, whereas other groups with so called 'post-material' values may derive satisfaction simply from feeling that they have been helpful by changing their lifestyles (De Young, 1996; Stern et al, 1993). Understanding the current lifestyles of certain groups, and what has meaning for them, is therefore crucial for facilitating change.

The focus group work suggests that a majority of the participants do not have a high level of concern about environmental problems. While the discussion revealed a level of awareness about a series of issues, there was little to suggest that group members viewed the need for lifestyle sustainability with any degree of immediacy.

The major issues that all the groups identified as detracting from their quality of life were graffiti and litter. However, despite these issues, all four focus groups expressed high levels of satisfaction with their overall quality of life. With the exception of one London group member, there was widespread agreement that

both the countryside and London offered a good quality of life. Those living in London highlighted their access to a range of facilities, including public transport and parks, while the rural groups suggested that a lack of facilities was an acceptable trade-off for being able to live at a slower pace in attractive surroundings. This present contentment with local quality of life makes it difficult to suggest changes to lifestyle. Where there is little that is perceived as being wrong, any suggestions of change are likely to be viewed as having a negative impact on personal fulfilment.

5. What a sustainable lifestyle might look like and how to make it attractive

This chapter sets out the types of actions that in practice would shift lifestyles in the direction of sustainability. It identifies the people to whom the changes outlined might appeal. It then goes on to discuss the challenges involved in a broader adoption of these lifestyle changes and explores the role of government in bringing about reform. In the last section it uses the example of recycling to demonstrate the kinds of changes in public perception that are possible, and to highlight an example of the action which is required.

What would a more sustainable lifestyle look like?

The research undertaken by this project suggests that, for society to move towards sustainability at an individual level, the following strategic changes need to be made:

- Reduce wasteful consumption and lifestyle practices
- Create alternative patterns of consumption
- Address overall patterns of disposal.

In practice, what are the changes that would move individuals towards a more sustainable lifestyle? The most effective lifestyle change suggestions identified by the project research and indicated by the focus groups, are set out below:

- | | |
|--|---|
| • Living in multiple person households | • Compost organic matter |
| • Modal shift or reduce air travel | • Dispose toxic materials safely |
| • Modal shift from cars to public transport | • Fit a toilet water-saving device |
| • Walking short distances | • Install low flow taps and showers |
| • Using smaller, fuel efficient cars and car share | • Collect rain water for garden watering |
| • Switch from fossil fuels to renewable energy | • Reduce meat and dairy consumption |
| • Switch from electric to gas cookers and condensing boilers | • Reduce fish consumption and purchase fish from sustainable stocks |
| • Insulate homes and fit double glazing | • Purchase locally grown produce |
| • Reduce the temperature of the home environment | • Purchase food grown using more sustainable methods of production |
| • Purchase energy efficient appliances and do not leave appliances in standby mode | • Reduce levels of highly processed food |
| • Reduce the temperature of wash cycles to 40°C | • Purchase certified sustainable wood and paper products |
| • Recycle household waste | |

This project does not maintain that the above suggestions represent a comprehensive list; further additions will be made as the scope and depth of analyses of household and lifestyle impacts by research agencies are extended.

As this report has already argued, those lifestyle change options that do exist will only become **sustainable** lifestyle solutions if individuals are willing and able to undertake them. Therefore a further level of analysis is required to reveal infrastructure and lifestyle barriers to the uptake of environmental change.

Who wants a sustainable lifestyle?

It is evident that there are already groups who are motivated to act through their environmental concerns. Women and young adults are seen as being the most open to environmental actions (DETR, 2000b), although in general environmentalism is perceived to be motivated more from altruistic beliefs and post-material values than from underlying social characteristics. In particular, those whose identity is in part based around their social or environmental concerns are most likely to have the greatest willingness to act, for example those working in a related field (Colby and Damon, 1993).

How to make a sustainable lifestyle attractive

Factors affecting behaviour change

While the 1980s saw an increase in consumer concern regarding the environment, it did not demonstrate an equivalent growth in 'green consumerism'. Attitudinal and marketing surveys revealed a stark value-action gap in relation to both environmental and ethical issues (La Trobe, 2001), with environmentally-friendly goods failing to achieve their promised market share. Much of the explanation for this can be found in the seminal work of the psychologists Ajzen and Fishbein (1980) who found that, rather than straightforwardly determining the intention to act, attitudes passed through a series of socialised filters. These filters screened beliefs so that resultant behaviour was in keeping with the norms of society. Hence, while an individual may hold positive attitudes towards the environment, where environmental actions are not the norm it is unlikely that the individual will act in accordance with their personal environmental values.

One of the primary motivators for individuals who live in a society which values the acquisition of commodities is to increase consumption in order to achieve the highest possible quality of life. Hence, as environmentalism has become entwined with images of denial such as not driving a car and using less water, it is out of line with what society considers to be normal (Schulze, 1998). Moreover, those who do willingly undertake environmental actions are perceived as 'pious, hair-shirted, sandal-wearing hippies' (DETR, 2000b; Bedford, 1999). These negative connotations ensure that people continue to distance themselves from 'abnormal' environmental stereotypes. If environmental attitudes are to be converted into action there needs to be a programme of normalisation and an attempt to engage all members of society in more resource-efficient behaviours.

The role of government

It is clear from the government's own literature that there is considerable awareness about how to promote sustainability. The information in Figure 6 relates to the *Are You Doing Your Bit?* campaign (DETR, 2000b).

Figure 6: General lessons from the *Are You Doing Your Bit?* campaign

- *Barriers to individual action need to be overcome:* people value convenience. The majority of people are unlikely to take action unless it is cheap, easy and can be accommodated within their everyday actions.
- *To stimulate action, attitudes need to be changed first.* Within the UK, the attitude of many was that environmental action was something worthy and carried out only by 'eco-warriors'. *Are You Doing Your Bit?* set out to mainstream the environment by showing people that they could take action in their every day role as shoppers, travellers, in the home, and at work.
- *National activity should be reinforced at local level.* Consumers can become easily confused if a variety of similar messages are communicated to them under different campaign banners.
- *Advertising by itself is unlikely to be effective.* To gain wider momentum, advertising needs to be discussed, with campaign messages reinforced by the media and visible where consumers make their purchasing decisions.
- *Infrastructure – eg public transport, recycling facilities – must be available:* to make it easier for people to take action.
- *Human nature welcomes rewards.* Consumer incentives are an important way of stimulating individual action.
- *Fundamentally, messages should be kept very simple:* if people become confused they simply opt out.
- *Action should be sustained:* the impact of advertising can be short lived.

The uncertainty surrounding environmental problems and solutions has left the public cynical about why there is no consensus on how to tackle these issues, why business and society are unable to develop simple solutions and why it should ultimately fall to the individual to deal with these problems through personal lifestyle change.

As the Advisory Committee on Consumer Products and the Environment (Defra, 2002a) suggests, it is not possible to remove uncertainty from understanding environmental impacts. However, it is possible to clarify which areas have the greatest level of consensus and to show leadership in highlighting the most probable solutions.

What is required is simple information, with limited uncertainty, to encourage the individual to undertake lifestyle change. Currently no one agency appears to have responsibility for sustainability issues, but if awareness raising is to play a part in facilitating lifestyle change then it must be provided by an apparently trustworthy, independent and authoritative source. For this to happen it is essential to re-establish trust in the government, as work into cross-cultural differences in environmental responsibility shows that willingness to act is based on a social contract between government and the individual (Harrison et al, 1996). The public will allow the government to limit certain aspects of lifestyles where it perceives that this is best for the country as a whole. Without this trust, it will be difficult for the government to promote lifestyle change successfully.

Focus on recycling: an idea whose time has come?

The focus group work undertaken for this research project indicates that the public is aware of the more visible environmental schemes underway in other places, and view Britain as lax in its centrally planned sustainability initiatives (such as recycling). One participant commented that:

“I was on holiday in Spain last year. And this sounds bad, but I tend to think that they are a bit behind us you know. You don't like to think that other countries are ahead of you. But they have got the recycling thing sussed, and then you look at us and we are so backward.”

The fact that the public has begun to perceive certain environmental schemes as normal and inevitable offers potential for the implementation of similar schemes. The use of terminology such as ‘backward’ for current waste collection practices suggests a level of acceptability for recycling, and even a degree of openness to becoming an environmental leader in certain areas of sustainable lifestyles.

It is clear that it is possible to stimulate groups to undertake sustainable actions if they feel that all groups are taking responsibility equally, and that it is a normal and worthwhile thing to do. Showing the public that certain behaviours have been successful in moving society towards more sustainable living will provide a basis for encouraging further action.

The general conclusion of all the focus groups is summarised in the quote below:

“I just think they need to make it easy for people. Everybody has got a busy life. They really haven't got time to think about rubbish and recycling. It will just have to be there. You know you can put your stuff in a bin and forget about it.”

Intriguingly, it was apparent that those who lived within a council area where all residents had doorstep recycling were very proud of the scheme. Interviewees explained to the rest of the group that it took some getting used to but now seemed perfectly normal, even if it was not something that the individual would have previously considered undertaking. They suggested that everyone willingly participated in the scheme and made it clear that they liked their green bin. Those without a scheme berated their councils as backward thinking.

It is imperative that those solutions which are promoted are effective, otherwise they become an inconvenience. Both the rural and the London groups spoke about a variety of different local government initiatives for promoting sustainability. All the groups contained members who had either been given, or had bought through council subsidy, a composting bin. These individuals were enthusiastic about their bins and continued to use them.

6. Sustainable lifestyles: project recommendations

The research undertaken for this project indicates a number of actions necessary if sustainable lifestyles are to become widely adopted. These recommendations are set out below:

1. Strategies for engaging people in lifestyle change will need to understand what influences individual decision making. To promote sustainability as desirable, it will be necessary to engage the public in their preferred areas first: recycling suggests itself a potential starting point. Stakeholder consultation is required to ensure that the most effective and practical solutions are promoted to the public.
2. There is considerable variation in quality and many shortcomings in the availability of data required to support policies designed to implement sustainable lifestyles. It is imperative that all necessary data are collected, collated and made available so that policies and actions can be prioritised. This project recommends that there are three actions necessary to achieve this:
 - Official national surveys should be adjusted to include relevant questions about the purchasing of food and goods that enable the degree of sustainability to be assessed
 - Commercial businesses, in particular large retailers, should be approached to provide any data they collect relating to the consumption of environmentally-friendly and eco-labelled goods, in the context of overall patterns of consumption
 - A full national survey on lifestyle sustainability should be developed.
3. The promotion and implementation of sustainable lifestyles will need to target different strategies related to the concerns of various consumer groups. This kind of multifaceted approach will require more disaggregated data than is currently available, both to identify target groups and to assess the effects of policy interventions.
4. Individuals will be reluctant to act if it will inconvenience them or lead to a perceived or actual loss in their quality of life. Lifestyle solutions therefore need to be as convenient, cost effective and 'normal' as possible. Resource efficient products should be promoted as being modern and forward thinking. Consumer tastes follow trends, and environmentally sustainable goods must be responsive to fashion.
5. It is apparent that individuals derive much of their knowledge about the environment at a local level, so successes should be promoted locally as well as nationally. In addition, the workplace represents a primary area where individuals become environmentally aware. Any domestic lifestyle change campaign, such as recycling schemes, should have parallel policy initiatives

implemented in the workplace, to promote a feeling of normality, equal responsibility and effectiveness.

6. The number and range of environmental issues being promoted by the government at any one time should be focused and prioritised, so that the public does not feel overwhelmed. It is clear from the government's own literature that there is substantial awareness about how to promote sustainability and any work it does in this area should reflect the lessons that have been learned from previous campaigns such as *Are You Doing Your Bit?*
7. It is recommended that government should co-ordinate strategy and actions across departments when promoting campaigns for lifestyle change. A regular forum should be convened across all government departments and agencies to develop an approach to promoting sustainable lifestyles. Consideration should be given to the creation of a single agency to take responsibility for the promotion of sustainable lifestyles. This could also work to reduce public uncertainty regarding the environmental benefits of lifestyle change.

7. Conclusion

This project has identified a set of lifestyle changes which would, if widely adopted, lead to a reduction in environmental resource use. However these suggested changes to lifestyles will only become *sustainable* lifestyle solutions if individuals are willing and able to undertake them. Resource use is currently inequitable and any approach to increasing the sustainability of lifestyles will need to take into account this uneven access to resources.

Since the research on which this summary report is based was completed, the government has published *Changing patterns: the UK government framework for sustainable consumption and production* (Defra/DTI 2003). This is a welcome sign that government is beginning to take these issues forward, and provides a setting within which many of the problems identified by this research can be debated and resolved.

But simply publishing a framework does not change the fact that there are many pressing issues which need addressing in the short term. There is substantial variability and some gaps in quantitative data and a paucity of processes for engaging the public in behaviour change. There is a lack of clarity about the degree to which reducing the environmental impacts of lifestyles should be the responsibility of individuals, and no forum in which all the significant players can work to agree what actions need to be taken. Most worrying perhaps, is the public's lack of trust about environmental information and the reliability of sources.

The very limited results in terms of lifestyle change of two decades of policy based largely on an optimistic and *laissez-faire* approach demonstrates the necessity for different approaches to the problem. It is also apparent that the increasing environmental constraints that we face may soon necessitate the adoption of a more sustainable lifestyle, regardless of the other impacts on quality of life. If there is to be a genuine commitment to a sustainable future an early and greater impetus for investment and change should be made. Significant levels of research, policy work and investment are required to support and realise the development of sustainable lifestyles.

This project has identified some of the areas requiring further investigation and action. The government and other agencies must now look to promote and facilitate sustainable lifestyles, motivated by an urgency to address pressing environmental concerns, but grounded in an understanding of the factors which influence and circumscribe lifestyle change.

References

- Achterhuis, H (1993) 'Scarcity and sustainability' in Sachs, W (ed) (1993) *Global ecology* Zed Books: London
- Ajzen, I and Fishbein, M (1980) *Understanding attitudes and predicting social behaviour* Prentice Hall: New Jersey
- Annad, D (2001) 'Revolution in the home front' *Ergo*
- Axelrod, L and Lehman, D (1993) 'Responding to environmental concerns: what factors guide individual action?' *Journal of Environmental Psychology* 13, pp149-159
- Bauman, Z (1992) *Intimations of postmodernity* Routledge: London
- Bedford, T (1999) *Ethical consumerism: everyday negotiations in the construction of an ethical self* Unpublished thesis: London
- Bedford, T and Burgess, J (1999) *Environmental responsibility in the chain of provision and consumption* Unpublished report for the British Retail Consortium: London
- Bell, S and Morse, S (1999) *Sustainability indicators: measuring the immeasurable* Earthscan: London
- Bell, S and Morse, S (2001) 'Breaking through the glass ceiling: who really cares about sustainability indicators?' *Local Environment* 6:3, pp291-309
- Billig, M (1989) *Arguing and thinking: a rhetorical approach to social psychology* Cambridge University Press: Cambridge
- Brower, M and Leon, W (1999) *The consumer's guide to effective environmental choices: practical advice from the Union of Concerned Scientists* Three Rivers Press: New York
- Brown, P (2002) 'Compost criminals risk £5,000 fine' *The Guardian* 01.05.02
- Browning, R (1999) *The impact of transportation on household energy consumption* Browning Shono Architects: Oregon
- Campbell, C (1992) 'The desire for the new' in Silverstone, R and Hirsch, E (eds) *Consuming technologies: media and information in domestic spaces* Routledge: London
- Carman, J (1992) 'Theories of altruism and behaviour modification campaigns' *Journal of macro-marketing* 4, pp5-18
- Chambers, N, Simmons, C, and Wackernagel, M (2000) *Sharing nature's interest* Earthscan: London
- Chaney, D (1996) *Lifestyles* Routledge: London
- Colby, A and Damon, W (1993) 'The uniting of self and morality in the development of extraordinary moral commitment' in Noam, G and Wren, T (eds) *The moral self* Massachusetts Institute of Technology: USA
- Dauncey, G and Mazza, P (2001) *Stormy weather: 101 solutions to global climate change* New Society Publishers: Canada
- Defra (2001) *Digest of Environmental Statistics* TSO: London

Defra (2002a) *Action for greener products: second report of the Advisory Committee on Consumer Products and the Environment* Defra: London

Defra (2002b) *Action for greener products: a tool-box for change. Report from the Advisory Committee on Consumer products and the Environment* Defra: London

Defra/DTI (2003) *Changing patterns: the UK government framework for sustainable consumption and production* Defra/DTI: London

DETR (1999) *Quality of life counts* TSO: London

DETR (2000a) *Climate change: The UK programme* TSO: London

DETR (2000b) *Are you doing your bit? Development of the UK's campaign to stimulate public action to protect the environment* DETR: London

DETR (2000c) *Achieving a better quality of life: a review of progress towards sustainable development* TSO: London

DETR (2000d) *The environment in your pocket* TSO: London

DETR (2000e) *The government's response to the Environment, Transport and Regional Affairs Committee's report: Reducing the environmental impact of consumer products* TSO: London

De Young, R (1996) 'Some psychological aspects of reduced consumption behaviour: the role of intrinsic satisfaction and competence motivation' *Environment and Behaviour* 28:3, pp358-409

DTLR (2002) *Walk in to work out* DTLR: London

Durning, A (1992) *How much is enough?* Earthscan: London

Ecologist (2001) *Go make a difference: 365 ways to save the planet* Think Press: London

Eden, S (1995) 'Individual environmental responsibility and its role in public environmentalism' *Environment and Planning A* 25, pp1743-1758

Ekins, P (1993) 'Making development sustainable' in Sachs, W (ed) (1993) *Global ecology* Zed Books: London

Energy and Environment Programme (1997) *Decade: 2MtC* Environmental Change Unit: University of Oxford

Energy Saving Trust (2002) *Desk research to inform the energy efficiency marketing strategy: draft report* Available from the EST

Environment Agency (1998) www.statistics.gov.uk/statbase/ssdataset.asp?vlnk=3653&B4.x=55&B4.y=4

Environment Agency (2001) www.environment-agency.gov.uk/people_lifestyles/household

Environment Agency (2002) www.environment-agency.gov.uk/kids/youth/infopoint/housing

Environment Agency (2002) *Conserving water in buildings: domestic appliances* www.environment-agency.gov.uk/savewater

European Environment Agency (2001) *Reporting on environment measures: are we being effective?* European Environment Agency: Copenhagen

Eurostat (2001) *Eurostat Yearbook 2001: the statistical guide to Europe* Eurostat

- Fawcett, T (1999) 'Rhetoric and reality in energy efficiency policy' *Energy efficiency and CO2 reduction: the dimensions of the social challenge* Proceedings of the 1999 ECEEE summer study: France
- Fawcett, T, Lane, K and Boardman, B (2000) *Carbon futures for European households* Environmental Change Unit: University of Oxford
- Featherstone, M (1991) *Consumer culture and postmodernism* Sage: London
- Finger, M (1994) 'From knowledge to action? Exploring the relationships between environmental experiences, learning and behaviour' *Journal of Social Issues* 50:3, pp141-160
- Gaterlesben, B and Vlek, C (1998) 'Household consumption, quality of life and environmental impacts: a psychological perspective and empirical study' in Noorman, K and Uiterkamp, T (eds) *Green households? Domestic consumers, environment and sustainability* Earthscan: London
- Gibson, M (2002) *Sustainability of urban travel* UTSG Conference: Edinburgh
- Giddens, A (1991) *Modernity and self identity* Polity Press: Cambridge
- Hailes, J (2002) *'It's your choice' workshop* Imperial College
- Harris, C, Bickerstaffe, J and Thurgood, M (2000) *Finding out about managing waste* CRL Education: UK
- Harrison, C, Burgess, J and Filius, P (1996) 'Rationalising environmental responsibilities: a comparison of lay public in the UK and the Netherlands' *Global Environmental Change* 6:3, pp 215-234
- Hutchinson, D (1992) 'Towards sustainability: the combined production of heat and power' in Breheny, M (ed) *Sustainable development and urban form* Pion: London
- Incpen (2001) *Towards greener households: products, packaging and energy* Windsor Print: Kent
- International Institute for Environment and Development (1997) *Unlocking trade opportunities: changing consumption and production patterns* IIED: London
- Jack, A (1991) 'A little knowledge can be a useful thing – consumer's ability to make 'responsible' purchases' *Financial Times* 23.05.1991
- Jarvis, H (2001) 'Urban sustainability as a function of compromises households make deciding where and how to live: Portland and Seattle compared' *Local Environment* 6:3, pp239-256
- Jones, E, Wiltshire, V and Warde, J (1999) 'Local initiatives to reduce energy consumption: examples from the UK's HECAAction Programme' Proceedings of the 1999 ECEEE summer study: France
- Karp, D (1996) 'Values and their effect on pro-environmental behaviour' *Environment and Behaviour* 28:1, pp111-133
- Kirby, A (2001) *Forests only temporary carbon absorbers* BBC news on-line (08.11.2001)
- La Trobe, H (2001) 'Farmers markets: local rural produce' *International Journal of Consumer Studies* 25:3, pp181-192
- Lidskog, O (1996) 'In science we trust: on the relation between scientific knowledge, risk consciousness and public trust' *Acta Sociologica* 39:1, pp 31-56

- Lorek, S and Spangenberg, J (2000) *Indicators for environmentally sustainable household consumption* Wuppertal Institute: Germany
- Lovins, A, Lovins, L and Weizsacker, E (1997) *Factor four: doubling wealth, halving resource use* Earthscan: London
- McLaren, D, Bullock, S, and Yousuf, N (1998) *Tomorrow's world: Britain's share in a sustainable future* Earthscan: London
- Macnaghten, P and Urry, J (1998) *Contested natures* Sage: London
- Marine Stewardship Council (2002) *Good fish guide* MSC
- Miller, D (ed) (1995) *Acknowledging consumption* Routledge: London
- Minten, A (2001) 'Rising sun' *The Guardian* 19.09.2001
- Mori (1999) *Recycling used packaging from the domestic waste stream: consumer awareness and education* Mori: London
- National Housing Forum (1997) *Living places: sustainable homes, sustainable communities* NHF: London
- Neighbourhood Renewal Unit (2003) *Achieving environmental equity through neighbourhood renewal: policy and practice guide* ODPM:NRU London
- Newhouse, N (1990) 'Implications of attitude and behaviour research for environmental conservation' *Journal of Environmental Education* 22:1, pp26-32
- Niva, M and Timonen, P (2001) 'Consumers and product-oriented environmental policy' *International Journal of Consumer Studies* 25:4, pp331-338
- Nonhebel, S and Moll, H (2001) *Evaluation of options for reduction of greenhouse gas emissions by changes in household consumption patterns* RUG: Groningen
- Noorman, K and Uiterkamp, T (eds) (1998) *Green households? Domestic consumers, environment and sustainability* Earthscan: London
- OECD (1999a) *Towards more sustainable household consumption patterns: indicators to measure progress* OECD
- OECD (1999b) *Indicators for the integration of environmental concerns in transport policies* OECD
- OECD (1999c) *Indicators for the integration of environmental concerns in energy policies* OECD
- Office for National Statistics (2000) *The national travel survey* TSO: London
- Ottoman, J (1992) *Green marketing: challenges and opportunities for the new marketing age* NTC Business Books: London
- Performance and Innovation Unit (2001a) *Resource productivity: making more with less* TSO: London
- Performance and Innovation Unit (2001b) *Energy efficiency strategy* TSO: London
- Performance and Innovation Unit (2002) *The energy review* TSO: London
- Policy Commission on the Future of Farming and Food (2002) *Farming and food: A sustainable future* TSO: London

- Poyser, P (2002) 'Are you energy mad?' *The Guardian: global warning supplement*
- Quist, J, Szita Toth, K and Green, K (1998) *Shopping, eating and cooking in the sustainable household* Paper for Greening of Industry Network Conference
- Quist, J (2000) *Towards sustainable shopping, cooking and eating in the Netherlands; a new strategy aiming at sustainable food consumption and production systems in the future* Delft University, Netherlands
- Remke, M, Bras-Klapwijk, J and Knot, M (2000) *Environmental assessment of future-scenarios in the Sushouse Project: illustrated for clothing care* www.Sushouse.tudelft.nl
- RICS (2001) *A global manifesto* RICS Consultation document: London
- Roy, R and Caird, S (2001) 'Household ecological footprints – moving towards sustainability?' *Town and Country Planning* October, pp277-279
- Sadalla, E and Krull, J (1995) 'Self-presentational barriers to resource conservation' *Environment and Behaviour* 27:3, pp328-353
- Safe Alliance (1999) *Food indicators report: for a sustainable farming system* Safe Alliance: London
- Schulze, G (1997) 'From situations to subjects: moral discourse in transition' in Sulkunen, P, Holmwood, J, Radner, H and Schulze, G (eds) *Constructing the new consumer society* MacMillan Press: Basingstoke
- Shell (2001) *Energy needs, choices and possibilities: scenarios to 2050* Shell International
- Stern, P, Dietz, T and Kalof, L (1993) 'Value orientations, gender and environmental concern' *Environment and Behaviour* 25:3, pp322-348
- Stretton, H (1995) 'Density, efficiency and equality in Australian Cities' in Jenks, M, Burton, E and Williams, K (eds) *The compact city: a sustainable urban form?* Spon: London
- Sustain (2001) *Eating oil: food supply in a changing climate* Sustain: London
- Ungar, S (1994) 'Apples and oranges: probing the attitude-behaviour relationship for the environment' *Canadian review of sociology and anthropology* 31:3, pp288-304
- United Nations (1992) *Agenda 21: the United Nations programme of action from Rio* UN
- United Nations Commission on Sustainable Development (1998) *Measuring changes in consumption and production patterns* UNDESA
- United Nations Environment Programme (2001) *Consumption opportunities* UN
- Vidal, J (2002) 'Money to burn' *The Guardian: global warning supplement*
- Walker, L and Lees, W (1997) 'Urban density and ecological footprints: an analysis of Canadian Households' in Roseland, M (ed) *Eco-city dimensions: healthy communities, healthy planet* New Society Publishers: BC Canada
- Webster, B (2002) 'Long-haul flights on way back to earth' *The Times* 17.02.2002
- Wixey, S and Lake, S (1998) 'Transport policy in the EU: a strategy for sustainable development?' *World Transport Policy and Practice* 4:2, pp17-21
- World Commission on Environment and Development (1987) *Our common future* Oxford University Press: Oxford

Young, W, Quist, J and Green, K (2000) *Strategies for sustainable shopping, cooking and eating for 2050 – suitable for Europe?* International sustainable development research conference: Leeds

Interviews

Harper, P (2002) Centre for Alternative Technology

Hirst, P (2002) Going for Green

Ni Raian, C (2001) Whitby-Bird engineering

Poyser, P (2001) Global Action Plan

Restorik, T (2001) Global Action Plan

Manoochchri, J (2001) United Nations Sustainable Consumption programme