

Exploring the Potential of Social Marketing to Encourage Sustainable Tourist
Behaviour in South West England

Submitted by Julie Wooler, to the University of Exeter as a thesis for the degree
of Doctor of Philosophy in Human Geography in February 2014.

This thesis is available for library use on the understanding that it is copyright
material and that no quotation from the thesis may be published without proper
acknowledgement.

I certify that all the material in this thesis which is not my own work has been
identified and that no material has previously been submitted and approved for
the award of a degree by this or any other University.

Signature.....

ACKNOWLEDGEMENTS

In the first instance, I would like to express my sincere gratitude to Peter Roach of Dartmouth Steam Railway and David McCubbin of West Somerset Steam Railway, who provided me with access to their passengers and enabled me to undertake my data collection during the summer of 2011, which was perhaps one of the most challenging aspects of this research project, as who wants to answer a four page questionnaire when they are on holiday? Their help, along with the staff and volunteers at both railways was invaluable, as were the visitors who agreed to complete my questionnaire during their holiday.

I would also like to thank my supervisors, Dr Stewart Barr and Professor Gareth Shaw, who have provided me with excellent guidance throughout the duration of my research. Their level of 'support' has been balanced at exactly at the right level, as the last four years have been particularly difficult for me on a personal level, with my husband being seriously ill, which forced me to take several 'breaks' during the course of my studies. Their support and confidence in my research has been instrumental in the completion my research.

On a personal level, I would also like to express my thanks to John, my husband, who even throughout his illness, was of immense help to me, accompanying me on all those data collection runs, on the steam train, proof reading and making copious cups of tea, I could not have done it without you, and to Amber my daughter, thank you for your motivational messages, which I would find placed in random places in my notes, it did help and make me smile.

Abstract

In the South West of England tourism provides an extremely important form of economic revenue, with 92 million nights spent in the region, generating over £9 billion in visitor spending and 11% of the total workforce employed either directly or indirectly in the sector. However this additional seasonal influx of visitors inevitably places a strain on the natural environment, built resources, infrastructure and communities. In order to readdress the balance tourism as a sector needs to be more sustainable and the emphasis for change is now placed on the individual. Social marketing has been used successfully to encourage behaviour change in the health sector, and is beginning to be recognised for its potential in encouraging sustainable behaviour, but has never been specifically applied in a tourism context. Therefore this research evaluates the potential of applying a social marketing methodology to encourage sustainable behaviour amongst tourists in two case study areas in South West England.

Social marketing focusses on changing behaviour by understanding individual perceptions of the barriers to and motivations for behaviour. A social

methodology then works to segment individuals into groups that share similar attitudes and beliefs, those groups identified as most likely to respond, are targeted with an intervention to encourage behaviour change. This research identified the perceived and actual barriers to (cost, time, convenience), and motivations for sustainable tourist behaviour among participants from the case study areas and identified three distinct clusters of tourists, one of which was identified as suitable for targeting with a social marketing intervention. This research also revealed that even those most committed to range of sustainable behaviours in the home environment do not continue this behaviour when in the holiday environment. A further dimension was added to this research by exploring the use of an ecological footprint calculator (REAP for Tourism) to quantify the environmental impact of individual tourists and to explore whether pro-environmental attitudes and behaviour equate to lower environmental impact.

CONTENTS

	Page
<u>CHAPTER ONE- Introduction</u>	1
1.1 Background Context	1
1.2 Defining the problem	5
1.3 Introducing the research	8
1.4 Theoretical Framework	12
1.5 Aims and Objectives	14
1.6 Structure of the thesis	17
1.7 Chapter Summary	20
<u>CHAPTER TWO – Sustainable Tourist Behaviour</u>	22
2.1 Introduction	22
2.2 ‘The Tourist’	23
2.2.1 ‘Motivation	23
2.2.2 The Destination Decision-making Process	27
2.2.3 Identifying the factors that impact on sustainable tourist behaviour	38
2.3 Section Summary	45
2.4 ‘The Tourism Destination’	47
2.4.1 Background to Sustainable Tourism	47
2.4.2 The Environmental Impacts of Tourism	51
2.4.2.1 The Environmental Impact of Tourism on the Natural Landscape	52
2.4.2.2 The Environmental Impact of Tourism on the Built Environment	55
2.4.2.3 The Environmental Impact of Tourism on the Farmed Environment	56
2.4.2.4 Section Summary	57
2.5 Managing the Environmental Impact of Tourism	58
2.5.1.1 The Scale of Sustainable Tourism: The Stakeholders	58
2.5.1.2 The Public Sector	59
2.5.1.3 The Tourism Industry & Host Community	61
2.5.1.4 The Voluntary Sector	62

2.5.1.5 The Media	62
2.5.1.6 'The Tourist'	63
2.5.1.7 Section Summary	64
2.6 Approaches to Managing the Environmental Impact of Tourism	65
2.6.1 Environmental Impact Assessments (EIA's)	65
2.6.2 Carrying Capacity	66
2.6.3 Limits of Acceptable Change	67
2.6.4 Visitor Management Techniques	79
2.6.5 Ecological Footprinting & Sustainable Tourism	71
2.6.6 Section Summary	76
2.7 Models of Environmental Behaviour	77
2.7.1 Theory of Reasoned Action/Theory of Planned Behaviour	78
2.7.2 Value-Belief-Norm Theory	81
2.7.3 The Needs, Opportunities, Abilities (NOA) Model	84
2.7.3.1 Macro-level factors - Needs	86
2.7.3.2 Macro-level factors - Opportunities	88
2.7.3.3 Macro-level factors - Abilities	88
2.7.3.4 Higher level Macro Factors	89
2.8 Barriers to Sustainable Behaviour	91
2.9 Section Summary	94
2.10 Chapter Summary	95
 <u>CHAPTER THREE –Marketing and social marketing</u>	98
3.1 Introduction	98
3.2 History and background of social marketing	99
3.3 Traditional Marketing Theory – Exchange Theory	107
3.4 Marketing Theory: The shift towards Service Dominant Logic	109
3.5 Criticism of Social Marketing	113
3.5.1 Ethical Considerations	113
3.5.2 Theoretical and Conceptual Criticisms	114
3.5.3 Criticisms of procedural process underpinning social marketing	120
3.5.4 Section Summary	122

3.6 Undertaking a social marketing campaign	124
3.6.1 Identifying the social problem	125
3.6.2 The Process of social marketing	125
3.6.3 Scoping	128
3.6.4 Development	131
3.6.5 Implementation	135
3.6.5.1 Phase 1 – Planning to launch the intervention	135
3.6.5.2 Phase 2 – Identifying Opportunities and Problems	136
3.6.5.3 Phase 3 – Evaluating, monitoring and modification	137
3.6.6 Evaluation	139
3.6.7 Follow-up	143
3.7 Section Summary	144
3.8 Chapter Summary	145
<u>CHAPTER FOUR - Methodology</u>	146
4.1 Introduction	147
4.2 Research Design	147
4.3 Selection of Case Study Areas	152
4.3.1 Case Study Area 1 – Minehead, West Somerset	153
4.3.2 Case Study Area 2 – Paignton, Devon	158
4.4 Description of Survey Design	162
4.4.1 Questionnaire Design	162
4.4.2 Survey Delivery and Data Collection	166
4.4.3 Data Input and Analysis	176
4.5 Description of the REAP for Tourism Model Design	178
4.5.2 Data Input	183
4.5.3 Inputting Procedure	189
4.5.4 REAP Output	189
4.6 Description of Interview Design	190
4.6.1 Interview Schedule	191
4.6.2 Semi-structured Interview Delivery	193
4.6.3 Interview Analysis	196
4.7 Ethical Considerations	199
4.8 Chapter Summary	202

<u>CHAPTER FIVE – Results of the Questionnaire Survey</u>	204
5.1 Introduction	204
5.2 Descriptive Characteristics of the Sample	206
5.2.1 Characteristics of the Minehead Case Study Area	
Participants	207
5.2.2 Characteristics of the Paignton Case Study Area	
Participants	209
5.3 Motivating Factors – Information Sources	211
5.4 Motivating Factors – Destination Characteristics	213
5.5 Attitudes to the environment and climate change	216
5.6 Comparing general attitudes towards the environment between case study areas	222
5.7 Measuring attitudes towards the environmental impact of holidays, travel and transport	225
5.7.1 Case Study comparison between attitudes towards holiday, travel and transport	230
5.8 Home and Holiday Sustainable Behaviour	236
5.8.1 Recycling Behaviour	237
5.8.2 Composting of Food Waste	239
5.8.3 Use of Energy Efficient Appliances	240
5.8.4 Ensuring all electrical appliances are turned off	242
5.8.5 Use of Water Saving Devices	244
5.8.6 Energy Efficient Light Bulbs	246
5.8.7 Purchasing of Eco-Friendly Goods	247
5.8.8 Purchasing of Organic or Locally Produced Food	249
5.8.9 Re-use of plastic carrier bags	252
5.8.10 Transport Behaviour	254
5.9 Comparing the full range of sustainable behaviour at home and on holiday	255
5.10 Comparison of sustainable behaviours between genders	256
5.11 Comparison of sustainable behaviours between age groups	257
5.11.1 Reported sustainable behaviours at home by age group	257
5.11.2 Reported sustainable behaviour on holiday by age	

group	258
5.12 Comparison of reported sustainable behaviour at home and on holiday by case study area	258
5.12.1 Case Study Area Comparison – Recycling	258
5.12.2 Summary comparison of recycling behaviour by Case Study area	261
5.13 Case Study Comparison – Composting	262
5.13.1 Summary comparison of composting behaviour by case study area	265
5.14 Comparison of Conservation Behaviours by Case Study Area	265
5.14.1 Summary of Energy Conservation Behaviour	272
5.15 Pro Environmental Consumer Behaviour	273
5.15.1 Summary of Pro Environmental Consumer Behaviour	279
5.16 Carrier Bag Re-use	279
5.17 Transport Behaviour	281
5.18 Summary Results- Pro Environmental Behaviour Comparison Between Case study areas	283
5.19 Quantifying the environmental impact of tourist on-site behaviour using REAP for Tourism Ecological Footprint Software	285
5.19.1 Introduction	285
5.19.2 Describing the ecological footprint by accommodation type for each case study area	286
5.19.3 Total Ecological Footprint For All Participants	288
5.20 Comparing Total Ecological Footprint between case study areas	289
5.20.1 Comparing Average Daily Ecological Footprint Between Case study areas	289
5.21 Comparing Ecological Footprint by Accommodation Type	290
5.21.1 Exploring the Ecological Footprint of Serviced Accommodation	293
5.21.2 Exploring the Ecological Footprint of VFR's	296

5.21.3 Exploring the Ecological Footprint of Self Catering Accommodation	297
5.21.4 Exploring the Ecological Footprint of Holiday Park Accommodation	299
5.21.5 Exploring the Ecological Footprint of Camping	302
5.22 Exploring Travel and Transport EF	304
5.23 Exploring the EF of shopping behaviour	309
5.24 Exploring the EF of activities	309
5.25 Section Summary	310
5.26 Segmentation Analysis	311
5.26.1 Comparing Reported Sustainable Behaviours Between Clusters	320
5.26.2 Section Summary	323
5.27 Exploring environmental impact of the Clusters using REAP	324
5.27.1 Cluster One – EF	325
5.27.2 Cluster Two – EF	327
5.27.3 Cluster Three – EF	328
5.28 Exploring the average daily EF between Clusters	330
5.29 Chapter Summary	332
<u>CHAPTER SIX – Results of The Semi-Structured Interviews</u>	334
6.1 Introduction	334
6.2 Profile of participants	335
6.3 Interview analysis	337
6.4 Psychological and Physical Benefits of a Holiday	337
6.5 Holiday Decision-making	341
6.6 Important factors in holiday decision-making process	342
6.7 Sustainable Behaviour	346
6.7.1 Sustainable Behaviour at Home	346
6.7.2 Sustainable Behaviour on Holiday	349
6.7.3 Holiday Travel and Transport	350
6.7.4 Food purchase and ‘eating out’	355
6.8 After the holiday	361
6.9 Integration of the categories	365

6.10 Model showing barriers to sustainable tourist behaviour	366
6.11 Pre-holiday – Benefits	369
6.12 Pre-holiday – Decision-making	370
6.13 Pre-holiday – Destination Selection	370
6.14 Perceived Benefits	371
6.16 Barriers to sustainable tourist behaviour	372
6.17 During holiday – behaviour	373
6.18 Barriers to sustainable tourist behaviour	374
6.19 After holiday phase – experiences	375
6.20 After holiday phase –suggested improvements to the holiday	375
6.21 After holiday phase – Re-visit	376
6.22 Barriers to sustainable tourist behaviour	377
6.23 Motivations to sustainable behaviour	379
6.24 Chapter Conclusion	382
<u>CHAPTER SEVEN – Discussion & Conclusion</u>	386
7.1 Introduction	386
7.2 Meeting the Objectives of this thesis	388
7.2.1 Objective One	388
7.2.2 Objective Two	393
7.2.3 Objective Three	399
7.2.4 Objective Four	403
7.2.5 Section Summary	406
7.3 Practical application of results to a social marketing campaign	409
7.3.1 Customer Orientation	411
7.3.2 Behaviour & Behavioural Goals	412
7.3.3 Theory Based	413
7.3.4 Insight	416
7.3.5 Exchange	416
7.3.6 Competition	417
7.3.7 Segmentation	418
7.3.8 Methods Mix	421

7.4 The Total Planning Process	423
7.4.1. Scoping	423
7.4.1.1 Phase 1	424
7.4.1.2 Phase 2	424
7.4.1.3 Phase 3	425
7.4.2 Developing	425
7.4.3 Implementation	426
7.4. 4 Evaluation	427
7.4.5 Follow-up	428
7.4.6 Section Summary	
7.5 Limitations and suggestions for further research	429
7.6 Concluding Remarks – Setting the research in a wider context	431
7.6.1 Sustainable Tourism; Encouraging Sustainable Tourist Behaviour	432
7.6.2 Concluding remarks	434
References	437
Table of Acronyms	459
Appendices	460

CHAPTER ONE – Introduction

1.1 Background context

One of the most important challenges for society is balancing the need for continued and sustainable economic development whilst protecting and preserving natural resources. The predicted rise in global population over the following decades will place a greater pressure on the environment, and coupled with the threats associated with climate change threatens the long term viability of the planet's resources. The influential Brundtland Report (1987) recognised the need to balance the needs of developed and developing countries continued economic development whilst preventing the exploitation and depletion of natural resources. The report suggested that the most appropriate way to achieve this was through building the principles of sustainable development (SD) into all areas of development. Thus consideration must be given to the potential environmental impact of human activity. The need to consider the impact of human behaviour on the environment was brought further into focus by the scientific evidence which suggests that changes in the earth's climate can be directly linked with human behaviour. (IPCC, 2007)

The Intergovernmental Panel on Climate Change (IPCC) recognised the direct links between human behaviour and climate change. The panel report every six years and assess the earth's response to current climatic conditions and predict

the future impact of a further change in global temperatures. Current predictions forecast that global temperature will rise between 2.5 – 10 degrees Fahrenheit over the next century. This predicted rise in temperature will have regionally significant impacts around the world, in Europe the anticipated impacts are likely to be increased flash flooding, coastal flooding leading to erosion, glacial retreat in mountainous areas, reduced snow cover, extensive loss of species and reduction in crop production for areas of southern Europe. (IPCC, 2007) Mc Michael, Woodruff and Hales (2006) predict that the anticipated impacts of climate change on human life are likely to be experienced both directly and in-directly. The direct effects of a change in climate, such as an increase temperature are predicted to have implications for health by increasing levels of air pollution and increasing the likelihood of the spread of infectious diseases. In-direct effects on human life by a change in climate are predicted to impact negatively on food production, crop yields, decrease marine productivity and these pressures are anticipated to cause displacement of vulnerable populations creating conflicts over natural resources, such as water. Therefore, the global community must respond to the challenges associated with global climate change and sustainable management of natural resources whilst also trying to maintain and maximise economic development initiatives.

The tourism sector represents an area of economic development that it has been argued can be meet the challenge of a sustainable future whilst

maintaining economic stability. (Williams and Shaw, 1991; Sinclair, 1998; Michalic, 2002) Tourism is perceived as an important tool for developed countries to diversify and generate additional income and for developing countries to boost their revenues. The provision of tourism services encompasses many different sectors thus supporting a wide range of employment and generating a welcome income boost, enabling essential infrastructure improvements to the host community, (Sinclair, 1998) However the provision of tourism infrastructure and services inevitably has consequences for resort areas and host communities. (Sharma, 2004) The environmental consequences of tourist activity can lead to degradation of important ecosystems, pollution, and erosion whilst the impact of tourism on socio-cultural aspects of a resort area can cause irreparable change to traditional ways of life. (Mathieson and Wall, 1982) Tourism therefore faces the same challenge as the rest of society, the need to balance the needs for economic development, whilst recognising, and mitigating the environmental and socio-cultural impacts of the activity. (Mathieson and Wall, 2007)

The next question for the global community is with whom does the responsibility lie in terms of mitigating the effects of climate change and ensuring a sustainable future? There is obviously a need for change in the way natural resources are consumed with greater emphasis given to the environmental consequences of behaviour. The change required to ensure an environmentally

sustainable future requires a combination of technological advances through innovation to cleaner technologies that have a less detrimental impact on the environment (Penner et al, 1999); market-based changes such as imposing taxes and levies on more environmentally damaging activity (Mayor and Tol, 2007); and the third solution, and the one perhaps perceived to play the most important role in mitigating environmental damage is individual behaviour change. (Gössling and Peeters, 2007). The importance of the 'individual' in the process of changing to more environmentally sound forms of behaviour has come to the forefront in the policy arena, as Owens (2000) suggests there has been a move from 'passive to active politics' in recent years whereby the 'individual' is expected to take responsibility in order to collectively mitigate the impact of environmental damage (Barr, 2008).

This shift in political policy towards 'individual responsibility' for behaviour has change created a further challenge for policy makers especially in the UK, what is the most effective way to encourage behaviour change? In the UK The Department for the Environment, Food and Rural Affairs (DEFRA) developed a framework of Environmental Behaviour based on segmentation of individuals based on their attitudes towards and behaviour in respect of a range of pro-environmental behaviours (recycling, energy saving, water conservation, 'green' consumer choices and transport decisions). (DEFRA, 2008) By focussing on the 'individual' and segmenting groups of individual according to their attitudes

and behaviours towards a range of environmental issues it is perceived that any 'intervention' to encourage behaviour change is thus targeted at those most likely to respond, thus ensuring a more effective targeting of resources. This concept of targeting 'segmented' groups of individuals to encourage a change in behaviour is derived directly from social marketing. Social marketing utilises the tools and techniques of traditional marketing alongside other theories to encourage changes in attitudes and behaviour for social good. (French and Blair-Stevens, 2010) Social marketing has traditionally been utilised in public health and safety campaigns where a change in attitude and behaviour to a social issue has been required (e.g. anti-smoking campaign, road safety etc.). Social marketing is now being utilised successfully to encourage higher levels of pro-environmental and sustainable behaviour through addressing the barriers and motivations for the behaviour (McKenzie-Mohr & Smith, 2008).

1.2 Defining the problem

As stated in the previous section, society faces the challenge of mitigating the impacts of human activity whilst maintaining economic stability. Tourism is an important sector for maintaining economic stability but must also ensure that its impacts are minimized. With the focus of change now firmly sited on 'individual' behavioural change then the challenge is how best to encourage individuals to behave in a sustainable manner whilst on their holiday. Social marketing with its guiding principles based on understanding 'social problems' from an 'individual' standpoint offers the opportunity to assess whether these

principles can be applied in the tourist setting. The originality of this thesis is that it is the first study to explore the potential of a social marketing methodology to encourage greater levels of sustainable behaviour amongst tourists. Previous studies have been very much focussed on behaviour change in and around the home environment, through exploring green consumer choices, sustainable travel and transport options. (Thorgersen, 1999; DeYoung, 2000, Barr & Gilg, 2006; Hobson, 2002; Shove, 2003) Research studying the range of sustainable behaviours practiced in the home environment suggests that for those individuals who routinely engage that sustainable behaviour is a 'lifestyle choice' one that should be reflected throughout all spheres of life, from home, work environments through to the holiday environment. Research shows that the 'holiday' represents a sphere of life for which pro-environmental attitudes and behaviour do not persist (Barr, Shaw, Coles and Prillwitz, 2009; Gössling & Peeters, 2007). Therefore this suggests that there is something 'special' about the holiday environment and that the 'attitude-behaviour' gap is even wider when an individual transcends from the 'home' environment to the holiday environment. (Miller, 2003; Dolnicar & Leisch, 2008; Rathouse, Scarles, Holmes & Tribe, 2010) By applying a social marketing methodology to the 'problem' of sustainable tourist behaviour, this will address the difference in attitude and behaviour between the home and holiday environments. One of the most important components of a social marketing methodology is the emphasis placed on understanding individual behaviour in the context with which it occurs, in this instance the 'holiday'. This process enables the barriers to

behaviour change to be addressed, and motivational factors also be identified and acted upon. Therefore the social marketing process is a 'bottom up' process driven by the experience of the individual rather than a 'top down' process driven by regulatory authorities and eventually perceived to be more successful in driving behaviour change. (Andreasen, 1994)

Another challenge facing those addressing the need to change attitudes and behaviour towards more sustainable options is the need to ensure that the behaviour undertaken actually has less of an environmental impact. This is particularly problematic due to individuals being so far 'removed' from the actual impact of their behaviour and the long term nature of sustainable practices, for example the benefits accrued to the environment by individuals walking instead of driving cannot physically be perceived by those concerned but in the long term do have a positive impact on the environment. Ecological footprinting offers the opportunity to represent the impact of behaviour on the earth's resources and by so doing demonstrates that natural resources have finite limits. (Wackernagel & Rees, 1996; Chambers, Simmons & Wackernagel, 2000)

Ecological and carbon footprint calculations take into consideration the full impact of a specific behaviour has upon natural resources and assigns it a value. Once assigned a value this allows for identification of those behaviours which incur the highest environmental impact. This thesis will utilise ecological footprinting to explore the impact of individual tourist on-site behaviour, and is

innovative in that it will seek to make direct links between pro-environmental attitudes, behaviour and actual environmental impact within a tourist destination.

This thesis is unique in that it is the first study to explore the potential of a social marketing methodology to encourage greater levels of sustainable behaviour amongst tourists. Furthermore the ecological footprint calculations will add a further novel dimension by exploring the link between attitudes, behaviour and their environmental impact within the destination case study areas.

1.3 Introducing the research

Tourism as an activity is usually defined as the short-term (less than 12 months) movement of people away from their usual home environment. (Hall, 2008). Most commonly tourism is associated with travel for leisure and recreation purposes, however, tourism covers a multitude of other types of short-term voluntary travel, for the purposes of business, religion, health, visiting friends and relatives and for education purposes to name but a few. Tourism is also extremely important as a generator of economic income contributing £115billion to the United Kingdom's economy, employing over 2.6 million people and is the third largest employer accounting for 9% of total employment. (Office for National Statistics, 2011) The current research is sited in the South West of

England where tourism is a significant contributor to the economy where it generates over £9billion of revenue, with a higher than the national average employment rate of 11% of the region's population being employed in tourism or tourism related businesses (South West Tourism Alliance, 2008). Whilst the South West of England is very much dependent on tourism and tourism related activity for economic reasons, the influx of visitors over a relatively short tourism season inevitably places a strain on resorts, in terms of services, infrastructure, the environment and relations between the visitors and the host community. So encouraging sustainable behaviour amongst its visitors is extremely important to the long term future of the region.

This thesis will therefore focus on exploring the best way to encourage sustainable leisure and tourist behaviour within two traditional seaside holiday resorts in the South West of England. The main thrust of this thesis will be devoted to understanding the motivations and barriers to sustainable behaviour experienced by those on holiday in the two case study areas, utilising a social marketing methodology. The thesis will consider the link between environmental attitudes and behaviour and the on-site environmental impact through the use of ecological footprinting calculations.

One of the most important aspects of a social marketing campaign rests with segmentation and targeting of specific lifestyle groups. An example of

segmentation was undertaken by Defra (2008) in respect of Pro-environmental Behaviour; to identify 7 distinct population segments, each segment sharing a distinct set of values, beliefs and behaviours towards the environment and environmental issues. These distinct segments were defined by their willingness and ability to act on a range of environmental issues. The rationale behind using segmentation analysis is that information and resources can be more effectively targeted in a way that directly responds to the motivations of each lifestyle segment thus meaning the intervention is likely to be more effective in encouraging a change in attitudes and behaviour. However utilisation of social marketing methodology to encourage sustainable leisure and tourist behaviour has not been established and will form an important part of this thesis. In order to achieve this, this research will examine the full cycle of tourist behaviour from the decision-making stage through to 'on holiday' behaviour, including travel to and from the home environment, with the intention of understanding the motivations and barriers to sustainable tourists behaviour. It could be proposed that the 'holiday' environment is somewhat special and different from the home environment especially in terms of sustainable behaviours as these tend to be disregarded in a tourist setting (Miller, 2003; Dolnicar & Leisch, 2008; Rathouse, Scarles & Holmes Tribe, 2010). Therefore it is the intention of this thesis to explore the psychological and situational variables that impact on behaviour in a tourist setting.

The Climate Change Act of 2008 recognised the need to address the threats offered by climate change. This set binding targets for the lowering of Greenhouse Gas Emissions and suggested a system for carbon budgeting for England and Wales. Regulation and restriction of heavy industry emissions and the need to develop technologies to adapt to these threats has already been recognised, resulting in a push for cleaner and more energy efficient technologies. However 'service' industries such as tourism cannot be overlooked in their contribution to climate change the way tourism and the leisure industry operates currently, will have to adapt and innovate in response to the challenges of climate change (Becken & Patterson, 2006). Tourism as a sector might be perceived to be less obviously 'dirty' than manufacturing or the industrial sectors, rather tourism trades in less tangible 'experience' based activity but provision of these 'experiences' still contribute considerably to greenhouse gas emissions. One of the ways that industry has sought to quantify the environmental impact is through the use of 'footprint' calculators. Ecological and carbon 'footprinting' offer the opportunity to represent the impact of behaviour on the earth's resources and by so doing illustrate the Earth's finite resources (Wackernagel & Rees, 1996; Chambers, Simmons & Wackernagel, 2000). Ecological and carbon footprint calculations take into consideration the full impact a specific behaviour has upon resource use and assigns it a value. Once assigned a numeric value this allows for identification of those behaviours that use the most resources, thus making it possible to either discourage certain behaviours or develop technologies to combat resource use. In order to

quantify the impact of tourist behaviour on the environment this research will include ecological footprinting (EF) analysis to understand the environmental impact of different tourist types. An important aspect of understanding tourist behaviour, is appreciating the environmental impact such behaviours are having on a destination. Therefore this thesis will include analysis, using the Resource Energy Analysis Program for Tourism (REAP) software program developed by South West Tourism and the Stockholm Environment Institute to calculate estimated ecological footprints for tourists. This will add a further dimension to the research and will be useful when considering which lifestyle segments will be most likely to change their behaviour. The use of the EF of on-site tourist behaviour will provide a benchmark of the estimated environmental impact and also give scope for calculating how a change in behaviour might alter the overall environmental impact.

1.4 Theoretical/conceptual framework

This thesis covers three broad fields of research – marketing, sustainability and tourist behaviour drawing together a multi-dimensional knowledge base from across three sub-disciplines in order to encourage sustainable tourist behaviour. The originality of this research is focussed on the fact that social marketing as a derivative of traditional marketing has been successful at encouraging change in attitudes and behaviour in health and social welfare campaigns, and is beginning to be applied in encouraging sustainable behaviour in the ‘home’

environment but it has not been specifically applied to a tourist environment. (Gordon et al, 2006; El-Ansary and Kramer, 1973). In terms of environmental behaviour, research has tended to focus on behaviour in the home, how best to encourage recycling, energy conservation and the use of public transport but this has not been extended to the holiday environment (Peattie & Peattie, 2009). One of the areas of interest for this thesis is the exploration of whether those people committed to a range of sustainable behaviours in and around the home environment continue this commitment when on holiday. In terms of tourism, the consensus of opinion suggests that tourism needs to be more sustainable but how this is best achieved in the light of the need to protect vital visitor revenue is one of the biggest issues facing destination management organisations. It is readily accepted that the seasonal influx of tourists to destinations has an impact on the host community but quantifying the impact is problematic. The explorative use of ecological footprinting of individual visitors adds a further dimension to the research by providing a quantifiable environmental impact.

The following sections of this introduction will briefly consider the main bodies of literature that underpin this thesis. The main thrust of this research is focussed on exploring the potential of a social marketing methodology, therefore the main conceptual framework rests in this sphere, however, the process acknowledges the need to draw on evidence across a broad discipline base, therefore

knowledge gained through tourist behaviour and pro-environmental behaviour will be influential in directing this research.

1.5 Aims and Objectives of this thesis

This research at its most basic seeks to explore the potential of utilising a social marketing methodology to encourage sustainable behaviour amongst tourists. However tourist behaviour covers a myriad of behaviours including actual behaviour and the motivations and decision-making behind the behaviour. Social marketing seeks to change behaviour using a 'bottom-up' approach by understanding behaviour from the standpoint of the individual rather than imposing change from above in a 'top down' manner. This thesis focusses on the exploration of tourist behaviour within the selected case study areas in the South West of England. Social marketing also acknowledges that individuals are likely to experience any number of external barriers to behaviour change; to this end this research also includes an evaluation of these effects.

Aim: the aim of this research is to explore the potential of employing a social marketing methodology to encourage greater levels of sustainable behaviour amongst tourists.

Objectives:

The specific objectives of this research are as follows:-

1. **To describe and explain the behaviour of tourists within a destination, to include travel to, from and within the destination and also include all consumer behaviour undertaken during the holiday.** The data gathered here is focussed on the reported behaviour of tourists whilst on holiday in their chosen destination. Data gathered includes information regarding activities undertaken, purchases made, distances travelled and modes of transport. The psychological aspects of tourist behaviour will also be explored in terms of motivations and decision-making processes involved in the pre-holiday period.
2. **To identify, the barriers to and motivations for adopting more sustainable tourist behaviour.** A social marketing methodology dictates that one of the most important aspects to changing attitudes and behaviours is understanding the perceived and actual barriers to behaviour change, whilst also considering what individuals perceive might motivate them to change. Therefore this thesis considers how people understand notions of sustainability, what behaviours they undertake whilst in their home environment and what sustainable behaviours they might already take part in whilst on holiday and what motivates this behaviour. Further consideration is also given to what might encourage people to behave more sustainably whilst in the resort and what they perceive the barriers to be in this context.

3. **To identify using segmentation analysis, specific lifestyle groups that could be targeted with a social marketing intervention to encourage sustainable tourist behaviour.** The data gathered identifies sub-groups of individuals that share similar psychological and behavioural characteristics in respect of their attitudes towards holidays, transport and travel. Where behavioural and psychological characteristics indicate that a particular group of individuals may be amenable to behaving more sustainably whilst on holiday, this group would be considered suitable for targeting with a social marketing intervention.
4. **To measure the environmental impact, using REAP for Tourism Ecological Footprinting Software, of visitors on the two destination case study areas.** This objective will be fulfilled by collecting data regarding the reported consumption behaviour of tourists whilst on holiday in the case study area. The information collected will consist of all the activities undertaken during the stay, spending on a range of items, accommodation, travel and transport choices. The results generated will provide an individual ecological footprint for each of the tourists which demonstrate the environmental impact of their on-site holiday behaviour. This information will be linked directly back to the segmentation analysis gathered for objective 3 in order to explore the link between pro-environmental attitudes, behaviour and environmental impact.

1.6 Structure of the thesis

Following this introductory chapter this thesis comprises a further seven chapters:

Chapter 2 – Sustainable Tourist Behaviour

This chapter will comprise a full and extensive review of the relevant literature within the field of tourist behaviour. Consideration will be given to the literature pertaining to tourist motivation and decision-making, tourist typologies and on-site tourist behaviour. The impact of this behaviour on the host community and environment will be an important component part of the literature review. Pro-environmental behaviour, sustainable tourism and behaviour will form an essential part of the discussion. A review of the literature pertaining to measurement and quantification of the environmental impact of behaviour will also be an integral part of this chapter.

Chapter 3 – Marketing and Social Marketing

This chapter will review the literature and history of marketing and the emergence of social marketing as a distinct discipline. Consideration and description will be provided on the process and theory underpinning any social marketing intervention. A discussion of recent uses of social marketing to encourage pro-environmental behaviour will also be included as this will be particularly influential in directing this thesis. Consideration of

the limitations of such an approach to encouraging attitude and behaviour change will also be an intrinsic element of this chapter.

Chapter 4 – Methodology

This chapter will explain and describe the research and analysis used to fulfil the aim and objectives of this thesis. The chapter will discuss the selection of the case study area used in this thesis. A full description of the quantitative and qualitative methods and analysis will be explained and justified. A full description, rationale and limitations of the Resource Energy Analysis Program for Tourism (REAP) ecological footprinting software will also be considered within this chapter.

Chapter 5 – Results of the Questionnaire Survey

The content of this chapter will be divided into two sections; the first section will be dedicated to describing the descriptive results of the large scale questionnaire survey completed in the two case study areas; the second section will explore the results of the segmentation analysis.

The 'descriptive' section of the chapter will include the demographics of those who completed the survey, as well as details relating to holiday motivations, decision-making, accommodation choices, transport and travel,

holiday activities and shopping behaviour. Further information regarding reported commitment to a range of sustainable behaviours at home and on holiday will be described, as will attitudes towards the environment. Included in this section will be a description of the results of REAP for Tourism ecological footprint calculations.

The second part of the chapter will detail results of the segmentation analysis. The segmentation analysis will describe in full the characteristics of each of the segments and link these directly with their personal ecological footprint profiles.

Chapter 6 – Results of the qualitative interviews

This chapter will explore the analysis and results of the qualitative research stage. The discussion will focus on describing the semi-structured interviews undertaken in order to explore the barriers and motivations to sustainable tourist behaviour. Furthermore the chapter will reveal how the participants of this research perceived the barriers to sustainable behaviour whilst on holiday and what they perceived might encourage them to behave in a more sustainable manner when on holiday.

Chapter 7 – Discussion of the results and conclusion

This chapter focusses on drawing together the results gathered in the previous chapters and discussing them in terms of a social marketing methodology. Specific consideration will be given to whether the results obtained during the research meet the criteria of a social marketing campaign and whether they could be instrumental in developing a social marketing intervention to encourage sustainable tourist behaviour. This chapter will, provide a series of recommendations regarding increasing levels of sustainable behaviour amongst tourists. Further consideration will also be given to the policy context within which tourism rests and consider the best way to encourage sustainable tourist behaviour. Consideration will be given to both the limitations of the research and suggestions for further research in this area.

The final section of the chapter will formulate a definitive conclusion and guidance based on the results derived herein for encouraging greater levels of sustainable behaviour amongst tourists.

1.7 Chapter Summary

This introductory chapter has set out the basic premise of this thesis. This thesis and research contained herein is of a broad nature and aims to utilise a social marketing methodology to understand and enable increasing levels of

sustainable behaviour amongst tourists and exploring the link between pro-environmental attitudes, behaviour and tourist on-site behaviour through the use of Ecological Footprinting software calculations.

Social marketing by its very nature seeks to utilise knowledge and research techniques from a broad academic base. This thesis accordingly acknowledges a broad spectrum of disciplines in order to generate a broader understanding of the problem and through the use of primary research with tourists formulate some suggestions for increasing levels of sustainable behaviour amongst tourists. It is the intention of this thesis to enhance research in the area of sustainable tourist behaviour through the utilisation of the previously untested social marketing techniques in order to provide a greater understanding of the barriers to and motivations for greater levels of sustainable behaviour whilst on holiday. Additionally by adding the ecological footprinting dimension to the enquiry this provides a greater depth, by testing whether pro-environmental attitudes and behaviour are good predictors of low environmental impact.

CHAPTER 2 – SUSTAINABLE TOURIST BEHAVIOUR

2.1 Introduction

Social marketing acknowledges the need to review the existing literature pertaining to the social 'issue' that requires action, in the case of this research the relevant literatures naturally flow from research investigating tourist behaviour, pro-environmental behaviour and how this might translate into sustainable tourist behaviour.

This chapter will provide a critical overview of the existing literature in these areas with the prospect of extracting and identifying the possible barriers to and motivations for greater engagement in a range of sustainable behaviours whilst on holiday. In essence this chapter will argue that it is the very nature of the 'holiday' and all that the notion entails which makes sustainable forms of behaviour particularly difficult to encourage. In order to achieve this, the chapter will explore the factors, both internal and external which individuals experience and act as barriers to sustainable on-site tourist behaviour and will be drawn from the literatures relating specifically to tourist behaviour but also from research related to pro-environmental behaviour.

In pursuance of meeting the objectives of this literature review the chapter will be divided into three sections; the first section will focus on 'the tourist' and explore motivations, decision-making, and on site holiday behaviour with a view to identifying the barriers to and motivations for sustainable holiday behaviour;

the second section will explore 'the destination' identifying the environmental impacts of tourist behaviour, who is responsible and ways of managing the impact; the final section will explore some of the behavioural models that may be effective in encouraging sustainable behaviour.

2.2 'The Tourist'

The process of becoming a 'tourist' infers that some sort of transition or change takes place within the individual. This change is not only related to the physical move from the home environment to the holiday environment, but a psychological process of change as a result of a freeing from routineness of everyday life. This section of the chapter will argue that it is this 'change' or 'transition' from the home to holiday environment and all of the complexities involved that makes tourist behaviour particularly resistant to changing to more sustainable forms of behaviour.

2.2.1 Motivation

The 'holiday' is defined as an extended period of leisure and recreation, especially one spent away from home or in travelling; however this definition does not fully encompass the deeper motivations behind the touristic experience. What is it that individuals are seeking when they plan their next holiday? What motivates holiday destination selection? And what are the crucial factors that impact directly on motivation?

Cohen (1972) believed that motivation to travel was as a direct response to the need to escape from the ordinariness of everyday life, however this need for 'escape' was often tempered by the need to maintain some facets of familiarity. Furthermore Cohen (1972) believed that individuals could be differentiated by the type of 'escapism' and the amount of 'familiarity' they required from their holiday destination. Thus those individuals motivated to travel further afield and experience 'different' destinations and cultures were strongly motivated by the need for escapism but did not need to retain any facets of familiarity. However those motivated to travel to mass tourist destinations, whilst also seeking to 'escape' from their everyday lives need to retain the familiarity associated with holidaying with their compatriots. Where Cohen (1979) focussed on the notion of 'escapism' as the motivating force behind specific destination selection, Plog (1972; 1987) contended that motivation was as result of particular psychological characteristics and these characteristics were reflected in the types of destination selected. The personality types identified by Plog (1972), range on a continuum from psychocentric to allocentric, with midcentrics taking the central position. Thus those individuals who with more reserved and inhibited characteristics might select destinations with which they are familiar and that are considered established holiday resorts (psychocentrics), Allocentrics on the other end of the continuum are perceived to be more outgoing and seek out greater differentiation and this is reflected by travel to unusual and unheard of holiday destinations. Midcentrics are motivated to seek out newly fashionable destinations, meeting the need for discovery without the requirement to

immerse themselves wholeheartedly in the host culture. Interestingly Plog (1991) developed this concept further suggesting that these tourist motivation typologies could explain the development of destinations over time. Allocentrics would be the first group to discover new destinations, once the area becomes more popular and the infrastructure and services improve, the midcentrics move in, and the allocentrics move on to previously undiscovered destinations. Finally once a destination is fully developed and has become a fully functioning tourist resort the psychocentrics arrive.

Whilst both Plog's (1972; 1991) and Cohen's (1977) interpretation of tourist motivation are extremely intuitive, they suggest that 'motivation' remains fairly static throughout the lifetime of the individual. Plog's (1972: 1991) model links tourist motivation with psychological characteristics, these characteristics define and guide lifestyle decisions throughout life, this suggests that holiday destination selection will always be centred around whether the individual is extroverted, introverted or somewhere between the two. However whilst psychological traits do remain fairly stable throughout life, destination selection will be influenced by other factors outside of the individual, factors such as age, gender, lifecycle stage, physical ability, financial constraints to name but a few. Pearce's travel career ladder (1982) emphasized the dynamic nature of tourist decision making, by integrating psychological motivations with the concept of experience, so that motivations alter with travel and holiday experience. Pearce

(1982) based his ideas on those of Maslow's (1970) hierarchy of needs, as a way of explaining how people develop different needs for travel as they become more experienced thus progressing up the 'travel career ladder' as each of the psychological needs are satisfied and new ones develop (Ryan, 1998). Another area of criticism centres on the notion of 'escapism' that individuals are motivated by wanting to 'escape' from the constraints of everyday life, however as several authors have pointed out, whilst holidays are motivated by the need for a break from routine, often once on holiday tourists tend to behave very much as they do at home (Krippendorf 1987; Cohen 1977). In so much as they seek out familiar cuisines, try to find places to watch their favourite television programmes and mix with the same types of people that they would encounter in their home environment. So by saying that tourists are motivated by the need to 'escape' from the routines of everyday life, this suggests that all routine behaviour is disregarded when the individual transcends from the home to the holiday environment, however some commentators suggest that elements of the 'home routine' are retained when on holiday. This is particularly important to the current research, if 'escapism' from everyday routine behaviour is an important motivation for holidaying, then this could help explain one of the barriers to sustainable tourist behaviour. On the other hand, if some elements of routine everyday behaviour continue into the holiday environment, then routine everyday sustainable behaviour should also be found in those individuals who are committed to and engaged in the home environment. The suggestion that sustainable behaviour remains consistent and permanent

across different contexts implies that sustainable behaviour might be a 'lifestyle choice'. (Barr and Gilg, 2006) However Barr et al, (2010) found that even individuals who were environmentally active in the home environment did not continue this conscientiousness when in the holiday environment. Cohen et al, (2013) confirm these findings suggesting that the 'tourism space' is perceived somewhat differently to the home environment, and subject to lower levels of environmental concern. Their research demonstrated that the majority of individuals reduced, suppressed or abandoned their 'normal' level of environmental concern and behaviour whilst in the holiday environment.

Having identified one of the potential barriers to sustainable tourist behaviour, the next section will explore the decisions individuals make once they are motivated to take a holiday. The holiday decision-making process is highly complex in nature, involving many components, travel and transport, accommodation, destination amenities and activities and these need to match the requirements of the individuals taking the holiday (Dallaert, 1998).

2.2.2 The Destination Decision-making Process

Once motivated to travel for the purpose of a holiday, the destination decision-making process goes into action. Understanding the influential factors behind destination selection is important to destinations as it is essential, in a

competitive market to provide the services and infrastructure to attract visitors and reflect this in promotional materials. (Crompton, 1979) In the context of this research it is important to explore the factors that influence the decision-making process in order to assess whether these factors compete with issues of sustainability in order to create further barriers to sustainable tourist behaviour.

In order to provide a better understanding of the process which underlies the selection of a holiday destination many researchers have conceptualised it as a 'funnel like' process whereby choices are narrowed until a final decision and selection has been made. (Sirakaya & Woodside, 2005) Others have sought to conceptualise the 'funnelling' process into a sequence of destination choice-sets which are reduced and eliminated until the final destination selection is made. (Um and Crompton, 1990; Goodall, 1988; Crompton and Ankomah, 1992; Decrop, 2010) Gartner (1993) suggests that destination decision-making is highly dependent on personally held images of possible holiday destinations and it is this that initiates the process. The selection process then proceeds by funnelling all of the destinations available (total opportunity set) narrowing down options until a final destination is settled upon. Narrowing and reducing of possible destinations is based upon matching possible destinations with personal needs and constraints until the final stage where the destinations are narrowed down to the 'decision set', this according to Gartner will not exceed

three and destination image is an essential element of the final decision and selection.

Crompton and Ankamah (1992) conceptualised the funnelling of the destination decision-making process into three stages in a given time frame. Their research defined 3 choice-sets, the Early Consideration Set, the Late Consideration Set and the Action Set which is finally refined into the final decision and selection of suitable holiday destination. (Figure 2.1)

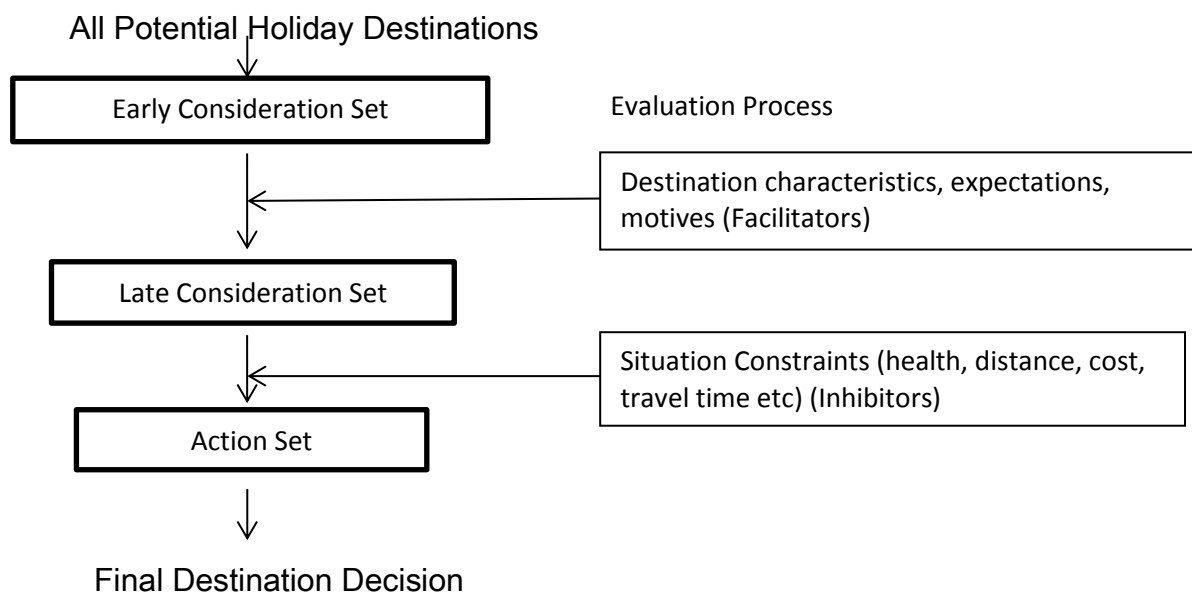


Figure 2.1 Adapted from Crompton & Ankamah (1992) process model of destination decision-making

The process of selecting a potential holiday destination starts with the Early Consideration-Set which has all the destinations available and interesting to the individual in a given time period (e.g. a year). As time proceeds and the time-

frame for destination selection shortens the process refines and reduces until it reaches the Late Consideration-Set, this set comprises all the probable and most likely to be selected holiday destinations. The final choice-set is the Action-set and this set of destination choices contains those destinations seriously under consideration and for which actual information has been sought and contact made with various tourist services (travel agent etc) in order to refine the selection and enable the final decision to be made. Crompton and Ankomah (1992) further defined how destinations were evaluated in order to move them through the selection process. In terms of destinations being moved from the Early Consideration-set to the Late Consideration-set individuals evaluated the specific characteristics of the potential destination in terms of how likely they were to satisfy the expectations and motives of the holiday group these evaluation criteria the authors termed *facilitators*. Once this group of choices had been refined and reduced and moved to the Late Consideration-set then the process of re-evaluation of potential destinations were undertaken in terms of the situational constraints of each destination (e.g. distance, cost, travel mode, health, safety etc.) and these criteria were termed *inhibitors*, again destinations are filtered out before moving to the Action-set. By exploring this model of tourist destination decision-making it may be possible to identify further barriers to the selection of more sustainable choices. The very nature of more sustainable choices of transport, accommodation and services means that they are often more financially expensive, take more time, and are

more inconvenient and this acts as barrier to their selection thus eliminating these options from the final destination decision set.

Where the previous review discussed the process of destination decision-making, Decrop and Snelders (2005) chose to explore the way individuals select their holiday. The concept behind this was to generate tourist typologies based upon segmentation of individuals based upon their socio-psychological and socio-demographic characteristics coupled with facets of the decision-making process as reviewed previously. In essence, their research sought to generate tourist typologies based upon their holiday decision-making style whilst taking into account other factors that shape the process. Their research was initiated by recognizing that holiday decision-making is not necessarily an active deliberative decision to take a holiday but may more often that be a result of incidental information processing or opportunities arising that had not been previously recognised. For example, it might be that be there they become aware of a discounted holiday opportunity, or that a new resort has opened or friend offers them the opportunity to visit. Thus these decisions are initiated by a 'trigger' rather than sequential pre-planned decision-making and execution (Decrop & Snelders, 2005).

The research undertaken by Decrop and Snelders (2005) took place over a year long period and segmented individuals according to the way they selected

their holiday destination and combined this with psychological and demographic characteristics. They defined six tourist typologies based on these characteristics:

- ***Habitual*** – those individuals characterised as ‘habitual’ holiday decision-makers routinely visit the same destination year after year, this can be due to structural factors such as owning a holiday home. They are characterised as being risk adverse, as they prefer knowing where they are going and what is available for them whilst on holiday. Due to the habitual nature of the holidaying they tend to optimise their holiday time as they are familiar with the environment, undertaking many activities and maximising their use of destination facilities. In terms of holiday decision-making those in the ‘habitual’ typology tend to apply the same rules each year in a routine manner.
- ***Rational*** – The ‘rational’ holiday decision-maker is also risk adverse, but this is more in recognition of constraining factors such as financial circumstances rather than the psychological need for familiarity associated with ‘habitual’ decision-makers. The process of selecting a potential holiday destination tends to be undertaken in a careful and realistic way, as they are not prepared to take a holiday at any cost. Therefore holidays are planned a long time in advance, taking facilitating and constraining factors into account from the start.

- *Hedonic* – Members of this group particularly enjoy thinking, dreaming and talking about potential holiday destinations, this process enhances the anticipated arousal of experiencing a new destination. This group tend to collect a lot of information from any sources regarding potential destinations in order to generate even more pleasurable anticipation. This daydreaming and thinking about potential destinations leads to members of this group being particularly optimistic, so much so, that they often overlook potential constraining factors.
- Whilst members of this group immerse themselves in daydreaming about potential holiday destinations their actual holiday destination tend to be substituted by a much more realistic destination choice. This group derive as more pleasure from the ‘daydreaming phase’ of the destination selection process than they do from being on holiday.
- *Opportunistic* – Members of this group of holiday decision-makers minimise the process of thinking and planning a holiday, instead they are willingly waiting for the correct financial or situational opportunity to arise in order for them to take a holiday. This group comprises individuals who experience a lack of leisure time due to factors such as professional commitments. When holiday destination decisions are made they tend to be the results of a co-occurrence of ‘need’ and the opportunity for fulfil that need.

- ***Constrained*** – Members of this group tend to be those individuals who undergo destination decision-making rather than controlling it. Members of this group are constrained by factors outside of their control for which their destination selection will be influenced, for example, health and or financial issues would influence the viability of certain destinations. Members of this group tend to be individuals who do not have control over the holiday destination selection process and therefore the resulting holiday is not necessarily somewhere they would choose.
- ***Adaptable*** – Members of this group like holidays and travel and always have potential holiday projects in mind. By their very nature they are adaptable and are willing to adapt their plans in order to suit any given situation. Due to the adaptability of this group decisions tend to be taken later in order to accommodate new information which may improve the holiday experience.

Decop and Snelders (2005) results illustrate that the decision-making process is often ongoing, with various holiday options running simultaneously with a lot of contextual influences and that it is possible to segment individual depending on the way they select their holiday destination. This has important ramifications for tourist destination marketing organisations as it offers the potential for marketing last minute deals to ‘opportunistic’ decision-makers whilst selling the

flexibility and adaptive virtues of a destination to 'adaptable' decision-makers. In the context of the debate regarding possible barriers to adoption of more sustainable choices in the holiday environment, each of the segments here experience particular barriers to selection of sustainability for example the 'rational' 'opportunistic' and 'constrained' segments destination decision-making is impacted on by financial and health considerations, and as stated previously, sustainable options tend to be time and financially expensive, thus the resultant selection would be even less likely to be of a sustainable nature. In terms of the 'hedonic' segment their motivation is centred firmly on the 'pleasure' and 'escapism' of their holiday and thus sustainable alternatives would not even feature as a consideration. The 'adaptable' and 'habitual' segments may however, offer some opportunity to encourage more sustainable behaviour, particularly the 'adaptable' segment who appear to be more amenable to adapting their holiday selection if given enough incentive to do so. The 'habitual' segment on the other hand may already be using more sustainable options during their holidays as they become familiar with the environment and possible sustainable alternatives.

The rationale for including so much detail relating to tourist decision-making is that social marketing dictates that behaviour needs to be understood on many levels, therefore for this thesis it is important to understand the types of facilitating and inhibitory factors that impact on holiday destination decision-

making. It could be suggested that the inhibitory factors which influence destination decision-making share the characteristics as sustainable choices meaning that barriers to sustainable behaviour are even more unassailable. In order to assess the credence of this assumption, it is essential to review the factors that have been identified as important to the destination decision-making process and cross reference with the factors that have been identified as significant predictors of, or barriers to sustainable behaviour. Where factors which constrain destination selection match those factors which influence sustainable behaviour it could be argued that this has a 'multiplier' effect meaning that sustainable holiday choices are even less likely to be made.

The selection of a holiday destination and the component parts, travel and transport to, from and during, accommodation, entertainment, food and drink and activities involves a significant financial investment. These decisions are likely to be impacted upon and constrained by the availability of financial resources. Sustainable alternatives, such as opting for train travel over use of the private car and selecting accommodation with 'green accreditation' often incur a higher financial tariff and therefore are less likely to be selected. The amount of money available to a household and budgeted for holiday expenses will always have a direct impact on decisions-making regardless of attitudes towards the environment (Swarbrooke & Horner, 2001).

Households will also be constrained by the amount of time available to them to take their holiday and this impact's on destination decision-making but will also have a direct bearing on selection of sustainable alternatives. When in the holiday destination the amount of time available is limited for undertaking holiday activities so convenience is of utmost importance, so tourists work hard to maximise their enjoyment whilst minimising travel time and inconvenience. (Mill & Morrison, 1985) As stated previously in order for tourism to be more sustainable, holidays need to be longer in duration but taken less often and alternatives to air travel need to be selected in order to lessen the environmental impact. However the time available to holidaymakers in terms of annual leave from the workplace or school holidays restrict the amount of time available for taking slower forms of transport or taking holidays of a longer duration. (Cooper, 1981) Thus 'time constraints' are important factors for those selecting when and where to take their holiday and having school age children or employment regulations reduce available holiday options, especially for those groups with school age children who are restricted to designated peak holiday periods and financial costs are already higher than normal. Thus sustainable options being more expensive and time heavy in nature could be said to be lessening their chance of selection, therefore 'time' could be considered as a further barrier to sustainable tourist behaviour especially for those individuals who are restricted by financial and time constraints (Thornton, et al, 1997).

Another crucial element of whether tourists will engage in sustainable behaviour whilst on holiday is the provision of suitable facilities and infrastructure that meet the requirements of tourists. Research has demonstrated (in the home environment) that access and ease of use were good predictors of engagement in a range of sustainable behaviours. (Derksen & Gartrell, 1993; Berger, 1997) The concept of 'ease of use' and 'convenience' is especially important in the holiday environment where time is constrained and holiday group requirements need to be met in the most effective and pleasurable manner (Aberg, 2000).

Time constraints and availability of facilities have a direct impact on tourist decision-making and also impact on the likelihood of sustainable alternatives being considered. However attitudes and beliefs regarding the environment will also impact on home and holiday sustainable behaviour and can act as motivating or inhibiting factors. Individuals experience both structural barriers (place attributes, money and time) and interpersonal and intrapersonal barriers and these interact to inhibit behaviour (Jackson & Rucks, 1995; Walker, Jackson & Jinyang, 2007).

2.2.3 Identifying the factors that impact on sustainable tourist behaviour

As suggested previously those engaging in sustainable behaviours in a routine manner, may make a conscious decision to ensure that their behaviour is as

considerate of the environment as possible. Thus behaving in a sustainable manner could be said to be their 'primary motive' which guides their intentions, however another type of motive operates which can override these guiding principles and these are known as 'selective motives'. (Mosiander, 2007)

These selective motives tend to occur on a day-to-day basis and tend to reflect immediate needs and as a response to changing and conflicting contexts. Hence an individual's guiding motivations might be to behave in a sustainable manner, but if the weather is inclement when leaving for work, then the decision to take the car, instead of walking or cycling would override the guiding motives and 'selective motives' that guide behaviour (Mosiander, 2007). If this principle of guiding 'primary motives' versus 'selective motives' is applied in the context of this research this might help explain why individuals who engage in a range of behaviours in the home environment cease to do so when on holiday. It could be that the change of context, from home to holiday, empowers the individual to abandon their 'guiding motives' in favour of 'selective motives' which better match the requirements of the group in the holiday environment.

It would be sensible to presume that environmental knowledge and awareness would be good predictors of sustainable behaviour. However research demonstrates that only a small percentage of pro-environmental behaviour occurs as a response to concrete and accurate knowledge. (Kempton, et al, 1995) In terms of environmental awareness this is a less concrete concept, but

is related to individuals being able to perceive the environmental impact of their behaviour. However an awareness of the environmental impact of behaviour has little effect on actual behaviour, this it has been suggested is due to the fact that environmental impact is intangible and lacks immediacy. (Kempton et al, 1995) Closely related to the concept of environmental awareness and perception of the impact of behaviour is the idea of 'locus of control' and 'personal responsibility'. Locus of control is defined by the extent by which an individual perceives their actions can impact on a given situation. Individuals can either perceive that their 'locus of control' is either 'internal', or 'external', those with an 'internal' locus of control will perceive that they can have an impact on situation, however those with an 'external' locus of control will perceive their actions will be ineffectual. In respect of pro-environmental behaviour, locus of control pertains to whether an individual feels that, they personally, can through their own behaviour, reduce environmental problems. Those individuals who have a strong internal locus of control believe that their actions can be significant in mitigating environmental degradation. On the other hand, those individuals with an external locus of control believe that their own behaviour will not be significant enough to effectively impact on the situation and believe that change is the responsibility of others, especially government and industry, thus control lies externally. (Owens, 2000) Whilst perceived locus of control has an impact on an individual's intention to take pro-environmental action, other variables can further impinge on the decision to act. Trust is an area that can impact directly on decisions to behave environmentally, if

individuals do not trust the information sources that they receive, they are less likely to perceive that they are personally responsible for changing their behaviour. This can be evidenced in respect of conflicting media reports regarding the speed and extent of climate change. Once the public begin to mistrust the sources of information advising the need for behavioural change then they are much less likely to engage and act on these messages (Van Liere & Dunlap; Hines Hungerford & Tomera, 1987).

As suggested previously, locus of control and personal responsibility for impacting on a given situation are inextricably linked (Shultz, 2001). Responsibility is a complex issue, as individuals can have any number of personal responsibilities and these tend to compete for attention and are thus prioritised in order of importance. (Stern & Dietz, 1994) Responsibility for the welfare and wellbeing of one's immediate family is likely to be the most important, even when there is acknowledgement that they bear some responsibility for the environment, other personal responsibilities that are of a higher priority compete and conflict making pro-environmental behaviour less likely. It is only when personal responsibilities and priorities have been met, or when they are in alignment with needs and values of the family that pro-environmental choices will be made. (Kollmus & Agyeman, 2002). In terms of holiday decision-making and behaviour, and perceptions of personal control and responsibility for environmental impact, it would appear from the literature that

this is a barrier to adopting more sustainable holiday behaviours. (Hares et al, 2010) This is especially true in the case of air travel, where there is an awareness of the environmental consequences, but this awareness does not translate into either attitude or behaviour change even for those committed to reducing their impact at home (Barr et al, 2010; Barr, Gilg and Shaw, 2011).

Gössling and Peeters, (2007) suggest that individuals are reluctant to admit their individual responsibility for the environmental impact of air travel and enter a 'psychology of denial'. The authors contend this is due to the way the air industry portrays its relationship to environmental degradation. They suggest there are four discourses used by the air industry to justify its position; that the air industry is energy efficient and only has a marginal impact on carbon dioxide emissions; air travel is too economically and socially important to be restricted; that fuel efficiency is monitored constantly and technological advances will solve the problem; and finally that air travel is treated unfairly when compared with other modes of transport. These discourses do not reflect the true environmental impact of flying but do impact on the way individuals perceive their own responsibilities in relation to air travel and holidays and perpetuates the idea that 'holidays' are so unique, so as to render the individual devoid of all personal responsibility.

The concept of social norms and 'normative behaviour' has been used as a way to explore whether this impacts on routine engagement in sustainable behaviours. Normative behaviour refers to behaviour that is considered 'typical' in a given society, thus most people will conform to the behaviour; this leads to feelings of belonging and results in societal acceptance. Non-conformity on the other hand can lead to social sanctions where individuals are excluded from society. Normative behaviour is usually socially or culturally constructed and this explains why different societies exhibit different behaviours as a response to similar situations. Social norms are an important factor to consider when exploring pro-environmental behaviour, as normative behavioural responses to environmental concerns will exert influence over individuals in any given community or group. (Ciadlani, Reno and Kallgren, 1990) Thus in the context of this research, sustainable behaviour in relation to holidays is not a 'normative' behaviour, therefore there is no 'social' pressure or sanctions experienced when individuals make unsustainable choices or behave in an unsustainable manner when on holiday.

In a research context often demographic characteristics are used to explore differences in behaviour. Age has been shown to have a slightly negative relationship with levels of engagement in various sustainable behaviours and this remains constant across longitudinal studies. (Van Liere and Dunlap, 1980) In terms of gender females have been found to be more emotionally

engaged than males, showing more concern for environmental degradation and being more likely, as a response to change their behaviour. (Lehmann, 1999) However males report higher levels of knowledge regarding the nature of environmental damage, but their response to threats tends to be focussed on technological solutions rather than personal behaviour change (Lehmann, 1999).

Social class, in terms of educational levels has shown that those with higher attainment show greater levels of environmental concern than those with lower levels of attainment. (Van Liere and Dunlap, 1980) In terms of the income component of social class higher incomes do not appear to be consistently correlated with higher levels of environmental concern, (Murdock and Schriener, 1977;) and some studies report a negative relationship (Malkis & Grasmick, 1977). Economic status can have a limiting influence on environmental concern and behaviour, as many 'environmental actions' require a financial outlay and those on lower incomes will be restricted in how much they can achieve. Black, Stern and Elworth (1985) noted using increased energy prices as a strategy to encourage energy conservation behaviour is more likely to create financial hardship than to elicit behaviour change. High energy prices create an inequitable situation, whereby those on low incomes suffer financial hardship or energy poverty and those on higher incomes are in a stronger position as they are better able to absorb the costs. Income will always have a direct impact on the type of pro-environmental behaviours undertaken, inevitably expensive behaviours such as re-insulation will be not be

possible for those on low incomes. (Stern, 2000; Gatersleben, Steg, & Vlek, 2009) If income has a direct impact on sustainable behaviour in and around the home, then this is especially important in the holiday context. Sustainable options tend to be more expensive, this would mean that those on lower incomes would be precluded from selecting them, not because they are not concerned about the environment, but because the choice is taken out of their hands.

2.3 Section Summary

It is assumed in much of the literature that as long as the facilities and infrastructure exist to provide sustainable tourism then tourists will be amenable to changing their behaviour in favour of the sustainable options. (Dolnicar, 2006) However evidence suggests that even where sustainable choices are in existence individuals on holiday do not necessarily select them. (Martens and Spaargaren, 2005) Furthermore, even positively declared attitudes towards the concept of sustainable tourism, does not ensure their selection and use. (Chafe, 2005) In order that tourism should become a more environmentally conscious and sustainable product, the desired behavioural patterns for tourists should be to adopt less environmentally damaging forms of transport, the use of eco-efficient or environmentally friendly graded accommodation, respectful of resident cultures and heritage, non-polluting, and purchasing of locally sourced food, drink and goods. (Budeanu, 2007) In terms of encouraging greater levels

of sustainable behaviour amongst tourists it is important that any engagement process reflects the perceived and actual barriers to change. This review has attempted to argue that the barriers to sustainable tourist behaviour are extremely complex and interact and compete with all areas of the tourist experience. Starting with destination decision-making which involves the moderation and balancing of many different variables (e.g. cost, time, family, etc) in order to make the final selection. By adding sustainable alternatives into the decision-making process this further complicates the selection process multiplying effect of constraining factors which creates an even larger barrier to selection. Coupled with these constraining factors, is the nature of the 'holiday experience' which is associated with notions of freedom, hedonism and happiness where recognition and acknowledgement of environmental impact of such experiences is denied, suppressed and abandoned in order to fulfil the psychological and physiological requirements of the holiday (Cohen, Higham & Reis 2013; Ram, Nawijn & Peeters, 2013).

The next section of the chapter will focus more directly on the 'destination' or supply-side of sustainable tourism and will be more descriptive in nature by providing the background to the concept of 'sustainability' and its application to the tourism arena. The chapter will define what constitutes sustainable tourism, explore the impacts of, management of and who is responsible for ensuring the sustainability of destinations. The final section of the chapter will re-focus on

the 'tourist' with a review of some of the models which aim to depict pro-environmental behaviour and conceptualise and address the barriers to sustainable behaviour. The following chapter (chapter 3) will then focus on social marketing as a way to address the barriers to sustainable tourist behaviour.

2.4 'The Tourism Destination'

2.4.1 Background to sustainable tourism

The influential Brundtland Report (WCED, 1987) drew attention to the environmental consequences of continued economic development without restriction and in turn gave rise to the concept of 'sustainability' and 'sustainable development'. Thus any economic activity, of which tourism is one, should be subject to a set of guiding principles where planning should be holistic in nature, recognising the need to protect and preserve ecological processes, to protect human heritage and bio-diversity, and development should be undertaken in such a way as to preserve resources for future generations (WCED, 1987). The concepts of sustainable development within the tourism sector lead to the emergence of a distinct sub-discipline, sustainable tourism. (Hall, 2008) The sustainable tourism movement grew through recognition of the environmental, social, cultural and economic impacts of mass tourism on host destination areas. In this context, poor planning and management of resources in tourism destinations, both natural and cultural were being depleted so greatly by the

pressure of tourism and tourist activity it would thus endanger its future sustainability. (Hall, 2008) Therefore sustainable tourism recognises and acknowledges the socio-cultural, environmental and economic impacts of all tourism activity and works to mitigate these effects in order to secure the future for the industry.

As sustainable tourism was borne out of a realisation that mass tourist destinations could not continue to develop without some consideration of the consequences, sustainable tourism became to be seen as an 'alternative' form of tourism rather than guiding principles for all tourism. (Shaw & Williams, 2002) This notion that sustainable tourism was a different 'type' of tourism led to the evolution of alternatives which attempted to evoke the notions of 'good' 'non-mass tourism' products such as 'green' (Dingle, 1995), 'eco' (Valentine, 1992), 'low-impact' (Lillywhite & Lillywhite, 1991) and 'responsible' (Wheeller, 1991) to name but a few. However these 'alternative' forms of tourism and the subsequent differing interpretations and ways of planning and managing resources meant that the full consequences were not properly recognised (Shaw & Williams, 2002). This leads to much debate regarding whether it is conceivable that an environment hungry economic activity such as tourism could ever be truly 'sustainable' (Bramwell & Lane, 1993; Wheeler, 1994). Furthermore much of the criticism surrounding sustainable tourism rests on a lack of a clear definition of what 'sustainable tourism' is and how best to

operationalise the concept in practical terms, thus as Wall (1996) suggests the meaning becomes de-valued as it could have multiple meanings and interpretations and can be perceived as an ideology, a process, a concept and or a political catchphrase.

In 2005 the World Tourism Organisation (2005) defined sustainable tourism as:

'Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors the industry, the environment and host communities' (UNWTO, 2005:11)

The WTO proposes that sustainable development guidelines and management should be applicable to all forms of tourism, from and including mass tourism and down to the various niche segments. The issue of sustainability refers to the environmental, economic and socio-cultural aspects of tourism development and balance needs to be established between the three principles to ensure the long-term viability of the sector. Therefore sustainable tourism should:

1. Make optimal use of environmental resources, whilst maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
2. Respect the socio-cultural authenticity of host communities, conserve built and living heritage and contribute to inter-cultural understanding and tolerance.
3. Ensure viable long term economic operations, providing socio-economic benefits and opportunities to all stakeholders that are equitably

distributed. Including stable employment and income and social services to host communities therefore contributing to poverty alleviation (WTO, 2005).

The issue of sustainability and its guiding principles has in recent years become embedded in global and local politics, especially in terms of the scientific community's acknowledgement of the problems associated with man-made climate change and an increasing world population unable to be supported by the earth's natural resources. This resulted in the United Kingdom in the 2008 Climate Change Act which set binding targets for greenhouse gas emissions. One of the main criticisms of sustainability per se, is that whilst there should be an equal balance between socio-cultural, environmental and economic requirements, inevitably the balance tends to be in favour of economic development especially in times of economic recession. Conversely tourism is often used as a form of economic development and as a way for traditional industries such as farming to diversify in order to generate additional income. However the Climate Change Act (2008) placed the emphasis back on protection and preservation of the environment by attempting to regulate activities that have a detrimental impact on the environment.

As tourism and associated tourism spending are important generators of income at global and local levels then balancing the need to maintain and maximise income whilst mitigating the environmental impact is particularly

difficult. The next section will explore in more detail the environmental impact associated with tourism activity.

2.4.2 The Environmental Impacts of Tourism

The environmental impact of tourism and tourism related activity is far reaching and not just sited in destination-based impacts. The term 'environment' encompasses five different types of environment on which tourism can have an environmental impact; natural resources, the natural environment, the farmed environment, wildlife and the built environment. Swarbrooke (1999) suggests that rather than focussing on the environment rather sustainability should take an eco-systems approach, whereby the inter-relationship and mutual dependency of forms of the environment (including man) are taken into consideration (Mathieson & Wall, 1982; Miller & Spoolman, 2008). For tourism protecting all facets of the 'eco-system' is important as they are mutually dependent on each other for their continued success (Mowforth and Munt, 1998; Holden, 2000), in so much as, tourism can cause a negative impact on the quality and quantity of natural and cultural resources and this decline in quality will have negative impact on tourism demand (Cocossis and Parpairis, 1996; Wall & Mathieson, 2006).

The following section will detail a range of impacts that tourism development and activity can have on each of the five 'environments' with which it interacts.

2.4.2.1 The Environmental Impact of Tourism on the Natural Landscape

Natural resources are often related directly to the tourism product on offer such as, clean and safe bathing waters of the lakes, rivers and the sea or mineral waters associated with spa treatments, or the clean unpolluted air of mountainous regions. These natural resources often motivate visitation to a specific area, however the provision of tourism and tourist services impact negatively on the very resources on which tourism depends . (Mercher, 1983)

The provision of tourism accommodation bases can divert water supply away from host communities in order to meet demand for swimming pools, washing facilities, drainage, watering of lawns for aesthetics and recreation to name but a few. Furthermore if sewage is not treated properly and is discharged directly into rivers and the sea, or enters the water course, this will cause pollution and destruction of plant and marine life (Jenner & Smith, 1992).

In terms of natural resources such as 'air' tourist activity in terms of vehicle traffic to visit a particular landscape will impact on the area through emissions from a variety of vehicles creating air pollution, which in turn will have an impact on indigenous flora and fauna (Hunter & Green, 1996).

In terms of the natural environment this relates to features such as mountainous regions, oceans, coastal areas, rivers, lakes, forests and beaches to name but a few and these features are directly related to natural resources as detailed previously. The direct and indirect impact of tourism on the natural environment tends to be specific to the type of destination area. Coastal areas consist of many natural elements (sea, cliffs, beaches, sand dunes) and each of these is susceptible to the negative impacts of tourist activity. Water quality and clean beaches are essential to a successful destination; however discharge of untreated sewage lowers water quality and has a negative impact on marine eco-systems(Bercheri, 1991; Pattullo,1996; Davenport & Davenport, 2006). The use of motorised boats disrupts and important coral reefs and marine habitats as were experienced by large areas of the Great Barrier Reef in Australia and areas of the Caribbean (Schoorl & Visser, 1991).

The removal of sand dunes and reclamation of coastal wetland areas in order to build tourist resorts has destroyed and disrupted breeding grounds of birds and other species of wildlife and can also have ramifications for host communities increasing their risk of flooding (Baron-Yelles, 1999; Klemm, 1992).

In terms of mountainous regions and particularly in relation to the provision of winter holidays such as skiing and snowboarding, the provision of built infrastructure (hotels, roads, ski lifts, cable cars etc) to support these activities

has had a detrimental impact on the natural landscape. In order to provide the infrastructure to support winter ski holidays it is estimated that in the early 1990's around 100 km² of forest was removed in the Alps, this impacted directly on wildlife populations by reducing their natural habitat but also reduced a natural barrier thus increasing the likelihood of avalanches in winter and mudslides in summer. (Williams & Shaw, 2002; Swarbrooke, 2000)

Furthermore the actual skiing or snowboarding activity undertaken during the holiday has a significant impact on the environment especially with increasing numbers of visitors skiing off the designated runs which means they are more likely to come into contact with and damage sensitive vegetation. The provision of tourism services inevitably leads to more vehicular traffic and thus pollution, increased waste and litter all of which require disposal and generate the need for larger landfill sites to accommodate rising levels of waste meaning more of the natural environment and loss of natural habitat is experienced.

Skiing and winter holidays are not the only activities undertaken by tourists in mountainous regions, trekking holidays have become increasingly popular in the last couple of decades. Provision of tourist accommodation and roads has destroyed forests, vegetation and wildlife habitats. Additionally the action of thousands of people walking causes compaction of the soil, increased surface run-off and soil erosion. (Sparrowhawk & Holden, 1999; Pickering, Carrington and Worboys, 2003) Mowforth and Munt (1998) amongst others comment that

even tourism that is purportedly sensitive to the environment, such as some eco-tourism destinations are in such sensitive fragile landscapes that even a small number of visitors has an impact on the natural environment and resources. Through disruption to wildlife breeding sites and patterns, and as in wildlife reserves in areas such as Kenya where visitors want to spot the 'big five' involves vehicles 'chasing' animals in order to satisfy these desires which impacts on the animals naturally feeding and breeding patterns (Roe, Leader-Williams & Dalal-Clayton, 1997).

2.4.2.2 The Environmental Impact of Tourism on the Built Environment

The impact of tourism on the built environment can be considered in terms of individual buildings, small scale settlements such as villages up to and including large scale towns and cities. Tourists are often motivated to visit an area by the picturesque, historical and cultural nature of the built environment; however this creates traffic congestion, pollution from exhaust emissions and therefore greater levels of CO² causing pollution and acid rain (Hunter & Green, 1996). This in turn can have a detrimental impact on the buildings and other structures such as statues which in the case of limestone, marble and sandstone can be corrosive causing them to crumble. The Taj Mahal in India which is India's most important tourist attraction attracting between two to four million visitors per year banned tourist traffic from the area in order to protect the structure from pollutants. Instead visitors park outside the area and are bussed into the

attraction in an electric bus. (Hunter & Green, 1996) In Venice very high visitor numbers have placed such an unsustainable pressure on both natural resources and infrastructure that high prices for services have been introduced in order to deter visitors (Buhalis, 2000).

2.4.2.3 The Environmental Impact of Tourism on the Farmed Environment

There are a wide range of farm environments that tourism can impact upon, from large scale intensive crop growing farms, smaller mixed farms growing a range of small range of crops and animals, cash crops such as vineyards, timber farms to small scale nomadic farming communities. Where tourist activity interacts with any scale of farming activity there can be impacts; the development of new tourist resorts can put pressure on water supplies which would be needed to support crops and or livestock; tourists may behave inconsiderately tramping and damaging crops, dog walkers may inadvertently allow their dogs to cause stress to pregnant livestock which ultimately result in loss of revenue for the farmer (Archer, Cooper & Ruhanon, 1995). Furthermore employment in tourism may be attractive to younger generations and they may leave the farming environment resulting in a loss of future generations farming potential. (Hunter & Green, 1996)

2.4.2.4 Section Summary

In summary this section has noted some of the negative environmental impacts that tourism and tourist activity has on the environment. The environmental impacts described here are negative in nature; however tourism and the need to satisfy tourists can also have positive impacts on the environment. This is due to the mutually interdependent relationship between tourism and the environment, as tourism is an important economic activity it is therefore important to protect areas that draw touristic attention (Dolors, Canoves & Valdovinos, 1995). An example of this is provided in the European Blue Flag scheme which measures beach and bathing water quality and awards those destinations which meet the criteria with a Blue Flag. This scheme is important for both tourists, tourism and the environment as potential visitors have a benchmark of how clean and safe the beaches and water is, but the scheme also, motivates destinations not to neglect the importance of clean water, and environmentally important marine eco-systems are protected from potential damaging pollutants (Shaw & Williams, 2008).

The next section will explore the types of techniques employed to manage the environmental impacts of tourism.

2.5 Managing the Environmental Impact of Tourism

The previous section concentrated on describing a range of environmental impacts on different types of tourism destinations, this section will focus on the approaches and techniques undertaken in order to manage the environmental impacts of tourist activity. The aim of these different techniques is to try to maximise the potential of tourism whilst minimising the environmental impacts in order to sustain the sector for the long term. The range of techniques used in order to ensure the environmental sustainability of tourism can be considered in one of two ways either by managing the tourism environment in a more environmentally sustainability way, or by utilising a range of techniques directly targeted at specific aspects of tourism, tourist behaviour, tourism development processes, or the agencies that link them together (Williams & Shaw, 2002).

2.5.1 The Scale of Sustainable Tourism: The Stakeholders

Tourism is an inherently complex process involving multiple stakeholders with differing responsibilities which makes implementation of sustainable tourism techniques even more difficult.

The scale of those stakeholders which is necessary for the implementation of sustainable tourism is vast from large supra-national governmental bodies and corporations right down to the individual tourist (Hall, 2008). Each of these

stakeholders (figure 2.2) has a responsibility to play their part in ensuring that tourism and tourist activity reduce the negative socio-cultural and environmental impacts whilst maintaining and enhancing its economic viability. The 'sustainable tourism stakeholders' will now be described and their responsibility towards the goal of maintaining a sustainable future will be discussed in order to portray the complexity of the task.

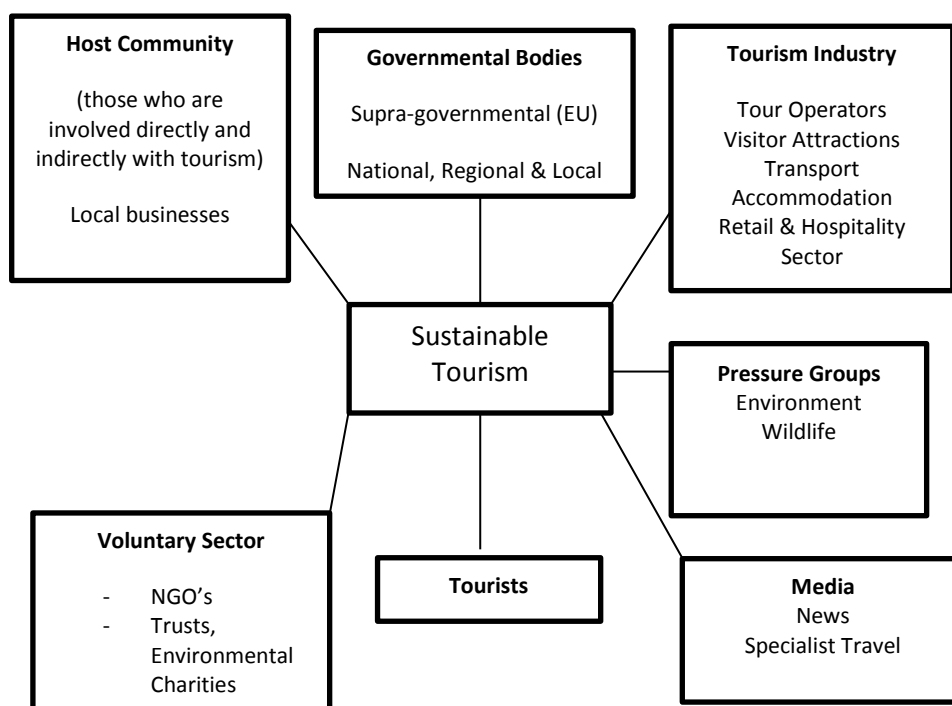


Figure 2.2: The key stakeholders in sustainable tourism (Swarbrooke, 1999)

2.5.1.2 The Public Sector

The public sector encompasses bodies who represent society as a whole and include supra-national governments (e.g. European Union), national

government and national government departments, QUANGO's (quasi non-governmental organisations) who are publicly funded agencies who work on behalf of the government but are managed semi-autonomously (such as VisitBritain) and other public organisations. . The public sector has the potential to create legislation and regulations to support the principles of sustainable tourism and provide funding, financial incentives and disincentives to encourage the 'public' to engage in sustainable practices. Planning regulations are also an important area of responsibility of the public sector and produce guidelines that ensure that new tourism developments mitigate their environmental impacts. (Hall, 2008) The provision of official standards and labelling that endorse sustainable practice is also an area that the public sector is responsible for, this is especially important so the Public can select services and trust products that meet the criteria. Public sector bodies are also responsible for providing the infrastructure to support sustainable tourism practices; sewerage treatment works to ensure clean safe water, airports, and roads. The issue of sustainability is a complex political issue especially as many of the elements require an element of financial commitment which tends to make elected governments unpopular with the public and business leaders. (Elliot, 1997) Therefore whilst the public sector can be instrumental in guiding sustainable practice there needs to be 'buy in' from all of the other sectors in order for it to be fully implemented and successful (Page & Thorn, 2010; Dredge & Moore, 1992).

2.5.1.3 The Tourism Industry & Host Community

There are many different types of organisations directly involved in the provision of tourism services; in the pre-visit stage there are tour operators, travel agents, destination management organisations (DMO's) and the travel media which includes internet sources who mediate between the tourism industry and potential visitor (Choi, Lehro & O'Leary, 2007). Also included in tourism provision are transport providers such as airlines, train operators and bus and coach services (Swarbrooke, 1999). Once in the holiday destination a range of tourist organisations large and small are responsible for the holiday experience – accommodation providers, food and drink, entertainment, visitor attractions and travel and transport services. Whilst the aforementioned organisations are directly involved in the provision of tourism services there are many businesses in the host community indirectly involved in providing tourism related services, such as local food producers and cleaning services for example (Ritchie & Crouch, 2005). These different elements of tourism need to work together in order to encourage and enable sustainable tourism. (Berry, 1997) The types of influence they can have includes by changing their businesses practices to be more sustainable by reducing energy and water consumption, reducing waste, recycling and sourcing from local suppliers; and by encouraging visitors through the use of voluntary codes of practice to reduce consumption, recycle and utilise local transport services (Swarbrooke, 1999).

2.5.1.4 The Voluntary Sector

The voluntary sector when related to sustainable tourism is comprised of public sector pressure groups, professional bodies, industry pressure groups and voluntary trusts. Public sector pressure groups can either be specific tourism related groups such as Tourism Concern or more general pressure groups such as Friends of the Earth who use their influence to lobby governments regarding the importance of sustainable tourism. Professional bodies to which members of the tourism industry belong can influence their members to adhere to and embed the principles of sustainability into their business practices. Industry pressure groups made up specifically by members of the tourism industry lobby government on behalf of the best interests of the sector and therefore can campaign in favour of the principles of encouraging sustainable and responsible tourism practices. Finally voluntary trusts are comprised of a group of like-minded individuals who work together for a mutual goal where no-one expects to profit, one such organisation in the UK would be the National Trust which works to protect and conserve natural landscapes and historic buildings (Post, Lawrence et al, 1999; Swarbrooke, 1999).

2.5.1.5 The Media

The media influences and shapes visitors motivation to visit holiday destinations. The type of influence can be direct through the use of brochures and holiday destination television programmes promoting specific areas to visit

and points of interest. To indirect promotion of destinations through film and television that feature attractive destinations that thus motivate travel. Whilst the exposure of destinations through mass media communication can be beneficial it can also place pressure on destinations cultural heritage, infrastructure and environment. Therefore the 'media' has a responsibility to raise awareness of the impact of tourism on destination areas, particularly remote areas of the world and educate potential visitors on the best ways to mitigate these impacts (Middleton, 1998, Swarbrooke, 1999).

2.5.1.6 The 'Tourist'

The tourist is the central element of sustainable tourism, as all of the other stakeholders are involved in the provision of tourism services either directly or indirectly, however the tourist is the receiver of the provision and must therefore utilise the services provided. Much of the research focusses on the 'supply side' of sustainable tourism whilst the 'demand side', the tourist it is assumed will be a passive receptor of any sustainable tourism initiatives (Chafe, 2005).

The tourist and their on-site behaviour are especially important to this thesis as the focus is on trying to encourage greater levels of sustainable behaviour whilst on holiday. Therefore tourists must take some responsibility for their own

behaviour, in terms of protecting and conserving natural resources, and being respectful of the host community.

The concepts and behaviours involved in securing a sustainable tourism industry do not necessarily fit well with how individual's perceive their holiday, in that sustainable choices are often inconvenient such as public transport over private, are both financially and 'time' expensive. Therefore the 'supply-side' of tourism stakeholders need to respond to this and encourage tourists to see sustainable tourism as attractive and that it in fact it could enhance their holiday experience rather than be a negative experience.

2.5.1.7 Section Summary

In summary the first part of this section focussed on describing the scale and complexity of the sustainable tourism problem, in terms of the differing levels of responsibility from supra-governmental bodies' down to the individual tourist (Swarbrooke, 1999; Hall, 2008). The second part of this section will focus on some on the approaches used to control the negative impacts of tourism on the environment and finally the chapter will conclude with a section which focusses directly on the research undertaken to identify the sustainable tourist.

2.6 Approaches to Managing the Environmental Impact of Tourism

There are broadly two approaches to managing the effects of tourism on the environment, the first is focussed on managing an area in its entirety, the second utilises a raft of different techniques focussed on particular aspects of tourism and tourist activity in order to mitigate the particularly harmful effects.

2.6.1 Environmental Impact Assessments (EIA's)

Environmental Impact Assessments (EIA's) are used primarily in the planning stage of new tourism developments to enable the potential environmental risks to be assessed and addressed before the development goes ahead (Middleton & Hawkins, 1998). The assessment takes into account a range of factors that could potentially be impacted upon by the development (e.g. air quality, surface and groundwater quality, noise levels, natural vegetation wildlife etc.), these are then ranked in accordance with how much impact they could have upon certain aspects of the environment. There a number of different ways the EIA is undertaken using a number of different techniques from simple mapping of the potential impacts to more complex mathematical input-output cost benefit analysis. The results of EIA thus informs planning decisions and means that the environmental consequences of a tourism development have been considered and can be provisions can be made to mitigate these effects prior to commencement of any development (Swarbrooke, 2002).

One of the criticisms of EIA's is that many tourism developments are relatively small and are therefore are not required to undertake the assessment. For those developments which require an assessment it is an expensive part of the pre-planning stage and one for which the developer has to bear the expense. . This means that the results of the assessment might not be as impartial as if undertaken by a third party not commissioned by the developer (Holden, 2000).

2.6.2 Carrying Capacity

The concept of carrying capacity measures the amount of tourist activity an area can sustain without having a negative impact on natural resources and affecting visitor satisfaction or exerting adverse impacts on the host society, economy and culture (WTO, 1997). This definition suggests that there a number of ways that carrying capacity can be understood:-

- Physical Carrying Capacity – The number of tourists that a destination can physically accommodate at a given time.
- Environmental Capacity – The number of tourists that can visit the destination before the environmental impact become irreparable.
- Economic Capacity – The number of tourists that can be accommodated by an area before it becomes so popular that demand drives the prices up and local people are affected and cannot afford the cost of living.
- Social Capacity – The number of tourists that can accommodated before the social and cultural heritage of the host society is impacted upon.

- Infrastructure Capacity – The number of tourists that the destination's infrastructure can support (e.g. roads, public services, local transport, water provision etc.)
- Perceptual Capacity – The number of tourists that the destination can support before visitor satisfaction is impacted upon negatively.

Although carrying capacity acknowledges that there are limits to which a destination can withstand the impact of rising visitor numbers, operationalizing the concept is particularly difficult. Firstly it is difficult to measure the capacity in terms of actual numbers of visitors that can be accommodated and secondly in identifying the 'tipping point' from where the destination is managing to support itself to where negative irreparable impacts are being experienced. Furthermore each destination in terms of its specific location, geography, culture, infrastructure and facilities is going to be unique and thus the carrying capacity is likely to be subjective and difficult to regulate (Swarbrooke, 1999, Hall, 2008).

2.6.3 Limits of Acceptable Change

The Limits of Acceptable Change (LAC) is slightly different to 'carrying capacity' in that it does not rely on quantifying numbers of acceptable tourists, instead it works on the principle that tourism activity will have an impact on a destination and works out what the acceptable limit of change is and thus how manageable those changes can be (Stankey, Cole, Lucas, Petersen & Frissell, 1985). The framework rests on utilising a range of indicators to identify changes taking

place in the environment (e.g. pollution levels, soil erosion, wildlife habitat loss, drop in water quality etc.) and then sets in place a range of management actions to either restore or maintain the current situation and stop further degradation (Holden, 2000).

The process of Limits of Acceptable Change works as follows:-

1. Identify the area of concern and issues involved.
2. Define opportunities classes and zones, which can be managed in a number of ways according to the issues needing to be addressed (ensuring environmental issues are addressed whilst maintaining visitor satisfaction and meeting management obligations)
3. Select the indicators to address the issues identified in the previous step and measure change.
4. Make an inventory of the current status of the area, and then evaluate opportunities available to affect change.
5. Identify possible management solutions, then implement those plans most suitable. This process will be on-going with periods of re-evaluation, monitoring and implementation (Stankey, Cole, Lucas, Peterson & Frissell, 1985).

In order that LAC's work well in tourist destination areas a great deal of planning and collaboration between tourism stakeholders is required at national, local and individual levels. (Saarinen, 2006)

All of these techniques work by managing the natural resources impacted upon by the tourism industry, the other techniques utilised focus on managing tourist based activity within destinations (Saarinen, 2006).

2.6.4 Visitor Management Techniques

Where high volumes of visitors to a destination area are having a negative impact on both natural and built environments the use of techniques to manage visitor flows have often been implemented. These techniques tend to focus on diverting tourist attention away from heavily impacted areas through the use of techniques to encourage visitation to other sites in the area. Where traffic congestion is a problem, then roads close to the visitor site can be closed and parking situated away from the main visitor attraction. These measures both deter some visitors but those that do come will have to walk or be bussed to the site thus reducing congestion and pollution levels (Swarbrooke, 2000).

Educating tourists through the use of voluntary codes of conduct is another technique utilised in order to encourage sustainable behaviour amongst tourists whilst in the destination. These codes of conduct include education of visitors regarding sustainable public transport options, the importance of respecting the natural environment by not littering, keeping to designated footpaths, encouraging visitors to avoid peak times and ask visitors to respect local

cultural traditions (Croall, 1995). The advantage of using voluntary codes of conduct are that the concept can be applied widely from small tourism businesses right up to and including large multi-national tourism organisations. The disadvantages, however rest on the fact the codes are 'voluntary' and thus it is difficult to assess their effectiveness in changing behaviour (Mowforth & Munt, 1995).

Financial incentives and disincentives through the use of high tourist taxes is another technique that can be utilised in order to deter high volumes of visitors, however only lower income groups are more likely to be disadvantaged by such measures (Buhalis, 2000).

Marketing is another area that is an essential element of the tourism industry and therefore can be influential in directing sustainable tourist practices. Thus marketing could be used to draw potential visitors to the importance of protecting the environment they are visiting by only using accommodation that meet sustainable criteria or are members of a sustainable grading scheme such as the Green Tourism Business Scheme (GTBS). Moreover marketing techniques are important for segmenting customers based on their attitudes, beliefs and behaviour and these techniques can be applied to tourists segmenting based on their attitudes towards the environment and pro-environmental behaviour (Swarbrooke, 2002).

Furthermore marketing can play a part in managing visitor impacts through the process of de-marketing of destinations and visitor attractions that are experiencing the negative environmental impacts of too many visitors can assist in reducing numbers to more manageable levels (Kotler & Levy 1971; Beeton & Benfield, 2002). The types of techniques employed to de-market a negatively impacted visitor site could be; ticket only system whereby visitor numbers are restricted to those with a ticket thus creating a limit; a reduction or complete cease in advertising and promotion of the destination; removal of sign-posting to deter visitors from visiting by chance (Swarbrooke, 2002).

2.6.5 Ecological Footprinting and Sustainable Tourism

This section has explored some of the techniques utilised to manage the environmental impacts of tourism and tourist activity. Whilst these measures are helpful in managing the numbers of visitors to destination areas they do not necessarily provide a 'measure' of the impact of behaviour on the environment. This is where the concept of ecological footprinting comes to the fore; ecological footprinting directly links the impact of behaviour on natural environmental resources. Thus ecological footprinting provides an indicator of environmental impact by estimating 'resource consumption and waste assimilation requirements of a defined human population or economy' (Wackernagel & Rees, 1996). The ecological footprint thus assigns impact in units (global hectares *gha*) of land space required to support any activity or behaviour. Thus

the ecological footprint of a hotel would include the land used to build the hotel and include the resources required to build, set up and maintain the hotel (heating, water, cleaning, waste removal, and lighting) If the hotel provided food for its guests then the land required to grow the food, store, process and transport would also be included in the calculation. The advantage of ecological footprint calculations over other sustainability indicators is that the measure acknowledges the finite nature of natural resources. Furthermore the calculation is thus able to assign a global fair share of reproductive land space to the population making comparison between populations and behaviours possible. This is achieved by the earth's bio-productive land area divided by the world population to reveal a fair share of 1.8 *gha* per person (World Wildlife Fund, 2006). Thus the ecological footprint reprioritises environmental resources over economic development, as the conservation of environmental resources is essential for continued economic success (Stabler, 1997).

Hunter (2002) was the first commentator to suggest that ecological footprint analysis could aid the understanding of tourism and tourist behavioural environmental impacts. Wackernagel and Yount (2000) suggest ecological footprint analysis could be a useful tool in distinguishing components of the sector in terms of resource use. As tourism is made up of many components, travel and transport, accommodation, on-site behaviour, and food and drink consumption, ecological footprinting would allow for comparison of natural

resource use thus providing an indicator of those areas that could be targeted in order to reduce environmental impact. To this end, Peeters and Schauten (2006) explored the ecological footprint of inbound visitors to Amsterdam in the Netherlands, and calculated how the environmental impact was distributed amongst the component elements of the holiday. Their results showed that 70% of the overall tourist ecological footprint was attributed to transport to and from the destination, 21% could be attributed to accommodation, 8% to visitor attractions and 1% to the use of local transport. In terms of transport long haul air travel only 25% of visitors arrived by air, but their resource use accounted for 70% of the ecological footprint attributed to transport. Therefore the authors suggest that Amsterdam should increase marketing to visitors from short haul destinations, who can utilise more environmentally friendly forms of transport (e.g. train) and decrease marketing to visitors from long haul destinations who are reliant on air travel to reach the destination thus decreasing the overall tourist ecological footprint. Becken, Simmons and Frampton (2003) estimate that tourist travel and transport especially in terms of international visitors accounts for 65 – 70% of their overall environmental impact. Whilst inbound long-haul air travel is the largest contributors to the tourist ecological footprint it is also important to consider the contribution of transport used whilst in the holiday destination. Martin-Ceras and Sanchez (2010) used ecological footprinting calculations to examine the use of private cars by tourists on the island of Lanzarote. Their results demonstrated that the geography and infrastructure is such on the island that tourists tend to rely heavily on the use of

private cars to visit places of interest during their holiday, and the ecological footprint associated with this activity is a significant component of the overall tourist footprint and is projected to rise in the future. The ecological footprint data thus provides justification and motivation for the Island to plan a more sustainable tourist transport infrastructure. This could be achieved by providing and promoting local public transport services for tourists use the concept of the ecological footprint to educate tourists regarding their personal contribution to resource use and ban the use of private cars in town centres.

Cole and Sinclair (2002) used ecological footprint analysis to assess the long term sustainability of Manali, a rapidly expanding tourist centre in the Himalayas. Using the available data sources regarding land use, goods and services the analysis found that the overall ecological footprint of the town increased by 450% between 1971 and 1995 thus the footprint is now 25 times larger than the town itself. The results suggest that the pressure of increasing numbers of visitors is forcing the town to rely on outside ecosystems to support its tourism industry and is thus not sustainable in the long term. The authors suggest that in order to mitigate these impacts the area needs to focus on planning to manage waste, decrease reliance on fossil fuels and raise environmental awareness amongst residents and tourists to the area.

Another way to utilise the concept of ecological footprinting is to compare tourist's resource use via their footprint with a typical resident's. This was undertaken by Zhang and Zhang (2002) who calculated that the average tourist ecological footprint was 9 times the average footprint of a local resident, suggesting that tourists' consumption and behaviour places a greater demand on the environment than those people resident in the area. However, Patterson Niccolucci and Bastianoni (2007) found that residents and tourists in Val di Merse in Italy had fairly similar ecological footprints until international travel modes were included in the analysis and this accounted for 86% of their overall footprint. Ecological footprinting therefore is a useful tool for discerning where and with whom the environmental impact lies.

To conclude utilising ecological footprinting as an indicator of sustainable tourism is a useful tool for demonstrating where and with whom the most environmental impact is being generated by. Conceptually the tool is attractive as it provides a benchmark of behaviour and allows the tourism industry to set goals for improving sustainability (Patterson, Niccolucci & Bastianoni, 2007). Furthermore ecological footprinting provides a global perspective on tourist impact rather than focussing on localised measures of sustainability, allowing for comparison between component parts of the tourism industry, between different tourist types, generation of scenarios whereby a change of behaviour can be explored in terms of its effect on the overall environmental impact

(Hunter & Shaw, 2005). Ecological footprinting makes a direct link between behaviour and resource use and provides a quantifiable measure, which allows for pinpointing and targeting of those behaviours with the most environmental impact (Pearce, 2011). Once those behaviours have been identified, tourism stakeholders can plan to provide the infrastructure and services to support a shift in consumption patterns. Then impetus shifts from the responsibility of the supply-side of tourism to provide sustainable tourism services, to the demand-side, in other words the tourists who need to change their holiday behaviour to be more sustainable. Most of the research in the sustainable tourism arena has focussed on supply-side measures, exploring the provision of services and infrastructure and thus assuming that tourists will engage and use them once in the holiday destination (Dolnicar, 2006).

2.6.6 Section Summary

This section has been dedicated to describing the 'supply-side' of sustainable tourism, with attention being drawn to the processes, collaboration and infrastructure required in order to meet the requirements of a sustainable tourism destination. The measurement and designation of specific impacts of tourist behaviour is particularly difficult to pin-point and separate from the resident community, and this is one of the most important criticisms levied at most environmental impact measures (Gossling & Hall, 2006). However ecological footprinting does offer the potential to estimate the 'footprint' of both

the resident population and tourists alike and therefore assign impact. In terms of this research, it is important to include a descriptive section relating to sustainability from a destination standpoint, in order to emphasise how critical each element of the process is to the provision of a sustainable tourist destination. Where these collaborations between tourism stakeholders do not exist or work effectively this will act a further barrier to sustainable tourism.

The final and concluding section of this chapter will focus on the tourist and pro-environmental behaviour, by providing a review of relevant theoretical behavioural models that have been developed in order to explain and predict engagement in a range of sustainable behaviours.

2.7 Models of Environmental Behaviour

2.7.1 Introduction

One of the main purposes of trying to explain what influences behaviour is so that change in behaviour can be encouraged. With pro-environmental behaviour the need to alter behaviour is becoming more urgent as the pressures of an increasing global population, threats offered by climate change, peak oil and environmental degradation will if, not acted upon, lead to irreversible damage. Psychological variables and traits are used extensively in behavioural research to try to explain what underlies behaviour and whether

particular variables can be used to predict those who are most likely to behave in a sustainable manner. To this end, theories established from the fields of psychology and social psychology has been applied to studies of sustainable behaviour. Furthermore, these theories and models of behaviour could be useful in guiding primary research essential to this thesis in terms of encouraging greater levels of pro-environmental behaviour amongst tourists.

2.7.1 Theory of Reasoned Action/Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) was developed by Ajzen and Fishbein (1980) and is one of the most commonly utilised models applied to pro-environmental behaviour (Figure 2.3). TPB is based on a rational-decision making framework, postulating that the decisions individuals make regarding specific behaviour tends to be rational in nature. The focus of this theory is that behaviour is always as a consequence of *behavioural intention*, that is to say, there will always be a link between attitudes towards a given behaviour and the behaviour itself. Therefore if an individual holds strong attitudes regarding the importance of protecting the environment they are more likely to behave in ways that protect it. However, according to this model, *perceived behavioural control* can interact between behavioural intention and actual behaviour. *Perceived behavioural control* represents an individual's perception of the ease or difficulty with which the behaviour can be undertaken. So behaviours that are perceived to be easy and convenient are likely to be undertaken, while those

that require greater resources or are outside the control of the individual are less likely to be performed. According to this model another factor is important in guiding behavioural intention and that is subjective (social) norms related to the behaviour. Thus favourable attitudes and subjective norms are a good predictor of behavioural intentions. Where *attitudes, subjective norms and perceived behavioural control* are hypothesized to influence *behavioural intention* these three factors are influenced by corresponding beliefs, *behavioural beliefs, normative beliefs* and *control beliefs*. Behavioural beliefs are beliefs an individual holds regarding the consequences of undertaking a particular behaviour; normative beliefs are related to beliefs of how important referent individuals or groups (eg. family, friends etc) would perceive the behaviour; and control beliefs are beliefs that shape the individual's perceptions of resources and opportunities available to perform the behaviour. Thus in this model the intention to behave in a pro-environmental manner is shaped by personal attitudes towards that behaviour, by the perceived consequences of that behaviour, by others perceptions of the consequences and by what is expected normatively in society.

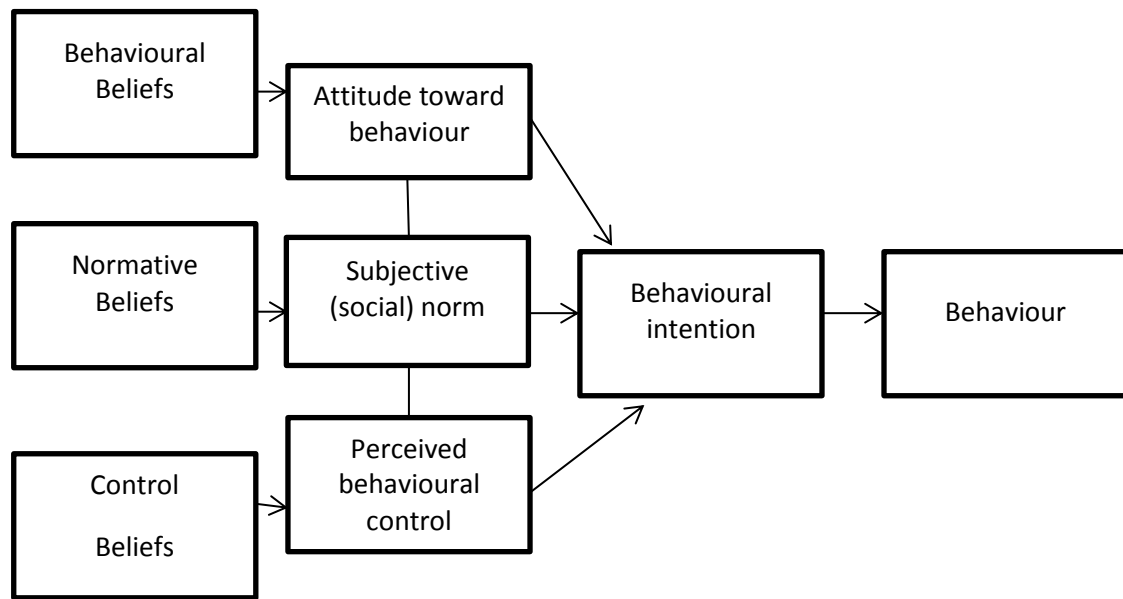


Figure 2.3: Model of Reasoned Action/Theory of Planned Behaviour (adapted Ajzen & Fishbein, 1980:1991).

The merits of the TRB have been explored extensively to explain and predict pro-environmental behaviours, such as recycling, water conservation and green consumer behaviour (Staats, 2003). In the context of this research, the model assumes that behaviour remains consistent across contexts, so that behaviour undertaken in the home would also extend into the work or holiday environment. However, tourists even when they engage in range of sustainable behaviours in the home have been found to abandon them in the holiday environment (Barr et al, 2008). Therefore this model although useful in for linking beliefs and behavioural intention, does not include any variables which might constrain behaviour, such as context. The next model takes a slightly different stance and

relates pro-environmental behaviour to a pre-existing underlying set of values directly related to the action.

2.7.2 Value-Belief-Norm Theory of Environmental Behaviour

Value Belief Norm Theory was proposed by Stern (2000) as an extension of norm-activation theory. Norm activation theory (Schwartz, 1977) proposed that altruistic behaviour in terms of helping others is a moral norm, this coupled with an awareness of the consequences and an ascription of personal responsibility explains pro-environmental behaviour. (Figure 2.4)

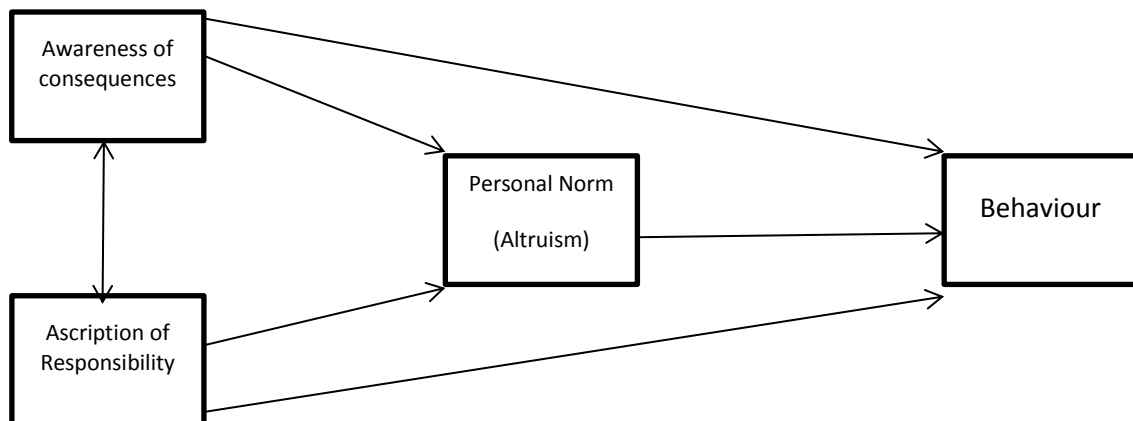


Figure 2.4; Schwartz's (1977) Norm-Activation Theory of Sustainable Behaviour

Stern (2000) extended this concept further, proposing that whilst altruism is important in predicting environmental concern, it is the underlying psychological values that an individual holds that might be a better predictor of pro-

environmental behaviour. These values orientations, discussed previously, are defined as biospheric, egoistic and social altruistic define personal behavioural responses to environmental threats. These value-orientations are related to personal norms in relation to others, so those with predominant biospheric value orientation norms will focus on the importance of balancing the needs of humans with environmental concerns; those individuals whose value-orientation are formed around social-altruistic values, will focus on concern on other human beings; those with egoistic value-orientations will focus their concerns on maximising their own self-interests. The theory proposes that individual's personal norms (biospheric, social-altruistic, egoistic) are activated when they perceive that environmental threats will have consequences to their valued 'others' and when they feel they are able to take responsibility to reduce the consequences to their valued 'others'. Another important element of the Value-Belief-Norm model of pro-environmental behaviour suggests that perception of environmental consequences and responsibility to reduce threat are shaped by general beliefs regarding human-nature interactions, coupled with a stable set of human values, such as self-transcendence, self-enhancement and tradition (Schwartz, 1994).

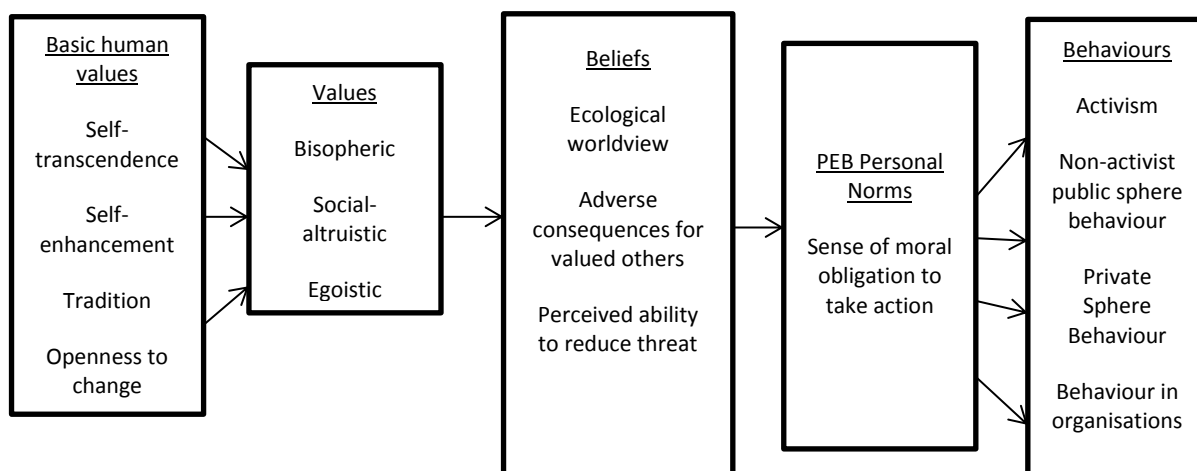


Figure 2.5.: Value-belief-norm model of Pro-environmental behaviour (adapted from Stern, Dietz, Guagnano & Kalof, 1999)

The Value-Belief-Norm model of pro-environmental behaviour (figure 2.5) proposes that individuals have a set of stable standardised beliefs based on personality traits, beliefs and values towards themselves, others and the environment. They also possess individual focussed beliefs about the relationships between humans and nature, these beliefs shape perceptions regarding the environment threat posed to 'valued others' coupled with acceptance of responsibility to act mitigate these threats. This acceptance activates a sense of moral obligation, which creates a propensity to behave in a pro-environmental manner.

Empirical studies that have tested elements of the Value-Belief-Norm Theory have found that individuals with social-altruistic and biospheric values and

concerns correlate positively with a range of pro-environmental behaviours, and individuals with egoistic value systems correlate negatively with pro-environmental behaviour (Stern et al, 1995; Karp, 1996; Nordlund & Garvill, 2003). As with the previous behavioural model, the focus is very much on internal or psychological predictors of sustainable behaviour but do not recognise wider external and contextual factors which can motivate or inhibit behaviour.

2.7.3 The Needs, Opportunities, Abilities (NOA) Model of Environmental Behaviour

Where the previous models focus on the psychological processes that underpin pro-environmental behaviour, the Needs, Opportunities and Abilities (NOA) model of behaviour emphasizes the interplay between internal (psychological) processes and wider societal influences. (Figure 2.6)

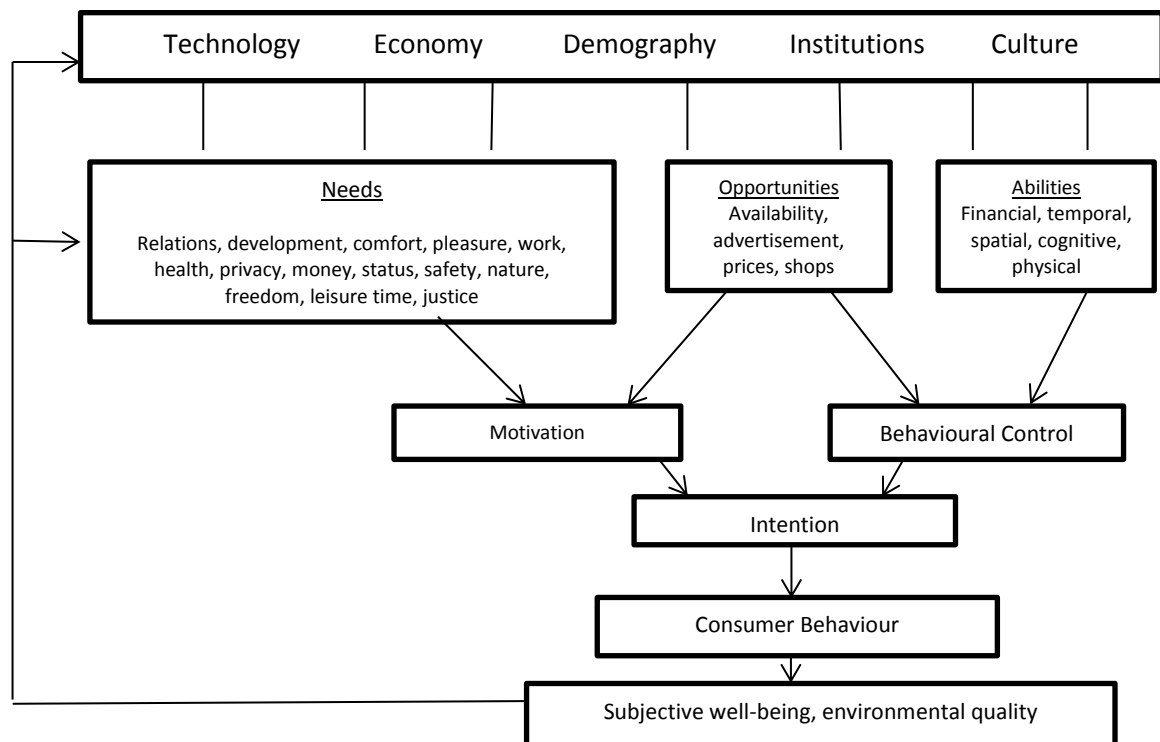


Figure 2.6: Needs, Opportunities, Abilities (NOA) model of Pro-environmental Behaviour (Gatersleben & Vlek, 1988)

This model of pro-environmental consumer behaviour brings together all of the contributory factors together, these operate at the individual, collection and societal level. Gatersleben and Vlek (1998) developed this model in order to explain, the huge increases in Dutch consumer behaviour for household goods, given that they acknowledge the environmental impact of their behaviour, this has little impact on their consumption patterns. The authors suggest that the purchase of goods satisfies needs and contributes to quality of life. Once purchased these household goods become essential to a way of life and therefore individuals are less willing to give them up. The individual and personal elements (needs, abilities, opportunities) and macro level factors of the model will be now be described in greater detail in order to explain, increasing

consumer behaviour in spite of the threat this behaviour has on the sustainability of natural resources.

2.7.3.1 Macro-level factors – Needs

The model postulates that individuals seek to fulfil a series of personal 'needs' in order to achieve a good 'quality of life' or psychological 'well-being'. Gatersleben and Vlek (1998) defined 15 'quality of life' factors that influence and motivate consumer behaviour. (Table 2.1)

Social relations	Having good quality fulfilling relationships with family, friends and work colleagues
Development/education	Having the opportunity to gain a good education and gain further development
Comfort	Having a comfortable and easy daily life
Pleasure/arousal	Having pleasurable exciting experiences
Beauty	Having the ability to enjoy beautiful things in and around the home
Work	Enjoying paid employment
Health	Having good health and having access to good quality health care
Privacy	Having the space and time to be oneself
Money	To have enough money to do the things you would like to with one's life
Status	Being valued by others for your skills, achievements and possessions
Safety	Being able to live one's life safely in all spheres of life (home, work etc)
Nature/environment	Clean air, water, beaches; healthy animals and plants
Freedom/control	The power over one's own destiny
Leisure time	Having enough free time to take part in leisure activities and holidays
Social Justice	Having equal rights and opportunities to own and do things

Table 2.1: The major 'quality of life aspects'. (Gatersleben & Vlek, 1998)

These 'needs' influence and motivate individuals to purchase household goods and once purchased the item fulfils the need and adds to and maintains feelings of well-being and satisfaction. Owning household goods can generate feelings

of self-worth, status, freedom, control and labour saving devices can increase 'free time' to undertake leisure activities.

2.7.3.2 Macro-level factors – Opportunities

Where 'needs' motivate the desire for consumer goods 'opportunities' exist as facilitating external factors that enable consumption. The ease with which household consumer goods are available, the services they provide, access to information, advertising, marketing coupled with increased access to financial credit all facilitate consumption.

2.7.3.3 Macro-level factors – Abilities

Gatersleben and Vlek (1998) describe 'ability' as the internal capacity to procure goods and services. These 'abilities' can refer to the financial ability to purchase a product, to have the means to generate income to secure purchase, the ability to apply for loans, instalment options and credit. Other abilities relate to having the time and space to utilise and accommodate new goods. Physical capacity refers to having the health, fitness and strength required to install and use the products and includes the capacity to apply for licences and permits should they be required.

2.7.3.3 Higher level Macro-factors

Developments in technology, economy, demography, institutions and culture all influence consumer behaviour by altering consumer needs, abilities and opportunities. Technological advances and development and economic services have increased individuals', opportunities because there is more of a choice for consumers than 60 years ago. Mass production has led to falling prices which have increased opportunities and generated need.

At a societal level, production and consumption of low price household goods have yielded better standards of living even for those on lower incomes. Thus as society strives for greater technological development and economic growth this perpetuates the situation whereby consumption of the latest goods and services becomes incorporated into society's cultural norms and values (Gatersleben & Vlek, 1998). Thus consumer goods and the ability to purchase new possessions generate a sense of well-being, enhance status and perception of others. As a consequence, nature and care for the environment, are reduced in importance, and are only perceived in terms of the services it can provide to humans (Gatersleben & Vlek, 1997).

In this model the motivation to purchase a product results from certain consumer needs and the opportunity to fulfil these needs. Consumer needs

can only be fulfilled when the opportunity and abilities to do so are present. The model stresses the importance of consumer need, that consumers do not want goods for the sake of owning them, they want them for the service they provide to the consumer. Consumers must be motivated to purchase a product, but it is the opportunity (availability, shop, etc.) and ability (financial costs) that determine behavioural control. Purchase of the goods then leads to subjective-well-being and environmental quality which link directly back to the five macro-level influences (societal) influences on consumer behaviour.

The NOA model focusses on the consumer behaviour element of pro-environmental behaviour, which is important as the manufacture, production and transit of goods worldwide has a significant environmental impact. Therefore it is essential to consider consumer behaviour and decision-making in terms of its impact on the environment. Furthermore this model incorporates decisions made regarding the use of leisure time and holidays, establishing that holidaying is an important 'need' that leads to a sense of well-being, status and enhanced self-perception. Thus the natural environment is perceived positively as it satisfies the psychological need for a holiday; however behaviour to protect the same environment is downgraded.

The model is particularly efficient in describing the interaction between the individual and society, as any intervention to change behaviour will need to

work on multiple levels and take into account a multiplicity of factors. The strength of this model is that it incorporates how important and distinct the holiday is to individual's well-being rather than assuming that sustainable behaviour generalizable across all contexts.

Whilst this section has been devoted to explaining the internal and external factors influencing pro-environmental behaviour, the next section will explore two models that focus their attention on the barriers to pro-environmental behaviour.

2.8 Barriers to Sustainable Behaviour

Blake (1999) was concerned that many pro-environmental models of behaviour often failed to include personal, social and institutional constraints experienced by individuals and assumed that individuals make rational choices based on the information available to them (Figure 2.7). However Blake (1999) contests that much of human behaviour is irrational and therefore encouraging informing individuals to change their behaviour for the sake of the environment will not be enough.

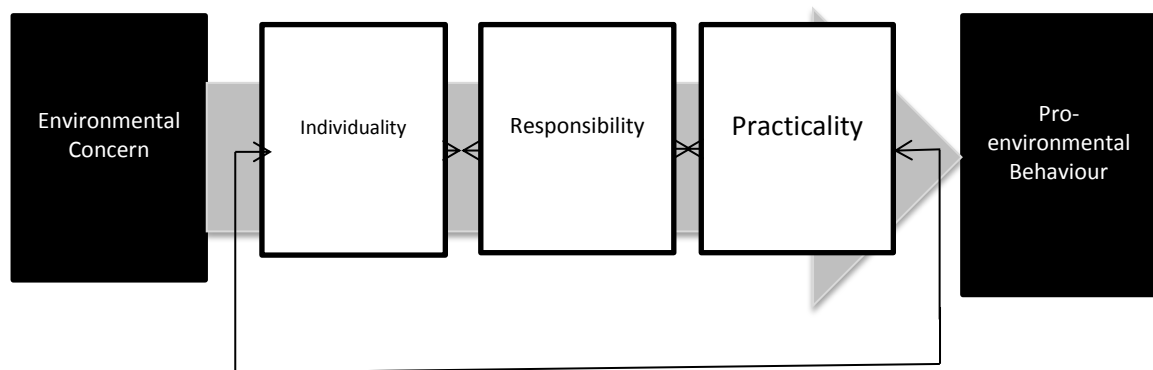


Figure 2.7: Barriers between environmental concern and environmental behaviour (Blake, 1999).

Blake (1998) proposes there to be three types of barrier that explain the gap between an individual's concern for the environmental and the resultant pro-environmental behaviour.

1. Individual barriers – these are influences internal to the individual and include attitudes and temperament. This barrier is especially influential in those individuals who declare they have very little concern for the environment (Blake, 1998).
2. Responsibility – For these individuals the barriers to pro-environmental behaviour rest with a sense of not being able to have a significant positive impact on environmental problems, so this acts as a barrier to action. Furthermore individuals may perceive that political and industrial institutions should be changing their behaviour and as a

result a sense of mistrust prevents them from behaving in a more sustainable manner.

3. Practicality – These barriers are the institutional constraints that inhibit individuals from behaving in pro-environmental ways regardless of their personal concerns and intentions.

Blake's (1999) model (figure 2.7) is useful in describing the types of influences both internal and external interact to constrain behaviour, and seems to suggest that a change in behaviour would require addressing these barriers in order for behaviour change to be successful. However Kollmus and Agyeman (2000) suggest that this model does not adequately address all of the barriers to pro-environmental behaviour, they suggest social factors, familial pressures and cultural norms should be included in order to provide a more complete model.

Kollmus and Agyeman's (2002) model of pro-environmental behaviour attempts to take into account both external and internal influences on behaviour and focuses on trying to explain the barriers to pro-environmental behaviour. The authors suggest that models are often over simplistic and do not take into consideration deeper psychological needs for comfort and convenience and the powerful influence of habits and pre-existing behavioural routines. They suggest that often individuals hold high levels of pro-environmental knowledge and concern but the convenience of older more established behaviour patterns

inhibit behaviour change. They stress that in order for a behaviour to become the 'norm' it must be practiced repeatedly until it replaces the old behaviour and that some pro-environmental behaviours are particularly resistant to change, due to their less convenient and comfortable nature (eg. walking instead of driving to work is much less appealing when the weather is cold or wet, or when running late).

2.9 Section Summary

This section has been focussed on describing some of behavioural models which are most relevant to the current research. The emphasis of most behavioural models rests on identification of underlying psychological traits or characteristics which best predict behaviour with little consideration of factors outside of the control on the individual. The models tend to assume that as long as the individual displays the 'correct' combination of recognised traits then it can be assumed that they will behave in a particular way. However sustainable behaviour appears to be particularly difficult to define in terms of psychological traits and positively held attitudes toward the environment is not a good predictor of behaviour (Kollmus & Agyeman, 2002). This 'attitude-behaviour gap' appears to be even more resilient when the holiday context comes into play. (Barr, 2008) This would suggest that the barriers to sustainable tourist behaviour are even higher than for home behaviour. The models described in this section will therefore be useful in guiding the primary research needed to

fulfil the objectives, in so much as, it will be important to ensure that data collected reflects both attitudes and beliefs but also recognises the barriers individuals experience when making decisions regarding their holiday behaviour.

2.10 Chapter Summary

The focus of this chapter was to review the pertinent literature surrounding sustainable tourism behaviour, with a view to identifying the barriers to said behaviour. The review incorporated literature from the fields of tourist behaviour, sustainable tourism and pro-environmental behaviour in order to garner a better understanding of the complexities of the problem at hand. The very notion of the 'holiday' and all that this entails in terms of decision-making regarding, destination, accommodation, travel and transport, activities, entertainment and food is a complex process. This process is dependent on the interaction of many factors, some which constrain choice and others which motivate. It appears that the addition of sustainable choices into the decision-making mix, which by their very nature conflict with perceptions relating to holiday expectation, results in denial and suppression and choices made that are focussed on achieving a pleasurable holiday for all.

In terms of the 'destination' it is essential to include the services and infrastructure needs to be in place to enable sustainability. Thus a detailed description of the collaborative relationship required between tourism stakeholders in order to achieve a sustainable tourist destination was discussed at length. Further consideration was given to the most effective way to monitor and measure the environmental impact of tourist behaviour. The ecological footprint was suggested as a way to test whether pro-environmental attitudes and behaviour results in lower environmental impact.

The premise of this thesis is to utilise a social marketing methodology to encourage greater levels of sustainable behaviour amongst tourists. One of the most important elements of employing a social marketing methodology is the identification of the barriers to behaviour change. In the context of this research this means identifying individual perceptions of the barriers to sustainable tourist behaviour as well as what individual's perceive might motivate them to change their behaviour. This chapter therefore has explored some of the barriers to behaviour change and will utilise the tenets of social marketing to gain a greater understanding of the perceived and actual barriers to sustainable tourist behaviour.

The following chapter (Chapter 3) will be centred on social marketing, exploring the background, its application and processes before proceeding to application of the methodology in Chapter 4.

CHAPTER THREE – Marketing and social marketing

3.1 Introduction

It is the intention of this chapter to provide a starting point in relation to the application of a social marketing methodology to trying to encourage greater levels of sustainable behaviour amongst tourists. Particularly as the focus of responsibility for 'change' is now directed specifically at the individual and social marketing's premise focusses its attention directly on individual and their personal perceptions. Therefore this chapter will seek to explain the evolution of social marketing as a derivative of traditional marketing and how elements of traditional marketing are applied, alongside knowledge and expertise from many other disciplines to encourage attitude and behaviour change.

The chapter will explore the literature regarding the theoretical and conceptual frameworks underpinning marketing and social marketing. Exploration of the process of applying a social marketing methodology to encourage a change in attitudes and behaviour to a range of social problems will be described. Consideration will also be given to limitations and criticism of social marketing and explore the future direction of the discipline.

Finally the chapter will discuss why social marketing has been selected as a potential way to encourage greater levels of sustainable behaviour amongst tourists.

3.2 History and background of social marketing

Social marketing has been actively employed as a technique to encourage attitude and behaviour change for over 50 years and is defined as:-

The systematic application of marketing alongside other concepts and techniques to achieve specific behavioural goals for social good' (French & Blair-Stevens, 2010:1).

The concept of social marketing is a direct combination of two elements, traditional commercial marketing and inputs from the social sciences which have always studied the best ways to understand human behaviour.

Traditional commercial marketing developed as a result of mass production and mass consumerism. Goods were produced on a massive scale and available for purchase to a broad spectrum of people, therefore marketing developed as an activity, to bridge the gap between producer and potential purchaser. Marketing as a process informed the potential purchaser about the benefits of buying the product, not only could marketing match product to purchaser and it was able create a need for a particular product where none previously existed.

Marketing as an activity is essentially about influencing and changing individual's behaviour, most usually consumer behaviour. Changing an individual's consumer behaviour requires a huge amount of skill and knowledge but if undertaken carefully can be hugely successful, creating a desire for a product or service where none previously existed. Consumers will often quite easily swap from a product they have been loyal to for years for one that is marketed in such a way as to induce feelings of desire for the new product. As mentioned previously, Weibe (1950) was the first commentator to recognise that this ability to alter behaviour could be utilised to change behaviour in relation to social problems. A social problem is a condition that undermines some or all members of a society and is usually a matter of public controversy (Macionis, 2002:4). Therefore a 'social problem' is something that occurs within a society and that has a detrimental effect on both the society and those that it impacts upon. One such example might be, rising levels of obesity, which impacts directly on those with the condition and also places a strain on health and social services. This strain inevitably, as Macionis states, causes some sort of controversy within society, in terms of the cost of providing for the extra healthcare requirements for those people who are suffering with obesity, amongst food producers, government departments and those directly impacted by the problem. The important element in any social problem is the 'social' element, that is, the problem is a result of human attitudes, perceptions and behaviour. Therefore any resolution to the 'social problem' must be social in nature, this is where, as Wiebe (1950) suggested, marketing techniques could

be applied to encourage a change in behaviour – hence the term ‘social marketing’. Any benefits, experienced, as a result of a social marketing intervention, say a healthy eating campaign could be experienced by the individual, due to increased energy levels and loss of body weight, their family, but also by wider society, in terms of the health service and healthy food producers. Understanding human attitudes and behaviour is an intrinsic part of social marketing, Truss et al, (2009) suggest that those involved in social marketing should look to the social sciences (sociology, psychology and the political sciences) to assist in explaining and understanding the ‘social’ aspect of social marketing. Understanding and influencing human behaviour means that there should be consideration given to the meanings behind behaviour at an individual level, however, individuals do not exist in a vacuum therefore it is important that external societal influences should also be explored in order to gain a fuller appreciation of the problem under exploration. This is where the social science literature can be invaluable by guiding any social marketing intervention to encourage a change in behaviour. Thus social marketing is really dependent on understanding the best ways of promoting attitude and behaviour change for any number of social problems. Behavioural sciences have a lot to offer in terms of the research undertaken with regards to existing behaviour and the best ways to influence and motivate a change in behaviour. What follows are some of the theories that are useful in understanding behaviour and behaviour change:-

Cognitive Dissonance Theory – Festinger (1957) introduced this theory as an attempt to explain the uncomfortable tension individuals experience when their attitude to an issue does not match their actual behaviour. Festinger (1957) states that there is a tendency to try and reduce this tension by justifying and rationalizing the behaviour, for example, someone might acknowledge that their smoking is an unhealthy behaviour and know that they should not be doing it, but to reduce the 'dissonance' they justify their behaviour by saying they only smoke occasionally, or that they do not have the willpower to stop, or that they have tried to stop but been unsuccessful.

Attribution Theory – looks at how individuals explain their behaviour, in terms of whether they attribute internal or external factors as being the root of their behaviour (Heider, 1958 as cited in Blair-Stevens, Reynolds & Christopoulos, 2009). Their research showed that people tend to attribute negative behaviour to external sources and positive behaviour to internal factors. For instances, in the example above, individuals who still smoke regardless of the negative health implications might attribute this to external factors, such as a lack of support from the health profession, or lack of support from family members. Whereas, if someone had managed to stop smoking they might attribute this positive behaviour, to their own strong willpower and motivation, rather than the assistance they received from a health care clinic.

Social Learning Theory – where the previous theories concentrated on individual determinants of behaviour some theorists have concentrated on the societal determinants of behaviour. Akers (1973) in his Social Learning Theory looked at how behaviour is 'learned' from social interaction with others. This theory of behaviour suggests that individuals tend to imitate behaviour that they see rewarded by others in their social group. Akers (1973) contended that when individuals learn a behaviour, they initially imitate behaviour by a valued member of their social group. Successful imitation generates an initial internal reward, which leads to further repetition of the behaviour, however over time, as repetition and competency increase, individuals experience less and less internal gratification, until the behaviour becomes routine. Bandura (1986) believed that the experience of reward for successful imitating behaviour leads individuals to set higher and higher goals in order to repeat the internal satisfaction of learning a new behaviour. The internal reward experienced also increase self-efficacy and self-belief which also increases motivation to continue to change or learn new behaviours. Bandura (1986) went on examine how personal, environmental and behavioural factors interact constantly to influence behaviour. These interactions vary constantly depending on the time and context of behaviour and previous experience, with behaviours in different contexts having an impact on individual's likelihood of repeating or changing behaviour.

Theory of Planned Behaviour – Ajzen (1991) explored ‘planned behaviour’ and asserted that an individual’s intention to perform behaviour is influenced by what they perceived their peers or significant others would perceive by their actions. Therefore, if an individual believed that their peers would perceive their behaviour as a positive act, then they would be more likely to undertake the behaviour. However researchers in this area also acknowledged that other environmental factors would also influence an individual’s intention, as would social norms. This led to the development of *The Theory of Planned Behaviour* – which focusses on the attitudes an individual may hold regarding a particular behaviour, the social norms relating to that behaviour and the ‘perceived behavioural control’ as key influences of the intention to behave in a particular way. In respect of the notion of ‘perceived behavioural control’, an individual’s intention to behave in a particular way will be directly affected by the level of skill they possess, opportunities to behave, and perceptions of how important it is to them in terms of results to behave in a certain way.

In the application of social marketing to a social problem, the concepts identified by the ‘Theory of Reasoned Action’ and the ‘Theory of Planned Behaviour’ can assist in identifying the many different types of influences that individuals are likely to experience. In particular these theories highlight how important it is to consider how social norms, attitudes and ‘perceived behavioural ability’ intermesh and directly influence behavioural intention.

Transtheoretical (stages of change) model – This theory is particularly useful when planning a social marketing intervention to encourage a change in behaviour, as it proposes that individuals move through a series of stages when adopting new behaviours (Prochasta & DiClemente,1983). The theory also accepts that individuals have differing levels of motivation and readiness to change behaviour. The theory maintains there are five main stages that individuals pass through when adopting a new behaviour:-

1 – **Pre-contemplation:** in this stage the individual is unaware of the behaviour and therefore is not considering undertaking the behaviour.

2 – **Contemplation:** in this stage the individual is aware of behaviour and maybe considering undertaking the behaviour, during this contemplation stage the individual may seek further information regarding the practicalities of the behaviour.

3 – **Preparation:** In this stage the individual is actively considering undertaking the behaviour, and preparing to make the commitment to adopting a new behaviour.

4 – **Action:** The individual starts to undertake the behaviour.

5 – **Maintenance:** During this stage the person either sustains and consolidates the new behaviour or reverts to the previous behaviour.

The theory recognises that individuals do not move through the stages at the same speed, some may remain at a particular stage for some time, whilst

others adopt and sustain a new behaviour much more quickly. In order to assist an individual move through the stages and maintain a new behaviour the theory suggests that individual needs to understand the balance of positives and negatives in terms of the consequences of a change of behaviour. They also need to recognise the importance of self-efficacy in terms of whether the individual believes that they are able to move to a new behaviour.

This theory is particularly useful for those planning a social marketing intervention as it appreciates that individuals move through a series of stages when contemplating a change in behaviour, and that change and adoption of behaviour will be swift for some, but much slower for others. This allows for any social marketing intervention to be tailor-made according to the stage that the individual is at. So for instance, someone at the 'pre-contemplation stage' will not even be aware of the behaviour and its consequences so the first action would be to inform the need to change, what the change behaviour would mean to individuals and then finally what the outcome would mean. Someone at the 'action stage' would already be undertaking the behaviour, so the intervention might be tailored to encourage and sustain the behaviour, so the intervention might emphasize the positives of the behaviour, praise the behaviour, but also focus on what a relapse might mean for the individual.

Whilst this is not an exhaustive review of all of the possible behavioural theories that social marketing practitioners may utilise to gain a fuller appreciation of, behaviour and behaviour change, it does illustrate how knowledge gained from other disciplines contributes to the application of a social marketing methodology.

3.3 Traditional Marketing theory: Exchange Theory

Marketing as a professional activity evolved and has become recognised as an academic discipline due to the complicated and sophisticated processes involved in the process. Processes such as value creation, innovation, market research, advertising and communication are all integral to the process of marketing. Sophisticated information and intelligence gathering techniques regarding customer needs, buyer behaviour and brand loyalty mesh together in order to provide the marketer with the tools to segment and target audiences with specific goods and services. As a discipline marketing is inspired by the concept of 'Exchange Theory' which has its conceptual base in the fields of economics and psychology. Exchange theory postulates that marketing is essentially centred on the 'exchange' of tangible and intangible entities between two or more parties. The basic prerequisites of marketing are:-

- There are at least two parties
- Each party has something that might be of value to the other
- Each party is capable of communication and delivery

- Each party is free to accept or reject the offer
- Each party feels it is appropriate and desirable to deal with the other

(Bagozzi, 1975; Hastings & Saren, 2003)/

Bagozzi (1975) proposes that there are 3 different types of exchange relationships involved in marketing activity – restricted exchange, generalised exchange and complex exchange. Restricted exchange exists between 2 parties (consumer and wholesaler or wholesaler and retailer) here the exchange is direct and the relationship attempts to remain equal, so that something of value is exchanged for something else of value. Generalised exchange relationships exist between 3 or more parties, but where the parties do not necessarily benefit each other directly. Complex exchange relationships in marketing exist where there is a system of interconnected mutual relationships, each party is involved in one direct exchange but benefits are realised as a result of the exchanges between all parties (Bagozzi, 1975). The benefits accrued as a result of these relationships can be either tangible, in terms of purchased goods or payment, or intangible in terms of a service received or a mutually beneficial contact. Furthermore Bagozzi (1975) suggests that social marketing rests within the Complex Exchange Theory, where, more often than not, the benefits tend to be symbolic or intangible in nature. Thus the benefits gained through social marketing campaign, say a change of behaviour, will be less tangible than that of a commercial campaign where the ‘company’ gains

value through the customer's purchase, and the customer gains through receipt of the product.

3.4 Marketing Theory: The shift towards Service-dominant Logic

The emphasis on the creation of value through marketing activity is reflected in the development of Service Dominant Logic (Vargo & Lusch, 2000). Here the focus rests on the 'customer' and the value created in this relationship (Peattie & Peattie, 2003). The premise of Service Dominant Logic lies in the value created in the exchange of services rather than the exchange of goods, these 'services' are defined as the knowledge and skills provided by firms in the creation of goods and services. Thus the 'value' of a purchased product is not in the physical product but in the service it provides to the consumer. For the firm that developed and sold the product the 'value' lies in the knowledge and expertise by all of the actors who played a part in the development, production, marketing and selling of the product (Vargo & Lusch, 2006). This theoretical and conceptual construct was generated in response to the changing nature of commercial trading, traditional marketing bridged the gap between producer and customer however this was related directly to physical products and the value embedded in the product. However, as the service industry developed and became more important 'value' was no longer embedded in a tangible products, 'value' was derived through the service received, and the related skills and knowledge involved in generating the service. Furthermore, firms begun to

realise, that even when tangible products were involved the 'value' of the product was derived as a result of the service provided by that product to the consumer. This evolution and change in the concept of 'value' had implications for the theory of marketing which still tied to traditional economic models of exchange (Webster, 1992; Day & Montgomery, 1999; Parvatiyar, 2000). The recognition that value was embedded in intangibles led to the emergence of 'services marketing' as a sub-discipline of marketing' (Shostack, 1997) However Vargo and Lusch (2004) did not perceive a need for distinct sub-disciplines of marketing theory they argued that the marketing of both tangible and intangibles was reliant on the 'value' of the service they provide to the consumer and called for a new dominant logic for marketing. They proposed ten foundational premises for the new evolution of marketing theory which they termed Service Dominant Logic:-

FP 1 - Service is the fundamental unit of exchange, this means that the application of knowledge and skills is the basis for all exchange, thus service is exchanged for service.

FP 2 – Indirect exchange masks the fundamental basis of exchange, sometimes it is not always clear where service is provided due to the complex combination of goods, money and institutions, however service is still the basis of exchange.

FP 3 – Goods are a distribution mechanism for service provision, goods derive value through use and thus the service they provide to the customer.

FP 4 – Operant resources are the fundamental source of competitive advantage, thus the ability to create a desired change in purchasing behaviour drives competition, rather than the product as a physical entity.

FP 5 – All economies are service economies, the service industry in terms of knowledge and expertise is very important especially in terms of increased specialization and outsourcing of these skills.

FP 6 – The customer is always co-creator of value, 'value' is only created when the customer perceives it, which implies that value is interactional in nature and can only be achieved through interaction thus creating value.

FP 7 – The enterprise cannot deliver value, but only offer value proposition, this suggests that delivery of value cannot occur as a result of a singular company, value is only generated through interaction and collaboration.

FP8 – A service-centred view is inherently customer orientated and related, because the nature of value is determined through the benefits accrued on behalf of the customer, therefore the process is inherently customer orientated.

FP9 – All social and economic actors are resource integrators, suggests that value creation is the result of networks of networks that integrate resources.

FP10 – Value is always uniquely and phenomenologically determined by the beneficiary, value as a concept is experiential and contextual and the meaning behind the value derived is individual in nature.

These ten 'Foundational Premises' defined by Vargo and Lusch in 2008 fit in well with the processes and concepts associated with social marketing. Social marketing is based around generating social benefits, through behaviour change, and the value derived is experienced by both the individual and society. Undoubtedly behaviour change and value are generated through a process that utilises skills and knowledge from all those involved, including those individuals being targeted to change behaviour. Further suggesting that behaviour change for societal good is the result of a co-creational process which fits well with the tenants of Service Dominant Logic.

With this in mind, Dann, Harris, Sullivan-Mort, Fry and Binney (2007:294) suggest that social marketing should redefine itself in terms of 'social marketing dominant logic'. Co-creation of value is central to the theory of Service Dominant Logic, in social marketing 'value' is created through behaviour change, which in turn is created and aided through multiple channels of knowledge, expertise and insight within society. Dann et al, (2007) believe that further evolution of social marketing as a discipline requires the development of a distinct theory that embraces the tenants of Service Dominant Logic, and to this end, they call for more research into the area to increase understanding and applicability. Likewise, Peattie and Peattie (2003) believe that it is time for social marketing to 'fly solo' and reduce its dependence on commercial marketing theory.

3.5 Criticism of social marketing

As stated in the previous section social marketing as a process lacks a distinct theoretical and conceptual framework and has relied on adapting methods and processes from traditional marketing in order to frame itself (Bloom & Novelli; Andreasen, 2002; Peattie & Peattie, 2003; Dann, Harris, Sullivan-Mort, Fry and Binney, 2007).

The major criticisms of social marketing as a discipline are focussed around three areas, the ethical considerations of changing behaviour, the procedural processes underlying social marketing and the theoretical and conceptual framework underpinning social marketing. These three areas of controversy will be discussed in the following section.

3.5.1 Ethical considerations of social marketing – The aim of many social marketing initiatives is to encourage individuals to change pre-established comfortable behaviour for another set of behaviours defined by another group. Laczniak, et al, (1979) perceive that it is the process of one group being given the power to influence another group to change opinion and behaviour that is unethical especially when promoting changes in behaviour to contested issues such as family planning and abortion. Furthermore, it is suggested that social marketing is 'self-serving' in so much as, in the process of promoting a social

cause proponents could also be making a profit (Fox & Kotler, 1980). Fox and Kotler (1980) provide the following examples to back up this argument; seat belt manufacturers are often strong supporters of legislation and campaigns to encourage car safety; life insurance companies encouraging people to undertake changes in the consumption of alcohol, salt, sugar, fat, cigarettes and increase exercise which in turn reduces premature deaths, thus cutting claims and increasing profits.

3.5.2 Theoretical and conceptual criticisms of social marketing – As described previously in this chapter traditional marketing theory has centred on the concept of ‘exchange’, the idea being that customer satisfaction is exchanged for company profit, however social marketing interventions are rarely measured in terms of economic profit or customer satisfaction (Peattie & Peattie, 2003). Furthermore Peattie and Peattie (2003) suggest that the nature of exchange theory needs to be reassessed in order to appreciate whether it can be applied directly to social marketing. Exchange theory states that;

- Exchange takes place between two or more parties
- Each party desires the attributes that the other has
- Each party is willing to exchange

However it is the value that each party attributes to the exchange process which sets it apart from social marketing. Generally there are no tangible or monetary benefits from changing to a desired new behaviour, where information is

provided this is not the basis of a commitment to change behaviour rather it is exchanged as an incentive, which may, or may not result in a change of behaviour. Furthermore traditional marketing measures its success on the basis of this exchange relationship, so successful exchange in terms of customer satisfaction leads to increased sales. However social marketing cannot measure its success based on customer satisfaction or profit, instead success is gained through a change in behaviour, this could be an increased level of participation in a desired behaviour, a decrease in levels of a particular behaviour or even a stabilising of the behaviour. Measuring a change in behaviour in social marketing campaigns is difficult, as is ascertaining its success as changes could be subtle, short-term or build with longer term interventions.

To summarise, exchange theory which has its foundations in economics and psychology translates well into commercial theory, but not so well for social marketing where the processes and applications are more subtle and less dependent on customer satisfaction and maximisation of profit.

Many of the criticisms regarding social marketing rest on the discipline's reliance on transposing ideas and processes directly from traditional marketing. Whilst some aspects of traditional marketing campaigns translate quite well from traditional marketing others do not. Peattie and Peattie (2003) draw

attention to the four P's taken from traditional marketing (product, price, place and promotion) and often utilised in social marketing campaigns. In terms of 'product' in traditional marketing the 'product' is quite obvious, it is the item being marketed to potential customers, however, in social marketing the 'product' is quite often less tangible. In a social marketing campaign, the 'product' could be conceived in one of two ways, either the 'product' is perceived as the resultant behaviour change, or, the 'product' is the technologies or information used in the campaign to encourage change. Peattie and Peattie (2008) suggest there are problems with both conceptualisations of the 'product' in a social marketing intervention, in so much as, a change in behaviour is not produced by the social marketer, neither is the information or technologies used to facilitate change as product of social marketing. The change in behaviour is solely a product of the individual electing to change the way they behave. Andreasen (1995) suggests that in some social marketing campaigns there is a strong similarity between traditional marketing, but this tends to be dependent on the context and benefits accrued as a result of the social marketing campaign. So for example those social marketing campaigns where the benefits are experienced immediately are more akin to a traditional marketing campaign. Andreasen (1995) uses the example of a social marketing campaign to encourage smoking cessation, the benefits to the individual of stopping smoking are economic and physiological and are likely to be experienced immediately, there is also a high degree of societal consensus regarding the value of the behaviour. In contrast a social marketing campaign

to encourage pro-environmental behaviour where the benefits are likely to be less tangible and less immediate, are less similar to traditional marketing's concept of 'product'.

In terms of 'price' the translation from traditional marketing is more obvious than for 'product', as monetary price is usually absent in social marketing campaigns. Therefore in social marketing, the concept of 'price' is translated as the cost to the individual of changing behaviour. There are as, Bloom and Novelli (1981), inherent difficulties and directly translating the notion of 'price' from traditional marketing, which is associated with the price of a product to the consumer and maximising of profit for the provider. In social marketing, this process is almost the opposite, as the provider is almost certainly aiming to reduce the 'cost' of changing the behaviour, in order to increase the likelihood of behaviour change. A further problem with direct translation of 'price' from traditional marketing to social marketing is that monetary price is universally understood, however the 'price' of behaviour change will be inherently individual.

The next of the four P's is 'place' and in a commercial marketing campaign this is usually related to the location and distribution of the products being marketed. The concept of 'place' transposes itself quite well into a social marketing campaign as this could involve the distribution of physical objects in a targeted region (eg, birth control in areas of high teenage pregnancy) or 'place' could

also mean the placing of an intervention to encourage behaviour change in or at a strategic area or group of individuals.

'Promotion' is the final of the four P's transposed from traditional marketing into social marketing, and probably has the strongest parallels to the processes undertaken during a marketing campaign. The process involves designing, planning, testing and implementing a promotional campaign, however the transmission of messages designed to change social behaviours are much more complicated and could be received and interpreted in a multitude of different ways compared to promotional campaign designed to encourage the purchase of a specific brand of soft drink. It is the 'social' in social marketing campaigns that makes them inherently different from traditional promotional campaigns. Communication of behavioural change messages must be more subtle and fully understand the external and internal demands of the target audience.

Peattie and Peattie (2003) argue that over reliance on transposing theory and practice directly from commercial marketing into social marketing could be hindering to development as a discipline. They suggest that social marketing should develop its own vocabulary so;

- Products should become – social propositions

- Price becomes - cost of involvement
- Place becomes – accessibility
- Promotion becomes – social communication
- Exchange becomes – interaction
- Competition is associated with understanding the types of influences that compete for the attention of the target audience/
-

In summary Peattie and Peattie (2003) are suggesting that social marketing needs to reduce its dependence on the traditions, theories and conceptual framework of traditional marketing and develop its own vocabulary and theoretical base focussed on the ‘social’ aspect of the discipline and all that this entails. They caution that over reliance on traditional marketing could mean that social marketing may inherit some of the negative connotations associated with traditional marketing in that it is perceived as manipulative and profiteering due to its success being dependent on creating desire for goods not necessarily needed by the public. Social marketing in contrast aims to change behaviour and its success is measured by the positive effects it has in society. If the public perceive social marketing negatively and believe they are being manipulated then interventions are likely to be unsuccessful (Fox & Kotler, 1980).

3.5.3 Criticism of procedural processes underpinning social marketing - The differences between undertaking a social marketing intervention and that of a commercial marketing campaign have been explored by several commentators (Bloom & Novelli, 1979, 1980; Fox & Kotler, 1980; Hastings & Haywood, 1991). The following section discusses the key differences between undertaking a commercial marketing campaign compared to undertaking a social marketing campaign.

Market analysis problems for social marketing – those undertaking a commercial marketing campaign are likely to have access to a lot of secondary data regarding their potential customers' wants, needs, desires, attitudes and satisfaction levels. However social marketing, by the very nature, of the causes it deals with, will have difficulty obtaining accurate and valid measurement of perceptions, attitudes and reported behaviour. Individuals whilst willing to be surveyed on a wide range of issues do not necessarily provide accurate and truthful responses particularly to sensitive issues, which is exactly the area that social marketing operates in (Bloom & Novelli, 1980; Fox & Kotler, 1980).

Market segmentation problems for social marketing – Commercial marketing uses segmentation techniques to target their products and services at distinct sectors of the population, those that have expressed a need or desire for a product with particular attributes, this then increases likelihood of purchase and profit. However social marketing

can experience difficulties when trying to segment its target audience, this can be due to unreliable data gathering as alluded to previously, or to the nature of the group to be targeted. In certain situations, groups of individuals are selected to be targeted with a social marketing intervention, based upon the risk that continuance of the behaviour has to them, rather than willingness to change behaviour. Bloom and Novelli (1980) use the example of 'drivers who tend to avoid using seat belts' or 'sexually active teenagers who do not tend to use contraceptives' and 'heavy smokers' to name but a few. These segments are selected due to the risk their behaviour poses however these groups are the least likely to respond to a behaviour change intervention, because they are already behaving in a 'risky' manner and any intervention to change this behaviour will be not as a response for change emanating from the group rather change is being imposed on them by societal pressure, this differs from commercial market segmentation where products and services are directed at groups in response to their needs and desires which increases likelihood of a change in behaviour.

Product strategy problems for social marketing – As discussed previously 'product' is a problematic construct for social marketing. In commercial marketing there is usually a tangible product to be marketed that can be adjusted in order to suit the requirements of the customer. However 'product' for social marketers tends to be less tangible, and as such is less able to be adjusted to suit the needs of the target audience. The

'product' or the change in behaviour tends to be directed by community or government organisations that require a change in behaviour to meet a societal goal (eg, reduction in drug abuse, increase in use of recycling facilities). This does not leave any room for adjustment of the 'product'. Another difference between social marketing and commercial marketing lies in the limited amount of funding available to encourage behaviour change and this therefore restricts 'product' development. For example, a campaign to encourage recycling behaviour might be more effective if the local authority could provide enhanced facilities, but limited budgets are likely to restrict provision, so the campaign will be only be focussed on encouraging greater use of existing facilities.

3.5.4 Section Summary

In conclusion, this section of the chapter has addressed the main criticisms levied at social marketing, these criticisms are mainly centred on an over reliance by academics and practitioners on translating traditional marketing practices and theories directly into the social marketing domain. Whilst there are parallels to commercial marketing theories and practices, in fact social marketing is much more complicated, as it deals with the uniqueness of human experience and understanding. All relatively new disciplines, such as social marketing, experience problems with establishing their academic credentials, thus establishing a robust and credible theoretical base is a significant part of

this process. However, as suggested previously, an over reliance on 'exchange theory' in order to explain the types of transactions undertaken during a social marketing campaign are not adequate in describing the process. Traditional commercial marketing is heavily dependent on 'down streaming' of products and goods and generating interest in and desire in consumers for new products. However Andreasen (2002) argues that the process of social marketing should be undertaken through the process of 'up-streaming' whereby the target audience is clearly understood in terms of how they perceive their environment and what they understand by behaviour change. Furthermore greater consideration needs to be levied at understanding all of the competing determinants of behaviour. Therefore service dominant logic perhaps provides a more accurate base with which social marketing could rest, where emphasis is placed on co-creation of value, so that the target audience becomes central to the process, and where value is in the relationships between all parties which is what determines success (Dann, Harris, Sullivan-Mort, Fry & Binney, 2007).

As always there is a difference in opinions between academics and practitioners and social marketing is no different. For those undertaking and utilising the principles of a social marketing methodology to encourage behaviour change the theoretical and conceptual basis is less important than the effectiveness of the intervention itself. The following section will describe in detail the process of undertaking a social marketing campaign.

3.6 Undertaking a social marketing campaign

3.6.1 Identifying the social problem

Before the process of undertaking a social marketing campaign is initiated there needs to be some recognition that a social problem exists. Macionis (2002:4) defined a social problem as 'a condition that undermines the well-being of some or all members of society and that is usually a matter of public controversy'. Social problems can be relatively minor affecting a small group of people or major affecting the majority of the population. These issues tend to evolve as society changes, so problems that were of consequence a few years ago, change their status and are superseded by other social problems. Issues move up the agenda, when the public perceive the issue to be important as shown in public opinion polls, when the media provides coverage of the issue and when the issue becomes important to those with political power (Lang & Lang, 1983).

Andreasen (2006) proposes an eight stage Life Cycle of Social Change process; stage one - the social problem exists, but there is no recognition or data to draw the problem to attention; stage two – the problem is discovered and organisations such as the media begin to take notice; stage three – activists, lobbyists, politicians, journalists begin to acknowledge the issue, start to uncover the victims of the social injustice and draw attention to the issue; stage four – advocates start to examine the issue with reference to the causes and gather evidence regarding the likely outcomes; stage five – in this stage

solutions to the social problem start to be sought, the costs and the benefits of addressing the social problem are undertaken; stage six – governmental organisations start fund interventions to tackle the problem, at this stage social marketing comes into play; stage seven – reassessment of the problem, re-organisation of efforts to address the problem are instigated; stage eight – this final stage occurs a considerable time after the social problem was first recognised, and either the problem has been solved, stayed the same, or been replaced by another social problem (Andreasen, 2006)

So the process of social marketing is initiated when there is acknowledgement that there is a problem within society which needs to be corrected, these problems may be identified in a number of ways through analysis of data trends, one-time surveys, uncovered evidence and issues uncovered by advocate pressure groups. Once the problem has been identified recognition is sought by those people with the finance and power to initiate a social marketing campaign (Adreasen, 1995; Andreasen, 2006).

3.6.2 The process of social marketing

This section of thesis will be dedicated to explaining the practical process of undertaking a social marketing intervention to encourage behaviour change.

French and Blair-Stevens (2010) developed eight-point benchmark criteria to differentiate social marketing from other types of intervention and to aid understanding of what social marketing could offer a programme for social change. These criteria are:-

1. Customer Orientation – the customer/client must be at the centre of the process and as a part of this there must be full understanding of the target audience based on sound and reliable research utilising evidence from various sources.
2. Behaviour and Behavioural Goals – the campaign must focus on achieving an impact on problem behaviour – thus closing the gap between ‘problem behaviour’ and ‘desired behaviour’. With this in mind the intervention needs to be designed to focus directly on specific behaviour and there needs to be actionable and measurable behavioural goals.
3. Theory based – as mentioned previously all interventions need to draw on knowledge from human behaviour theorists.
4. Insight – the intervention must incorporate an understanding of what motivates people and identify specific factors that will influence people to change their behaviour.
5. Exchange – the intervention will also have to acknowledge what the costs are going to be to the individual when they change their behaviour and whether these costs are likely to impinge on the success of the campaign. (Costs could be financial, time and or energy)

6. Competition – competition relates to other factors which compete for the attention of the target audience, by understanding the audience it should be possible to mediate the effects that competing sources may have on the effectiveness of the intervention.
7. Segmentation – There should be a segmentation of the target audience, and this should be based on a deep understanding of motivations and attitudes thus allowing specific actions to be targeted specific audience segments.
8. Methods – Intervention or marketing mix, all social marketing interventions are likely to employ a variety of methods, these should be a mix of altering the environment, communication, regulation and enforcement, personal enablement, empowerment and support services (French & Blair-Stevens, 2010).

These benchmark criteria were not designed to describe the practical process of implementing a social marketing campaign; rather they were designed to provide an information base for those considering initiating a campaign directed at social problems.

Blair-Stevens and French (2005) developed a framework to support social marketing interventions, through the processes of planning, development and delivery of the intervention, this they termed 'The Total Planning (TPP)

Framework'. This framework was developed through a review of two important areas of learning, project planning methodologies and best practice principles coupled with knowledge gained through behavioural interventions. The knowledge gained through the review extracted best practice and from project management and behavioural intervention methodologies was combined to create the Total Process Planning framework (Blair-Stevens & French, 2005).

There are five primary stages to the framework:-

1. Scoping
2. Developing
3. Implementing
4. Evaluating
5. Following-up

Each stage of the TPP framework will now be described in some detail to enable a better understanding of the processes and stages involved in a social marketing intervention to encourage behaviour change.

3.6.3 Scoping

The overarching aim of the scoping phase is to consider which interventions to progress and the objectives of this phase are to consider the issue or challenge, to gain an understanding of the target audience and their behaviour and to identify the resources required to tackle the issue. Once all the issues have been considered the final output is a scoping report in which key challenges are

identified and addressed (Reynolds & Merrit, 2010 in French, Blair-Stevens, McVey & Merrit, 2010).

The scoping stage is undertaken in three main stages and these stages are fundamental for gleaning the information required to implement a social marketing campaign.

Phase 1 – The first phase involves forming a steering group, this steering group's function will be to collect data pertaining to the behaviour that is being addressed, the locality that this behaviour is taking place in and finally the people that the intervention is intended to influence.

The utilisation of secondary data pertaining to the social problem under examination is undertaken during this initial stage. The objectives of this phase are to define clearly the behaviour to be addressed, who and, where the behaviour is taking place, and the causes of the behaviour need to be clearly defined. These causes could be psychological, biological or genetic, factors in the physical environment, or social factors. From the information gleaned in the review and analysis of pre-existing data it will be possible to identify potential target audiences, although this may change further along in the process. Finally, in this phase consideration will be given to research or interventions that have already taken place, with a view to assessing levels of success, funding

and budget, challenges faced selection of target audience and behaviour to be addressed.

An important element of phase one is identification of key stakeholders in the area so that they can be engaged in the project. These key stakeholders will provide insight and knowledge regarding the target audience, help deliver the intervention and provide essential contacts and authority which will be essential to the successful delivery of the intervention.

Phase 2 – This phase is dedicated to conducting primary research, the objective of this research is to fill the gaps in knowledge identified in the previously analysed data. The final outcome of this phase will be a written research report in which the primary research will acknowledge the results from phase one and add to the knowledge base. An important element of this research report is an analysis of competition and a review of assets. Analysis of competition pertains to factors that compete for the target audience's attention such as the current behaviour or preferred behaviour rather than the desired behaviour. In terms of reviewing assets this section of the report is related to mapping the resources and services that are already in existence which could support an intervention in order to avoid duplicating services or resources.

Phase 3 – This phase is centred on understanding the audience, segmentation and tailoring a social marketing strategy that reflects the specific characteristics of that segment. Audience segmentation is an essential element of a social marketing intervention, as it clusters individuals according to attitudes, abilities, and behaviour, thus allowing for development of an intervention that reflects these unique attributes, that in turn, increases the effectiveness of the social marketing message.

Finally, after all three phases of the scoping stage are completed; a scoping report is drawn up that reflects the findings of all three phases. The research generated in phases 1 and 2 are combined with the audience segmentation detail and the desired changes in behaviour that have been identified are moved forward to the 'development' phase (Reynolds & Merrit, 2010).

3.6.4 Development

This phase of the framework is dedicated to the development of the social marketing intervention, this is achieved by building initial behaviour change goals in order to develop and design the intervention. The ideas generated in this phase are then pre-tested on the target audience and refined as necessary. The primary output for the development stage is a marketing plan (Merritt, 2010).

This is the phase where the 4P's (product, price, place, promotion) are put into action. As stated previously, extensive use of the 4P's has been criticised by academics as being too over reliant on theories directly transposed from marketing (Peattie & Peattie, 2003). However, in reality social marketing campaigns rely heavily translating the concepts of product, price, place and promotion as a way to develop a social marketing intervention. This dichotomy between academia and 'real world' experiences demonstrates the reality of working in an area without an established theoretical base.

In terms of social marketing's use of the concept of 'product', product is intended to be selling the benefits of a change in behaviour to the target audience. Therefore the intervention has to be carefully designed to encourage behavioural change by promoting the benefits; these benefits could be tangible or intangible and are less easy to induce within a social marketing context compared to commercial marketing.

Product in a social marketing sense has three levels, the core product, the actual product and the augmented product (Kotler, 1988). The core product relates directly to the benefits accrued by the individual as a result of a change in behaviour, for example, if an individual gives up smoking, then they will experience the benefits of reduced risk to cardiovascular health, improvement in finances and a sense of personal achievement. The actual product relates to a

product or service that has been developed in order to product the core product's benefits, so in relation to the example above this could be the introduction of a support service to assist in stopping smoking. In terms of the augmented product, this relates to the services and infrastructure created in order to increase uptake of the actual product or service. In example supplied previously, this might mean ensuring that the support service is a mobile service located within walking distance of those needing it.

So for social marketers the 'product' is the desired behaviour change and ensuring its effectiveness is dependent on providing a product that is perceived to be beneficial to the recipient, that is accessible, and that has the services and infrastructure to encourage participation by the target audience.

For social marketing 'price' relates to the cost to the target audience of a change in behaviour. Therefore a social marketing campaign must consider what the 'costs' of changing from the existing behaviour to the desired behaviour will be, and aim to mitigate these costs in order to encourage participation.

In terms of the 'place' component of a social marketing campaign, this relates to the locality that the behavioural change intervention will be undertaken in;

therefore the campaign must ensure that the related support structures and infrastructure are in place to facilitate and enable the desired behaviour change.

The 'promotion' element of the social marketing mix is used to communicate the benefits of the desired behaviour change to the target audience, the value of changing behaviour and where the product or service is available. The task of the promotion element of the campaign is to ensure that the target audience are aware of the campaign, how it will benefit them, what is required of them in terms of effort and ultimately be inspired to act. Branding is an important element of the campaign as it provides the campaign with a recognizable 'personality' with which the audience can associate with a defined set of attributes and trusted outcomes. Developing a brand identity in the context of a social marketing campaign requires pre-testing, revising and testing again with the target audience in order for it be effective.

Pre-testing is an essential element of the development stage of the social marketing process, as the target audience should always be central to the intervention. Pre-testing of materials, services and messages allows the target audience to feedback which of the options has most effect on their attitudes and perceptions. Pre-testing in the development stage of the process will be undertaken with the target audience via focus groups or individual interviews. The process of evaluation of the nature of what is trying to be achieved by the

social marketing intervention is undertaken repeatedly throughout the process in order to ensure that the target audience's perceptions and attitudes are fully recognised and reflected in the campaign (Merritt, 2010).

3.6.5 – Implementation

The third phase of the TPP framework is the implementation stage, the overall aim of this stage is to actively implement the marketing campaign as defined during the scoping and development stages. This implementation phase is undertaken in a step-like sequence, first the launch is planned, followed by execution of the intervention, monitoring of progress, identifying and modifying as needed. The final output from the implementation stage is documentation of the activities undertaken and feedback received which will be used in the 'evaluation stage'.

3.6.5.1 Phase 1 – Planning to launch the intervention

The first phase of the implementation stage involves ensuring that the intervention is implemented as efficiently as possible. The key relevant stakeholders are important at this stage as they will be influential in supporting the intervention through the implementation stage. Therefore they will need to be fully informed regarding the content, context and delivery of the intervention

and any suggestions that they make will need to be allowed for in implementation of the intervention.

Training of staff who will be in the frontline of the intervention is also vitally important, as they will be delivering the 'service' or 'product' to the target audience so will need to be fully aware of the expectations of the behaviour change programme.

Prior to the launch data, the resources required to implement the intervention must be in the areas where the target audience can access them.

The final stage of planning the launch, is to decide the timings, here consideration needs to be given to the most effective time to attract the attention of the target audience. Evidence from the scoping and development phases will be instrumental in directing this decision.

3.6.5.2 Phase 2 – Identifying Opportunities and Problems

When the intervention has been launched and is running, it is important to monitor the effectiveness of the program and respond to any opportunities to fine tune the intervention. Furthermore, correcting any problems that occur

during the implementation stage is also very important to the effectiveness and efficiency of the program.

Budgets for social marketing interventions are usually quite small, so the budget needs to be monitored throughout the process and adjusted accordingly.

3.6.5.3 Phase 3 – Evaluating, monitoring and modification

During phase 3 of the implementation stage, monitoring the progress of the actual intervention against the planned progress of the intervention in order to evaluate the effectiveness of the programme and any adjustments made to it.

In order to evaluate the implementation phase of the intervention a variety of methods are employed such as:-

- **Media analysis**, monitoring of reports regarding the intervention in mass media communications
- **Event monitoring**, monitoring via short feedback questionnaires after events
- **Postcard questionnaires** sent to the target regarding the intervention, whether are aware of the intervention, have acted upon it and their general response to it.

- **Inventory tracking** whereby products are monitored in terms of those that are most popular, where they are being used and which members of the target audience.
- **Coupons**, if coupons are being used to reduce the cost of a product and to encourage uptake, then monitoring of who is using them and where, will allow proponents to gauge which channels are the most effective in terms of distribution.
- **Website**, often a social marketing intervention will have a website supporting the intervention providing information and guides to support services. Monitoring of website statistics given an indication of the pages that are most often visited, monitor length of time spent on specific pages and where the interest has come from.

-

These evaluation techniques provide an indication of how well the implementation phase is proceeding and also may provide information regarding issues that need to be refined or adjusted in order to meet the target audience more effectively.

Once the implementation phase is underway and monitoring and evaluation has taken place then the findings need to be disseminated to a wider audience. The reviewing process will show the positives and possibly the negatives of the intervention and these need to be shared with as wide an audience as possible

in order that others working in the same field can learn from the experience. The communication channels chosen to disseminate the findings need to reflect the needs and interests of the key stakeholders (Merritt, 2010).

After the implementation stage, where the intervention is launched, monitored and adjusted the next stage is a formal evaluation of whether the intervention has been successful in directing behavioural change (Merritt, 2010)/

3.6.6 Evaluation

The main aim of the evaluation stage of the TPP framework is to assess the strengths and weaknesses of the intervention and to evaluate whether the intervention is affecting behaviour change (McVey, Crosier & Christopoulos, 2010).

The main output from the evaluation stage is a report detailing whether the aims and objectives of the intervention have been met, the positives and negatives of the intervention, whether there have been any expected consequences and what has been learned in terms of the future direction of any subsequent interventions.

There are three stages in the evaluation process, a formative evaluation, process evaluation and finally outcome evaluations. These stages of the evaluation process will now be described in more detail.

Formative evaluation – In this stage of the evaluation process a baseline of data is gathered regarding knowledge, attitudes and behaviour of the target audience. This allows for assessment of the steps required to meet the objectives of the behaviour change programme. The process involves pre-testing of the intervention which in turn allows for a re-assessment of the aims and objectives of the programme of behavioural change. This stage is undertaken utilising a range of qualitative research techniques such as interviewing, participant observation and focus groups.

Process evaluation – This stage of the evaluation process focusses on how the intervention was implemented and functioned. The process will examine the context in which the intervention was implemented so will explore the wider cultural, political and economic environment as this will have been likely to have had some impact on the effectiveness of the intervention. During this phase of the evaluation process there will be an assessment of how effective the intervention was in generating awareness amongst target audience members.

Outcome evaluation – In this stage the evaluation looks at assessing the effectiveness of the intervention in terms of the original aims and objectives of the project. So the effectiveness of the intervention will be assessed in terms of short term, mid-term and long term outcomes. Short-term evaluation will focus on levels of awareness amongst the target audience, mid-term evaluation will assess which determinants of behaviour were changed and long-term outcomes will assess the intended (and unintended) outcomes of the intervention in terms of significant behaviour change.

The types of data employed during the outcome stage of the evaluation process are:-

- Direct indicators of the effectiveness of the intervention are statistically reported changes in behaviour, self-reported behaviour change, increased levels of usage of a related service or product and increased levels of 'footfall' to particular services that are an intrinsic part of the intervention.
- Intermediary indicators are those that happen before a change in behaviour, but suggest there is a change in perception amongst the target audience, so there could be increasing levels of awareness, knowledge and a change in attitudes and beliefs regarding the issue. Media analysis is also used to explore how the intervention is being communicated, so column inches and campaign mentions would be regarded as indicator of

the effectiveness of the intervention. Further assessment of the views of those delivering the services, who is using the services and what their opinions are of the service or product.

- Indirect indicators are not directly related to the intervention but may provide evidence that the intervention is having an effect. So the process, could examine whether the intervention is having an effect on policy in the area under consideration, or whether the law is considering the impact of suggested change. Whether the intervention is having an effect on key opinion makers in society, whether social opinion is changing in relation to social problem would also suggest that the intervention is having an effect.

-

In conclusion the evaluation phase of the TPP uses a wide range of quantitative and qualitative which are triangulated against existing data sources to assess the effectiveness of the social marketing intervention. The data generated in this phase provides an unbiased assessment of the effectiveness of the social marketing intervention, by consistently measuring the aims and objectives of the programme against a variety of behavioural change measures (McVey, Croiser & Christopoulos, 2010).

3.6.7 Follow-up

The final phase of the TPP framework for social marketing involves focussing on reflecting and disseminating what has been achieved throughout the implementation of the behavioural change intervention.

The overall aim is to share the findings of the evaluation phase to enable future development of the intervention, with the objective building on the successes of the intervention and learning and avoiding any of the unsuccessful elements of the intervention.

The final output from the follow-up stage should be a clear plan for the future direction of the intervention with a view to maintaining the desired behaviour change, building on and improving the effectiveness of the intervention and publishing information regarding the successes and failures to a wider audience that could benefit from what has been achieved by the intervention.

Much of the follow-up stage of the TPP framework is dedicated to communicating, both the successes and the failures, to as wider audience as possible. The findings of the intervention should be reported to those stakeholder groups that assisted in all phases of the intervention, to the target audience and to other interested or related parties.

The content of the follow-up report should provide detailed information regarding the behaviour targeted, the target audience, how and what behaviour was altered, the obstacles encountered during the intervention and how these were overcome. Furthermore the report should discuss the relevance of the findings in terms of how they could be utilised by others to influence further programmes of behavioural change.

3.7 Section Summary

In summary, the follow-up stage of the TPP framework centres on disseminating the findings of the intervention with a view to consolidating the information gained in order to generate a future plan to sustain, maintain and enhance the effectiveness of the social marketing intervention. Effective and successful communication strategies such as targeted journal articles, one-to-one briefings to stakeholders, press releases, media interviews, and seminar and conference presentations are an important facet in securing funding to sustain the intervention for the long term. Continual feeding back of results is an essential element in maintaining funding streams for social marketing interventions (Christopoulos, Blair-Stevens & French, 2010).

3.8 Chapter Summary

This main objective of this chapter was to explain and describe the background to social marketing as a concept, explore the theoretical underpinnings of the discipline, and examine the ethical implications of undertaking a programme of behaviour change. The next section of the chapter was devoted to describing the practical processes undertaken during a social marketing campaign. The rationale for including so much detail relating to applying a social marketing methodology to a social problem was that this thesis, will be applying these techniques to understand and explore the most effective ways to encourage sustainable behaviour amongst tourists. Therefore the following sections of this thesis will be apply the techniques suggested in phases 1, 2 and 3 of the Scoping section of the Total Planning Process model in order to gather all the relevant data to explore whether a social marketing methodology could be successful in encouraging tourists to behave in more sustainable ways whilst on holiday.

The next chapter will be focussed on the research methodology and analysis in order to identify the barriers to sustainable tourist behaviour and distinguish a potential cluster of individuals who may respond positively to an intervention to encourage a greater range of sustainable behaviours whilst on holiday.

CHAPTER FOUR – Methodology

4.1 Introduction

It is the intention of this thesis to explore the effectiveness of employing a social marketing methodology to encourage greater levels of engagement in sustainable behaviours amongst tourists and explore the link between environmental attitudes, behaviour and impact through the use of Ecological Footprinting software. The contents of this chapter will provide a detailed discussion of the research methods selected and how these meet and fulfil the requirements of both a social marketing perspective and the wider objectives of academic enquiry. Further discussion will detail the various stages of the process from survey design and implementation, sampling method, survey design, data collection and analysis. Full consideration will be given to exploring the relationship between the theoretical framework of social marketing and the methodological strategy employed to fulfil the objectives of the research. Additionally the research method and tools used to estimate the environmental impact of tourist on-site behaviour will be defined and explored in detail.

The structure and format for this chapter will be as follows:-

- Discussion of theoretical framework and methodological strategy
- Research design

- Selection of case study sites
- Description of survey design
- Description of REAP model design
- Description of interview design
- Ethical considerations

4.2 Research design

This research is centred on utilising a social marketing methodology to understand behaviour with a view to encouraging a change in behaviour. With this in mind the research design must focus on capturing relevant data relating to tourist on-site behaviour and an assessment of how individual's perceive their holiday, what their motivations are and how they perceive their holiday and decisions made in relation to environmental issues.

In the 'scoping' section of the social marketing process, where the primary research is undertaken with the target audience, the process dictates that great consideration should be given to the design of the research. The investigation of human behaviour is extremely complex, therefore, a combination of both quantitative and qualitative research methods offer the best opportunity to gather the data required to represent the problem under scrutiny (Zaltman, 2003).

Quantitative research methods focus heavily on gathering data via questionnaire surveys. These questionnaire surveys consist of mostly structured closed-ended questions measuring knowledge, attitudes and behaviour in which participants are forced to select answer that most closely represents their experiences (Donovan and Henley, 2003). The responses provided allow for numerical coding of individual responses which allows for statistical analysis and generation of sub-groups of individuals based on shared attitudes, beliefs and behaviours which is an essential element of a social marketing methodology. These questionnaire surveys can be delivered in a variety of ways via the telephone, mail, on-line and face-to-face. The advantages of quantitative research methods are that they allow an overall assessment of the social issue whilst enabling comparisons to be made between various subgroups (Donovan and Henley, 2003).

The methods associated with qualitative enquiry produces rich descriptive data which is more exploratory in nature and less constrained than data gathered by quantitative research techniques. The research instruments employed by qualitative research include in-depth and semi-structured interviews, focus groups, observation, and ethnography. These techniques are designed to allow participants to represent their experiences in the way they perceive them, leading to rich detailed information with which the researcher must interpret in

order to identify recurrent themes and establish the important determinants of behaviour.

The research design utilised by those employing a social marketing methodology combines both quantitative and qualitative research techniques to gain the most representative picture of the target audiences' perceptions of the issue under investigation (Zaltman, 2003). In the context of this research, and in order to follow closely the methods utilised by social marketers, both quantitative and qualitative research methods will be used. The quantitative technique will involve the design of a questionnaire survey consisting of both open and closed-ended questions. The rationale for utilising the questionnaire method of enquiry is that the survey can be distributed to a large number of tourists and the data gathered can be statistically analysed, and will provide enough data to enable segmentation analysis to be undertaken. The segmentation analysis will enable identification of sub-groups of individuals within the dataset based on their attitudes towards holidays and the environment. Whilst quantitative methods such as questionnaires provide an important statistical element to the research, the method does not allow, due to the closed nature of the questions, for individual perceptions and understanding of behaviour to be explored. However, qualitative techniques will allow for deeper exploration of the perceived and actual barriers to sustainable tourist behaviour to be analysed.

In terms of the qualitative element of the research plan, consideration was given to the most appropriate method to investigate individual perceptions of the barriers to and motivations for on-site sustainable tourist behaviour. The use of researcher led focus groups to discuss the issue was considered as a potential way to investigate the issue. However upon consideration, this concept was considered to be particularly difficult to organize and recruit participants, as the research process was to be undertaken whilst the participants were on their holiday. In terms of observation techniques, this was not considered as a potential technique as this would not aid exploration of individual perceptions of the barriers to sustainable behaviour. Semi-structured interviewing was perceived to be the most effective way to explore the issues surrounding sustainable tourist behaviour. These could then be scheduled with the participants after their holiday so as not to intrude upon the holiday experience. In-depth interviews were not felt to be necessary in this instance as the questionnaire would be designed to gather detailed information relating to on-site tourist behaviour, so a shorter more structured interview, related specifically to the exploration of the barriers to, and motivations for, sustainable tourist behaviour were deemed to be more appropriate.

In terms of the collection of data relating specifically to the ecological footprinting element of this research, the data required to enter into the REAP for Tourism software would need to be quantitative in nature. Therefore

consideration was given to what would be the most effective approach to data design and collection. There were two main ways that this data required could be collected, through diary-based collection method, whereby participants would record their activities and associated spending on a daily basis for the duration of the holiday; or the information could be condensed and be gathered from participants from the questionnaire survey. It was decided that the latter option would be most advantageous for this research, due to various reasons; by condensing the information into the questionnaire survey more participants could be expected to complete it and thus greater levels of data could be gathered offering more validity; diary-based method is time consuming and intrusive for participants especially when they are on holiday and this may make recruitment of participants difficult. A review of the diary-based methodology employed by South West Tourism to collect information regarding behaviour patterns suggested that a condensed version applied to the questionnaire would be most effective in this case. Therefore this research added a self-report section to the questionnaire survey which detailed activities and spending behaviour for the duration of the holiday.

An important element of the overall research design was the selection of suitable case study sites in which roll out the research. The next section of the chapter will detail how and why the particular case study areas were deemed to be suitably representative of tourist destinations in the South West of England.

4.3 Selection of case study areas

The case study approach in tourist behaviour research is an important way to compare whether locations have specific characteristics, that make them unique and thus attract a particular type of visitor, or whether tourist behaviour is fairly similar regardless of location (Beeton, 2005). In the case of this research the case study approach was utilised in order to assess whether sustainable on-site attitudes and behaviours differed between the two resorts, that is whether visitors to each of the destination areas behaved more sustainably because the destination had different characteristics, whether the case study areas attract different visitor types, or whether behaviour and attitudes were consistent between visitors to the two case study sites.

The two case study areas selected for this research to be undertaken are Minehead in Somerset and Paignton in Devon, both case study areas are traditional family coastal resorts. The next section will provide a detailed overview of each of the case study sites and justification for their selection.

4.3.1 – Case study site 1 – Minehead, West Somerset

The town of Minehead is located on Somerset's coast within the district of West Somerset. West Somerset covers an area of 720 km and comprises of two distinct areas the Quantock Hills Area of Outstanding Natural Beauty (AONB) and Exmoor National Park, the area also comprises coastline with established sea-side resorts of which Minehead is the largest. In 2008 West Somerset received 1.3 million staying visitors with an associated visitor spend of over £59 million whilst there were nearly 1.3 million day trips to the region associated generated over £47 million for the economy (South West Tourism, 2008).

The town of Minehead is the area's principal settlement with a population of 12,500 which nearly triples to 35,000 in the peak tourist season months. The resort comprises a promenade, sandy beach and harbour, the South West Coast path also begins on the promenade at Minehead. Minehead is also home to Butlins, an extensive holiday and day visitor resort. Butlins Minehead is the largest employer in the region. The town also comprises a wide range of catered accommodation (hotels, bed and breakfasts etc) and self-catering accommodation. Transport links to the resort is heavily reliant on road transport, with the only access via the M5 motorway at exit J25 at Taunton. access being via the A39 or A358 for approximately 11 miles. There is no mainline railway station, visitors alight at Taunton and catch a connecting local bus service to Minehead. There are currently 27 local bus services to

Minehead and 3 coach services. The nearest international airports are either Exeter or Bristol.

The principal responsibility for tourism strategy in Minehead falls under the remit of West Somerset District Council. West Somerset District Council released their proposed Tourism Delivery Plan for 2010 (West Somerset District Council, 2010). The vision for area is to create a 'high quality visitor experience, economically successful sustainable tourism industry which brings benefits to local communities' (2010:4). The strategic objectives for tourism are 'to ensure effective, integrated industry focussed marketing of the tourism offer across Exmoor and West Somerset' (2010:5). There is acknowledgement that the area of West Somerset does not have a strong brand identity with the public and therefore the strategy suggests that West Somerset is uniquely placed to take advantage of increased demand for an offer that is both based on high quality local environment and reduces local environmental impacts. The strategy therefore suggests the destination's marketing should be focussed on promoting a 'green' location within short travel times of major markets and potentially accessible by sustainable forms of transport. The second strategic objective outlined by the tourism delivery plan is to 'develop the quality of the tourism offer within the district, maximising its existing assets and linking this to the inherent environmental quality of the area'. The plan recognises the need to develop a strong brand identity to allow the area to compete nationally and

internationally. Minehead is recognised as a resort that should be aiming for year round tourism and the plan suggests that the resort would be ideally suited to the short breaks and activity holiday focussed markets.

Marketing of the area is achieved through partnership working with public and private sector groups, and comes under the remit of the Exmoor Tourism Partnership (ETP). The ETP comprises members from Exmoor Tourism Association, Active Exmoor, West Somerset Council and the Exmoor National Park Association key partners are North Devon+ and Somerset Tourism Partnership. Together the partnership aims to enhance the 'quality of the visitor experience, to improve the viability, sustainability and performance of tourism enterprises and to develop, promote and champion Exmoor and West Somerset brand in appropriate markets' (2010:8).

Minehead as a potential case study area is a small resort that, according to West Somerset District Council lacks a strong brand identity. The Tourism Delivery Plan (2010) also acknowledges the importance of sustainability, environmental quality and the environmental impact of tourism. Tourism delivery in the area suffers from a lack of funding and there is no dedicated Tourism Officer which means there is little reliable data regarding tourist behaviour in and around the resort. Visitor profiling in terms of behaviour and consumption patterns is an important component of this research and therefore

it will be necessary to survey in some detail tourist behaviour, Minehead will be useful case study area in that it has some unique features such as the Butlins Resort and West Somerset Steam Railway. (West Somerset Steam Railway is a very popular attraction that thousands of day visitors to the town)

The Butlins resort is extremely important to the resort in terms of bed spaces and employment. In terms of environmental impact the resort's 380,000 staying visitors and 80,000 day visitors per year must have an impact on the resort both environmentally, economically and socially. It could be proposed that visitors who choose stay in resorts such as Butlins tend to spend most of their leisure time in the resort and do not travel much farther afield. In terms of environmental impact in the form of eco-foot printing this might mean that Butlins visitors have a smaller footprint than a visitor that self-caters and visits local attractions by car. This could be one area where eco-footprinting analysis could be advantageous. Day visitors to Butlins could on the other hand be having greater impact on the environment depending on how far they have travelled and by what means?

In terms of sustainable transport options, Minehead has limited access to public transport particularly with regards to rail transport, local buses do operate but the journey time is over an hour and a half from the nearest mainline station. This limited accessibility will undoubtedly be a barrier to visitors opting to use

public transport to access the resort. Staying visitors on the other hand do have the option to utilise the local bus routes to nearby attractions such as Dunster, Watchet and Dulverton.

In relation to the DMO and its responsibility for marketing and promotion of the resort there appears to be a desire to re-brand the resort and a direct acknowledgement of the importance of sustainability – however translation into a direct strategy is missing. Therefore the case study area could be amenable to the development of a social marketing campaign to encourage sustainable tourist behaviour.

In conclusion, Minehead as a case study area should enable the research to meet each of the research objectives. In so much as Minehead is a medium-sized resort with a stable day and staying visitor profile. The resort itself is beset with barriers regarding issues of sustainability particularly with regard to sustainable transport options and this research has the potential to show how important this might be to visitor motivation and decision-making processes. Minehead also has 2 major day visitor attraction Butlins and West Somerset Steam Railway.

4.3.2 – Case study site 2 – Paignton, Devon

The second case study area selected to conduct this research is Paignton which is part of the wider area known as Torbay which comprises three main resorts Torquay, Paignton and Brixham plus the smaller areas of Babbacombe and Cockington. This area has a long history as a holiday destination branding itself as 'The English Riviera' due its climate and attractive scenery. The English Riviera is made up of 22 miles of coastline with 18 sandy beaches and positions itself as a traditional seaside destination (Torbay Development Agency, 2010).

Of the three tourist resorts Paignton has the most established history as a family holiday destination due to its long sandy beach and Victorian Pier. In 2007 the area of Torbay had over 1.1 million staying visitors and 2.3 million day visitors with an associated visitor spend in excess of £438 million, 21% of the resident population are employed in tourism or tourism related businesses. (South West Tourism, 2007) In terms of holiday accommodation Paignton has 18,070 bed spaces with over 50% being in holiday park or touring park accommodation. Transport links to the area are extremely good with direct road access from the South East of England and the Midlands via the M5 motorway, Paignton is also at an advantage as it has its own mainline railway station meaning the resort can be fairly easily from London and the North of the country. It is this 'sustainable' transport option that defines the resort as distinct

from the Minehead case study which is very much reliant on road access and therefore personal car use. There are also plenty in resort public bus routes connecting Paignton to the rest of the Torbay area so that visitors have the opportunity to select sustainable options whilst on holiday. The nearest international airport is Exeter.

In terms of visitor attractions, Paignton has the Dartmouth Steam Railway which starts and terminates at Paignton and travels for 30 minutes through to Kingswear where passengers can take the ferry across to Dartmouth. As an added advantage the steam railway is adjacent to Paignton's mainline railway station which provides a sustainable travel option for visitors. The other large attraction is Paignton Zoo which attracts over 400,000 visitors per year. Along with these major visitor attractions many visitors come to the area to experience the natural landscape or to walk the South West Coast Path which traverses the Torbay coastline.

Tourism management of the Torbay area including Paignton is overseen by Torbay Council, with responsibility for strategic tourism being undertaken by the Torbay Development Agency and visitor services, marketing being the remit of Torbay Council. Additionally there are 13 smaller organisations either directly or indirectly involved in promotion of the area, leading to fragmented management and marketing of the destination. The current tourism strategy for

the area 'Turning The Tide for Tourism in Torbay, 2010 – 2015' is focussed on arresting the decline in visitor numbers experienced in the previous years, increasing the value of tourism and reposition the 'English Riviera' brand as an inspirational and interesting area to visit (Torbay Development Agency, 2010;5). Current visitors to the area are dominated by families with pre-school or school aged children, the over 50's and coach groups. In order to sustain holiday bookings throughout the year the objectives is to focus on promotion to groups who are more flexible and can holiday outside of the school holiday period.

In terms of 'sustainability' the tourism strategy recognises the importance of high environmental standards with many of the beaches holding Blue Flag accreditation for cleanliness and high water quality. The tourism strategy recognises the need to embrace the tenets of sustainability. GTBS accreditation is held by 28 businesses in the Torbay area and 15 David Bellamy Conservation Awards which demonstrates there is acknowledgement of the importance of sustainability amongst tourism sector businesses. However the tourism strategy in itself does not have any objectives directly linked to providing and enabling sustainable behaviour amongst its visitors.

In conclusion, Paignton as the second case study was deemed to be a suitable study area as it would allow the objectives of this research to be met. The selection of the second case study area is important as the research needs to

compare tourist behaviour between the two resorts in order to test whether behaviour is generalizable between areas, or specific to the area and its visitors. Therefore Paignton and Minehead are suitable due to their similarities, in so much as, they are both established medium-sized traditional seaside resorts attracting similar visitor groups. Both case study areas are home to large visitor attractions and both have a Steam Railway which was selected as suitable sites for the questionnaire distribution. Whilst the areas share these characteristics, the two areas can also be differentiated by transport options; Minehead is heavily reliant on access by car and has no mainline railway station, whereas Paignton is easily accessible by public transport. The issue of accessibility could be an important determinant in decision-making and motivation of those visiting the area and also has ramifications for those wishing to make sustainable travel decisions. It should be noted that different case study options were considered before the two used in this research were selected, the justification for selecting Minehead and Paignton was to explore whether tourist behaviour within traditional seaside resorts can be generalised or are specific to the resort.

The next section will describe the design of the questionnaire survey which was delivered to visitors in the two case study area described.

4.4 Description of Survey Design

This research in its simplest terms seeks to change tourist behaviour through the use of social marketing techniques. However tourist behaviour covers a myriad of behaviours including actual behaviour and the motivations and decision-making behind the behaviour. Social marketing seeks to change behaviour using a 'bottom-up' approach by understanding behaviour from the standpoint of the individual rather than imposing change from above in a 'top-down' manner. Therefore the research needs to focus on exploring tourist behaviour within the chosen case study areas. Therefore the specific objectives of the research are outlined below and will be met through the following research objectives:-

1. To describe and explain the behaviour of tourists within a destination, to include travel to, from and within the destination also to include consumer behaviour whilst on holiday. The data gathered here is focussed on the reported behaviour of tourists whilst on holiday in their chosen destination. Data gathered includes information regarding activities undertaken, purchases made, distances travelled and modes of transport. The psychological aspects of tourist behaviour will also be explored in terms of motivations and decision-making processes involved in the pre-holiday period.

Method – Questionnaire survey of convenience sample of tourists within each case study area, the data required to meet this objective would include:-

- Demographic information (age, gender, socio-economic status, group composition)
- Type of visitor (day, VFR, staying)
- Transportation information (including distance travelled and mode of travel)
- Location and type of accommodation
- Activities undertaken
- Purchases made (consumer behaviour)
- Information on pro-environmental behaviour at home and holiday
- Measurement of general attitudes towards the environment and related to leisure travel and transport.

2. To identify, the barriers and motivations for adopting more sustainable tourist behaviour. A social marketing methodology dictates that one of the most important aspects to changing attitudes and behaviours is understanding the perceived and actual barriers to behaviour change, whilst also considering what individuals perceive might motivate them to change. Therefore this thesis considers how people understand notions of sustainability, what behaviours they undertake whilst in their home environment and what sustainable behaviours they might already take part in whilst on holiday and what motivates this behaviour. Further consideration is also given to what might encourage people to behave more sustainably whilst in the resort and what they perceive the barriers to be in this context.

Method – Utilising the quantitative data gathered in the previous objective undertake semi-structured interviews with selected respondents to identify the internal and external motivations and barriers to sustainable tourist behaviour. The interview transcripts will then be analysed and coded to reveal underlying themes of behaviour.

Outcome – the qualitative data gathered will enable greater understanding of how tourists understand the decisions they make regarding their behaviour. Further the information gained here, will enable greater understanding of the psychological and external barriers to sustainable tourist behaviour.

3. Based on the data derived in the previous objectives, this **thesis will identify using segmentation analysis, specific lifestyle groups that could be targeted with a social marketing intervention to encourage sustainable tourist behaviour.**

The data gathered identifies sub-groups of individuals that share similar psychological and behavioural characteristics in respect of their attitudes towards holidays, transport and travel. Where behavioural and psychological characteristics indicate that a particular group of individuals may be amenable to behaving more sustainably whilst on holiday, this group would be considered suitable for targeting with a social marketing intervention.

Method – Use statistical package SPSS to undertake multivariate analysis of data to generate lifestyle segments of visitors to the destinations.

Outcome - Analysis of this data should allow for lifestyle profiles to be ascertained and from this those groups that are more amenable to change can be identified and targeted with a social marketing campaign.

4. To measure the environmental impact, using REAP for Tourism Ecological Footprinting Software, of visitors to the two destination case study areas. This objective will be fulfilled by collecting data regarding the reported consumption behaviour of tourists whilst on holiday in the case study area. The information collected will consist of all the activities undertaken during the stay, spending on a range of items, accommodation, travel and transport choices. The results generated will provide an individual ecological footprint for each of the tourists which demonstrate the environmental impact of their on-site holiday behaviour. This information will be linked directly back to the segmentation analysis gathered for objective 3 in to order explore the link between pro-environmental attitudes, behaviour and environmental impact.

Method - Design a section of the survey instrument to gather data relating to the purchases made or intending to be made during the holiday, activities undertaken during the holiday, transport and travel options and distances travelled.

Outcome – The data collected will be inputted into the REAP for Tourism Software program and used to generate an individual ecological footprint of visitor behaviour. The ecological footprint generated can then be tested between case study area, visitor type, accommodation, type in

order to examine the link between environmental attitudes and behaviour.

4.4.1 – Questionnaire Survey

The questionnaire survey was designed and developed to provide a comprehensive baseline of behaviour amongst visitors whilst in the holiday destination case study areas. Table 4.4 details the sections of the questionnaire survey and how the information was broken down into eight sections to gain a fuller understanding of both pre-holiday decision-making and motivations and on-site holiday behaviour (Appendix 1 & 2).

Survey Sections	Information gathered
<p>1. <u>Holiday motivation and decision-making</u> (Rated in terms of usefulness from 1 – 5) 1 – not at all useful to 5 – extremely useful</p>	<p><u>Information sources</u> used in deciding current holiday destination (word of mouth recommendation, internet, brochures, advertisements, tourist information centres, travel agents)</p> <p><u>Destination characteristics</u> – how these affected the choice of current holiday destination (range of amenities, easily accessible by road network, good links to public transport, visited the resort before and wanted to return, family friendly, good climate/pleasant scenery, family and friends live close by, resort works hard to protect the environment)</p>
<p>2. <u>Current holiday information</u></p>	<p>Participants were asked a series of questions regarding their current holiday (duration, whether main holiday for the year, how many holidays they are likely to take and where, transport used to, from and during holiday, distances travelled, holiday group composition, holiday accommodation type)</p>
<p>3. <u>Activities</u></p>	<p>Participants were asked about how often they had or were likely to visit a range of attractions during their current holiday (museum, church/abbey/monastery, house and gardens, zoo/animal park, theme park, fun fair, boat trip, exploring nature, swimming, surfing)</p>
<p>4. <u>Shopping and Eating Out</u></p>	<p>Participants were asked to record how much they had or were likely to spend during their current holiday and how many times they were likely visit the following for the purposes of eating out or shopping (food/grocery shopping, clothes/shoes, furniture, jewellery, toys, antiques, books/magazines, pub/café, restaurant, takeaway)</p>

<p>5. <u>Attitudes towards the environment and climate change</u> – rated level of agreement 1 – 5 (1 – strongly disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree, 5 – strongly agree)</p>	<p>Participants were asked to rate their level of agreement to range of statements regarding the environment and climate change</p>
<p>6. <u>Attitudes towards travel and transport for short breaks and holidays</u> - rated level of agreement 1 – 5 (1 – strongly disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree, 5 – strongly agree)</p>	<p>Participants were asked to rate their level of agreement to range of statements regarding travel and transport in relation to short breaks and holidays</p>
<p>7. <u>Home and holiday sustainable behaviours</u> – recorded often they undertook behaviours (1 – always, 2 – usually, 3 – sometimes, 4 – rarely, 5 – never)</p>	<p>Participants were asked to record how often they undertook a range of sustainable behaviours when in the home environment and when on holiday (recycling, composting of food waste, use of energy efficient appliances, turning appliances off from 'standby', water saving devices, energy efficient light bulbs, purchase of eco-friendly goods, organic food, food from local farmers markets, re-use plastic carrier bags, use public transport or walk or cycle)</p>
<p>8. <u>Personal details</u></p>	<p>Participants recorded the gender and age of each person on their current holiday, bicycle ownership, car ownership, concessionary travel passes, and membership of environmental organisations, disability, and occupation.</p>
<p>9. <u>Contact details & Opt in</u></p>	<p>Participants were asked if they would like to participate in a short telephone interview if they opted to they were asked to provide contact details</p>

Table 4.1 – Sections of the questionnaire survey

The rationale for the use of each of the sections of the questionnaire will be explained in the following sections.

Section 1 – Holiday motivations and decision making: The first part of the survey explored the period before a decision was reached on the participant's final holiday destination and the types of information that were perceived to be instrumental in forming the final decision. The rationale for including this information within the survey was that a conventional social marketing strategy might design an intervention that could be applied before a decision on a holiday destination was made, therefore it would be important to understand what types of information people find especially useful when choosing a holiday destination. Thus any intervention would be more effective if placed via the most used information channel.

The second part of this section explored which of the resort's attributes were most important to the participant's when selecting their current holiday. The rationale for including this kind of information would be to gain a better understanding of what makes a holiday destination desirable and whether pro-environmental attributes such as a resort having 'good links to public transport' or the 'resort works hard to protect and preserve the environment' are important aspects of the motivation for selecting a particular destination or whether less

environmentally important characteristics play a greater role in holiday decision-making.

Section 2 – Current holiday information: This section was devoted to gathering information regarding the participant's current holiday with a view to understanding the nature of the current holiday experience. So the information gathered included the length of stay, accommodation type, composition of holiday group, transport type to, from and during vacation and mileage undertaken for the complete holiday. The rationale for including such detail was to establish the types of holidays undertaken, who the participants were travelling with, how far they had travelled and what means, and the travel they undertook whilst on holiday. The travel and transport aspect of this part of questionnaire is important in terms of sustainability as car travel is used to primarily to reach tourist resorts in the South West of England.

This section of the questionnaire also collected data regarding about the number of holidays and short breaks likely to be taken during the following 12 months and the location of these holidays (in the UK, Europe or further afield). The significance of collecting this information lies in the fact that shorter breaks taken more frequently are becoming the norm but the future of tourism in terms of sustainability is perceived to be longer holidays taken less frequently.

Section 3 – Activities: This section of the questionnaire focussed on the frequency of visits to different types of visitor attractions during the participant's current holiday. The rationale for gathering this data was that it could be inputted as part of the eco-foot printing software program which will enable an individual footprint to be calculated for each participant.

Section 4 – Shopping and eating out: This section gathered information regarding how many times participants had been or were likely to purchase items during their holiday (groceries, clothes and shoes, furniture, jewellery, toys, antiques, books and magazines) and how much they had or were likely to spend. Information regarding 'eating out' activities was also part of the survey so participants were requested to report how many times they ate out in restaurants, pubs and cafes and from takeaway food outlets, they were also asked to report how much they had spent or were likely to spend during their holiday. The rationale for inclusion of this information was the same as the previous section in so much as the information gathered was entered into the REAP for Tourism ecological footprinting software.

Section 5 – Attitudes towards the environment and climate change: This section required participants to give their level of agreement with a series of statements related towards the environment and climate change. The statements consisted of three different types, knowledge and understanding regarding the

threats of climate change to the environment, personal responsibility towards the environment and willingness to change behaviour as a result of threats associated with climate change. The statements assessed participants' attitudes to and understanding of the threats associated with a change in climate and five of the statements were linked to a BBC Climate Change Poll that was undertaken November 2009 and then repeated in February 2010. These statements were specifically aimed at participants perceptions of whether climate change and the environmental threats associated with it are established scientific facts, whether these threats were perceived to be exaggerated, and whether climate change is occurring as a direct result of man-made activity. The statements relating to personal responsibility examined participants' attitudes towards how their own behaviour might impact on the environment and whether this responsibility should be individual or collective in nature. The final set of statements explored participants' willingness to change their behaviour as a response to the environmental threats associated with climate change. The basis for including these statements was to explore participant's general attitudes towards the environment and climate change in order to gauge how seriously they perceive the threats to be and whether in the light of this they would be willing to adapt their behaviour.

Section 6 – Attitudes towards travel and transport for short breaks and holidays:

This section comprised of 8 statements in which participants were required to

rate their level of agreement with a series of statements relating to holiday transport and travel. The first four statements related directly to transport decisions made for travelling to the destination and during the holiday. Participants were asked whether choosing the fastest transport option when going on holiday was important to them, whether they enjoyed using public transport when on holiday, whether they actively avoid highly polluting forms of transport such as air travel when going on holiday and whether they actively avoid using public transport when away. The motivation for using these statements was to understand participant's attitudes towards the choices they make regarding holiday transport and travel. In terms of sustainability longer slower journey's utilising public transport services tend to be more sustainable then quicker journey's using air travel or the car and therefore it is important to evaluate whether people consider sustainable travel options viable in a holiday context.

The next statements were centred on attitudes towards the environment specifically in relation to holiday decision making. Here the statements centred on whether participants' attitudes regarding how they might reduce their environmental impact whilst on holiday and whether they might change their holiday plans in response to issues such as global change. The participants were also asked to rate their level of agreement in respect of how important taking short breaks are to them. The rationale for including these statements

was to assess whether participants consider their environmental impact when making decisions about their holidays.

Section 7 – Home and holiday sustainable behaviours: This section of the survey was designed to gather information on how often participants' engaged in a range of sustainable behaviours when in the home environment and then again when on holiday. The participants were asked to rank their level of commitment on a range of sustainable behaviours from those that are relatively simple (recycling, composting, plastic carrier bag re-use, turning appliances off from 'stand-by') to those that require a greater level of commitment (use only energy efficient appliances, water saving devices, energy efficient light bulbs, public transport usage) and decisions made when shopping (purchase of eco-friendly goods, organic food, food from local farmers markets). The justification for including this information was to understand whether participants who were committed to certain sustainable behaviours continued these behaviours when in a holiday environment.

Section 8 – Personal details: The final section of the survey gathered the age and gender of the participant completing the questionnaire and those people who were in their current holiday group including children, spouses/partners and other adults. Further information gathered included how many cars and bicycles the participant's household has and whether they hold a concessionary

travel pass (National bus pass/railcard), and whether they are a member of any environmental organisation (World Wildlife Fund, National Trust, Greenpeace, RSPB, Natural England, Woodland Trust). Information regarding disability and professional status of the participant was also collected. Information regarding membership of environmental organisations was included in order to establish whether membership of these organisations correlates with sustainable attitudes and behaviours.

Section 9 – Contact details and opt in: Participants were asked if they would be prepared to take part in a short telephone interview if so they were asked to provide contact details (interviewees were incentivised by £10 Amazon voucher). Furthermore participants were asked if they wished to be entered into prize draw to win £100 of Marks and Spencers vouchers for completing the questionnaire which would be drawn after the survey period had ended at the end of September 2011.

It should be noted that two versions of the questionnaire survey were developed one for participants who were staying visitors and one for participants who were day visitors and would therefore be returning to their home at the end of the visit.

4.4.2 Survey delivery and data collection

A small pilot study was undertaken to establish if a) the questions worked as designed and b) to establish what would be the most effective delivery method. Initially the survey was trialled by the researcher on the seafront in the Minehead case study area. Here potential participants were approached and asked if they were on holiday or day visitors and then asked if they would be willing to complete the questionnaire. Hotels and guesthouses and Tourist Information Centres were also contacted and asked if they would be willing to have copies of the questionnaire survey for their guests to complete. After a short trial the questionnaire was reviewed and shortened slightly and the success of the collection methods were reviewed. The results showed that although the survey instrument was functioning as designed the delivery method was not so effective with only 12 successfully completed questionnaires being obtained during the trial period of three weeks. Additionally the Tourist Information Centre in the Minehead case study area was unwilling to continue keeping copies of the survey as they were conducting their own survey and therefore wished to prioritise this.

A second method of survey delivery was therefore deemed to be necessary, contact and permission was sought to distribute the survey amongst visitors, with West Somerset Steam Railway which serves the Minehead case study area and Dartmouth Steam Railway which operates in the Paignton case study

area. Both of these steam railways are extremely popular visitor attractions in the case study areas attracting all types of visitors. The steam railways were selected as suitable points for survey distribution as there is a period of 'turnaround' time before the steam railway journey is undertaken where visitors are waiting and would be available to complete the surveys without disrupting their experience of the steam train.

The surveys were distributed at the start of the journey before visitors were boarded the train. A survey on a clipboard and pen were placed on each seat. Whilst the visitors were waiting to depart the researcher walked through the train and invited participants to complete the questionnaire and provide background information regarding the nature of the research. Participants were informed that the completed questionnaires would be collected at the end of the journey. Surveys were collected at the end of the journey and stored securely; the clipboards were then replenished for the return journey. This process was undertaken during July, August and September of 2011 and undertaken on different days (one weekday, one weekend day) in order to capture as many visitor types as possible. The surveys were distributed in the Minehead area on the second Tuesday of July, August and September and in the Paignton case study area on the second Thursday of each month. In terms of weekend distribution this was undertaken in the Minehead on the first Sunday of July, August and September and in Paignton on the third Sunday of each month

(distribution was not undertaken on Saturday as both attractions reported that this was 'quietest' in terms of visitor numbers of the week) (Table 4.2).

	Minehead			Paignton		
	July	August	Sept	July	Aug	Sept
Weekday	12/7/11	9/8/11	6/9/11	15/7/11	11/8/11	8/9/11
Collected	40	35	28	50	47	35
Weekend	3/7/11	7/8/11	11/9/11	17/7/11	21/8/11	18/9/11
Collected	28	32	30	31	20	14
Total	68	67	58	71	67	49

Table 4.2: Table detailing survey dates and collection rates (*an additional 20 surveys were collected but these were incomplete so were omitted from the analysis)

4.4.3 Data Input and Analysis

The data gathered via the questionnaire survey was coded into numerical format and was inputted into SPSS Version 19 software and analysis was undertaken in three phases; preliminary analysis, non-parametric tests and segmentation analysis.

Preliminary analysis – An exploration of the data was undertaken to describe the data set in terms of the characteristics of the participants. Therefore data

was gathered regarding age, gender, holiday type, holiday group composition, accommodation type, length of stay, and transport type.

Further analysis was undertaken to manipulate the data in order to ensure the results were more meaningful; therefore recoding of variables and reversing of negatively worded items were carried out in order to generate a total score for a particular set of variables. This was carried for Sections 5 and 6 of the survey (general attitudes towards the environment and climate change and attitudes towards holidays and short breaks). These variables contained ordinal ranked data where each variable had a total possible score of 5; a score of 5 would suggest high environmental attitude and a score of 1 would suggest a that a participant was not particularly interested in environmental problems such as climate change. In order to generate a total score for general environmental attitudes that could be used for comparisons between groups it was important to reverse negatively worded variables this was undertaken for two variables 'Climate change is happening but not yet proven to be largely man made' and 'The threats of climate change have been exaggerated' which in turn allowed for a total score for general attitudes towards the environment to be generated. The total maximum score for attitudes towards the environment was 45 and the lowest score would total 9. For section 6 Attitudes toward holidays and short breaks there were five negatively worded variables that required reverse

coding. A high total score for this set of variables would suggest a participant considers the environmental impact of their holiday behaviour.

Finally in section 7 where participants were asked to record how often they engaged in a range of sustainable behaviours both at home and in the holiday environment the scores were reversed so that a high score would mean a greater commitment to sustainable behaviours. This also enabled a total score for sustainable behaviour at home and on holiday to be calculated thus allowing for comparison at a later stage.

Non-parametric tests – a series of non-parametric statistical tests were carried out in order to make statistically significant comparisons between groups of participants. Whilst parametric statistical tests have a higher level of sensitivity to differences between groups they do require a more stringent set of assumptions usually regarding the shape of the sample population in so much as they require the data set to be normally distributed. It is for this reason that non-parametric tests were used in this research project.

Mann-Whitney U Tests were used to test for differences between two independent groups on a continuous measure, in the case of this research the test was applied to test whether gender differed in terms of total scores for

sustainable behaviour at home and then in the holiday environment. Similarly the sample was separated by case study area and differences in levels of commitment to a range of sustainable behaviours were tested. Total scores on environmental attitudes and attitudes to holiday transport and travel were tested across a range of independent variables (gender, case study area etc).

Kruskal-Wallis Tests were used to compare scores on a continuous measure when there were three or more groups. In the case of this research the test was used to compare age groups on a range of continuous measures (general attitudes towards the environment, commitment to a range of sustainable behaviours at home and on holiday).

Wilcoxon-Signed Rank Tests were used to test whether there are statistically significant differences between scores in two separate conditions. In the case of this research the tests were used to test whether there was a statistically significant difference in levels of commitment to a range of sustainable behaviours between the home environment and the holiday one.

Cluster Analysis – An essential component of a social marketing methodology is the segmentation of participants into homogenous groups in order to eventually target the most receptive kind of behavioural intervention. Cluster analysis is

therefore utilised to group individuals, based on their responses into meaningful segments whereby members of each clustered segment share similar characteristics but are also distinct from members of other clusters.

There are a number of clustering techniques available, this research utilised the Two-Step Clustering technique in SPSS V19. The Two-Step technique revolves around a two stage algorithm; the first stage uses within cluster variation to form homogenous clusters and aims to segment the data so that within set variation is minimised. This is achieved by randomly assigning objects to clusters which are then successively reassigned to other clusters in such a way as to minimise the variation between objects in the same cluster. In the second stage of the process the program conducts a hierarchal agglomerative clustering procedure combining the objects sequentially to form the final homogenous clusters. The advantage of using the Two-Step procedure is that it can hand both categorical and continuous variables and also indicates each variable's importance in the construction of that cluster (Mooin & Sarstedt, 2011).

An important part of the clustering process lies in the selection of variables to be clustered, segments can be chosen based upon observable and therefore directly measurable variables (demographics, socio-economic status) or unobservable and therefore not directly measurable (attitudes, values and

beliefs) Moin & Sarstedt, 2011). In the case of this research the variables selecting for the clustering procedure were those relating to participants attitudes towards holidays, transport and travel. The five variables used in the Two-Step clustering process were:-

1. I don't worry about the environment when I make choices concerning my holiday travel.
2. I am unlikely to change my holiday plans in response to issues like global climate change.
3. Taking short breaks is important to me.
4. I prefer to avoid air travel when I go on holiday
5. I like to use public transport when I am on holiday.

Another crucial aspect of the Two-Step Clustering technique is that it allows the researcher to define the minimum and maximum number of clusters generated. Therefore a number of clustering procedures were undertaken around the variables and the most successful outcome generated three distinct clusters.

4.5 Description of the REAP for Tourism Model Design

An important part of this research was to explore the environmental impact of reported tourist behaviour and to establish if there was a link between attitudes towards the environment and reported behaviour. In order to achieve this, an Ecological Footprint was calculated for each of the participants who accurately completed the required sections of the questionnaire survey. The data

collected was inputted into the REAP (Resource Energy Analysis Program) for Tourism software.

The REAP for Tourism footprinting software was developed by the Stockholm Environment Institute (SEI) at the University of York in conjunction with South West Tourism specifically to provide a way to estimate the environmental impact of tourist behaviour. In 2006 the SEI launched the original REAP software program to track the materials, carbon dioxide emissions and Ecological Footprint through the UK economy by industrial sector, geographical area and socio-economic group. Data on consumer spending on travel and energy was further incorporated into the model; this data came from the Family Expenditure Survey and the National Travel Survey. The SEI then tested the model to see if it could be modified in order that tourism specific footprints could be generated. Thus data gathered for South West England residents in respect of their consumer spending and energy use was replaced by data gathered from tourists. The model went through a series of refinements and testing and baseline data for tourists in 2006 was added to the tool. Eventually an interface was designed so that the tool could be to calculate an estimate of tourist environmental impact in the South West of England.

The methodology of the REAP for tourism tool was established to take account the full consequences of tourism. The Ecological Footprint (EF) is one indicator

which works to achieve this by estimating “the full resource consumption and waste assimilation requirements of a defined human population” (Wakernagel & Rees, 1996:9) The EF is measured in terms of the resources and therefore the corresponding land mass area required to provide the goods or services. The advantage of using EF is that it gives a finite limit to resources and is therefore able to illustrate when consumption becomes unsustainable. The SEI state that their methodology uses ‘conversion factors’ which enable the impact in tonnes of carbon dioxide to be calculated for each pound (sterling) spent on any consumption category. Therefore it is possible to calculate the impact of different products and services per pound spent using a series of input-output tables that convert spend to a measure of carbon dioxide. The extensive input-output tables that the SEI have generated show purchases in each sector of the economy and include imported commodities as well as the consumption of products by services in other sectors. The conversion factors then reveal the full environmental impact associated with each product along the whole supply chain.

The REAP for Tourism tool was designed as a tool to inform those responsible for regional tourism strategy and activity. The program has baseline data for the whole of the South West of England which is further broken down into individual counties, unitary authorities and districts. In order to generate a footprint data needs to be gathered along the themes of accommodation, food

and catering, travel, shopping, activities, attractions, events and services. The output generated by the software is measured in global hectares (ecological footprint), tonnes of carbon dioxide or carbon dioxide equivalence (carbon and greenhouse gas footprint) and tonnes of waste and litres of water used. The software allows the impact to be displayed 'per tourist day' for comparison purposes or as a total of all visitor activity. The tool allows for the impact of different scenarios to be investigated, therefore impact of a change in visitor spend can be modelled to investigate the environmental consequences of a change in behaviour.

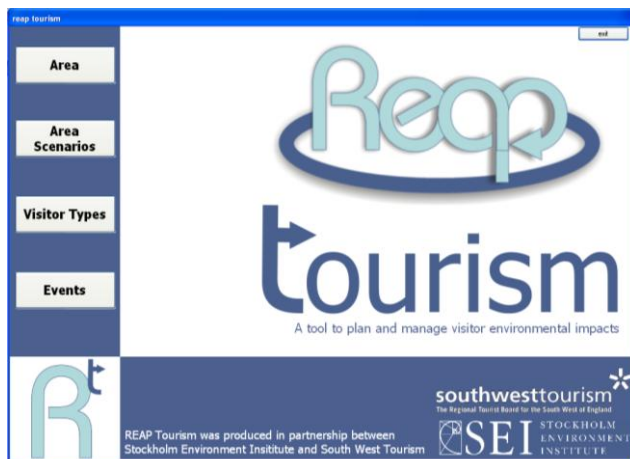


Figure 4.1 - REAP for Tourism Opening Page Interface

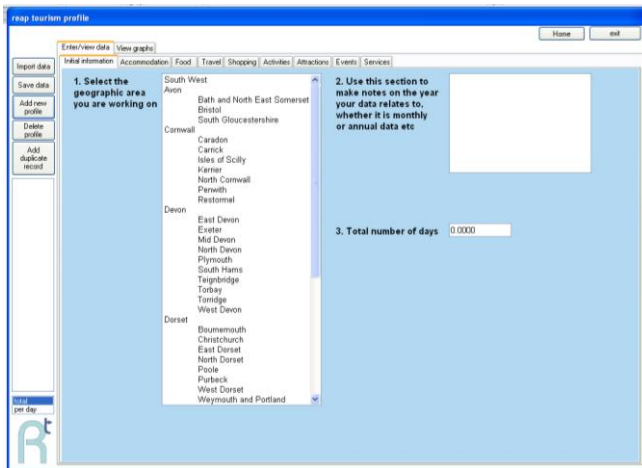
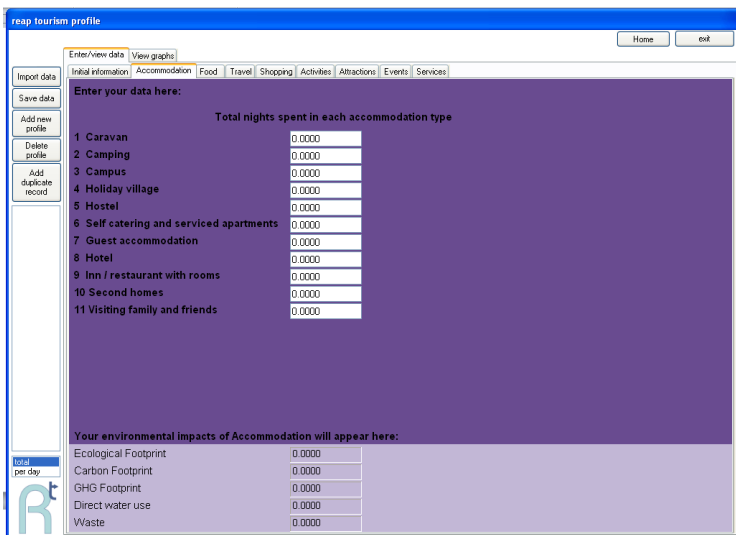


Figure 4.2 – REAP interface inputting page.

REAP interface data inputting screen (figure 4.2) showing initial baseline information for each district in the South West of England. The tabs along the top of the page for accommodation, food, travel, shopping, activities, attractions, events and services are used to input spending in each of these areas.



4.3 REAP interface page illustrating the 'accommodation' tab.

This page of the program illustrates the 'accommodation' (figure 4.3) tab of the software here the data is inputted regarding the nights spent in a particular accommodation type. The output or environmental impact is displayed at the bottom of the page as shown in the example below.

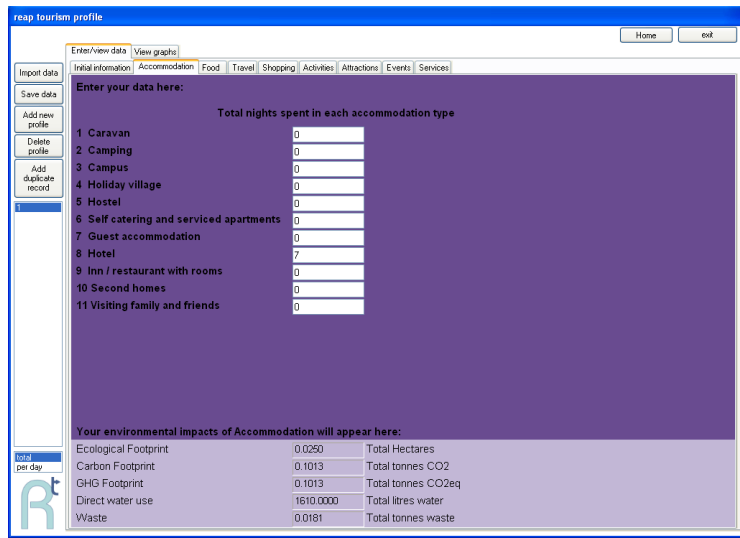


Figure 4.4 – REAP Interface showing environmental impact of accommodation

The interface above shows the environmental impact of accommodation (figure 4.4) in terms of ecological footprint, carbon footprint, Greenhouse Gas footprint and direct water and waste, calculated for a fictional visitor staying seven nights in a hotel in North Cornwall. In order to generate a complete footprint for this visitor data would need to be inputted regarding food, travel, shopping, activities, attractions, events and services.

The final output that the software provides is series of graphs where the total impact of each sector can be seen, both as a total visitor impact or is displayed

as impact per visitor day. (Appendix 4 provides a more detailed overview and critique of the REAP for Tourism Software tool).

4.5.2 REAP Data Input

The questionnaire survey was designed to elicit as much detail about tourist behaviour whilst in the destination as possible and to enable ecological footprinting to be undertaken. The sections relating to travel and transport modes, distance travelled, accommodation type and length of stay, visitor attractions and activities, shopping and food were designed to provide enough information to generate ecological footprints.

Each participant who completed these sections of the questionnaire in their entirety were entered into the REAP for Tourism software.

4.5.3 Inputting procedure

Each completed questionnaire was checked to ensure that all of the relevant details had been completed. Where a participant had not completed the sections needed their survey was not included in the ecological footprinting analysis.

Each completed survey was inputted into the software completing all of the relevant tabs as mentioned above, the completed questionnaire was also allocated a number which was the same as the number for data inputted into the SPSS software. Once an ecological footprint had been generated by the software this was transferred to a Microsoft Excel spread sheet. The spread sheet recorded the ecological footprint in terms of the land required to support that activity for each of the sectors of tourist behaviour. So for each participant an accommodation footprint, travel footprint, food, shopping, and activities generated, as well as a total visitor footprint and the average per day footprint.

Once the footprint for each participant had been generated and added to the Excel spread sheet the data was transferred to the SPSS data set via the cross referencing method mentioned previously.

4.5.4 REAP Output

The output from the REAP software generated a total ecological footprint for each participant entered as well as a per day visitor footprint. This total was further broken down into the component parts so that it was possible to see where most of the footprint was generated. This data was then transferred to the Excel spread sheet this allowed comparisons between participants staying

in different accommodation types, case study areas and once the cluster analysis had been undertaken by cluster membership.

4.6 Description of Interview Design

An essential element of this research was to uncover the perceived and actual barriers to, and motivations for encouraging sustainable tourist behaviour. This was achieved through a series of short semi-structured telephone interviews from self-selecting questionnaire participants. The interviews were undertaken when the participants had returned from their holiday and an appointment was made with them to undertake the interview at time convenient to them.

Where the main focus of the questionnaire survey was to detail tourist behaviour in the destination area and to gather general attitudes towards the environment, travel and transport and sustainable behaviour at home and on holiday the interviews focussed on trying to uncover what the barriers and motivating factors to behaving more sustainably on holiday might be. The strengths of including a qualitative element to the research lies in the 'emic' element of the process of enquiry, in so much as the data gathered gives the participants the opportunity to 'drive' the responses in the direction of their own perceptions and experiences rather than being forced into the restricted choices of a questionnaire survey. This is especially true of this research that chose to

utilise a semi-structured interview technique whereby target issues were discussed but responses were very much driven by the participant. Thus the participant becomes a 'co-researcher' and uncovers the meanings and experiences behind particular decisions and behaviours, in the case of this research participants would be revealing the reasons for particular holiday decisions and behaviours (Jennings, 2005).

In the process of undertaking semi-structured interviews, in order that information gained is informative and valuable and thus meets the objectives of the research, the researcher must adopt a position of actively listening, interpretation and reflexivity (Jennings, 2005).

Further consideration should be given regarding the ethical implications of the process of interviewing participants, especially as in order for the interview to be successful, rapport between interviewee and interviewer must be established. Therefore identification of personal information and perceptions should be guarded against and in process of engagement and personal rapport the researcher must try not to influence the direction of discussion too heavily thus invalidating the process of discovery.

4.6.1 Interview schedule

The interview schedule was developed based on responses from the quantitative questionnaire survey, whereby more detailed information might explain particular 'gaps' in the information provided, or to provide greater explanation of particular decisions and behaviour. Therefore the interview schedule was developed to understand the barriers and motivations to sustainable tourist behaviour as identified by the questionnaire survey. The questionnaire survey was worked through section by section to identify which areas could be identified as possible 'gaps' in knowledge or required further explanation (Appendix 3).

The first section of the questionnaire assessed the types of information participants used when choosing their holiday destination and what destination attributes were important in this process. The first part of the interview schedule focussed on asking participants to think back to before they selected their holiday destination in terms of the 'search' process and what information was most important to them in this process. The concept behind this section was to establish whether pro-environmental issues featured anywhere in this decision process. So for example were participants actively seeking accommodation providers with 'green accreditation'? Was it important that their destination had good public transport links? If this was important how were they finding this information? Did they notice any information regarding protection of the

environment in any of the information they used in their search and selection process?

As transport and travel are intrinsic to the holiday, an important part of the interview schedule was establishing the barriers and motivations to utilising more sustainable forms of transport when in the holiday destination. The results of the questionnaire survey showed that the majority of respondents travelled to and from their chosen holiday destinations using a car, and that the majority of journeys undertaken whilst on holiday were also undertaken in their car. So the interview schedule included questions relating to decisions made regarding transport modes and what the participants might perceive to encourage them to make less car journeys whilst on holiday. Discussion also focussed on identification of factors that made using public transport more difficult, such as a member of the holiday group having a disability, or travelling with very young children.

The next area of discussion followed on from the results of the questionnaire survey which showed that there to be a 'drop off' in commitment to sustainable behaviours between the home and holiday environments. Here participants were asked whether their accommodation provider provided facilities and encouraged recycling, had energy saving devices installed, encouraged the turning off of electrical devices and provided information regarding 'car free'

days out? If so, did the participants use these services and what was their experience of them? If these services were not provided would the participants like to see them? If they did not use them, what factors would encourage them to use them?

The final section of interview was related to participants' general feelings about the purpose of a holiday, and how they felt in general about air travel and matters regarding protection of the environment.

4.6.2 Semi-structured interview delivery

The questionnaire survey asked participants to 'opt in' if they were interested in taking part in an interview after their holiday. 36 participants opted to take part in the interviews and were contacted via email after they had returned home in order to arrange a suitable and convenient time for interview. In the end 20 participants agreed to participation in the interviews and had their details gathered and appointments were made to undertake the interviews at a time convenient to them (this represents 5% of participants). The participants were informed that interviews would be short in duration between 10 and 15 minutes and would be undertaken on the telephone.

The participants were also informed that their interview would be recorded to allow for transcription and analysis but that their details and responses would remain completely confidential and be stored separately from their contact details.

The interviews were recorded using an Olympus Digital Voice Recorder (model no WS-200S) with Telephone Pickup T7 Microphone. Each interview was then transcribed into Microsoft Office Word 2010 ready for analysis.

4.6.3 Interview analysis

The method of analysis selected for the transcribed interviews was based on the principles of Grounded Theory Analysis which was developed and established by Glaser and Strauss (1967). Grounded Theory analysis works on the premise that the 'theory' behind social phenomena is grounded in the way people perceive and experience their lives (Pidgeon, 1996). Therefore in order to fully understand social phenomena the researcher has to fully appreciate how individuals understand and experience their lives. Grounded Theory analysis also fully recognises that as a researcher it is impossible to be completely unbiased in the direction the research takes and that undoubtedly the researcher will impact on the results. The analysis and further theory construction is therefore 'grounded' in the interview transcripts and is a direct

reflection of the way the participants experience their world (Pidgeon & Henwood, 1996).

The analysis process is undertaken in a series of stages, the interview transcripts are prepared by breaking down the chunks of text into a series of manageable and meaningful utterances these are then labelled. The whole of the transcript is worked through in the same way, so that each chunk or utterance is labelled numerically, labelling identifies the participant with a number that runs through the whole transcript and each utterance is numbered in numeric sequence to allow for cross referencing at a later date.

Once all of the data has been prepared initial analysis is undertaken, this involves moving through labelled chunks of interview transcript and identifying themes that represent what has been said by the participant. So that the researcher creates a theme and the part of the interview script that represents that is then cut and pasted under that theme, the numerical coding of the participant and line number are also recorded under the theme. This allows the researcher at a later stage to review the script and judge whether the theme created does indeed represent what the participant said. The rest of interview script is worked through in the same fashion and text relevant to the research question are identified and pasted under themes until the whole script has been coded. In the case of the research the interviews

were designed to identify the barriers and motivations of sustainable tourist behaviour, so the interview scripts and emergent themes centred on answering that question.

The remaining interview transcripts are worked through in the same way with constant comparisons made between what has been recorded by participants and many new codes created to represent themes and concepts running through the scripts. The researcher moves through the scripts looking for similarities and differences in participant's experiences and responses and constantly reviewing the themes and concepts identified.

In parallel to the process of coding and theme development the researcher writes 'memos' recording any 'hunches' they develop regarding participant's experiences of the phenomena under investigation. This process of constant internal re-evaluation allows the researcher to make modifications to the themes developed and become increasingly familiarised with themes that repeat themselves throughout the interview transcripts.

As the process of coding continues the concepts and themes developed become 'saturated' with utterances that all pertain to a similar theme, at this point the researcher writes a definition that summarises the information under

that concept in order to make in meaningful in relation to the research question. At this point the researcher also looks for links between concepts, splitting themes and concepts into categories. Once this stage has been completed for the entire set of interview scripts and definitions have been written that encompasses all the relevant themes and categories the researcher attempts integrate the categories in order to fully understand how everything fits together in relation to the research question often this is achieved by diagrammatic representation, through flow charts for example. The use of diagrams enables the researcher to represent the most salient parts of their findings and how they link to other factors uncovered in the research process. The final diagrammatic representation then allows the researcher to fully understand how participants understand their experiences in relation to the research question and as a consequence develop a 'theory' that answers the question at hand that is grounded directly in the data collected.

4.7 Ethical Considerations

As this research project is centred on the use of a social marketing methodology, and because the very nature of social marketing depends on 'behavioural change for social good' there are at least two ethical dilemmas that require consideration, a. changing people's behaviour and b. the notion of 'social good'. The idea that changing people's behaviour in relation to a social

problem is a complex notion, especially if individuals within a given society do not perceive there to be a 'problem' that needs fixing, therefore a change in behaviour is likely to be perceived as intrusion into their life. Combine this with the complexity of defining a 'social good' in terms of how individuals will perceive the outcome of a change in behaviour and whether in fact there will be a benefit either to them or to society as a whole. Therefore the whole concept of social marketing is littered with ethical issues from which participants must be protected from (Kotler and Lee, 2008; Laczniak, Lusch and Murphy, 1979).

The process of undertaking a piece of research must always consider its ethical and moral obligations to those who participate in the research and those that might be influenced as a result of the findings. An important element of research is that a certain amount of deception is implied between researcher and participant in order to extricate valid information regarding attitudes and behaviours without influencing the participant's responses. Therefore ethically the researcher should ensure that any deception is carefully considered so as not to cause distress to participants especially with regards to sensitive issues such as sexuality, finances, ethnicity etc.

In the case of this research project there two stages of investigation a quantitative section which will be undertaken using a questionnaire survey and secondary qualitative stage undertaken via semi structured interviews. In the

quantitative stage of investigation there are several ethical issues under consideration:-

- Deception will be required in order to not reveal the true nature of the research for fear of influencing participant's responses. Therefore the survey will gather information regarding holiday behaviour and attitudes before and during the holiday without informing the participant that research is aiming to change tourist behaviour.
- There is a second area of deception as the survey has an element that includes information regarding holiday expenditure this is information that might be considered sensitive or personal to participants. The data gathered within this section will be used to generate personal ecological footprints and should therefore be used for those who consume the most resources whilst on holiday. The questionnaire will not reveal the purpose of this section so as not to influence participant's responses and to protect participants that may feel uncomfortable with their responses.
- Further potentially sensitive information will be gathered regarding professional status, environmental behaviour in and around the home and attitudes and beliefs regarding the environment and climate change.
- The survey will be administered to tourists whilst they are on holiday as this could therefore be considered as an intrusion into a 'sacred' time for many. In order to counteract this intrusion the research will

aim to keep this intrusion to minimum by keeping the questionnaire as concise as possible and by administering the questionnaire at a time when participants are not on an active part of their holiday.

- The qualitative section of the research is centred around short semi-structured interviews with self-selected questionnaire participants here further details regarding the motivations and barriers to sustainable tourist behaviour will be discussed in more detail.

-

In conclusion, the areas of ethical and moral consideration are fairly low risk in this section as levels of deception are minimal however protection of privacy in terms of recording and transcription was ensured by storing contact details and transcribed data separately.

4.8 Chapter Summary

This chapter has focussed on explaining the process of undertaking research based upon a social marketing methodology. The whole guiding premise of social marketing is that behaviour change is not possible without a full recognition of individual perceptions of the problem. Therefore employing a social marketing methodology utilises behavioural theories in order to better understand the barriers to and motivations for a change in behaviour. This chapter therefore draws together these concepts to explain how the aim and objectives of this research will be met, through a thorough description of the

research design, selection of case study sites, survey and interview design and distribution and a consideration of any potential ethical issues in order to meet the required academic standards for rigour and validity.

The following chapters will provide a detailed analysis and description of the data gathered as a result of employing this methodology to explore the problems associated with encouraging sustainable behaviour amongst tourists.

CHAPTER FIVE – Results of the Questionnaire Survey

5.1 Introduction

The aim of this chapter is to provide a comprehensive analysis of the quantitative gathered via questionnaire survey. The questionnaire survey was designed to capture detailed on-site visitor data, relating to all characteristics of their holiday, including travel and transport, accommodation, activities and demographics in order to meet the first objective of this thesis. Thus this results chapter will be divided into three sections;

1. Descriptive statistics relating to visitor characteristics, to include data relating to reported on-site holiday behaviour, including information relating to travel, transport and accommodation selection.
2. Measurement and analysis of environmental attitudes and sustainable behaviours at home and whilst on holiday. Including the results of the ecological footprinting undertaken using the REAP for Tourism Software.
3. Report of segmentation analysis undertaken in order to identify specific lifestyle group(s) which could be targeted with a social marketing intervention to encourage greater levels of sustainable tourist behaviour.

The chapter is divided into three parts; the first part concentrates on analysis of the quantitative descriptive data gathered from the questionnaire, including all the information pertaining to the participant's holiday behaviour, sustainable behaviour at home and on holiday and demographic information.

The second section of chapter will explore the results gathered in relation to the participants' general attitudes towards the environment and the threats associated with climate change. Before going on to explore responses in relation to attitudes relating to the environmental impact of holidays, travel and transport. This section will also contain a detailed analysis of reported levels of commitment to a range of sustainable behaviours in both the home and holiday environments. The final part of this section will provide the results of the analysis undertaken using the REAP for Tourism ecological footprinting software which explores and quantifies the environmental impact of tourist behaviour.

The final section of the chapter will demonstrate the results of the segmentation analysis which was undertaken in order to identify specific lifestyle group(s) which could be would be most likely to respond to a social marketing intervention to encourage greater levels of sustainable behaviour whilst on holiday.

5.2 Descriptive Characteristics of the Sample

The first section will concentrate on describing the data gathered by the questionnaires distributed amongst staying and day visitors to the respective case study areas (Appendix 5) There were 380 completed questionnaires gathered in total from both case study areas ($n = 380$). There were 193 completed questionnaires gathered from Minehead case study area and 187 completed questionnaires gathered from Paignton case study area. In Minehead 118 of these visitors were staying visitors and 75 were day visitors. In Paignton 160 of the completed questionnaires came from staying visitors whilst 27 were collected from day visitors (Full descriptive data and frequency data in relation to survey participants is provided in Appendix 5).

The following section focuses on the results gathered regarding the dynamics of the tourists surveyed, holiday type, length of stay and holiday plans for following 12 months. (Appendix 9) The rationale for including details relating to future holiday plans to explore how many holidays individuals plan to take as has ramifications for environmental impact and issues of sustainability as the trend for frequent short breaks are especially damaging the environment and should be discouraged.

5.2.1 Describing Visitors to the Minehead Case Study Area

In order to describe the demographic information gathered by the survey the data will be described separately by case study area. (Appendix 9)

In the Minehead case study area 92 (51.9%) participants were staying for more than 4 nights, 17 (9.6%) were on a short break staying between one and three nights. Of those staying in Minehead 52 (44.8%) this was their main holiday for the year, although 29 (58.0%) admitted that they would be taking further holidays or short breaks in the next 12 months. When asked the destination for further holidays 33 (71.1%) were planning further breaks in the United Kingdom, 10 (21.7%) were planning to holiday in Europe and 3 (6.5%) were planning long haul destination holidays. For the participants that reported that their current holiday was not their main holiday, they were asked where they were most likely to go, 29 (58.0%) were planning their main holiday in the UK, a further 5 (10.%) were planning to holiday in Europe while 16 (32.0%) were planning to holiday in long haul destination areas. When participants were asked to estimate how many holidays or short breaks they are likely to take in the coming 12 months, 45 (43.7%) were planning between 1 and 2 holidays, 45 (43.7%) were planning to take between 3 and 5 further holidays, whilst 13 (12.6%) were planning to take more than 5 holidays in the coming 12 months.

The composition of the holiday group (Appendix 9) was also assessed with 15 (7.8%) of Minehead staying visitors were visiting the resort alone, 60 (31.6%) were in a family group that included children, 65 (34.2%) were in family groups that did not include children, 17 (8.9%) were part of an organised tour group while 33 (17.4%) were holidaying with friends.

In terms of accommodation type (Appendix 9) 35 (29.9%) were staying in serviced accommodation, with 13 (11.1%) reporting to staying in a holiday park, 26 (22.2%) were staying in self-catering accommodation, 20 (17.1%) staying with friends and relatives, a further 21 (17.9%) were camping with 2 (1.7%) people reporting to staying in another form of accommodation.

Transport to the resort area (Appendix 9) was mainly undertaken by car with 165(85.9%) reporting that this was the main mode of transport used to reach the destination, 16 (8.3%) participants reported to using a bus/coach service to reach the resort, 5 (2.6%) reported the train as their main mode of transport with 1 (0.5%) person reporting using a combination of walking and cycling as their main mode of transport a further 5 (2.6%) reported that air travel constituted their main mode of transport to the destination.

The main mode of transport used during the holiday was the car with 87 (81.4%) reporting that this was the transport they used most regularly whilst holidaying in the destination, 16 (9.3%) reported to utilising local bus services, 11 (6.4%) used train services and 5 (2.9%) used a combination of walking and cycling as transport during their visit. (Appendix 9)

5.2.2 Describing Visitors to Paignton Case Study Area

In Paignton 135 (72.2%) of the participants were staying more than 4 nights, 22 (11.8%) participants were on a short break staying less than 3 nights in the destination, with 3 (1.6%) participants reporting to staying with friends and relatives. (Appendix 9)

For those participants holidaying (Appendix 9) in Paignton 97 (60.2%) their current holiday was their main holiday for the year, 64 (39.8%) participants reported that their current stay was not their main holiday for the year. For those participants that reported that their current holiday was their main holiday they were asked whether they would be likely to take any further vacations, 57 (58.8%) reported they were intending to take further holidays during the coming year, 18 (8.6%) were not intending to take any further holidays while 22 (22.7%) were unsure whether they would go on holiday again. Further information was gathered regarding the likely destinations for further holidays, 51 (69.9%) reported that would be likely to take further holidays in the United Kingdom, 17

(23.3%) would be travelling to Europe with 5 (6.8%) travelling further afield to long haul destinations. For those participants that the current holiday was not their main holiday information was gathered regarding their main holiday destination, 57 (58.8%) reported their main holiday would be taken within the United Kingdom, 18 (18.6%) reported they would holiday in Europe and 22 (22.7%) reported that they would be travelling further afield to long- haul destinations. (Appendix 2)

The next series of questions were related to details of the participant's current holiday, including accommodation type, transport, and holiday group composition (Appendix 9). In the Paignton case study area 10 (5.4%) of participants were holidaying alone, 88 (47.8%) were holidaying in a family group that included children, a further 70 (38.0%) were also holidaying in a family group but without children, 4 (2.2%) were part of an organised tour group and 12 (6.5%) were holidaying with friends. In terms of accommodation 59 (31.6%) were staying in serviced accommodation 23 (14.3%), 23 (12.3%) in a holiday park, 40 (21.4%) were in staying in self-catering accommodation, 6 (3.2%) were staying friends and relatives resident in the area and 33 (17.6%) were camping in the destination area.

Consideration was given to main modes of transport (Appendix 9) used to travel to the destination, 156 (84.8%) travelled to Paignton by car, 6 (3.3%) travelled

by bus or coach, 13 (7.1%) travelled by train, 1 (0.5%) participant reported to walking/cycling to the destination and 5 (2.7%) arrived in the destination by air travel. When asked about the main mode of transport (Appendix 9) used during in the holiday, 1115 (65.3%) reported the car was their main mode of transport used during their holiday, 33 (16.8%) used a combination of local bus and coach services, 12 (6.8%) utilised train services while 16 (9.1%) reported to walking and cycling during their holiday.

5.3 Motivating Factors – Influential Information Sources

In order to understand what information and destination features are important in destination choice a range of information sources and amenities were rated by the participants in terms of how influential they were in this choice these results are the overall results for both case study areas combined (Table 5.1) (Appendix 6 describes the results by case study area, however upon scrutiny of the data it appeared that scores were dispersed fairly equally and consistently between participants from both case study areas therefore only the overall results are described here.

Information Source	Not at all useful (%)	Slightly useful (%)	Useful (%)	Quite useful (%)	Extremely useful (%)
Word of mouth recommendation	177 (46.6)	18 (4.7)	39 (10.3)	49 (12.9)	97 (25.5)
Internet search engines	127 (33.4)	14 (3.7)	36 (9.5)	66 (17.4)	137 (36.1)
Printed brochure	209 (55)	27 (27)	36 (9.5)	45 (11.8)	63 (16.6)
Advertisement in newspaper/magazine	300 (78.9)	30 (7.9)	27 (7.1)	11 (2.9)	12 (3.2)
TV advertisement	326 (85.8)	19 (5)	16 (4.2)	12 (3.2)	7 (1.8)
Tourist Information Centre	280 (73.7)	20 (5.3)	27 (7.1)	28 (7.4)	25 (6.6)

Table 5.1: Information sources used to motivate destination choice.

In terms of information sources internet search engines was the most useful in guiding destination choice with 137 (36.1%), 66 (17.4%), 36 (9.5%) reporting they found the internet extremely useful, quite useful and useful in their destination choice. Information provided by TV advertisements proved to be the least influential of the information sources, 326 (85.6%) stating that this source of information was least useful in destination choice. Of the remaining information sources 'word of mouth recommendation' was also deemed to be useful in destination selection with 97 (25.5%), 49 (12.9%) and 39 (10.3%) reporting they found personal recommendation as extremely useful, quite useful and useful in their choice of destination. Printed brochures were also perceived

to be useful sources of information when selecting a holiday destination with 63 (16.67%) finding the source extremely useful in selecting a holiday destination. Tourist Information Centre's were perceived by 280 (78.7%) of respondents stating that information provided by this source was not at all useful in destination selection.

5.4 Motivating Factors – Destination Characteristics

The survey also accessed the motivating factors, in terms of resort amenities, transport, climate, scenery and previous visitation which influenced decisions. Appendix 6 describes the results obtained by case study area, however upon scrutiny of the data the motivating factors in terms of destination characteristics appeared consistent across both case study areas and did warrant further investigation. These results could be explained due to the similarity of the destination areas in that they are both family orientated seaside resorts sharing many similarities and this may explain the consistency of results.

	Not at all important (%)	Slightly important (%)	Important (%)	Quite important (%)	Extremely important (%)
Range of amenities	85 (22.4)	22 (5.8)	71 (18.7)	70 (18.4)	131 (34.5)
Easily accessed by road network	76 (19.7)	37 (9.7)	65 (17.1)	76 (20)	126 (32.9)
Good links to public transport	151 (39.7)	46 (12.1)	53 (13.9)	43 (11.1)	56 (22.6)
Visited resort before	132 (34.7)	17 (4.5)	30 (7.9)	42 (11.1)	158 (41.3)
Family friendly	129 (33.9)	15 (3.9)	52 (13.4)	48 (12.6)	135 (35.5)
Good climate & pleasant scenery	72 (18.9)	10 (2.6)	49 (12.9)	100 (26.3)	148 (38.9)
Family/friends live close-by	262 (68.9)	20 (5.3)	20 (5.3)	15 (3.9)	62 (16.3)
Resort works hard to protect the environment	133 (35)	42 (11.1)	94 (24.7)	52 (13.7)	57 (15)

Table 5.2: Table showing importance of destination characteristics in decision-making

The participants rated the range of factors (Table 5.2) in terms how important they were in motivating their choice of holiday destination. Participants rated previous knowledge and visitation as the most important factor in their current destination choice with 158 (41.3%) rating this as being extremely important in holiday resort selection. A good climate and pleasant scenery was nearly as

important with 148 (38.9%), 100 (26.3%) and 49 (12.9%) rating this factor as extremely important, quite important and important motivations in destination choice. The range of amenities offered by the resort was rated by 131 (34.5%) as an extremely important factor, 70 (18.4%) quite important and 71 (18.7%) important in their choice of current holiday destination. Whether the holiday destination was suitable for families was rated by 135 (35.5%) as extremely important, 48 (12.6%) quite important and 52 (13.4%) as important.

In contrast, a resort that works hard to protect the environment was rated by less of the participants as being an extremely important (57, 15%) factor in selecting the destination for their current holiday with 133 (35%) rating this aspect of the decision making process as being not at all important. Having friends and family living close to the resort was rated as the least influential motivation factor, 262 (68.9%) participants rating this as not at all important. Factors relating to transport, such as ease of access by the road network and links to public transport were rated as not at all important by 75 (19.7%) and 151 (39.7%) of the survey's participants.

It should be noted that there were two versions of the questionnaire one for staying and one for day visitors. The sections pertaining to 'attitudes towards the environment' and 'attitudes towards holidays and short breaks' were repeated in both versions of the survey and therefore the results were

combined. The following section relates to all of the surveys completed as part of this research.

5.5 Attitudes to the environment and climate change

In order to gain a broad understanding of what participants' perceptions of environmental issues and climate change, participants', were asked to rate their level of agreement to a range of statements relating to the environment and climate change (Table 5.3)

When participants were asked their level of agreement with the statement 'the earth's climate is changing and global warming is taking place' 121 (31.8%) and 97 (25.5%) agreed and strongly agreed with the proposition, While 15 (3.9%) and 23 (6.1%) strongly disagreed and disagreed with the statement. Furthermore a large proportion of responses remained neutral neither agreeing nor disagreeing with the proposition 117 (30.8%). (Table 5.3).

Participants were asked to rate their level of concern in terms of the impact of their behaviour on the environment, 98 (25.8%) agreed and 26 (6.8%) strongly agreed that they were concerned that their behaviour was having an adverse effect on the environment. Whilst 126 (33.2%) remained neutral, with 73 (18.2%) disagreeing and 48 (12.6%) strongly disagreeing with the statement.

	Strongly Disagree (%)	Disagree (%)	Neither agree nor disagree (%)	Agree (%)	Strongly Agree (%)
<i>The earth's climate is changing and global warming is taking place</i>	15 (3.9)	23 (6.1)	117 (30.8)	121 (31.8)	97 (25.5)
<i>I am concerned that my behaviour is having an adverse effect on the environment</i>	48 (12.6)	75 (19.2)	126 (33.2)	98 (25.8)	26 (6.8)
<i>It is now an established scientific fact that climate change is largely man-made</i>	27 (7.1)	44 (11.6)	129 (33.2)	110 (28.9)	64 (16.8)
<i>I feel that protecting and preserving the environment is extremely important</i>	11 (2.9)	14 (3.7)	53 (13.9)	143 (37.6)	154 (40.5)
<i>Climate change is happening but not yet proven to be largely man-made</i>	47 (12.4)	48 (12.6)	134 (35.3)	112 (29.3)	33 (8.7)
<i>I am willing to change my behaviour in order to protect the long-term future of the earth</i>	12 (3.2%)	19 (5)	95 (25)	169 (44.5)	79 (20.8)
<i>I would be willing to do more to protect the environment if I felt that others were doing the same</i>	21 (5.5)	31 (8.2)	93 (24.5)	152 (40)	77 (20.3)
<i>The threats of climate change have been exaggerated</i>	56 (14.7)	65 (17.1)	139 (36.3)	80 (21.1)	34 (8.9)
<i>I feel that it is my responsibility to behave in a way that protects and preserves the environment</i>	9 (2.4)	11 (2.9)	84 (22.1)	164 (43.2)	106 (27.9)

Table 5.3: General attitudes towards the environment and climate change.

In order to establish whether participants were persuaded by information provided by scientists that changes in climate are as a direct result of human activity, participants rated their level of agreement in terms of whether they perceived that it is an established scientific fact that climate change is largely the result of human behaviour. 64 (16.8%) and 110 (28.9%) strongly agreed and agreed with the statement while 27 (7.1%) and 44 (11.6%) strongly disagreed and disagreed, with 129 (33.9%) remaining neutral neither agreeing nor disagreeing with the statement. (Table 5.3) Furthermore participants were asked whether they agreed that changes in the earth's climate were taking place but that the evidence was not conclusive in terms of whether this change is result of human activity. 33 (8.7%) strongly agreed and 112 (29.5%) agreed that climate change is taking place but that the causes of this change are not yet proven to be the result of human activity. In terms of the threats that climate change poses for the earth's population 34 (8.9%) and 80 (21.1%) strongly agreed and agreed that they believed the threats of climate change have been exaggerated, with 139 (36.3%) remaining neutral, 56 (14.7%) and 65 (17.1%) strongly disagreeing and disagreeing with the statement that the threats of climate change have been exaggerated. (Table 5.3)

Personal attitudes towards protecting and preserving the environment and personal responsibility regarding behaviour towards conservation of the environment were assessed by two separate statements. (Figure 5.1) The chart

below gives a comparison of general attitudes towards protection of the environment and being personally willing to change behaviour in order to protect and preserve the environment. 154 (40.5%) of participants strongly agreed with the statement regarding the need to protect and preserve the environment, compared with 106 (27.9%) participants who strongly agreed with the statement that they were willing to change their behaviour in order to protect and preserve the environment.

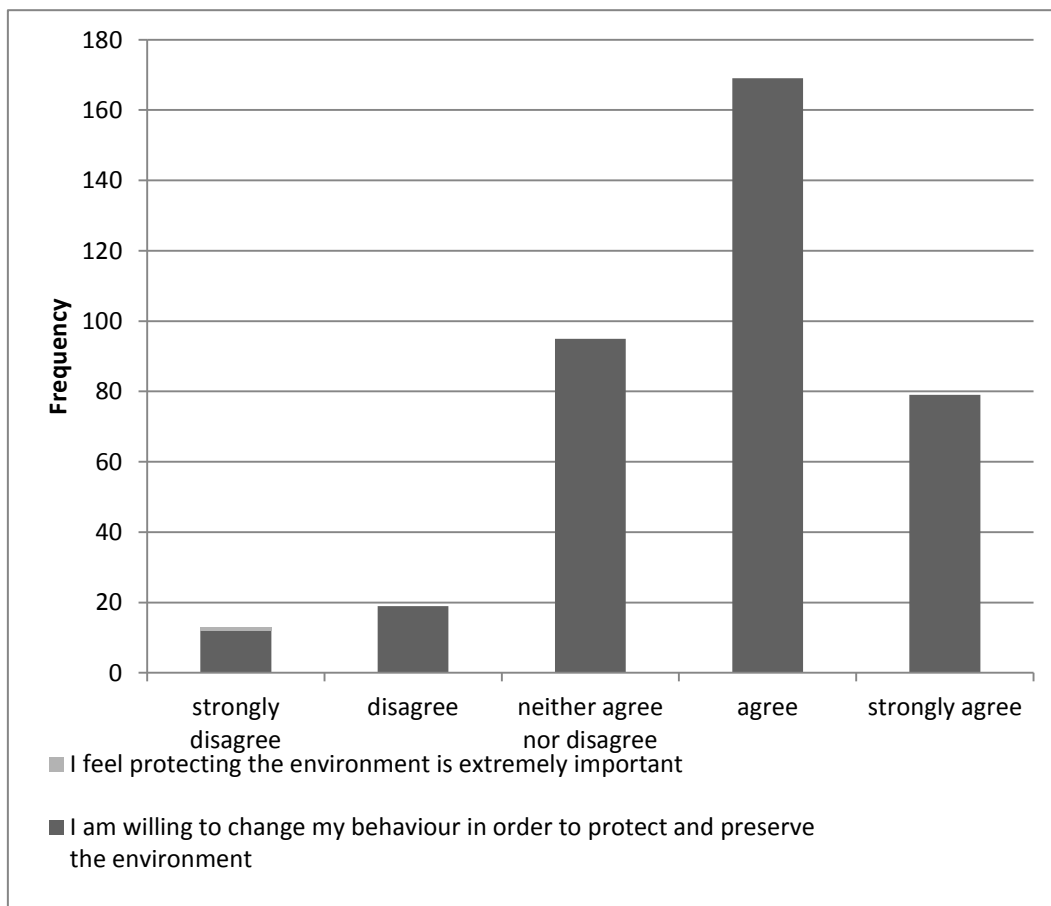


Figure 5.1. Graph comparing attitudes to the environment with willingness to change behaviour.

Participants were also asked to rate whether they felt that pro-environmental behaviour is something they would be more willing to take part in if they felt others were doing the same 77 (20.3%) and 152 (40%) strongly agreed and agreed that they would be willing to do more to protect the environment if they felt that other people were doing the same. The participants were then asked how strongly they agreed with the statement pertaining to personal responsibility in terms of behaving in such a way as to protect and preserve the environment, 106 (27.9%) strongly agreed and 164 (43.2%) agreed with the statement.

Finally participants were asked whether they believed the threats of climate change had been exaggerated, only 34 (8.9%) strongly agreed and 80 (21.2%) agreed with this statement. The majority of participants remained neutral 139 (36.3%), with 56 (14.7%) and 65 (17.1%) strongly disagreeing and disagreeing that the threats of climate change have been exaggerated.

	Minehead					Paignton				
	<i>Strongly Disagree (%)</i>	<i>Disagree (%)</i>	<i>Neutral (%)</i>	<i>Agree (%)</i>	<i>Strongly Agree (%)</i>	<i>Strongly Disagree (%)</i>	<i>Disagree (%)</i>	<i>Neutral (%)</i>	<i>Agree (%)</i>	<i>Strongly Agree (%)</i>
The earth's climate is changing and global warming is taking place	10 (5.3)	8 (4.2)	62 (32.8)	63 (33.3)	46 (24.3)	5 (2.7)	15 (8.2)	55 (29.9)	58 (31.5)	51 (27.7)
I am concerned that my behaviour is having an adverse effect on the environment	25 (13.4)	34 (18.2)	65 (34.8)	51 (27.3)	12 (6.4)	23 (12.5)	39 (21.2)	61 (33.2)	47 (25.5)	14 (7.6)
It is now an established fact that climate change is largely man-made	17 (8.9)	22 (11.6)	71 (37.4)	51 (26.8)	29 (15.3)	10 (5.4)	22 (12.0)	58 (31.5)	59 (32.1)	35 (10)
I feel that protecting the environment is extremely important	6 (3.2)	4 (2.1)	32 (16.8)	69 (36.3)	79 (41.6)	5 (2.7)	10 (5.4)	21 (11.4)	74 (40)	75 (40.5)
Climate change is happening but not yet proven to largely man-made	20 (10.5)	30 (15.8)	67 (35.3)	56 (29.5)	17 (8.9)	27 (14.7)	18 (9.8)	67 (36.4)	56 (30.4)	16 (8.7)
I am willing to change my behaviour in order to protect the long term future of the earth	8 (4.2)	9 (4.7)	47 (24.7)	87 (45.8)	39 (20.5)	4 (2.2)	10 (5.4)	48 (26.1)	82 (44.6)	40 (21.7)
I would be willing to do more to protect the environment if I felt that others were doing the same	11 (5.8)	20 (10.5)	46 (24.2)	81 (42.6)	32 (16.8)	10 (5.4)	11 (6)	47 (25.5)	71 (38.6)	45 (24.5)
The threats of climate change have been exaggerated	31 (16.3)	31 (16.3)	71 (37.4)	38 (20)	38 (10)	25 (13.6)	34 (18.5)	67 (36.4)	42 (22.8)	15 (8.2)
I feel that it is my responsibility to behave in a way that protects and preserves the environment	5 (2.6)	7 (3.7)	43 (22.6)	86 (45.3)	49 (25.8)	4 (2.2)	4 (2.2)	41 (22.3)	78 (42.4)	57 (31)

Table 5.4: Comparing general attitudes towards the environment and climate change between case study areas

5.6 Comparing general attitudes towards the environment between case study areas

This research is seeking to understand visitor behaviour at destination level therefore it is important to assess whether visitors to the chosen case study areas differ significantly in their attitudes towards the environment and climate change. Table 5.4 provides a breakdown of responses provided by respondents in each case study area. Careful consideration of the data would suggest that there is very little difference between environmental attitudes and beliefs between visitors in each of the case study areas. For example when asked their level of agreement with the statement

'The earth's climate is changing and global warming is taking place'

57.6% of Minehead case study visitors and 59.2% of Paignton case study visitors agreed or strongly agreed with the proposition, similarly 9.5% of Minehead and 10.9% of Paignton's visitors strongly disagreed and disagreed with this statement. The remaining 32.8% (Minehead) and 29.9% (Paignton) remained neutral by neither agreeing nor disagreeing with the statement.

In terms of whether visitors to either case study area were concerned that their behaviour might be having an adverse effect on the environment the most frequent response from both case study areas was to remain neutral Minehead 34.8% and Paignton 33.2%. The next most frequent response was to 'agree'

with the statement Minehead 27.3% and Paington 25.5%.. However 31.6% of Minehead visitors and 33.7% of Paington visitors 'disagreed' or 'strongly disagreed' with the statement.

The survey then attempted to assess whether the participants were convinced by the information produced by the scientific community that climate change is a result of man's behaviour. The majority of visitors to the Minehead case study area remained neutral 37.4%, (Paington 31.5%). The most frequent response from Paington visitors was to 'agree' with the statement (32.1%) compared to 26.8% of Minehead visitors. In terms of 'strongly disagreeing' and 'disagreeing' with the proposition 20.4% of Minehead visitors 'disagreed' or 'strongly disagreed' compared with Paington at 17.4%. The survey then attempted to assess whether participants accepted that climate change is occurring but that the scientific facts did not prove that it was result of human activity through the following statement '*climate change is happening but it is not yet proven to be man-made*'. There was little divergence in results between participants from either case study area with the most frequent response being to remain neutral (Minehead 35.3% and Paington 36.4%). 29.5% of Minehead and 30.4% of Paington case study participants agreed that climate change is occurring but that it had not yet been proven to be as a result of human activity. Further consideration was given to whether participants feel that the threats associated with a change in climate have been exaggerated, the results of the analysis

show that participants in both case study areas have fairly consistent opinions. Just over 32% in each area 'strongly disagreed' or 'disagreed', 37.4% (Minehead) and 36.4% (Paignton) remained 'neutral' by neither agreeing or disagreeing and 30% (Minehead) 31% (Paignton) 'agreed' or strongly agreed' that the threats associated with climate change had been exaggerated.

The participants were then asked to rate their level of agreement with the following statement

'I feel that protecting and preserving the environment is extremely important'

Visitors from both case study areas vehemently agreed with this statement, 80.5% of visitors to the Paignton case study area 'agreed' or 'strongly agreed' with statement which is slightly higher percentage than visitors from the Minehead case study area (77.5%). 16.8% of Minehead visitors remained neutral by neither agreeing nor disagreeing to the statement (Paignton 11.4%). In terms of 'disagreeing' and 'strongly disagreeing' with the statement only 5.3% of Minehead disagreed or strongly disagreed compared with 8.1% of Paignton visitors.

The next statements looked at willingness to change behaviour, personal responsibility to behave a pro-environmental manner and whether majority action is important in encouraging wider participation in sustainable behaviour.

The majority of participants from both case study areas report to be willing to change their behaviour in order to protect the long term future of the earth with 66.3% in each area 'agreeing' or 'strongly agreeing' with the proposition. 59.4% of Minehead participants and 63.3% of Paignton participants 'agreed' or 'strongly agreed' that they would be willing to do more if they felt that others were doing the same. In terms of personal responsibility to behave in manner that protects and preserves the environment over 70% in both case study areas 'agreed' or 'strongly agreed' that they felt it is their responsibility to behave in a way that protects the long term future of the environment.

5.7 Measuring attitudes towards the environmental impact of holidays, travel and transport

The next section of the survey asked participants to rate their level of agreement with a series of statements relating to holidays and the environment.

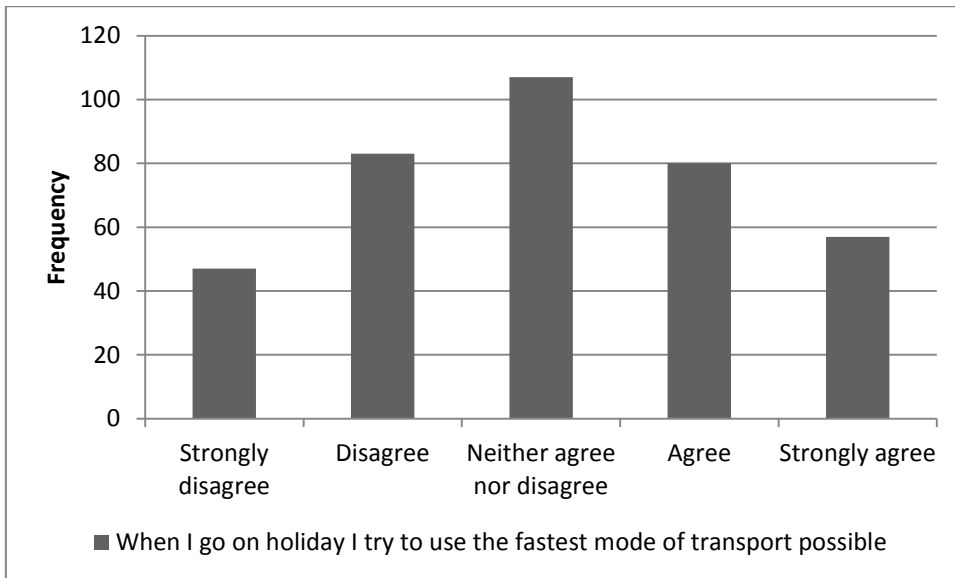


Figure 5.2: Graph showing attitudes towards holiday transport

Decisions made in relation to travel mode and transport is an important aspect of sustainability as this element is often associated with heaviest environmental impact. Often the fastest modes of transport have the greatest environmental impact and this is especially true for air travel therefore participants were asked to state their level of agreement with the following statement '*when I go on holiday I try to use the fastest mode of transport possible*', 57 (15%) 'strongly agreed', 80 (20.9%) 'agreed', with 83 (21.8%) 'disagreeing' and 47 (17.4%) 'strongly disagreeing' and 107 (28.2%) remaining 'neutral', neither agreeing nor disagreeing with the statement. (Figure 5.2)

In order to assess whether participants actively choose to utilise public transport whilst on holiday they were asked to rate their level of agreement with the following statement;

'I like to use public transport when I am on holiday'

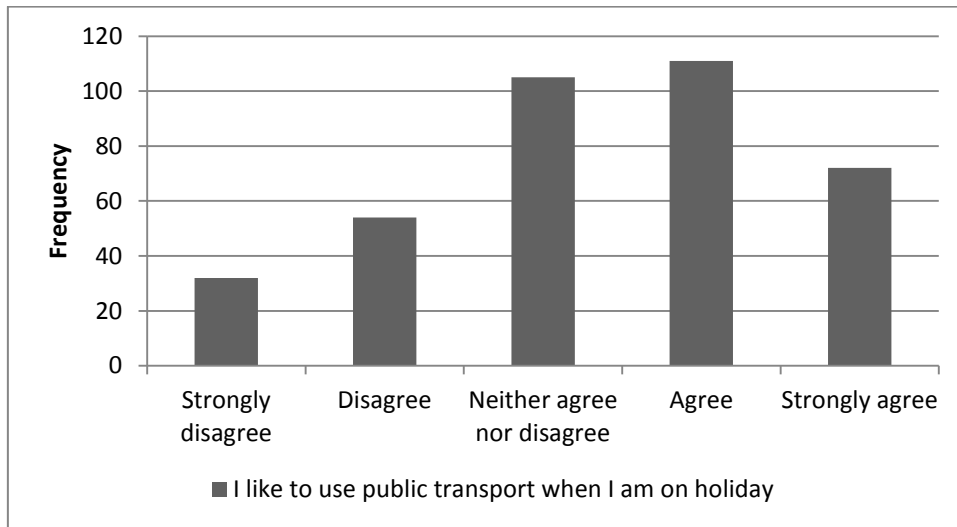


Figure 5.3. Graph showing attitudes to the use of public transport when on holiday

The chart shows the frequency of responses to the above statement, 72 (18.9%) strongly agreed 111 (26.2%) agreed that they liked to utilise local public transport whilst in their holiday destination. 105 (37.6%) of participants chose not to rate either in favour or against the proposition with 54 (14.2%) and 32 (6.4%) actively disagreeing or strongly disagreeing.

Further assessment was made regarding highly polluting forms of travel such as air travel, whether participants actively chose to avoid this when travelling.

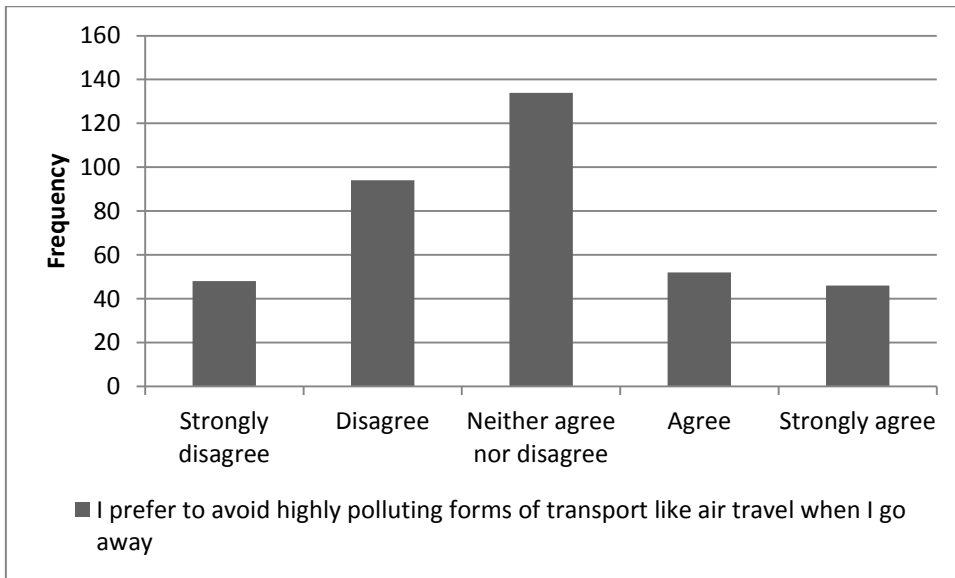


Figure 5.4: Attitudes towards highly polluting forms of transport when going on holiday

The majority of participants chose to disagree with this statement (12.6% strongly disagreed, 24.7% disagreed) while 134 (35.3%) preferred to remain neutral, only 52 (13.7%) and 46 (12.1%) agreed and strongly agreed that they preferred to avoid highly polluting forms of travel when they went on holiday.

Another option open to participants when travelling to destinations is the use of public transport which is less polluting per capita than air travel, to this end the participants were asked whether they actively chose to avoid public transport options when going on holiday. The majority of responses disagreed (113, 29.7%) and strongly disagreed (110, 28.8%) with this statement. Only 52 (13.7%) agreed and 48 (12.1%) strongly agreed with the statement that they try to avoid public transport when going on holiday, 101 (26.6%) remained neutral.

An important aspect of trying to encourage sustainable tourist behaviour is trying to establish whether holidaymakers actively try to reduce their environmental impact whilst on holiday. Participants were asked to rate their agreement with this statement, the majority of participants 162 (42.6%) remained neutral, neither agreeing nor disagreeing that they thought about how they could reduce environmental damage whilst on holiday, the lowest responses came from the strongly agree rating with 31 (8.2%) stating that they think how they can reduce environmental damage when on holiday, 53 (13.9%) agreed, with 88 (23.2%) disagreeing and 40 (10.5%) strongly disagreeing.

Another factor that will be important in establishing sustainable tourism is discouraging shorter more frequent holidays that have become the norm in recent years. Therefore participants were asked to rate whether '*taking short breaks is important to me*'. The majority of responses to this statement fell in the agree 128 (33.7%) and strongly agree 110 (28.9%) rating categories with only 16 (4.2%) and 26 (6.7%) disagreeing and strongly disagreeing with the proposition, 94 (24.7%) remained neutral.

Changing holiday plans as a response to issues such as climate change were explored by the survey. Participants were asked to rate the likelihood that would change their holiday through the following statement '*I am unlikely to change my holiday plans in response to issues like climate change*' The

majority agreed 111 (29.2%) and 65 (17.1%) strongly agreed that were unlikely to change their holiday plans as a response to global issues such as climate change. 125 (32.9%) remained neutral neither agreeing nor disagreeing with statement, only 22 (5.8%) and 51 (13.4%) strongly disagreed and disagreed with the statement suggesting that would be more likely to change their holiday plans in response to the threats of climate change.

In order to assess whether participants think and incorporate environmental and sustainability issues into their holiday decision-making, participants rated the following statement '*I don't worry about the environment when I make choices concerning my holiday travel*'. The majority of responses agreed that they were unlikely to worry about the environment when making decisions concerning holiday travel – 109 (28.7%) agreed, 56 (14.7%) strongly agreed with the statement, 124 (32.4%) preferred to remain neutral, whilst 33 (8.7%) strongly disagreed and 52 (13.7%) disagreed.

5.7.1 Case study comparison between attitudes towards holiday transport and travel

In this section a brief analysis was undertaken to determine whether there was any reported difference in attitudes towards holiday transport and travel between participants from each of the selected case study areas. (Table 5.5)

The first statement assessed how important it was for participants to travel to their holiday destination by the fastest means possible. The rationale behind this question was that often the fastest modes of transport are least sustainable. When the results were compared between participants from the case study areas there was very little difference in attitudes towards this statement 34.2% of Minehead case study area participants 'disagreed or strongly disagreed' that using the fastest mode of transport was important to them compared to 35.5% of Paignton case study area. In terms of agreeing with the statement which would suggest that the fastest mode of transport was important when travelling to their holiday destination. 37.9% of Minehead participants 'strongly disagreed and disagreed' compared to 34.8% of Paignton case study area participants (Table 5.5).

'I like to use public transport when I am on holiday' was then explored to see if participants actively selected to use public transport when in the holiday destination, 25.3% of participants staying in the Minehead case study area 'strongly disagreed and disagreed' with the statement compared to 20.7% of participants staying in Paignton case study area. More than half (56.5%) of the participants staying in the Paignton case study area 'agreed or strongly agreed' with the statement compared to 41.1% of participants staying in the Minehead case study area, suggesting that those staying in Paignton were more in favour of utilising public transport services when on holiday compared to their Minehead counterparts. When participants were asked to rate the statement *'I try to avoid public transport when I go on holiday'* more participants from both

case study areas 'strongly disagreed' and 'disagreed' with this proposition (56.6%, Minehead and 61.06%, Paignton) which suggests that participants from both case study areas do not actively seek to avoid using public transport when going on holiday. A further statement assessed whether participants *'try to avoid highly polluting forms of travel such as air travel when going on holiday'* there was no discernible difference between levels of agreement of this statement between participants of either case study area (Minehead 27.9%, 'agreed' or 'strongly agreed' and Paignton 24.5%), levels of disagreement with the statement showed slightly different results between participants from both case study areas (Minehead 37.9% % 'strongly disagreed' or 'disagreed' compared to 24.5% of Paignton participants) (Table 5.5).

The next statement aimed to measure participants' attitudes regarding reducing the effects of their holiday behaviour on the environment. (Table 5.5) There was no significant difference in agreement across participants in either case study area (21.6% of Minehead participants 'strongly agreed' and 'agreed' with the statement compared to 23.3% of Paignton's participants). Over 40% of participants from both case study areas chose to remain neutral in respect of this statement, while 34.7% of Minehead participants and 33.7% of Paignton case study participants 'strongly disagreed' or 'disagreed' with the statement. In a similar vein the participants were also asked to rate their agreement with the following statement:-

'I don't worry about the environment when I make choices regarding my holiday travel'

	Minehead					Paignton				
	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
<i>When I go on holiday, I try to use the fastest mode of transport possible</i>	24 (12.6)	41 (21.6)	52 (27.4)	44 (23.2)	28 (14.7)	23 (12.5)	42 (22.8)	55 (29.9)	35 (19)	29 (15.8)
<i>I like to use public transport when I am on holiday</i>	14 (7.4)	34 (17.9)	64 (33.7)	53 (27.9)	25 (13.2)	18 (9.8)	20 (10.9)	41 (22.3)	58 (31.5)	47 (25.5)
<i>I prefer to avoid highly polluting forms of transport like air travel when I go away</i>	22 (11.6)	50 (26.3)	65 (34.2)	32 (16.8)	21 (11.1)	26 (14.1)	44 (23.9)	69 (37.5)	20 (10.9)	25 (13.6)
<i>I try to avoid public transport when I go on holiday</i>	48 (25.3)	60 (31.6)	56 (29.5)	20 (10.5)	6 (3.2)	61 (33.0)	53 (28.6)	45 (24.3)	11 (5.9)	14 (7.6)
<i>I think about how I can reduce environmental damage when I am on holiday</i>	19 (10)	47 (24.7)	83 (43.7)	29 (15.3)	12 (6.3)	21 (11.4)	41 (22.3)	79 (42.9)	24 (13.0)	19 (10.3)
<i>Taking short breaks is important to me</i>	4 (2.1)	15 (7.9)	51 (26.8)	68 (35.8)	51 (26.8)	12 (6.5)	10 (5.4)	43 (23.4)	60 (32.6)	59 (32.1)
<i>I am unlikely to change my holiday plans in response to issues like global climate change</i>	8 (4.2)	25 (13.2)	61 (32.1)	63 (33.2)	33 (17.4)	14 (7.6)	26 (14.1)	64 (34.8)	48 (26.1)	32 (17.4)
<i>I don't worry about the environment when I make choices concerning my holiday travel</i>	19 (10.0)	34 (17.9)	49 (25.8)	62 (32.6)	26 (13.7)	14 (7.6)	18 (9.8)	75 (40.8)	47 (25.5)	30 (16.3)

Table 5.5: Table comparing attitudes towards holiday transport and travel between case study areas.

The next statement aimed to measure participants' attitudes regarding reducing the effects of their holiday behaviour on the environment, there was no significant difference in agreement across participants in either case study area (21.6% of Minehead participants 'strongly agreed' and 'agreed' with the statement compared to 23.3% of Paignton's participants). Over 40% of participants from both case study areas chose to remain neutral in respect of this statement, while 34.7% of Minehead participants and 33.7% of Paignton case study participants 'strongly disagreed' or 'disagreed' with the statement. In a similar vein the participants were also asked to rate their agreement with the following statement:-

'I don't worry about the environment when I make choices regarding my holiday travel'

Comparison across participants from both case study areas showed very little variation in responses, 46.3% of Minehead case study participants 'agreed' or 'strongly agreed' with the statement compared to 41.8% of Paignton's participants. The only difference was between levels of disagreement with the statement where 27.9% of Minehead's participants 'disagreed' or 'strongly disagreed' with the statement compared to 17.4% of Paignton's case study participants. 40.8% of Paignton's case study participants chose to remain 'neutral' with regards to this statement compared to 25.8% of Minehead's participants. (Table 5.5)

A comparison of scores on whether participants perceived 'short breaks and holidays as important' revealed very little difference between participants from either case study area, 62.6% and 64.5% of Minehead and Paignton case study area participants believed that 'taking short breaks is important to them', only 10% of Minehead and 11.9% of Paignton's participants 'strongly disagreed' and 'disagreed' with the statement. The remaining 26.8% (Minehead) and 23.4% (Paignton) chose to remain 'neutral' by neither agreeing nor disagreeing with the statement. (Table 5.5)

The participants from each case study area were compared on their scores in relation to the likelihood that they '*would be prepared to change their holiday plans in response to issues such as global climate change*', again there appeared to be no difference in attitudes between participants of either case study area, with over 40% of participants from both areas 'agreeing' or 'strongly agreeing' that they were unlikely to change their plans (Minehead, 40.6%, Paignton, 43.5%).

5.8 Home and holiday sustainable behaviour

An important element of this research argued that the 'holiday' is a special context, and that even those who are committed to a range of sustainable behaviours in the home environment abandon these behaviours when on holiday. (Barr, 2008, Tudor et al, 2006) Therefore it was important to measure whether there was a 'drop off' in reported sustainable behaviours between the home and holiday environment. The

next results report the frequency with which participants undertook sustainable behaviours both in the home environment and in the holiday environment. The survey explored a number of sustainable behaviours that are encouraged in the home environment and measured against the same behaviour in the holiday context. Sustainable behaviours for which many local authorities provide services such as recycling of cardboard, paper, tin cans, plastic, and composting of food waste were measured. Other behaviours involve longer term commitment in the form of energy efficient appliances and water saving devices. Consumer behaviour in terms of choice of energy efficient light bulbs, eco-friendly goods, plastic bag re-use and organic and locally produced food were measured in both home and holiday environments. The final question examined transport choices and the regularity with which sustainable choices were made.

5.8.1 Recycling behaviour

The participants were asked to rate how often they took part in regular recycling behaviour at home and when on holiday. They were provided with a five-point Likert scale, ranging from 'always, usually, sometimes, rarely never' to record how often

they took part in the behaviour.

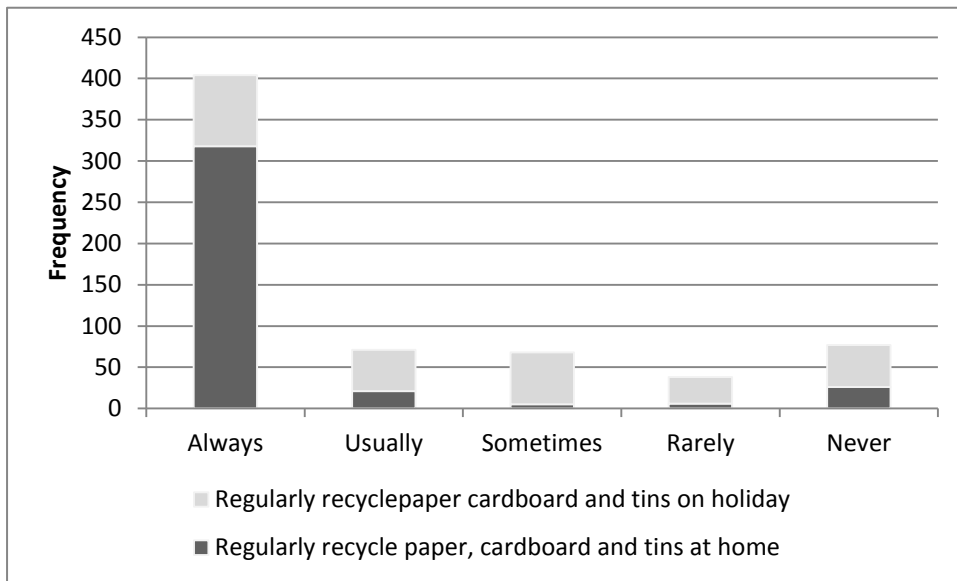


Figure 5.5: Comparing the frequency of home and holiday recycling behaviour

Figure 5.5 shows the frequency with which participants reported regularly recycling paper, cardboard and tins when at home and when on holiday. 318 (83.7%) of participants report to always recycling cardboard, paper and tins when at home compared to 86 (22.6%) who report always recycling when they are on holiday. When it came to those participants who reported never regularly recycling, a greater proportion reported never recycling when on holiday 51 (13.4%) compared to 26 (6.8%) who reported to never recycling when at home. In order to statistically explore the reported difference between the two environments a Wilcoxon signed rank test was applied to see if there was a significant difference between reported recycling behaviour at home versus on holiday. There was a statistically significant decrease in reported recycling behaviour in the two conditions (home vs holiday) $z=-10.290$, $p<.001$, which revealed a medium effect size ($r=.4$)

5.8.2 Composting of food waste

Participants were asked to report on how often they actively composted their food waste whilst in the home environment and when on holiday, they scored their behaviour on a five-point scale from 'always, usually, sometimes, rarely to never'.

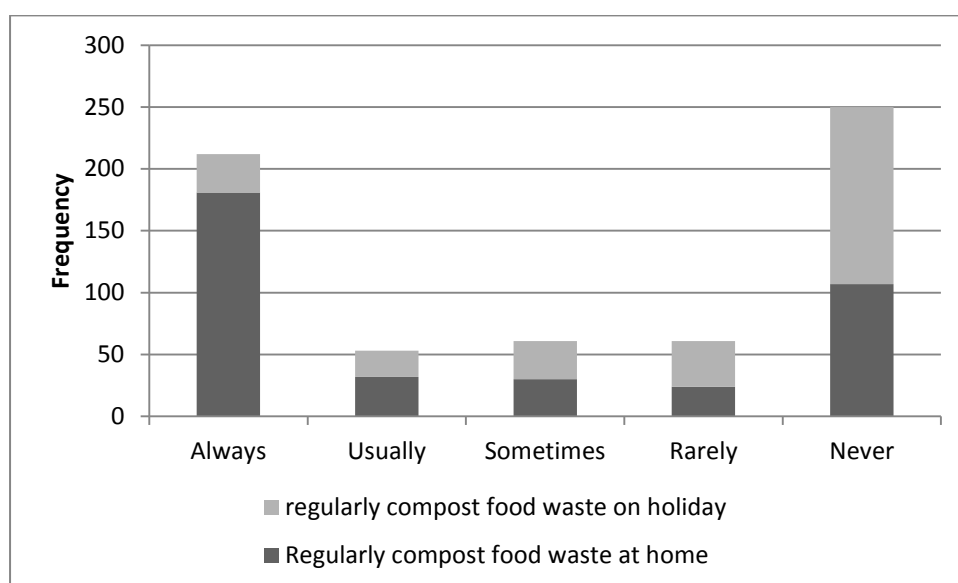


Figure 5.6. Comparing the reported frequency of composting behaviour at home and on holiday

Figure 5.6 shows the frequency with which participants reported to composting of food waste at home and when in the holiday environment. In the home environment 181 (47.7%) participants reported to always composting their food waste in contrast in the holiday environment where 31 (8.2%) of participants reported to always composting food waste. Interestingly scores for those who reported to 'never' composting food waste either at home or at home was fairly similar, with 107

(28.5%) reporting that they 'never' compost at home compared to 143 (37.5) reporting this on holiday.

A Wilcoxon signed rank test was used to statistically compare the difference between composting behaviour at home and on holiday. There was a statistically significant decrease in reported composting behaviour between the two environments (home vs holiday), $z=-8.672$, $p<.001$ with a medium effect size ($r=.3$). The median score for reported composting behaviour decreased from home ($Md = 4$) to holiday ($Md = 1$).

5.8.3 Use of energy efficient appliances

Participants reported on how often they ensured they were using appliances with a high energy efficiency rating both within the home environment and also in the holiday environment. Figure 5.7 below shows the frequency with which participants reported to ensuring that they use energy efficient appliances across both environments, home and when on holiday.

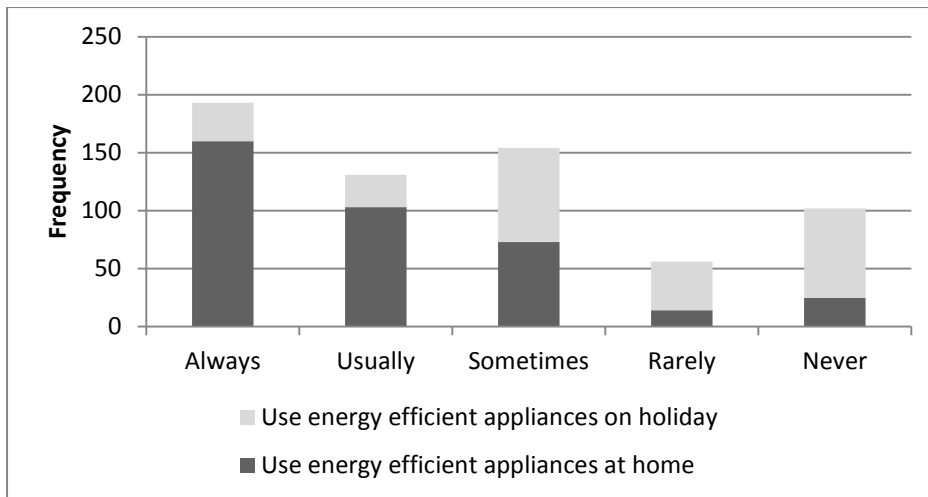


Figure 5.7: Comparing the reported frequency of energy efficient appliances at home and holiday.

In the home environment 263 (69.2%) of participants report ensuring that they either ‘always’ (42.1%) or ‘usually’ (27.1%) make sure that they are using energy efficient appliances. However in the holiday environment this decision drops with 33 (8.3%) of participants reporting ‘always’ and 28 (7.4%) reporting they ‘usually’ ensure all appliances are energy efficient. Of those that reported ‘never’ ensuring the appliances they use are energy efficient the greater proportion was seen in the holiday environment where 77 (20.3%) participants recorded that they never actively sought out energy efficient appliances when on holiday this compares to only 25 (6.9%) who report this in the home environment.

A Wilcoxon Signed Rank Test was run to statistically compare the reported frequency of the use of energy efficient appliances at home and in a holiday

environment. There was a statistically significant reduction in reported use of energy efficient appliances at home versus on holiday, $z=-9.786$, $p<.001$ with a medium effect size ($r=.3$). The median score for reported use of energy efficient appliances at home ($Md=4$) and when on holiday ($Md=3$).

5.8.4 Sustainable behaviour – ensuring all electrical appliances are turned off from 'stand-by'

Recognised and standard forms of sustainable behaviour in the home environment were measured in terms of how often participants reported to undertaking them. (Figure 5.8) Ensuring that electrical appliances are switched to the 'off' position rather than being left in 'stand by' mode which still uses electricity is part of most people's home routine. Participants in this study were asked to report how routinely they engaged in this behaviour when on their holiday.

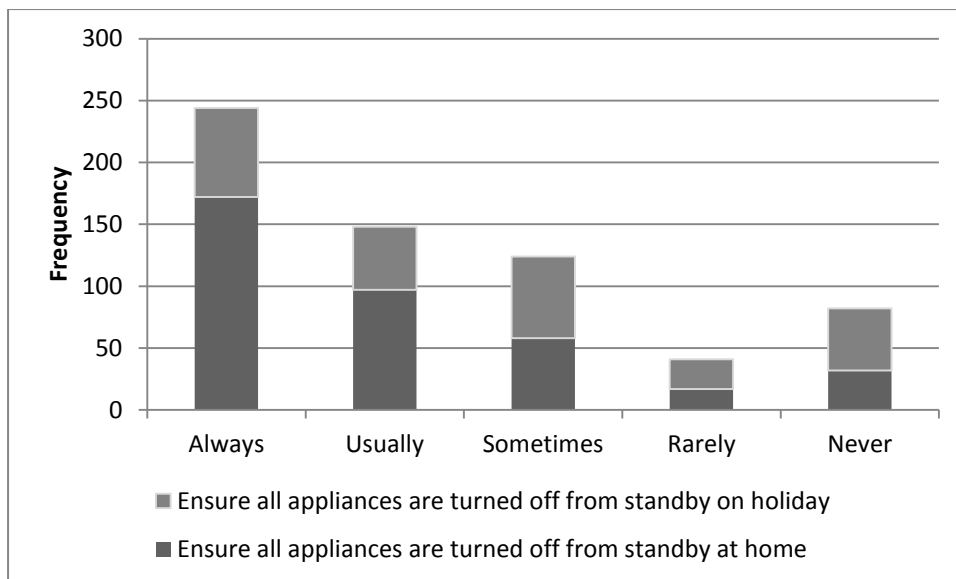


Figure 5.8: Comparing the reported frequency of appliance ‘switch-off’ at home and holiday

In the home environment 269 (70.3%) of the participants reported to ‘always’ or ‘usually’ ensuring that their electrical appliances are switched to the ‘off’ position rather than being left in ‘stand-by’ mode. In the holiday environment this behaviour dropped to 123 (32.3%) who stated that they ‘always’ or ‘usually’ switched appliance off. A greater number of participants reported to ‘never’ ensuring that they switched appliances off when were on holiday 50 compared to home 32. (Figure 5.8)

A Wilcoxon Signed Rank Test was used to statistically assess whether there was a significant difference in the frequency of turning electrical appliances off from ‘stand-by’ at home compared to when participants were in a holiday environment. The test revealed a statistically significant decrease in reported behaviour between home and holiday environments, $z=-6.615$, $p<.001$, with a small effect size ($r=.2$). The median

score for reported turning electrical appliances off from 'stand-by' decreased from home ($Md=4$) to holiday environment ($Md=3$).

5.8.5 Sustainable behaviour – use of water saving devices

Conservation of water in and around the home environment is an acknowledged part of sustainable behaviour; as a result participants were questioned regarding their use of water saving devices in the home and holiday environment. The use of devices that restrict the flow of water to toilets, taps, showers and restriction in the frequency of bathing, washing machine use, rain-water collection and utilisation of 'grey' water would be considered sustainable behaviours in relation to the conservation of water. (Figure 5.9)

Participants were thus asked to report on their use of water saving devices at home and whilst on holiday. (Figure 5.9)

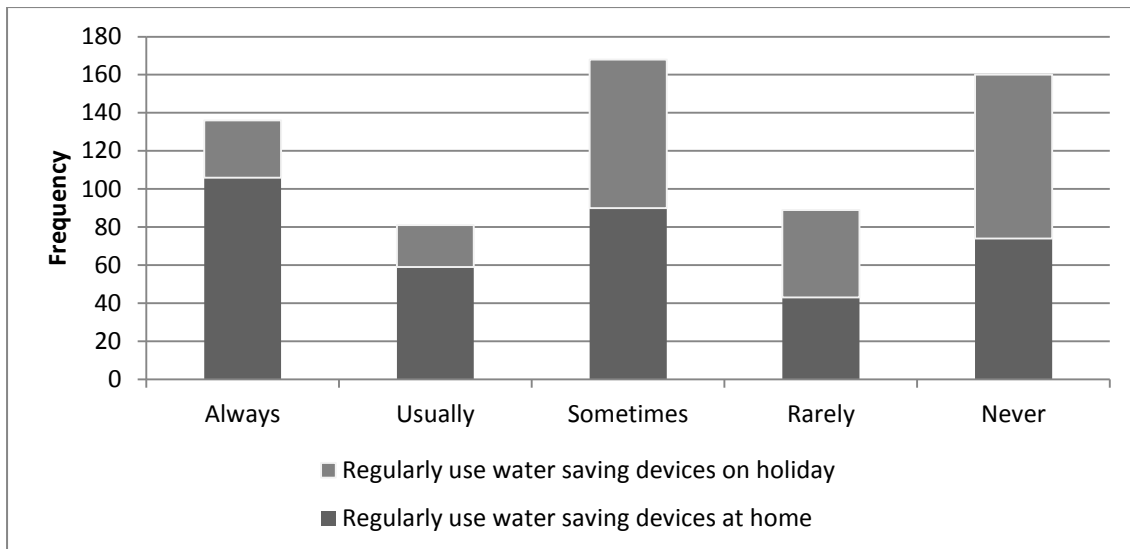


Figure 5.9: Comparing the reported frequency of water saving devices at home and holiday

The highest proportion of participants who reported 'always' ensuring they used water saving devices was seen in the home environment 106 (27.9%) compared to those that reported 'always' doing so on holiday 30 (7.9%), however there was not much difference between the frequency of those who reported 'never' using water saving devices, home 74 (20%) versus holiday 86 (22.6%).

A Wilcoxon Signed Rank test was used to establish whether there was statistically significant decrease in reported frequency of use of water saving devices at home compared with when participants were in a holiday environment. The results revealed a statistically significant reduction in reported use of water saving devices from home environment to holiday environment, $z=-6.892$, $p<.001$ with a small effect size ($r=.2$). The median score from reported frequency of use of water saving devices decreased from home ($Md=3$) to holiday ($Md=2$).

5.8.6 Sustainable behaviour – use of energy efficient light bulbs

The use of low-wattage energy efficient light bulbs in the home has become part of routine pro-environmental behaviour for some time. These light bulbs consume significantly less electricity and have a longer life, and are thus a money saver and less detrimental to the environment.

Participants of this survey were asked about their use of energy efficient light bulbs at home and this was compared with usage on holiday. It is acknowledged that tourists outside of their home environment are unlikely to be responsible for the installation of energy efficient light bulbs they might well be aware that their accommodation provider uses them, or that they are in use at visitor attractions.

(Figure 5.10)

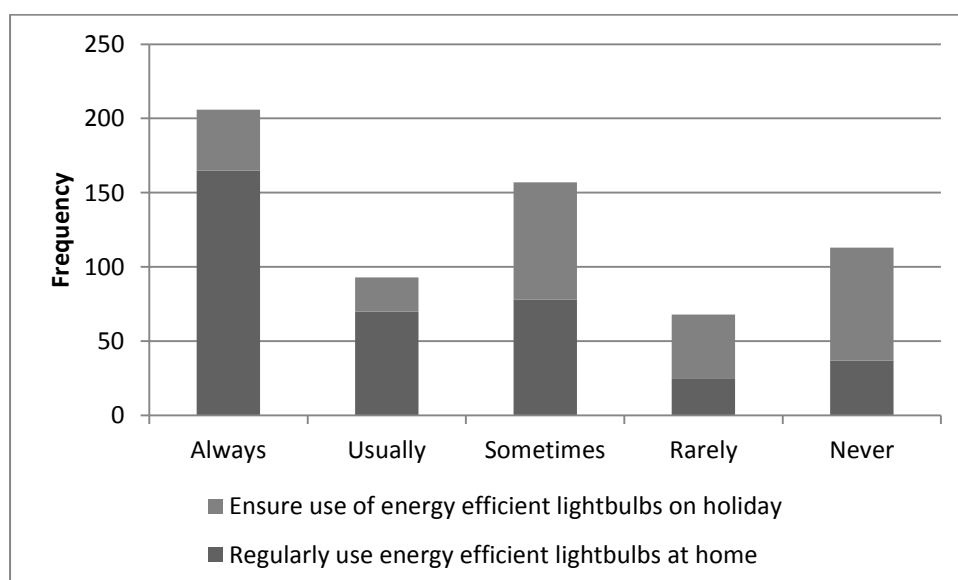


Figure 5.10: Comparing the reported use of energy efficient light bulbs at home and holiday

In the home environment 206 (62%) reported to 'always' or 'usually' using energy efficient light bulbs, there was a decrease in frequency in the holiday environment with 64 (16.9%) reporting to 'always' or 'usually' ensuring the use of energy efficient light bulbs when on holiday. Those participants that reported to 'never' ensuring the use of energy efficient light bulbs were 37 (9.5%) when at home compared to 76 (20%) when in the holiday environment.

A Wilcoxon Signed Rank Test was utilised to establish whether there was a statistical decrease in the reported use of energy efficient light bulbs in the home environment compared to the holiday environment. The analysis revealed a statistically significant decrease in reported use of energy efficient light bulbs from the home environment compared to the holiday environment, $z=-9.726$, $p<.001$, with a medium effect size ($r+.3$). The median score for reported use of energy efficient light bulbs fell from ($MD=4$) at home to ($Md=3$) when on holiday.

5.8.7 Consumer behaviour – purchasing of eco-friendly goods

Participants were required to state how often they actively chose to purchase eco-friendly goods; that is goods that are manufactured in such a way that their use does not harm the environment or reduces harm to the environment, this could include goods made from recycled products, eco-friendly detergents, eco-friendly

paint etc. The chart below shows the frequency with which the participants reported purchasing these goods both at home and during their holiday.

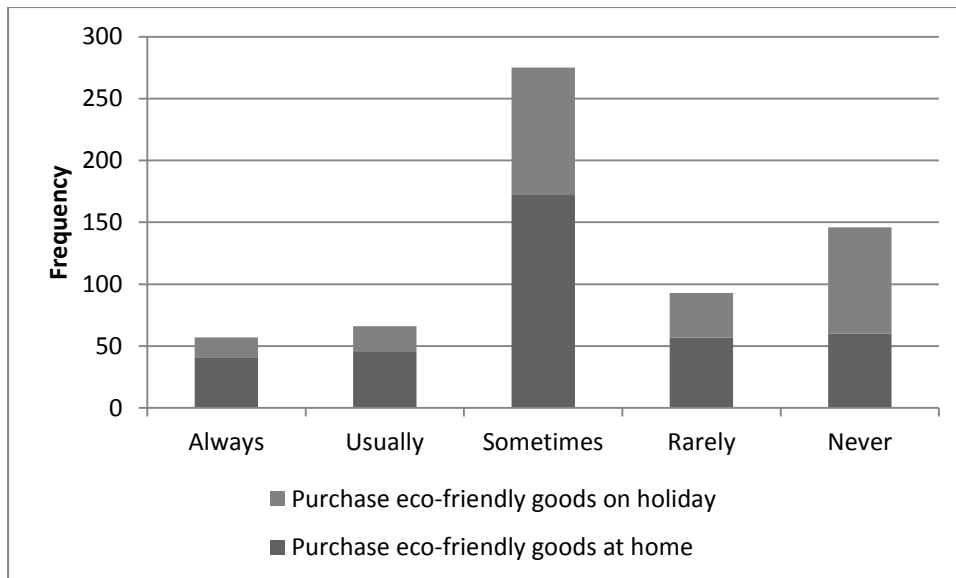


Figure 5.11: Comparing the reported purchase of eco-friendly goods at home and holiday

Consumer behaviour in terms of purchasing of eco-friendly goods appears to be a choice that is less of a routine than other sustainable behaviours. In the home environment only 41 (10.5%) reported 'always' ensuring they purchase eco-friendly goods, the highest frequency was found in the 'sometimes' category with 172 (45.2%) participants reporting that when they are at home they 'sometimes' choose eco-friendly goods, 117 (30.5%) participants reported 'rarely' or 'never' actively selecting eco-friendly goods when shopping at home.

The results for reported purchasing of eco-friendly goods in the holiday environment were lower with only 16 (4.2%) stating they 'always' made this purchasing decision and 103 (26.6%) reporting 'sometimes' choosing eco-friendly goods when on holiday. When participants were in their holiday environment 86 (22.6%) reported 'never' purchasing eco-friendly goods.

A Wilcoxon Signed Rank Test was performed which established there was a significant reduction in reported purchase of eco-friendly goods when participants were in their home environment compared to when they were on holiday, $z=-6.906$, $p<.001$ with a small effect size ($r=.2$)

5.8.8 Consumer behaviour – organic food and locally produced food

When making sustainable decisions regarding food purchasing, organically produced food and food produced by local farmers is deemed to be more favourable to the environment than mass produced food. To this end participants were asked to report how often they regularly purchased organic food and food produced and sold in their local area farmers markets. The same question was posed for routine food shopping in the home environment and also regarding purchases made whilst on holiday. (Figure 5.12)

The highest proportion of responses came from the 'sometimes' response with 150 (39.5%), 'always' 32 (8.5%), 'usually' 36 (9.5%), 'rarely' 76 (20%) and 'never' 80 (21.1%) when the participants were in their home environment. In the holiday environment the highest proportion of responses was in the 'never' category 92 (24.2%), 'rarely' 51 (13.4%), sometimes 87 (22.6%), 'usually' 15 (3.9%) and 'always' 16 (4.2%).

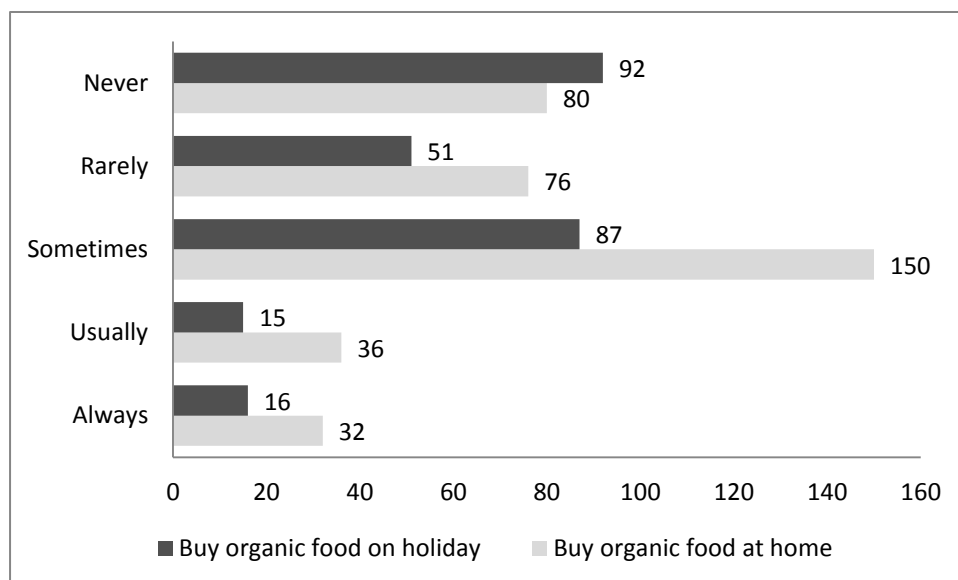


Figure 5.12: Comparing reported purchase of organic food at home and holiday

A Wilcoxon Signed Rank Test revealed a significant reduction in frequency of reported purchase of organic food when in the home environment compared to when on holiday, $z=-5.284$, $p<.001$, with a small effect ($r=.2$). The median score for reported purchase of organic food at home ($Md=3$) decreased ($Md=2$) when on holiday.

Participants were asked to report on the frequency with which they purchased food from local farmers markets when they are at home and when they are on holiday.

The chart below shows the frequency of responses across both conditions. (Figure 5.13)

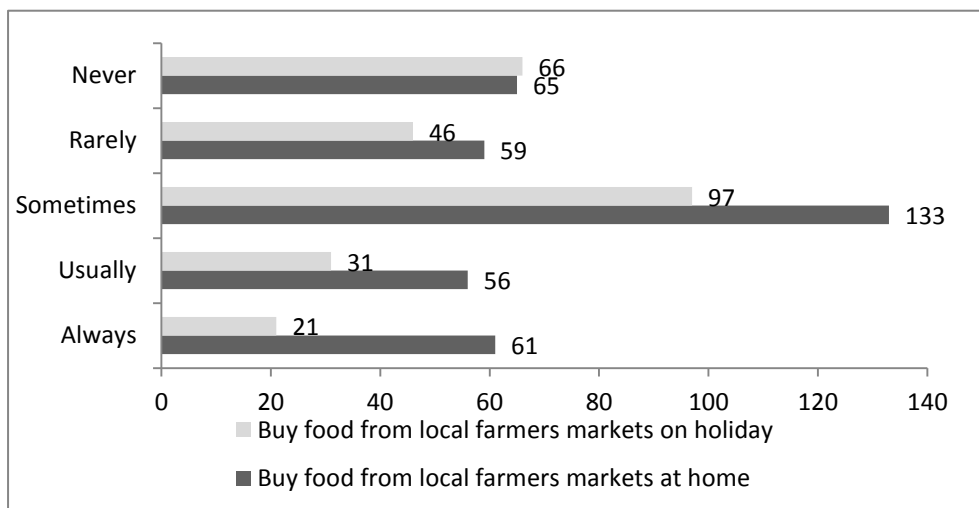


Figure 5.13: Comparing Food purchase behaviour.

When participants were in their home environment 61 (16.1%) reported to 'always' buying food from local farmers markets, 56 (14.7%) 'usually', and 133 (35%) 'sometimes' make the decision to buy food from local farmers markets. 59 participants (15.5%) report to 'rarely' and 65 (17.1%) to 'never' purchasing their food from local farmers markets when they are in their home environment.

The frequency of those who report to 'always' 21 (5.5%) purchasing food from local farmers markets is much lower when participants were on holiday. In fact all

frequencies were lower in the holiday condition, apart from those who report to 'never' purchasing food from local farmers markets on holiday 66 (17.4%).

A Wilcoxon Signed Rank Test was used to explore whether there was a statistically significant reduction in reported frequency of purchase of locally produced food between the two conditions. There was a statistically significant reduction in reported frequency of local food purchase between the home and holiday environments, $z=-4,257$, $p<.001$, with a small effect $r=.1$).

5.8.9 Re-use of carrier bags/long-life bags

Pollution and harm to the environment and animal life caused by excessive consumption and use of plastic carrier bags has become increasingly evident over recent decades. This has led to a push for consumers to restrict their use of carrier bags either by repeated re-use or by the use of longer life stronger shopping bags. To this end, participants were asked about their use of re-usable bags/longer life bags at home and whether this behaviour extended into their holiday environment. (Figure 5.14)

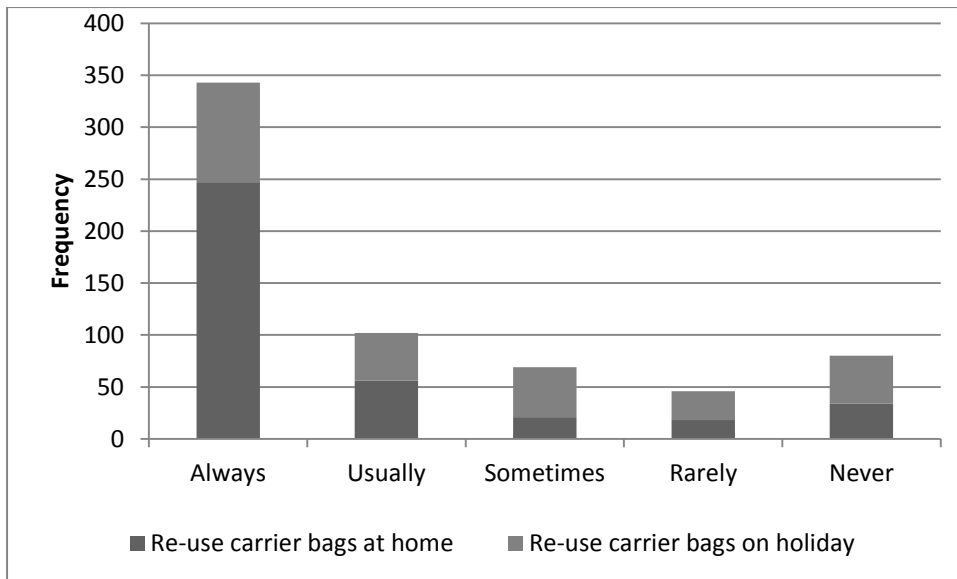


Figure 5.14: Comparing the re-use of carrier bags between home and holiday

When participants were in their home environment 247 (65%) reported 'always', 56 (14.7%) 'usually' and 21 (5.5%) 'sometimes' re-using carrier bags or using longer life bags for shopping. However the frequency dropped by nearly 40% when participants were in a holiday environment with only 96 (25.3%) reporting to 'always' ensuring they re-used their shopping bags.

A Wilcoxon Signed Rank test revealed a significant reduction in reported carrier bag re-use between the home and holiday environments, $z=-7.309$, $p<.001$, with a small effect size ($r=.2$). The median score for carrier bag re-use at home ($MD=5$) reduced to ($MD=4$) when in the holiday environment.

5.8.10 Transport behaviour – use of public transport/walking/cycling

An important aspect of personal sustainable behaviour relates to choices made regarding transport, utilisation of public transport services, walking or cycling are more sustainable than use of the car. Therefore participants were asked to report how often they regularly use public transport or walked or cycled both at home and when on holiday. (Figure 5.15)

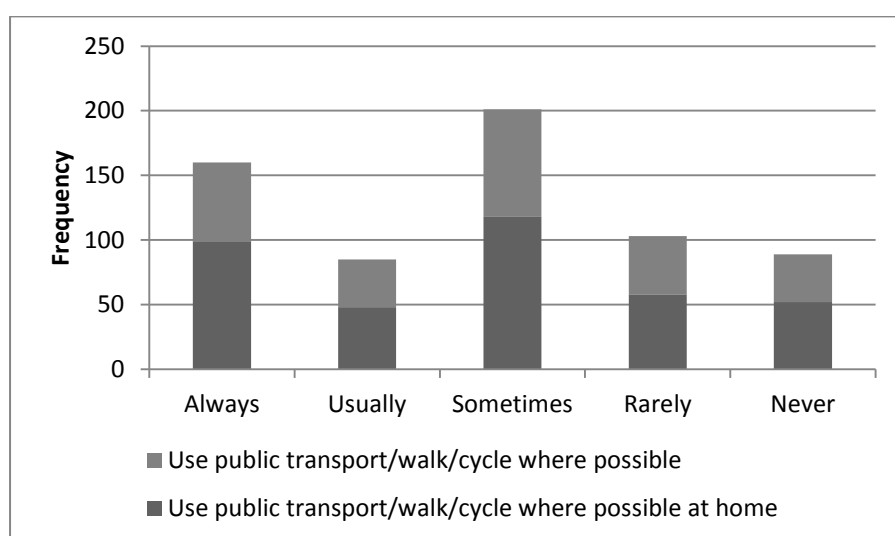


Figure 5.15: Comparing reported frequency of public transport at home and on holiday

When participants were in their home environment 99 (26.1%) reported to 'always' either using public transport or walking/cycling where possible, compared to 61 (16.1%) in the holiday environment. The highest frequency came in the 'sometimes' category with 118 (31.1%) reporting this behaviour at home and 83 (21.8%) when on holiday. Those that report to 'never' using public transport were highest in the home environment 52 (13.7%) compared to 37 (9.7%) when on holiday. (Figure 5.15)

A Wilcoxon Signed Rank test revealed there was a statistically significant reduction in reported use of public transport/walking/cycling between home and holiday conditions, $z=-1.824$, $p<.001$, with a very small effect size ($r=.07$).

5.9 Comparing the full range of sustainable behaviours at home and on holiday

In the previous section, results for each type of sustainable behaviour were compared individually across the home and holiday conditions. As was shown in the previous section there was a statistically significant decrease in behaviour from the home environment to the holiday in all sustainable behaviours except for the use of public transport which showed a relatively small reduction in behaviour between the two conditions.

In order to determine whether there is a more general decrease in reported sustainable behaviours across the two conditions scores were recoded and totalled to give a score for sustainable behaviour at home and on holiday. Each response was coded from 1 to 5; 1 was never, 2 rarely, 3 sometimes, 4 usually and 5 always. Therefore, each behaviour had a maximum score of 5 and a minimum score of 1, those participants with the highest score were thus engaging more frequently in sustainable behaviours. In each condition (home versus holiday) it was possible to obtain a maximum of 55 points and minimum of 11.

A Wilcoxon Signed Rank Test was undertaken to establish whether there was a statistically significant decrease in total scores for reported sustainable behaviour at home versus holiday. There was a significant decrease between scores for reported total sustainable behaviours at home, $z=-11.089$, $p<.001$ with a medium to large effect size ($r=.4$). The median score decreased from ($Md=37$) at home to ($Md=27$) on holiday for total scores reported sustainable behaviour.

5.10 Comparison of sustainable behaviours between genders

It has been suggested by previous research that there is a difference in commitment to sustainable behaviours between males and females, therefore this research tested this hypotheses. (Van Liere & Dunlap, 1980) A Mann-Whitney U Test was conducted to compare total scores for sustainable behaviour for males and females in the home environment. There was no significant difference between in reported sustainable behaviours in the home environment between genders, males ($Md=36.5$, $n=158$) and females ($Md=37.00$, $n=187$), $U=13777.5$, $z=-1.080$, $p=.28$, $r=.05$.

In order to establish whether males and females differ in terms of reported sustainable behaviours in the holiday environment a further Mann-Whitney U Test was run, there was no statistically significant difference in reported sustainable

behaviours on holiday between males ($Md=27$, $n=107$) and females ($Md=27$, $n=137$), $U=7297.5$, $z=-.059$, $p=.95$, $r=.003$.

5.11 Comparison of sustainable behaviours between age groups

5.11.1 Reported sustainable behaviour at home between age groups

Van Liere and Dunlap (1980) review of sustainable behaviours demonstrated a slightly negative relationship between age and sustainable behaviour. So a Kruskai-Wallis Test was undertaken to compare total scores for sustainable behaviour across participants' age groups. The participants' ages were divided into three groups, <29years, 30 – 50 years and 60+years in order to ascertain whether the frequency of reported total scores for sustainable behaviours at home differed across the three age groups. The test revealed a statistically significant difference in total sustainable behaviour scores in the home environment across the three age groups. (Gp1, $n=37$: <29years, Gp2, $n=177$: 30 – 59 years, Gp3, $n = 116$: 60+years), $\chi^2(2, n = 330) = 8.96$, $p = .01$. The older age group, 60+years recorded the highest median score ($Md=38$) than the other two age groups <29years ($Md=34$) and 30 -59 years ($Md=37$).

A Mann Whitney-U Test was undertaken to assess whether there was a statistically significant difference in reported frequency of sustainable behaviours between the

youngest group <29yrs and the oldest age group 60+yrs. The test revealed there is a statistically significant difference in reported sustainable behaviour at home between the youngest ($Md=34$, $n= 34$) and oldest age groups ($Md=38$, $n = 116$), $U = 1447.5$, $z=-2.980$, $p=.003$, $r=.2$ indicating a small/medium effect size.

5.11.2 Reported sustainable behaviour on holiday between age groups

A Kruskal-Wallis Test was applied to establish whether there was a statistical difference in scores for total sustainable behaviour when on holiday across the three age groups. The Kruskal-Wallis Test revealed no statistically significant difference in frequency of reported sustainable behaviour whilst on holiday across the three age groups (Gp1, $n=25$: <29yrs, Gp2, $n=129$: 30-59yrs, Gp3, $n=78$: 60yrs+), $\chi^2 (2, n=232) = 1.211$, $p=.54$. The median scores for the Group 1 the youngest age group <29yrs ($Md=27$) both Group 2 (30-59yrs) and Group 3 (60yrs+) had the same median scores for sustainable behaviour whilst on holiday ($Md=28$).

5.12 Comparison of reported sustainable behaviour at home and holiday by case study area

5.12.1 Regular recycling of paper, cardboard, tins and glass

This research has focussed on two specific case study locations in the South West of England in order to ascertain whether reported behaviour differs amongst

participants to the case study areas or whether behaviour is a more generalised phenomenon. Therefore the next section will be devoted to exploring whether in fact there is a difference between the frequency of reported sustainable behaviours between participants holidaying in Minehead (Somerset) and Paignton (Devon) both in their home environment and whilst on holiday. (Table 5.6)

	Sustainable behaviour at home					Sustainable behaviour on holiday				
	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)
Recycling (paper, cardboard, tins & glass)										
Minehead	9 (4.7)	1 (0.5)	2 (1)	10 (5.2)	170 (88.5)	21 (17.1)	17 (13.8)	30 (24.4)	19 (15.4)	36 (29.3)
Paignton	17 (9.2)	5 (2.7)	3 (1.6)	11 (6)	148 (80.4)	30 (18.9)	15 (9.4)	33 (20.80)	31 (19.5)	50 (31.4)

Table 5.6: Comparing the frequency of reported recycling behaviour at home and on holiday by case study area.

Further exploration of the data in Table 5.6 compares the frequency of reported recycling behaviour whilst in their home environment of participants from the two case study areas. The results show that there is a difference in reported frequency of recycling between participants from the case study areas with 93.7% of participants from the Minehead case study area reporting to 'always' (88.5%) or 'usually' (5.2%) and 86.4% of Paignton case study participants reporting to 'always' (80.4%) and 'usually' (6.0%) recycling when at home.

A Mann-Whitney U test was undertaken to explore whether there was a statistical difference in the frequency of reported recycling in the two case study areas. The test revealed a statistically significant difference in reported frequency of recycling in the home environment from participants in the Minehead case study area (Md=5, n = 192) and Paignton case study area (Md=5, n=184), $U = 16180$, $z=-2.243$, $p=.02$, $r=.1$, indicating a small effect.

When reported recycling behaviour is compared in the holiday environment amongst case study participants there is a 'drop off' in the reported frequency of recycling behaviour amongst all participants. A Wilcoxon Signed Rank Test was applied separately to each case study area to establish whether there was a statistically significant 'drop off' in reported recycling behaviour between home and holiday environments. The test revealed that there was a statistically significant 'drop off' in commitment to the frequency of reported recycling between the home environment and the holiday environment, $z=-7.452$, $p<.001$ with a medium sized effect ($r = .4$). The median score for Minehead case study area participants recycling behaviour (Md = 5) at home decreased (Md = 3) when on holiday. The same test was applied to Paignton case study area participants, here there was also a statistically significant reduction in frequency of reported recycling behaviour between home and holiday conditions, $z = -7.096$, $p < .001$, with a medium effect size ($r = .3$). The median score for recycling at home (Md = 5) and whilst on holiday (Md = 4). The

results show a statistically significant 'drop off' in reported frequency in recycling behaviour between the home and holiday environment however the biggest decrease in behaviour is seen in the participants from the Minehead case study area.

Comparison of recycling behaviour between the two case study areas levels of commitment to recycling when on holiday shows that 50.9% of Paignton case study area participants report to 'always' (31.4%) or 'usually' (19.5%) recycling when on holiday compared to Minehead where 44.47% report to 'always' (30.5%) or 'usually' (15.4%) regularly recycle whilst on holiday.

A Mann-Whitney U Test was undertaken to explore whether the difference in frequency of reported recycling behaviour is statistically different. The test revealed that there is no statistical difference in reported recycling behaviour by case study participants when in a holiday environment, Minehead (Md=3, n=123) and Paignton (Md=4, n=159), $U = 9398$, $z = -.576$, $p = .56$, $r = .03$.

5.12.2 Summary comparison of recycling behaviour between case study areas

In summary the results show there to be a greater commitment amongst those participants staying in the Minehead case study area to recycling in the home

environment than to those staying the Paignton case study area, but there is a significant ‘drop off’ in commitment between home and holiday environments and the greatest decrease in behaviour is seen from participants from the Minehead case study area. However there is no significant difference in reported recycling behaviour when in the holiday environment between participants from either case study area.

5.13 Regular composting of food waste between case study areas

	Sustainable behaviour at home					Sustainable behaviour on holiday				
	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)
Composting of food waste										
- Minehead	44 (23.0)	8 (4.2)	16 (8.4)	16 (8.4)	107 (56.0)	51 (47.2)	14 (13.0)	14 (13.0)	11 (10.2)	18 (16.7)
- Paignton	64 (44.0)	16 (8.7)	14 (7.70)	16 (8.7)	73 (39.9)	91 (59.5)	23 (15.0)	17 (11.10)	9 (5.9)	13 (8.50)

Table 5.7: Comparing the frequency of reported composting of food waste between case study areas

Reported frequency of composting of food waste was compared between participants from the two case study areas, participants from the 64.4% of the Minehead case study cohort report to ‘always’ (56.0%) and ‘usually’ (8.4%) composting food waste in the home environment. Only 52.7% of participants from the Paignton case study area report to ‘always’ (39.9%) and ‘usually’ (8.7%) composting their food waste when at home. To test whether that this difference is

statistically significant a Mann-Whitney U Test was applied. The results of the test revealed that the difference in reported frequency of composting of food waste when in the home environment, Minehead case study area (Md = 5, n = 191) and Paignton case study area (Md = 3, n = 183), $U = 14269.5$, $z = -3.30$, $p = .001$, $r = .1$ indicating a small effect. (Table 5.7)

It should be acknowledged that commitment to food composting behaviour whilst in a holiday environment is likely be fairly difficult to undertake due to lack of facilities if staying in self-catering accommodation or lack of control over what happens to personal food waste if in catered accommodation. However a comparison between commitments to food composting was undertaken between participants from the two case study areas. The most frequent response in both case study areas was 'never' regularly composting food waste when on holiday (Minehead 47.2%) and (Paignton 59.5%). A Mann-Whitney U Test was run to establish whether there was a significant difference in frequency of food composting behaviour between participants from the two case study areas. The results of the test revealed a statistically significant difference in behaviour between participants from the two case study areas, Minehead (Md = 2, n = 108) and Paignton (Md = 1, n = 153), $U = 6926$, $z = -2.438$, $p = .01$, $r = .1$ indicating a small effect. The median results suggest that there are a higher proportion of participants from the Paignton case study area who report 'never' composting food waste when in the holiday environment. A review of facilities and infrastructure to support recycling and food composting in both case study areas was undertaken and showed that weekly collections of recyclable

material and foodwaste was available for residents in both case study areas and therefore should be available to visitors (West Somerst District Council, 2014(online); Torbay Council, 2014 (online).

As with the recycling behaviour there was a general 'drop off' in frequency of reported food composting between home and holiday environments, in the Minehead case study area 56% reported 'always' composting food waste when at home this dropped to 16.7% when on holiday; similarly 39.5% of participants from the Paignton case study reported 'always' composting food waste at home and this fell to 8.5% when on holiday. Therefore the data was analysed using a Wilcoxon Signed Rank Test to see if there was a statistically significant 'drop off' in behaviour in both case study areas between home and holiday conditions. The test revealed a statistically significant reduction in reported frequency of food composting for participants from the Minehead case study area between the home and holiday environment, $z = -.5.905$, $p < .001$, with a medium-sized effect ($r = .3$). The median score for reported frequency for food composting at home ($Md = 5$) decreased to ($Md = 2$) when in the holiday environment. The test was applied to data provided by the Paignton case study participants the results revealed a statistically significant reduction in reported frequency of food waste composting between home and holiday environment, $z = -6.382$, $p < .001$, with a medium-sized effect ($r = .3$). The median scores in the home environment ($Md = 3$) decreased to ($Md = 1$) when on holiday.

5.13.1 Summary comparison of composting behaviour between case study areas

To summarise Minehead case study area participants report a greater commitment to composting of food waste when in their home environment compared to Paignton case study area participants. In the holiday environment there is a large drop in commitment in both case study areas probably due to the reason listed above, but Paignton case study area participants are less likely than their Minehead counterparts to compost their food waste when on holiday.

5.14 Conservation behaviours between case study areas

The next section will group the conservation behaviours assessed in the questionnaire into together, these behaviours include the use of energy efficient appliances, turning electrical appliances off from 'stand by', use of water saving devices and using energy efficient light bulbs. A comparison will be made between participants from the case study areas to see if there is a greater commitment to these behaviours whilst in the home compared to the home environment. (Table 5.8)

	Sustainable behaviour at home					Sustainable behaviour on holiday				
	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)
Regularly use energy efficient appliances										
- Minehead	8 (4.2)	7 (3.7)	38 (19.9)	52 (27.20)	86 (45.0)	26 (24.3)	17 (15.9)	39 (36.4)	9 (8.4)	16 (15.0)
- Paignton	17 (9.5)	6 (3.4)	32 (17.9)	51 (28.5)	73 (40.8)	51 (33.3)	25 (16.3)	41 (26.8)	19 (12.4)	17 (11.1)
Ensure all appliances are switched off from 'stand by'										
- Minehead	14 (7.3)	9 (4.7)	28 (14.6)	50 (26.0)	91 (47.4)	20 (18.5)	10 (9.3)	31 (28.7)	19 (17.6)	28 (25.9)
-Paignton	18 (9.8)	8 (4.3)	30 (16.3)	47 (25.5)	81 (44.0)	28 (18.3)	14 (9.2)	35 (22.90)	32 (20.9)	44 (28.8)
Use water saving devices										
- Minehead	37 (19.5)	23 (12.1)	41 (21.6)	34 (17.9)	55 (28.9)	32 (29.6)	17 (15.7)	34 (31.5)	10 (9.3)	15 (13.9)
-Paignton	16 (8.8)	14 (7.7)	34 (18.8)	29 (16.0)	88 (48.6)	44 (28.6)	26 (16.9)	45 (29.2)	13 (8.4)	26 (16.9)
Use energy efficient light bulbs										
- Minehead	20 (10.6)	11 (5.8)	42 (22.2)	40 (21.2)	76 (40.2)	32 (29.6)	17 (15.7)	34 (31.5)	10 (9.3)	15 (13.9)
-Paignton	16 (8.8)	14 (7.7)	34 (18.8)	29 (16.0)	88 (48.6)	44 (28.6)	26 (16.9)	45 (29.2)	13 (8.4)	26 (16.9)

Table 5.8: Data comparing frequency of reported conservation behaviours by participants in each case study area both at home and on holiday

The use of energy efficient appliances in around the home is associated is both beneficial to the environment in terms of the amount of electricity used to power them but is also of benefit to the owner as they tend to be more economical. However purchasing the most energy efficient appliances tends to involve a significant outlay financially but is considered to be an environmental and financial

investment. The current survey was interested in whether the participants were committed in their use of energy efficient appliances at home and whether this commitment extended into the holiday environment. Commitment in the holiday environment, is of course, somewhat limited by what is provided by tourism businesses but it could be argued that if 'one' is committed to the virtues of energy efficient appliances then they might specifically seek out tourism providers that do the same. The results show that 72.2% of Minehead case study area participants 'usually' (27.2%) or 'always' (45%) chose to use energy efficient appliances when in their home environment whereas 69.3% of Paignton case study area participants 'usually' (28.5%) and 'always' (40.8%) chose to use energy efficient appliances at home. A Mann-Whitney U Test revealed there was no statistical difference in reported frequency of the use of energy efficient appliances at home between participants of either case study area Minehead (Md = 4, n =191) and Paignton (Md = 4, n=179), U = 16058, z = -1.067, p = .28, r = .05.

In the holiday environment there is a definite 'drop off' in commitment to the use of energy efficient appliances however the results for participants from both case study areas were similar. Only 23.4% of Minehead case study participants and 23.5% of Paignton case study participants reported to 'usually' or 'always' using energy efficient appliances when on holiday. A Mann Whitney U Test further confirmed that there was no statistical difference in reported use of energy efficient appliances

when on holiday in either case study area, Minehead (Md = 3, n = 107) and Paignton (Md = 3, n = 153), $U = 7414.5$, $z = -1.335$, $p = .18$, $r = .08$).

A Wilcoxon Signed Rank test was performed to establish if there was a statistically significant decrease in reported use of energy efficient appliances between home and holiday environments for participants from each case study area. The test revealed a statistically significant decrease in reported use of energy efficient appliances from the home to the holiday environment in both case study areas, Minehead, $z = -6.767$, $p < .001$, with a medium effect size ($r = .3$). The median score at home for reported use of energy efficient appliances (Md = 4) decreased to (Md = 3) when on holiday. Similar results were found for participants from the Paignton case study area, the test revealed a statistically significant decrease in reported use of energy efficient appliances between the home and holiday environment, $z = 7.164$, $p < .001$, with a medium effect ($r = .3$). The median score for use of energy efficient appliances at home (Md = 4) decreased to (Md = 3) when in the holiday environment.

A further, but much simpler form of sustainable behaviour is the turning 'off' from 'stand by' of electrical appliances; the results of such behaviour have benefits for the owner in terms of a reduction in power usage and thus cost but also in environmental terms as the power is not wasted and thus conserved. 73.7% of participants from

the Minehead case study area reported 'usually' (26.0%) and 'always' (47.7%) ensuring all electrical appliances were turned off from 'stand by' mode. 69.5% of Paignton case study area participants reported 'usually' (26.5%) and 'always' (44.0%) turning their appliances off from stand by when in the home environment. A Mann Whitney U Test revealed there was no statistically significant difference in reported turning appliances off at home between participants from either case study area, Minehead (Md = 4, n = 192) and Paignton (Md = 4, n = 184), $U = 16822.5$, $p = .39$, $r = .04$. In the holiday environment there was less of a commitment to turning electrical appliances off from 'stand by', 43.5% of Minehead participants reported 'always' (25.9%) and 'usually' (17.6%) turning off from stand by when on holiday, 49.7% of Paignton participants reported 'always' (28.8%) and 'usually' (20.9%) doing the same. A Mann Whitney U Test revealed there was no statistical difference in reported turning off from 'stand by' when on holiday between participants from the two case study areas, Minehead (Md = 3, n = 108) and Paignton (Md = 3, n = 153), $U = 7909.5$, $p = .54$, $r = .03$.

A Wilcoxon Signed Rank Test was applied to establish whether there was a statistically significant decrease in reported turning off from 'stand by' between home and holiday environments. The results revealed that there was a statistically significant decrease in reported turning off from 'stand by' between home and holiday, Minehead, $z = -4.863$, $p < .001$, with a small effect size $r = .2$ and Paignton, z

= 4.516, $p < .001$, with a small effect size $r = .2$, in both case study areas the median score at home was (Md = 4) and on holiday the median score decreased to (Md = 3).

The use of devices that help to conserve water supplies is another behaviour that individuals can use to aid the long term resources of the planet. Therefore the survey assessed the frequency with which the participants reported to using water saving devices both at home and when on holiday. Participants from each of the case study areas were compared to see if their usage of water saving devices differed significantly in both environments. The comparison showed there was very little difference in reported usage of water saving devices between case study area participants and between conditions. With 28.9% of Minehead participants reporting 'always' using water saving devices compared to 27.6% of Paignton case study area participants, this reported usage dropped in a holiday environment to 9.30% for Minehead participants and 13.2% for Paignton participants. A Mann Whitney U Test confirmed there was no statistically significant difference in reported frequency of usage water saving devices at home, Minehead (Md = 3, $n=190$) and Paignton (Md = 3, $n = 181$), $U = 16612$, $z = -.579$, $p = .56$, $r = .02$. On holiday Minehead (Md = 2, $n = 108$) and Paignton (Md = 2, $n = 152$), $U = 8152$, $z = -.097$, $r = .006$.

A further Wilcoxon Signed Rank Test was run for both case study areas to test whether the 'drop off' in reported usage of water saving devices between home and holiday was statistically significant. The results revealed a statistically significant

decrease in levels of reported usage of water saving devices in both case study areas, Minehead, $z = -5.170$, $p < .001$, with a small effect size ($r = .2$) Paignton $z = -4.662$, $p < .001$, with a small effect size ($r = .2$) median scores in both case study areas decreased from ($Md = 3$) at home to ($Md = 2$) when in the holiday environment.

The use of energy efficient or extremely low wattage light bulbs is another form of pro-environmental behaviour commitment. The reported frequency of energy efficient light bulbs was assessed and compared between the case study areas across both home and holiday conditions. There were similar levels of reported usage of energy efficient light bulbs amongst participants from both case study areas and across home and holiday conditions. With 61.4% of Minehead and 64.6% of Paignton participants reporting 'always' or 'usually' using energy efficient light bulbs at home. A Mann Whitney U Test confirmed there was no statistically significant difference in use of energy efficient light bulbs between participants from either case study area, Minehead ($Md = 4$, $n = 189$) and Paignton ($Md = 4$, $n = 181$), $U = 15939$, $z = -1.197$, $p = .2$, $r = .06$. The levels of commitment decreased for participants from both case study areas in the holiday environment with 23.2% of Minehead participants and 25.3% of Paignton participants reporting to 'always' or 'usually' using energy efficient light bulbs when on holiday. A Mann Whitney U Test confirmed there was no statistical difference in reported usage of energy efficient light bulbs between participants from either case study area when on holiday,

Minehead (Md = 3, n = 108), and Paignton (Md = 3, n = 154), $U = 8148$, $z = -.287$, $p = .774$, $r = .01$.

A Wilcoxon Signed Rank Test was performed to establish whether there was statistically significant decrease in reported frequency of use energy efficient light bulbs between home and holiday environments for participants from both case study areas. The results revealed there was a statistically significant decrease in reported usage of energy efficient light bulbs between home and holiday for participants from both case study areas. Minehead, $z = -6.692$, $p < .001$, with a medium sized effect ($r = .3$), Paignton, $z = -7.097$, $p < .001$, with a medium sized effect ($r = .3$) the median scores for usage of energy efficient light bulbs was the same for participants from both case study areas at home (Md = 4) this decreased to (Md = 3) when on holiday.

5.14.1 Summary of energy conservation behaviours between case study areas

In summary levels of commitment in the use of energy efficient appliances, switching electrical appliances off from 'stand by', use of water saving devices and use of energy efficient light bulbs did not significantly differ between participants from either case study area or across home and holiday conditions. However there was statistically significant decrease in all behaviours for participants from both case study areas between home and holiday environments.

5.15 Pro-environmental Consumer Behaviour

Choices made when purchasing goods and services also reflects an individual's commitment to sustainable or pro-environmental causes. (Table 5.15) To this end the survey gathered data regarding how frequently participants purchased eco-friendly goods, organic food and food produced and sold locally via local farmers markets this was assessed both in the home environment and when the participants were on holiday. (Table 5.9)

The selection and purchase of goods that have less of a detrimental effect on the environment to traditional products is another way of individuals showing their commitment to pro-environmental issues.

	Sustainable behaviour at home					Sustainable behaviour on holiday				
	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)
Purchase eco-friendly goods										
-Minehead	30 (15.8)	29 (15.3)	84 (44.2)	25 (13.2)	22 (11.6)	33 (30.6)	15 (13.9)	42 (38.9)	11 (10.2)	7 (6.5)
- Paignton	30 (16.8)	24 (13.4)	86 (48.0)	21 (11.7)	18 (10.1)	53 (35.3)	21 (14.0)	58 (38.7)	9 (6.0)	9 (6.0)
Purchase organic food										
-Minehead	33 (17.3)	38 (19.9)	80 (41.9)	24 (12.6)	16 (8.4)	29 (27.1)	25 (23.4)	35 (32.7)	11 (10.3)	7 (6.5)
-Paignton	47 (25.8)	38 (20.9)	70 (38.5)	12 (6.6)	15 (8.2)	63 (41.2)	26 (17.0)	51 (33.3)	4 (2.6)	9 (5.9)
Purchase food from local farmers markets										
-Minehead	37 (19.3)	21 (10.9)	66 (34.4)	30 (15.6)	38 (19.8)	20 (18.3)	19 (17.4)	42 (38.5)	17 (15.6)	11 (10.1)
-Paignton	27 (14.9)	38 (21.0)	67 (37.0)	26 (14.4)	23 (12.7)	46 (30.5)	27 (17.9)	54 (35.8)	14 (9.3)	10 (6.6)

Table 5.9: Comparing commitment to a range of pro-environmental consumer behaviours between case study areas

To this end the survey assessed how frequently the participants purchased eco-friendly goods whilst in their home environment and whether this commitment extended into the holiday environment and this behaviour was further compared between participants from each of the case study areas. By far the most common response from both case study areas in terms of frequency was that eco-goods tended to be purchased 'sometimes' (44.2% - Minehead) and (48% - Paignton), just over 30% of participants from both case study areas reported to 'rarely' or 'never' purchasing eco-goods when at home and only just over 10% in each case study area reporting to 'always' purchasing eco-goods. A Mann Whitney U Test was employed to establish whether there was a statistically significant difference in purchasing of eco-goods amongst participants from each case study area. The test revealed no statistical difference in levels of reported purchasing of eco-goods, Minehead (Md = 3, n =190) and Paignton (Md = 3, n = 179), $U = 16691.5$, $z = -.324$, $p = .7$, $r = .01$.

The reported frequency of purchasing eco-friendly goods decreased between the home and holiday conditions for participants from both case study areas. A Wilcoxon Signed Rank Test revealed that there was a statistically significant reduction in reported purchasing eco-friendly goods between home and holiday, Minehead, $z = -4.741$, $p < .001$, with a small effect ($r = .2$), Paignton, $z = -5.026$, $p < .001$, with a small effect ($r = .2$). The median score for frequency of reported

purchase of eco-friendly goods decreased from home (Md = 3) to (Md = 2) when in the holiday environment.

The purchase of organically produced food is also associated with a reduction in harmful effects to the environment and thus was a part of the survey. In the home environment 41.9% of Minehead case study area participants reported 'sometimes' purchasing organic food when in the home environment compared to 38.5% of Paignton case study participants. Only 21% of Minehead area participants and 14.8% of Paignton participants reported to 'always' and 'usually' purchasing organic food when at home. In the holiday environment reported frequency of organic food purchase fell with only 16.8% of Minehead participants and 8.5% of Paignton participants reporting to 'always' and 'usually' purchasing organic food when on holiday. However over 50% of participants from both case study areas report to 'never' or 'rarely' purchasing organic food when on holiday (Minehead - 50.5%) (Paignton - 58.2%). A Mann-Whitney U Test revealed that there was a significant difference between reported frequency in organic food purchase at home between participants from the case study areas, Minehead (Md = 3, n = 191) and Paignton (Md = 3, n = 182), $U = 15222.5$, $z = -2.168$, $p < .05$, with a small effect ($r = .1$) The same test was applied to the frequency of reported purchase of organic food in the holiday environment. The test revealed a statistically significant difference in levels of reported purchase of organic food on holiday between case study participants,

Minehead (Md = 2, n = 107) and Paignton (Md = 2, n = 153), $U = 6948.5$, $z = -2.171$, $p < .05$, with a small effect ($r = .1$).

Levels of reported frequency of organic food purchase decreased for both case study area participants from the home to holiday environments. A Wilcoxon Signed Rank Test revealed that there was a statistically significant decrease in purchase of organic food between home and holiday for participants from both case study areas, Minehead, $z = -3.582$, $p < .001$, with a small effect ($r = .2$), Paignton, $z = -3.894$, $p < .001$, with a small effect ($r = .2$). The median scores for organic food purchase decreased from (Md = 3) in the home environment to (Md = 2) in the holiday environment in both case study areas.

Locally produced and sold food such as that sold in local farmers markets is another way for consumers to make choices that protect and prolong natural resources. Participants were asked to report how frequently they purchased food from local farmers markets both in their home environment and when on holiday. Over 30% of participants from both case study areas reported 'sometimes' purchasing food from local farmers markets (Minehead – 34.4%) (Paignton – 37.0%), 35.4% of those in the Minehead case study area reported 'usually' (15.6%) and 'always' (19.8%) buying food from local farmers markets when at home. 27.1% of participants from the Paignton case study cohort reported to 'usually' ((14.4%) and 'always' (12.7%)

purchasing food from local farmers markets when at home. A Mann Whitney Test revealed there was statistically significant difference in levels of reported purchase of food from local farmers markets from participants from either case study area when they are in their home environment, Minehead (Md = 3, n = 192) and Paignton (Md = 3, n = 181), $U = 15994.5$, $z = -1.371$, $p = .17$, ($r = .07$). The test was applied to results from the holiday environment, the results revealed that there was a statistically significant difference in reported levels of local food purchase between participants of each case study area, Minehead (Md = 3, n = 109) and Paignton (Md = 3, n = 151), $U = 6784.5$, $z = -2.510$, $p < .05$ with a small effect size ($r = .1$).

A Wilcoxon Signed Rank Test was applied to test whether there was a statistically significant decrease in reported behaviour in each case study area between the home and holiday environment. The test revealed there was no statistically significant decrease in behaviour between participants from the Minehead case study area's purchase of locally produced food from the home to the holiday environment, $z = -1798$, $p = .07$, $r = .1$. However there was a statistical decrease for participants from the Paignton case study area between the home and holiday environments, $z = -4.043$, $p < .001$, with a small effect ($r = .2$). The median scores for local food purchase decreased from (Md = 3) at home to (Md = 2) when on holiday.

5.15.1 Summary of pro-environmental consumer behaviour between case study areas

In summary, the results appear to suggest that consumer choices regarding more sustainable products tend to suggest that these purchases tend to be made on an 'ad-hoc' basis rather than a total commitment to their purchase, and even this behaviour tends to decrease when the participants go on holiday.

5.16 Carrier Bag Re-use

The re-use or recycling of plastic carrier bags when shopping is one of the easier pro-environmental behaviours to undertake in terms of convenience, time and economic investment. The public at large are likely to be aware of the damage that decades of billions of discarded plastic carrier bags have had on

	Sustainable behaviour at home					Sustainable behaviour on holiday				
	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)
Plastic Carrier bag re-use/'bags for life' when shopping										
- Minehead	14 (7.3)	9 (4.7)	12 (6.3)	28 (14.6)	129 (67.2)	20 (18.3)	9 (8.3)	17 (15.6)	22 (20.2)	41 (37.6)
- Paignton	20 (10.9)	9 (4.9)	9 (4.9)	28 (15.2)	118 (64.1)	26 (16.9)	19 (12.3)	30 (19.5)	24 (15.6)	55 (35.7)

Table 5.10: Comparing carrier bag re-use between case study areas.

the environment (Ritch, Brennan & Macleod, 2009). Therefore the survey gathered information regarding the commitment participants made to limiting their use of plastic carrier bags either by re-using or purchase of stronger longer life bags(Convery, McDonnell & Ferreira, 2007) (Table 5.10).

The results showed there was a fairly strong commitment to the re-use of carrier bags across participants from both case study areas, with 81.8% of Minehead case study area participants reporting either 'usually' (14.6%) or 'always' (67.2%) re-using carrier bags or using longer life bags when shopping in the home environment. Similar commitment was seen amongst Paignton participants where 79.3% reported 'usually' (15.2%) or 'always' (64.1%) re-using their carrier bags when at home. A Mann Whitney U Test revealed there was no statistical significant difference in reported re-use of carrier bags at home between case study area participants, Minehead (Md = 5, n = 192) and Paignton (Md = 5, n = 184), $U = 16984.5$, $z = -.764$, $p = .44$, ($r = .03$).

Reported carrier bag re-use was measured in the holiday environment, and has been recorded for the previous behaviours there was a decrease in the frequency of the behaviour. In both case study area just over 37% of participants reported to 'always' re-using their carrier bags when in the holiday environment. A Mann Whitney U Test revealed there was no statistically significant difference in reported

re-use of carrier bags between either case study area participants when they were in the holiday environment, Minehead (Md = 4, n = 109) and Paignton (Md = 4, n = 154), $U = 8086$, $z = -.523$, $p = .6$, ($r = .03$).

A Wilcoxon Signed Rank Test applied to both data gathered from both case study areas revealed there was a statistically significant decrease in reported re-use of carrier bags from the home to the holiday environments, Minehead, $z = -4.355$, $p < .001$, $r = .2$ (small effect) and Paignton $z = -5.918$, $p < .001$, ($r = .2$). The median scores for carrier bag re-use for participants from each case study area decreased from (Md = 5) in the home environment to (Md = 4) when in the holiday environment.

15.7 Transport behaviour

One of the most important aspects of pro-environmental behaviour rests upon decisions made regarding transport; therefore the survey gathered data regarding how frequently the participants chose to use public transport, walk or cycle where conditions made it possible. (Table 5.11)

	Sustainable behaviour at home					Sustainable behaviour on holiday				
	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)	Never (%)	Rarely (%)	Sometimes (%)	Usually (%)	Always (%)
Use public transport/walk/cycle where possible										
- Minehead	27 (14.1)	27 (14.1)	66 (34.4)	21 (10.9)	51 (26.6)	15 (13.9)	20 (18.5)	42 (38.9)	9 (8.3)	22 (20.4)
- Paignton	25 (13.7)	31 (16.9)	52 (28.4)	27 (14.8)	48 (26.2)	22 (14.2)	25 (16.1)	41 (26.5)	28 (18.1)	39 (25.2)

Table 5.11: Comparison of reported frequency of sustainable transport behaviours between case study areas

The most common response amongst the survey participants was they ‘sometimes’ used public transport/walked or cycled (Minehead – 34.4%) and (Paignton – 28.4%), just over 26% reported ‘always’ walking or cycling when they were in their home environment and 30% of Minehead case study participants and 28.2% reported ‘rarely’ or ‘never’ using public transport/walking or cycling when at home. A Mann Whitney U Test revealed there was no statistical difference in levels of reported usage of sustainable transport options between participants from either case study area when in their home environment, Minehead (Md = 3, n = 192) and Paignton (Md = 3, n = 183), U = 17503.5, z = -.063, p = .94, r = .003.

The use of more sustainable transport options was measured in the holiday condition and those staying the Paignton case study area reported higher levels of public transport/walking cycling with 43.3% reporting ‘usually’ or ‘always’ using public

transport/walking or cycling when on holiday compared to 28.7% of Minehead participants. Just over 30% of participants from both case study areas reported to 'never' or 'rarely' using sustainable transport options when on holiday. A Mann Whitney U test revealed there was statistically significant difference in reported levels of sustainable transport between participants from either case study area when on holiday, Minehead (Md = 3, n = 108) and Paignton (Md = 3, n = 155), $U = 7589$, $z = -1.324$, $p = .18$, ($r = .08$).

The results from both case study areas were compared between home and holiday condition using a Wilcoxon Signed Rank Test, the results revealed there was a statistically significant difference between reported use of sustainable transport options between home and holiday for participants from the Minehead case study area, $z = -2.614$, $p < .05$, $r = -1$. However there was no statistical difference between home and holiday conditions for participants from the Paignton case study area, $z = -.049$, $p = .96$, $r = .002$.

5.18 Summary results – pro-environmental behaviour comparison between case study areas

The results of the comparison of levels of reported pro-environmental behaviour between participants from both case study areas at home and on holiday are fairly

consistent, in so much as there appears to be very little difference in the levels of reported behaviours across the participants regardless of which case study area they were a member of. Some behaviours, particularly the easier, less economical or time heavy behaviours show the greatest levels of commitment, such as recycling, switching electrical appliances off from 'stand by' mode, use of energy efficient light bulbs and re-use of plastic carrier bags. On the other hand, use of water saving devices, consumer behaviour and food choices appear to be behaviours that are 'sometimes' undertaken. Sustainable transport options are another area where participants showed consistently low levels of commitment both at home and when on holiday.

Participants from both case study areas all reported a 'drop off' in sustainable behaviours between the home and holiday environment suggesting that even behaviours that are routine in the home environment do not continue to be so when the participants were on holiday.

The next section of the chapter will be devoted to exploration of the data collected in order to quantify the environmental impact of tourist behaviour using the REAP for Tourism ecological footprinting software program.

5.19 Quantifying the environmental impact of tourist onsite behaviour using REAP for Tourism Ecological Footprint Software.

5.19.1 Introduction

The survey contained a section designed to collect data pertaining to quantifying the impact of tourist behaviour on the environment. The data contained information regarding destination, accommodation choices, distance travelled, transport to, from and during holiday, consumer spend and activities undertaken during the holiday. This data was inputted to the REAP for Tourism computer software and Ecological Footprint, Carbon Footprint and Greenhouse Gas Emissions were calculated for each participant who supplied complete information for each of the above sections. The questionnaire provided 142 useable datasets which were inputted into the REAP for Tourism computer software. The results provided total ecological footprint, carbon footprint and greenhouse gas emissions associated with the data provided by each of the participants. The REAP calculator also allows impact to be calculated by day as well as for the complete holiday. This enables comparisons to be made between those undertaking longer holidays and those on shorter vacations.

15.9.2 Describing the ecological footprint by accommodation type for each case study area

The data gathered from the questionnaire was inputted into the REAP for Tourism software and generated an individual ecological footprint for each participant. 142 participants successfully completed the section of the questionnaire dedicated to gathering ecological footprinting data, 49 participants were staying in Minehead and 93 were staying in the Paignton case study area. (Table 5.12) (There was a relatively low respondent rate for this particular section of the survey, this is probably due to the nature and type of information required. In order to provide usable data the survey required detailed estimation of spending in multiple categories and quantification of activities undertaken or expected to be undertaken during the holiday. Many of the participants may have found this information difficult to provide, either because was perceived as too intrusive or because they found it difficult to know in advance what their monetary outlay might be or what activities they would be likely to undertake).

	Nights spent in the region		
	All	Paignton	Minehead
Hotels	240	161	79
VFR	70	27	43
Self-catering	202	136	66
Holiday Parks	119	91	28
Camping	241	154	87
Total	872	569	303

Table 5.12: Nights spent in the South West by case study area used in the REAP Tourism analysis.

872 nights were spent in the South West of England by the participants of this survey. 569 of these nights were spent in the Paignton case study area and 303 were spent in the Minehead case study area. 240 nights were spent in hotel accommodation, 161 of these were spent in Paignton case study area and 79 were spent in Minehead. 70 in total were spent visiting friends and relatives, 27 in Paignton and 43 in Minehead. 202 nights were spent in self-catering accommodation, 136 of these were spent in Paignton and 66 nights were spent in Minehead. 119 nights were spent in holiday park accommodation, 91 of these nights were in Paignton and 28 in Minehead. In total 241 nights were spent camping, 154 were staying in the Paignton case study area and 87 nights in the Minehead case study area.

15.9.3 Total Ecological Footprint For All Staying Participants

The data provided by the survey participants (n=142) entered into the REAP for Tourism Software calculated that the total Ecological Footprint was 244,981.53m² (24.49 *gha*).

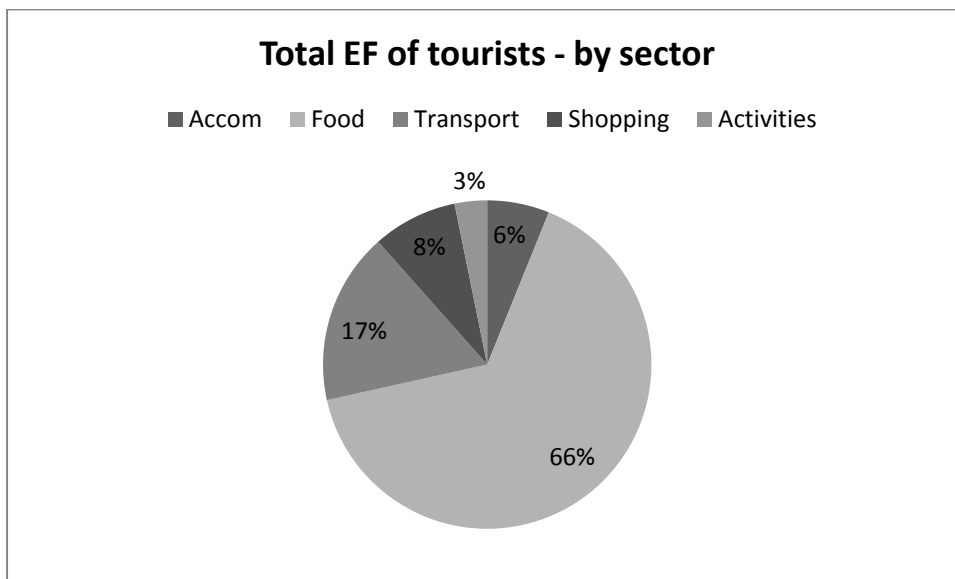


Figure 5.16: Pie Chart showing % of ecological footprint by sector.

The highest percentage of impact came from the purchase of food for eating out or for self-catering purposes (66%), the next highest percentage impact is a result of travel, to, from and during the holiday visit (16.93%). (Figure 5.16)

The average total ecological footprint over the length of their stay in the South West of England in the summer of 2011 equalled 1725.22 m² (0.17 *gha*) and the average EF per visitor day 280.94 m² (0.02 *gha*).

5.20 Comparing total ecological footprint between case study areas

An analysis was run using the REAP for Tourism software to calculate the ecological impact of those participants staying in the two case study areas. (Table 5.13)

Participants from the Paignton case study area had the highest total impact with EF totalling 147264.35m² (14.73gha) and participants from the Minehead case study area had a total EF of 97717.18m² (9.77 gha). Food in both case study areas created the greatest ecological footprint (96400.93 m² – Paignton and Minehead – 63802.12 m²).

5.20.1 Comparing average daily ecological footprint between case study areas

	Minehead (n=49)		Paignton (n=93)	
	Average EF per visitor (m ²)	Average EF Per visitor day (m ²)	Average EF per visitor (m ²)	Average EF Per visitor day (m ²)
Accommodation	108.40	17.53	104.19	17.03
Food	1302.08	210.57	1036.57	169.42
Travel	337.20	54.53	268.26	43.85
Shopping	188.52	30.49	120.96	19.77
Activities	58.02	9.38	53.51	8.75
Total	1994.23	322.50	1583.49	258.81

Table 5.13: Comparison average daily EF between case study areas

A comparison was undertaken to assess whether there was a difference in ecological impact between holiday makers. Those participants staying in the Minehead case study area had the highest average EF 1994.23m² compared to Paignton's at 1583.49 m². The average daily impact equalled 322.50m² for Minehead participants and 258.81m² for Paignton's visitors. A Mann-Whitney U Test revealed there was no statistical difference in the average daily EF of participants staying in either case study area, Minehead (Md = 258.42, n = 49) and Paignton (Md = 218.73, n = 93), U = 1917, z = -1.457, p = .1, r=1.

5.21 Comparing EF by accommodation type

The next stage in the analysis was to explore the EF of participants staying in different types of accommodation to establish whether visitors staying in particular types of accommodation create a larger (or smaller) impact on the environment.

(Table 5.14)

Total Ecological footprint measured in m ²					
	Hotel	VFR	Self-Catering	Holiday Park	Camping
Accommodation	8355.30	1966.86	1993.54	2685.83	0.00
Food	23716.98	9429.05	53368.07	22581.58	51107.37
Transport	8682.32	4908.98	9908.71	5797.47	12173.30
Shopping	4424.49	2223.42	3875.97	3746.05	6216.88
Activities	2169.22	545.41	1817.19	1326.29	1961.25
Total	47348.31	19073.72	70963.48	36137.22	71458.80

Table 5.14: Table showing total EF of survey participants by accommodation type.

The results of the analysis show that the highest EF came from those participants that were camping, their total impact was 71458.80m² and most of this impact came from food purchased for self-catering purposes as well as food purchased in cafes and restaurants (51107.37m²), the next highest impact came from travel and transport and totalled 12173.30m². The lowest total EF came from those visitors that were staying with friends and relatives, their total EF equalled 19073.72m². (Table 5.14)

An average daily EF was then calculated as this provides a better understanding of which types of visitor have the greatest impact on the environment and allows for easier comparison. (Table 5.15)

Average Ecological footprint per visitor day measured in m ²					
	Hotel	VFR	Self-Catering	Holiday Park	Camping
Accommodation	34.81	28.10	9.87	22.57	0.00
Food	98.82	134.70	264.20	189.76	212.06
Transport	36.18	70.30	49.05	48.72	50.51
Shopping	18.44	31.76	19.19	31.48	25.80
Activities	9.04	7.79	9.00	11.15	8.14
Total	197.28	272.48	351.30	303.67	296.51

Table 5.15: Table showing average EF per visitor day of survey participants by accommodation type.

The analysis reveals that those staying in self-catering accommodation have a much higher daily average EF (351.30m²) than those staying in any other accommodation type and food purchase and consumption accounts for a large proportion of this impact (75.20%), followed by the impact created by travel and transport (13.96%). The lowest average daily impact came from those visitors staying hotel accommodation whose impact amounted to 197.28m² per day. (Table 5.15)

A further breakdown of impact was achieved by analysing the EF by case study area and accommodation sector, to establish whether accommodation choice within the resorts could be associated with a higher environmental impact. (Table 5.16)

	Minehead (n = 49)		Paignton (n=93)	
	Total EF (m2)	Average EF per visitor day (m2)	Total EF (m2)	Average EF per visitor day (m2)
Hotels	18447.93	233.52	28900.38	179.51
VFR	15678.89	364.63	3394.83	125.73
Self-catering	24065.28	364.63	46898.20	344.84
Holiday Park	8754.97	312.68	27382.25	300.90
Camping	30770.11	353.68	40688.69	264.21

Table 5.16: Comparison of total EF and average daily EF between case study areas and accommodation type.

Upon review of the results it is possible to illustrate that participants staying in the Minehead case study area had a higher average EF per visitor day across all accommodation types. Those participants staying with friends and relatives and those staying in self-catering accommodation in the Minehead case study area had the highest average daily EF at 364.63m². The next highest average daily EF was found to be those participants camping in the Minehead case study area their impact totalled 353.68m². In the Paignton case study area the highest average daily EF was found in those participants who were staying in self-catering accommodation 344.84m². The lowest daily EF was for the participants who were staying with friends and relatives in the Paignton case study area their footprint totalled 125.73m².

5.21.1 Exploring the EF of those staying in 'serviced' accommodation

The next stage of the process was to drill down further to see where the majority of the impact was generated for each case study area by specific accommodation type.

The rationale being – does the type of accommodation selected for a holiday have an effect on ecological impact?

	Minehead hotel accommodation			Paignton hotel accommodation		
	EF m ²			EF m ²		
	Total	%	Average Daily EF	Total	%	Average Daily EF
Accommodation	2820.73	15.29	35.71	5534.57	19.15	34.38
Food	9798.92	53.12	124.04	13918.06	48.16	86.45
Transport	2467.89	13.38	31.24	6214.43	21.50	38.60
Shopping	2486.98	13.48	31.48	1937.51	6.70	12.03
Activities	873.41	4.73	11.06	1295.81	4.48	8.05

Table 5.17: Comparison of EF for those staying in 'serviced' accommodation by case study area.

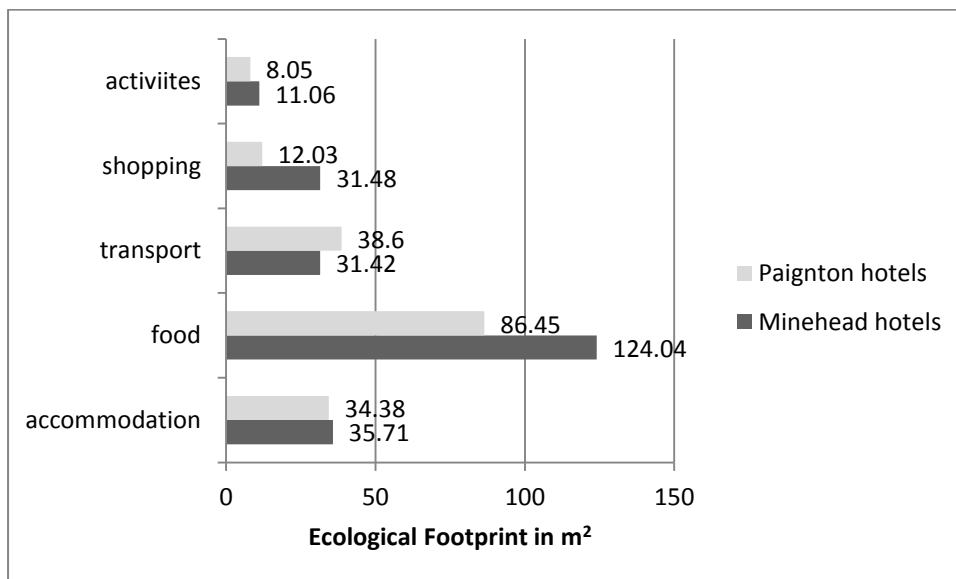


Figure 5.17: Comparison of average EF per visitor day of each case study area for those staying in 'serviced' accommodation.

The above data table (Table 5.17) and graph (Figure 5.17) illustrate the differences in average daily EF impact between participants staying in hotel accommodation in Minehead and Paignton case study areas. The largest impact for those staying in

hotels is for food, this is food purchased outside of the hotel environment and includes food bought for self-catering purposes and food consumed in 'eating out' establishments. Minehead participants generated on average 124.04m² EF on food purchase per visitor day compared to Paignton participants whose average daily EF for food equalled 86.45m². In all areas, apart, from transport and travel Minehead hotel case study participants generated a higher average daily EF than their counterparts in the Paignton case study area. Activities undertaken whilst in the holiday environment, which include visitor attractions, sightseeing, walking, cycling, boat trips and visiting the countryside and beach were included in the data used to generate the EF, Minehead participants staying in hotel accommodation generated a slightly higher average EF in the activities they undertook whilst on holiday 11.06m² compared to 8.05m² for Paignton. Minehead hotel visitors generated over twice as much impact than Paignton hotel visitors in terms of their shopping behaviour, 31.48m² average daily impact compared to 12.03m² for Paignton participants. As mentioned previously the only area where Paignton case study area participants had a slightly larger impact than Minehead was transport, this includes travel to and from the resort and travel undertaken whilst on holiday generated an impact of 38.60m² compared to 31.24m² for Minehead.

5.21.2 Exploring the EF for those staying with 'friends and relatives' (VFR)

Comparison between those staying with friends and relatives in either case study area was undertaken, there were 43 nights spent staying with friends and relatives in the Minehead case study area and 27 nights in the Paignton case study area. The data table below will compare the impact generated by the participants staying in Minehead and Paignton and evaluate what activities generate the most impact.

(Table 5.18)

	Minehead VFR EF m ²			Paignton VFR EF m ²		
	Total	%	Average Daily EF	Total	%	Average Daily EF
Accommodation	1207.92	7.70	28.09	758.94	22.36	28.11
Food	8213.03	52.38	191.00	1216.02	35.82	45.04
Transport	4027.00	25.68	93.65	881.98	25.98	32.67
Shopping	1940.47	12.38	45.13	282.94	8.33	10.48
Activities	290.47	1.85	6.76	254.94	7.51	9.44

Table 5.18: Comparison of generated EF for those staying with VFR by case study area.

The average daily EF generated by those staying with friends and relatives (VFR) was higher amongst those staying the Minehead case study area, both food and travel and transport generated much higher average daily EF (food – 191.00m², transport – 93.65 m²) compared to Paignton (food – 45.04 m², transport – 32.67m²).

(Table 5.18) (Figure 5.18)

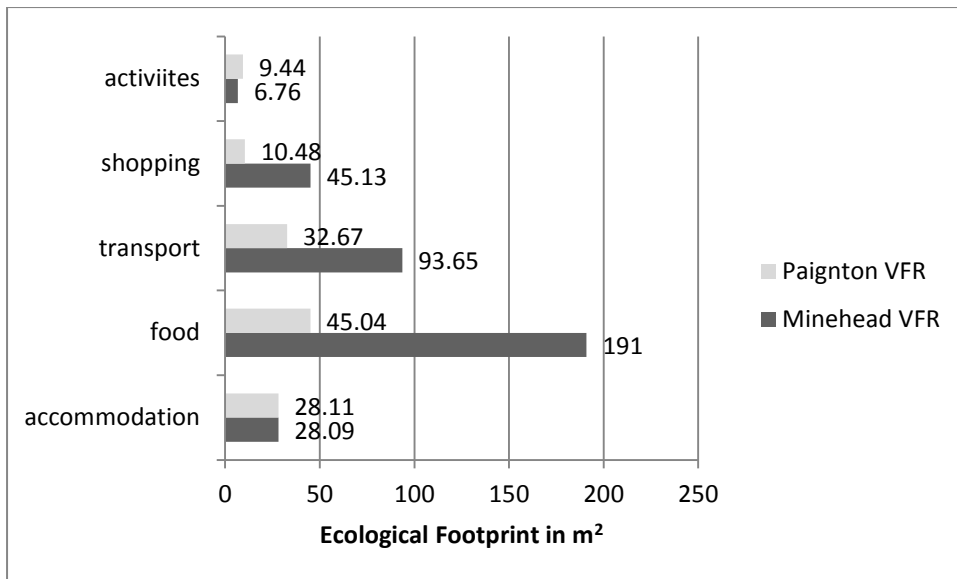


Figure 5.18: Comparison of daily EF of those participants staying with VFR

5.21.3 Exploring the EF of those staying in self-catering accommodation

The next analysis focusses on those self-catering in the two case study areas, for both case study areas those participants staying in self-catering accommodation generated the largest average daily EF (Minehead – 364.63 m² and Paignton – 344.84 m²). This is not particularly surprising as visitors staying in self-catering accommodation tend to travel to and from their accommodation mainly by car, use their car to visit attractions, and in terms of food have to supply their own food either for self-catering purposes or by ‘eating out’ in restaurants and cafes. (Table 5.19)

	Minehead visitors staying in self-catering accommodation EF m ²			Paignton visitors staying in self-catering accommodation EF m ²		
	Total	%	Average Daily EF	Total	%	Average Daily EF
Accommodation	651.18	2.71	9.87	1342.36	2.86	9.87
Food	17623.13	73.23	267.02	35744.94	76.22	262.83
Transport	3346.89	13.91	50.71	6561.82	13.99	48.25
Shopping	1694.98	7.04	25.68	2180.99	4.65	16.04
Activities	749.10	3.11	11.35	1068.09	2.28	7.85

Table 5.19: Comparison average daily EF by visitors staying in self-catered accommodation by case study area.

Minehead case study participants stayed 66 nights in self-catered accommodation and Paignton case study participants stayed 136 nights.

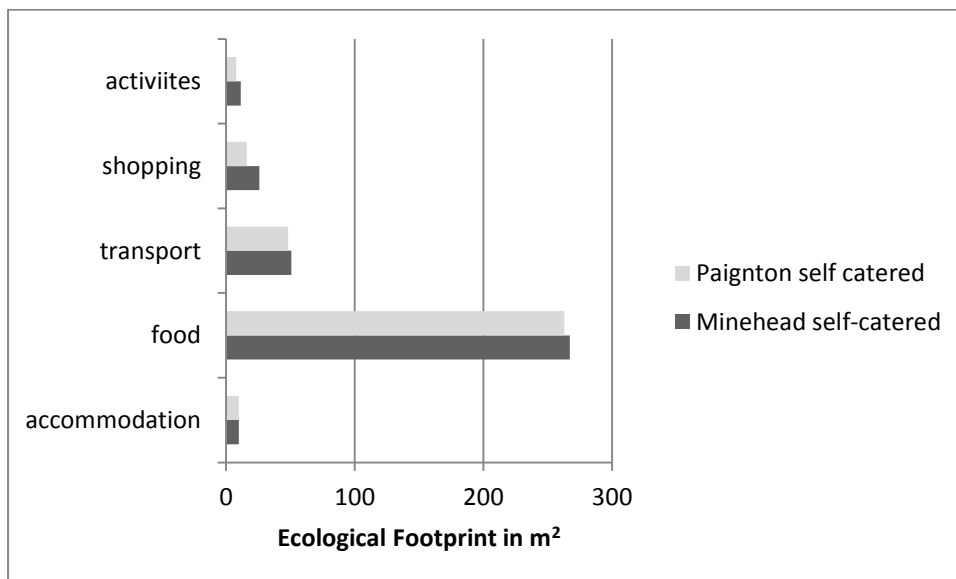


Figure 5.19: Comparison EF between those staying in self-catering accommodation by case study area.

The data table (Table 5.19) and graph (Figure 5.19) above illustrate that the average daily EF of those staying in self-catering accommodation in both case study areas

did not differ greatly in terms of environmental impact. For travel and transport, food purchase average daily EF's for participants from both case study areas was fairly similar (Minehead, food = 267.02m²; Paignton, food = 262.83m²) and transport and travel (Minehead = 50.71 m²; Paignton = 48.75m²). The only activity that came out slightly higher for Minehead case study area participants was shopping (Minehead = 25.68m²; Paignton = 16.04m²), this measurement includes all goods purchased other than food and includes items such as books and newspapers, toys, jewellery, clothes, antiques, furniture etc.

5.21.4 Exploring the EF of those staying in holiday park accommodation

Holiday park accommodation generally consists of large parks of static caravans or chalets that provide an extensive range of amenities on site (swimming pools, entertainment arcades, rides for children, evening entertainment and food outlets). Guests generally rent these units for a week or two, they are expected to provide their own food but are free to use all the amenities provided. Holiday parks are distinct from camping sites where guests bring their own accommodation (tents, caravans, motorhomes etc). Camping sites can either have a lot of recreational facilities or be relatively simple with only the basics provided.

In this study 28 nights were spent in holiday parks in the Minehead case study area and 91 nights were spent in the Paignton case study area. The total average daily EF for participants from the Minehead case study area staying in holiday parks totalled 312.68m² and average daily EF for Paignton participants staying in holiday parks was slightly lower at 300.90m². (Table 5.20)

	Minehead visitors staying in holiday parks EF m ²			Paignton visitors staying in holiday parks EF m ²		
	Total	%	Average Daily EF	Total	%	Average Daily EF
Accommodation	631.96	7.22	22.57	2053.87	7.50	22.57
Food	5962.04	68.10	212.93	16619.54	60.69	182.63
Transport	1367.03	15.61	48.82	4430.44	16.18	48.69
Shopping	451.01	5.15	16.11	3295.04	12.03	3.59
Activities	342.93	3.92	12.25	983.36	3.59	10.81

Table 5.20: Comparison EF between participants staying in holiday park accommodation in both case study areas.

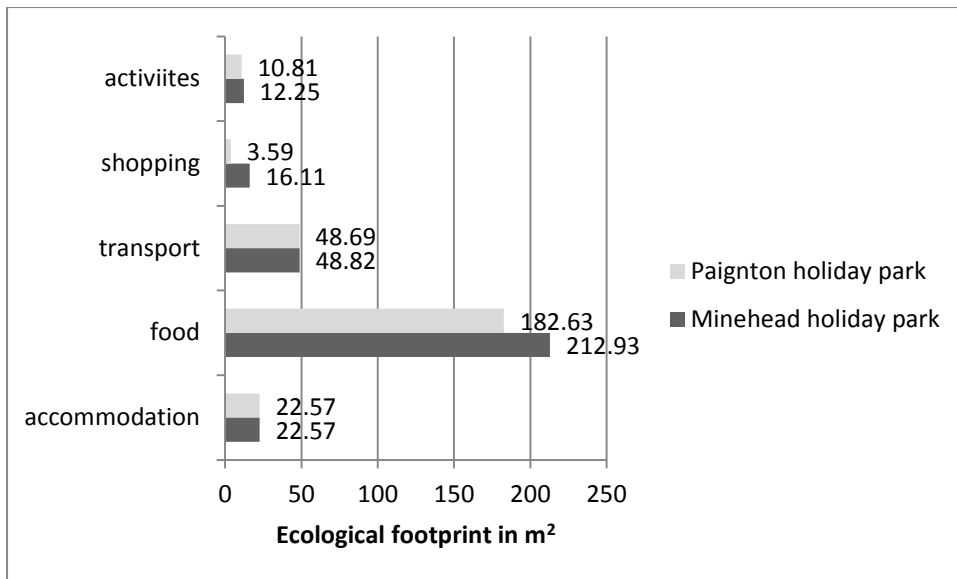


Figure 5.20: Comparison of average daily EF for participants staying holiday park accommodation

As was the case with those staying in self-catering accommodation, participants staying in both case study areas did not vary greatly in terms of their average daily EF, the only slight difference can be seen in the food purchase section where Minehead case study participants had a slightly higher daily average at 212.93m² compared to Paignton's of 182.63m² average per day. (Figure 5.20)

5.21.5 Exploring the EF for those participants camping

	Minehead visitors Camping EF m ²			Paignton visitors camping EF m ²		
	Total	%	Average Daily EF	Total	%	Average Daily EF
Accommodation	0.00	0.00	0.00	0.00	0.00	0.00
Food	22205.00	72.16	255.23	28902.37	71.03	187.68
Transport	5314.00	17.27	61.08	6859.30	16.86	44.54
Shopping	2664.03	8.66	30.62	3552.85	8.73	23.07
Activities	587.08	1.91	6.75	1374.17	3.38	8.92

Table 5.21: Comparison EF for those camping in the case study areas.

The average daily EF for those participants staying on campsites was 353.68m² for Minehead case study area which was considerably higher than for those staying in the Paignton case study area which totalled 264.21m². There were 87 nights spent in the Minehead case study area camping and 154 nights spent in the Paignton case study area. The REAP for Tourism software program allocates a 'zero' EF to camping as the pitching of a tent or caravan does not create an environmental impact, rather is the services that campers use and the behaviour they undertake whilst on holiday that creates the impact. (Table 5.21)

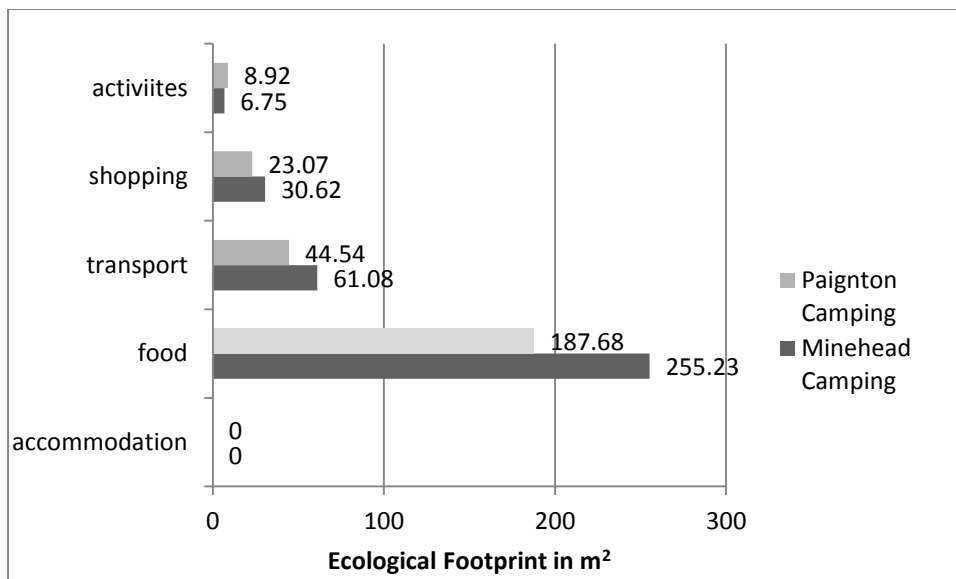


Figure 5.21: Comparison EF for those camping in the case study areas

As can be demonstrated by both the data table and the graph above those camping in the Minehead case study had a greater average daily EF and in all areas their reported behaviour generated a much larger impact than their counterparts staying the Paignton case study area. Food bought for self-catering and ‘eating out’ purposes generated the largest impact for both case study areas, however Minehead average daily EF was higher totalling 255.23m² on average per day compared to Paignton where food purchase came out at 187.68m² on average per day. Food purchase accounted for 70% of the average daily EF for participants staying in both case study areas. The next highest impact came from travel and transport, this includes travel to and from the resort as well as travel undertaken whilst in the resort, and 61.08m² on average per day was generated by participants camping in Minehead, compared to 44.54m² for those camping in Paignton case study area. (Figure 5.21)

5.22 Exploring the travel and transport component of visitor EF

The survey captured information regarding the type of transport used and the distance travelled to, from and during the participant's vacation. (Table 5.22)

	Paignton (n= 93) (%)	Minehead (n= 50) (%)
Air	0	1 (2.0)
Bus	4 (4.30)	4 (8.0)
Car	82 (88.1)	39 (78.0)
Train	7 (7.53)	5 (10.0)

Table 5.22: Comparison of modes of transport used to and from the case study areas.

The table above shows the modes of transport used by the participants, who completed the eco-footprinting section of the questionnaire, to travel to and from their respective holiday destinations. The most popular mode of transport used to travel to and from the holiday destination was the car with 88.1% of Paignton and 78% of Minehead participants choosing this form of transport to reach their holiday destination, followed by the train and then bus travel. However there was one participant who was an international visitor and their main mode of transport to the destination was via air transport. (Table 5.22)

	Paignton (estimated mileage) (%)	Minehead (estimated mileage) (%)
Car	34,710 (90.96)	18,270 (85.69)
Bus	2,200 (5.76)	1,500 (7.04)
Train	1,250 (3.28)	1,550 (7.27)
Air	0	12,000
Total	38,160/93 =	33,320
Average mileage	410.32	33,320- 12,000=21,320/48= 444.16

Table 5.23: Mode of transport used and estimated mileage to and from the holiday destination by case study area.

Estimated mileage to and from the destination and main mode of transport were gathered from the survey in order to compare the impact of travel and transport on the ecological footprint. Participants staying in the Paignton case study area travelled an estimated total of 38,160 miles to get to and from their holiday destination, just over 90% of this mileage was undertaken in a car, 5.76% on a bus or coach and 3.28% on a train. The average mileage of those travelling to Paignton for their holiday was 410.32 miles. Of those participants from the Minehead case study area there was one participant visiting the area that arrived by air transport, it was felt that this visitor represented an outlier and was not typical of visitors to the South West of England and therefore their arrival mileage was excluded from the analysis. Participants to the Minehead case study area travelled in total an

estimated 21,320 miles via car, bus, or train to reach their holiday destination. The average mileage travelled by participants to reach this destination and return was a little higher than Paignton at 444.16 miles. (As stated earlier data from the one air travel participant was excluded so as not to skew the data). Nearly 86% of this mileage was undertaken by car, 7.04% by bus and 7.27% via the train. A Mann-Whitney U Test revealed there was no statistically significant difference in the daily EF for transport between case study areas, Minehead (Md = 51.35, n = 46) and Paignton (Md = 42.28, n = 94), U = 1843, z = -1.415, p = .15, r = .1.

The total EF attributed to travel and transport equalled 41,470.78m² the table below breaks down the allocation of impact between the modes of transport and mileage undertaken by participants of this study.

	Total EF in m ² attributed to transport modes		
	Minehead case study area	Paignton case study area	Total EF by transport mode (m ²)
Car	14227.92	24076.98	38304.90
Bus	169.89	185.97	355.86
Train	315.01	685.02	1000.03
Air	1809.99	0.00	1809.99
Total	16522.81	24947.97	41470.78

Table 5.24: Comparison of total EF for travel and transport between case study areas

	Total travel and transport EF (m ²) by accommodation type				
	Hotel	VFR	Self-catering	Holiday Park	Camping
Car	7516.45	3072.98	9800.70	5797.47	12117.30
Bus	299.86	0.00	0.00	0.00	56.00
Train	866.01	26.01	108.01	0.00	0.00
Air	0.00	-1809.99	0.00	0.00	0.00
Total	8682.32	3096.98	9908.71	5797.47	12173.30

Table 5.25: Comparison total travel and transport EF by accommodation type.

The data table above shows the total travel and transport EF of the survey participants who holidayed in the South West of England in the summer of 2011. (Table 5.24) When analysed by accommodation type (Table 5.25) the highest total EF was for those participants camping at 12,173.30m² with nearly 96% of this impact coming from travel undertaken using a car, only 4% of this impact is attributed to bus travel. The next highest travel and transport total EF was created by those staying in self-catered accommodation 9908.71m², 98% of this impact was generated by car use, the remaining 2% of impact was generated by train use. The lowest total EF was generated by those staying with friends and relatives and came in at 3096.99m² this total excluded one participant who used air travel as their main mode of transport to reach the destination as this would have falsely elevated the total.

Minehead case study area travel and transport total EF m ²					
	Hotel	VFR	Self-catered	Holiday Park	Camping
Car	2065.00	2191.00	3346.89	1367.03	5228.00
Bus	113.89	0	0.00	0.00	56.00
Train	289.00	26.01	0.00	0.00	0.00
Air	0.00	-1809.99	0.00	0.00	0.00
Total	2467.89	2217.01	3346.89	1367.03	5314.00
Average per visitor day	31.24	51.56	50.71	48.82	61.08

Table 5.26: Travel and transport EF of participants staying Minehead case study

Paignton case study area travel and transport total EF m ²					
	Hotel	VFR	Self-catered	Holiday Park	Camping
Car	5451.45	881.98	6453.81	4430.44	6859.30
Bus	185.97	0.00	0.00	0.00	0
Train	577.01	0.00	108.01	0.00	0
Air	0.00	0.00	0	0.00	0
Total	6214.43	0.00	6561.82	4430.44	6859.30
Average per visitor day	38.59	32.66	48.24	46.68	44.54

Table 5.27: Travel and transport EF of participants staying in Paignton case study area.

The data tables (Table 5.26 & 5.27) above demonstrate the different travel and transport EF's of the participants based on their respective case study areas, the type of accommodation and main mode of transport. An average daily transport EF

was calculated to enable greater comparison between the impacts generated in the two resorts. As can be seen the highest daily average EF was for those camping in the Minehead case study area. The average daily EF associated with travel and transport in general appears to be higher for those staying in the Minehead case study area for example camping, 61.08m² in Minehead compared to 44.54m² in Paignton, VFR, Minehead, 51.56m² compared to Paignton's 32.66m². The only exception to this for those staying in hotels in Minehead who had the lowest daily average EF associated with transport and travel 31.24m².

5.23 Exploring the EF of shopping undertaken by participants

Shopping as an activity undertaken whilst on holiday included all non-food items, including gifts, newspapers and books, toys, clothes and jewellery, was measured on the survey. Those staying with friends and relatives had the largest shopping daily average EF 7.65m², next highest was those staying in holiday park accommodation with 4.50m² and the lowest average daily EF for shopping for non-food items was for those visitors staying in self-catering accommodation 2.79m²

5.24 Exploring the EF for activities undertaken during the holiday

The survey gathered information regarding the types and number of activities undertaken as part of the holiday experience. The activities included visits to

permanent visitor attractions such as theme parks, zoos, historic houses and museums as well as trips to enjoy the scenery, beach trips and swimming and non-permanent events such as fetes, concerts and fun fairs.

There was no great variation in the average daily EF between each of the accommodation however the highest daily average EF for activities by accommodation type was for those staying in hotels 1.19m², the next highest were for VFR 1.65m² the lowest daily average was for those camping 1.17m².

5.25 Section Summary

The results of the ecological footprinting analysis provide some interesting results in that it is clear that most of the environmental impact is located in food purchasing behaviour and travel and transport. Thus these are areas that could be targeted specifically with a social marketing intervention to change on-site tourist behaviour. (Please see appendix 4 for detailed information on the limitations of the REAP for Tourism Software Program).

The really influential results occur when individual ecological footprints are linked with the segmentation analysis, which will be discussed in the following section.

5.26 Segmentation Analysis

In line with a social marketing methodology a segmentation analysis of the data gathered must be undertaken in order to define the group(s) that would be most amenable to targeting with a social marketing intervention. Segmentation or cluster analysis groups participants in terms of shared and distinct characteristics, participants within in these groups must be similar to each other but distinct from members of other groups or clusters. The characteristics used to define clusters or segments can be demographic (age, gender, income etc) or more commonly psychographic centred around shared attitudes, beliefs, values and behaviours. (French, J, Blair-Stevens, C., McVey, D., and Merritt, R. 2010). Within the tourism research literature segmentation is frequently used to describe and differentiate visitor motivation, behaviour and attitudes (e.g. Dallen 2007; Frochot 2005; McKercher, B., Ho, P.S.Y. du Cros, H., and Chow Mong, B. (2002).

In terms of the current research where the impetus is on understanding the barriers and motivations to encouraging sustainable tourist behaviour, the cluster or segmentation analysis should focus on trying to define sub-groups of participants who are most likely to respond to a social marketing initiative focussed on encouraging sustainable tourist behaviour. Hence the cluster analysis focussed on the variables related to attitudes towards holidays and holiday travel. (Table 5.28) A series of cluster analyses were run using SPSS V19 utilising the *Two-Step* analysis

technique. The most successful combination analysis yielded 3 distinct clusters focussed around five variables relating to the data gathered relating to the participants attitudes to travel and holidays.

	<i>Factors</i>
1.	<i>I don't worry about the environment when I make choices about my holiday travel</i>
2.	<i>I like using public transport when I am on holiday</i>
3.	<i>I try to avoid air travel when I go on holiday</i>
4.	<i>I am unlikely to change plans in response to issues like climate change</i>
5.	<i>Taking short breaks is important to me</i>

Table 5.28: Attitude statements used in Cluster Analysis

Each of these statements were rated on a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree), thus a score out of five is achieved for each factor. High scores for factors 1, 4 and 5 would suggest low concern for the environment when making decisions regarding holiday travel and transport, low scores on these factors would suggest higher environmental concern when making decisions regarding holidays. High scores on factors 2 and 3 suggest that these participants incorporate environmentally friendly behaviours into their holiday experience as a matter of course; low scores on these factors would suggest that less consideration is given to travel and transport decisions. Therefore factors 1, 4, and 5 were re-coded in order that an overall high to low score could be calculated, where a high score on each

factor would mean more positive attitudes and behaviour towards the environment when in a holiday setting. Each cluster was evaluated in terms of its scores on the cluster variables and in terms of mediating factor titled 'total environmental attitudes' – this variable was not used in the factoring analysis but the developed clusters were measured against this factor. Similarly the higher the score on this variable the greater the stated concern for the environment.

Cluster 1 (n=144)		High	Medium	Low
	I think how I can reduce environmental damage when I go on holiday			x
	I like to use public transport when I am on holiday	x		
	I try to avoid highly polluting forms of transport like air travel when I go away		x	
	I am unlikely to change my holiday plans in response to issues like global climate change			x
	Taking short breaks is important to me		x	
Total environmental attitudes			x	
Cluster 2 (n= 95)		High	Medium	Low
	I think how I can reduce environmental damage when I go on holiday			x
	I like to use public transport when I am on holiday			x
	I try to avoid highly polluting forms of transport like air travel when I go away			x
	I am unlikely to change my holiday plans in response to issues like global climate change			x
	Taking short breaks is important to me	x		
Total environmental attitudes			x	
Cluster 3 (n= 134)		High	Medium	Low
	I think how I can reduce environmental damage when I go on holiday	x		
	I like to use public transport when I am on holiday	x		

	I try to avoid highly polluting forms of transport like air travel when I go away		x	
	I am unlikely to change my holiday plans in response to issues like global climate change	x		
	Taking short breaks is important to me	x		
Total environmental attitudes		x		

Table 5.29: Summary of cluster demographics

Each of the clusters will now be described in terms of the scores on the cluster analysis, the clusters have deliberately been left un-named so as not label in a negative or positive way. (Table 5.29)

Cluster 1

There were 144 members of cluster 1, they had a low score on reducing environmental damage when they go on holiday, and this result suggests that members of this cluster do not consider the environment when making decisions regarding their holiday. However members of this cluster scored highly on the use of public transport whilst on holiday, suggesting that whilst environmental issues are not at the forefront of decision-making they still choose to utilise less polluting forms of transport whilst on holiday. In terms of avoiding air-travel the members of this cluster had a medium score suggesting that they neither rejected nor accepted the statement. In respect of the importance of taking short breaks the members of this cluster had a medium score suggesting that taking short breaks was neither important nor un-important to their holiday decision-making. In terms of their total

scores on attitudes towards the environment this cluster scored just below the median. (Table 5.29)

Cluster 1 – Profile

The members of cluster 1 were mainly female and aged over 60 years and retired from work, 50% of the segment owned a concessionary travel card. 42% of this cluster have two cars per household, 7% have no car and 5% report to having 4+ cars in their household (Appendix 6.3) In terms of holidays 50% of the cluster take up to 2 holidays per year and are most likely to be travelling in a family group without children (43%) or with friends (14%) and most likely to be staying in serviced accommodation (39%) and least likely to be staying in a holiday park (11%). (Appendix 8.2)

In terms of membership of environmental organisations this cluster is the least likely to have a membership with 40% reporting to being a member of any organisation. In terms of disability 18% of this cluster reported either they or someone in their household was registered with a disability. (Appendix 8.1)

The analysis returned to the original data gathered in the questionnaire survey and explored the reported levels of home and holiday pro-environmental behaviours amongst cluster members. In terms of pro-environmental behaviours in and around the home, cluster 1 reported the lowest score in terms of 'always' recycling of the three clusters with 10% admitting 'rarely' or 'never' recycling at home. In a holiday environment 30% reported they either 'always or usually' recycled when on holiday

compared to 18% reporting to 'rarely or never' recycling whilst on holiday. (Appendix 7.1) The use of energy efficient appliances in this cluster was the lowest of the three clusters with 55% reporting 'always or usually' using them when at home, only 20% reported to ensuring using them when on holiday and 11% stating they 'never' ensure appliances are turned off when at home which is higher than either Cluster 2 or 3. (Appendix 7.2)

In terms food purchasing 48% of Cluster 1 'sometimes' purchase organic food but are the least likely of the three clusters to source food from local farmers markets. (Appendix 7.7, 7.8) Interestingly Cluster 1 report the highest commitment of the three clusters in re-using plastic carrier bags, with 67% reporting to 'always' ensure their re-use. (Appendix 7.9)

Cluster 2

There were 95 members of cluster 2, they had a low score on concern about reducing environmental damage when on holiday, and furthermore this cluster had a low score on using public transport whilst on holiday and on avoiding air travel and scored very lowly on willingness to change behaviour. In terms of taking short breaks this cluster scored very highly meaning that this aspect of holidaying is extremely important to them. These results suggest that this cluster is particularly uninterested

in environmental concerns and pro-environmental behaviour and this is reflected in a low total score for environmental attitudes. (Table 5.30)

Cluster 2 - Profile

Members of Cluster 2 tended to be male under 30yrs of age. In terms of car ownership 50% of this cluster have 2 cars per household and take up to 2 holidays or short breaks per year. In terms of holidays Cluster 2 were most likely to be holidaying in a family group that includes children (48%), the most common accommodation choices of this Cluster was camping (24%) and self-catering (28%). (Appendix 8.2) Interestingly 48% of this cluster had a membership of an environmental organisation such as English Heritage or the National Trust. (Appendix 8.1)

In terms of reported frequency of pro-environmental behaviours this cluster were committed recyclers with 94% reporting 'always or usually' recycling when in the home environment, this dropped to 44% when on holiday and was the lowest of the three clusters. (Appendix 7.1) However, on all other pro-environmental behaviours this cluster were the least committed of the three clusters (water saving, energy efficient appliances; turn off from stand-by etc.). They were also the least likely cluster to utilise public transport options at home and on holiday. (Appendix 7.10)

Cluster 3

There were 134 members of cluster 3, they scored highly on reducing environmental damage when making decisions regarding their holiday, and they also scored highly on using public transport whilst on holiday. In terms of avoiding highly polluting forms of transport such as air travel when going on holiday this cluster had achieved a medium score suggesting they still consider air travel as a vital component of their holiday. However members of this cluster scored highly on willingness to change behaviour in the light of the threats associated with issues such as global climate change, but short breaks were still perceived to be an important part of holidaying. In terms of total scores on environmental attitudes this cluster had the highest of the three clusters (Table 5.29).

Cluster 3 – Profile

Members of cluster 3 were more likely to be female and professional or working in an unskilled work and be aged between 30 – 60 years. (Appendix 6.1) In terms of car ownership 54% of Cluster 3 had 2 or more cars per household. This Cluster reported to taking the most holidays per year with 14% reporting to taking more than 5 holidays or short breaks per year. Appendix 8.2) In terms of accommodation members of Cluster 3 tend to stay in either serviced accommodation (32%) or self-catering accommodation (25%) and tend to be holidaying in a family group that includes children (44%). (Appendix 8.2)

In terms of pro-environmental behaviour at home and on holiday, members of Cluster 3 were the most committed on a range of behaviours (recycling, composting, energy efficient appliances, turn off from stand-by, water saving, purchase of eco-goods, organic food, locally produced food and carrier bag re-use). The only behaviour that Cluster 3, were less committed to, was the use of public transport both at home and on holiday. (Appendices 7.1 – 7.9)

5.26.1 Comparing Reported Sustainable Behaviours Between Clusters

The previous section profiled each of the clusters identified and explored simple inferential statistics looking at the types of behaviours most likely to be associated with each of the Clusters. In this section a more detailed statistical analysis will be undertaken to explore whether there are statistically significant differences in the reported frequency of pro-environmental behaviours undertaken by members of each cluster. (Table 5.30)

	Total Scores for Sustainable Behaviour			
	Home		Holiday	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Cluster 1	34.67	7.44	26.21	8.50
Cluster 2	35.02	6.53	26.88	9.44
Cluster 3	37.65	7.43	27.50	8.06

Table 5.30: Comparison of mean total scores for sustainable behaviour at home and on holiday amongst clusters

The scores for each of the sustainable home and holiday behaviours measured were combined to create a maximum score of 55 for both home and holiday conditions. A high score would indicate a high level of commitment to sustainable or pro-environmental behaviour. Of the three clusters identified by the research Cluster 3 had the highest mean score for sustainable behaviour at home (M = 37.65, SD = 7.44), both Cluster's 1 (M = 34.67, SD = 7.44) and Cluster 2 (M = 35.02, SD = 6.53) mean scores for sustainable behaviour on holiday did not vary greatly. A Kruskal-Wallis Test was applied to the results to test whether there was a statistically significant difference in reported frequency of pro-environmental behaviour at home amongst members of the three Clusters. The test revealed there was a statistically significant difference in total reported sustainable behaviour at home between the three Clusters,(Cluster 1, n = 135: Cluster 2, n = 85: Cluster 3, n = 123), $\chi^2 = (2, n = 343) = 15.62, p < .001$. Cluster 3 had the highest median score for reported sustainable behaviour at home (Md = 39), Cluster 2 had the lowest median score (Md = 35) with Cluster 1 (Md = 36).

The results Kruskal-Wallis Test reveals that there is a statistical difference between total scores for sustainable behaviour but it is not able to show where the statistical differences are. Therefore a series of Mann-Whitney U Tests were carried out between pairs of Clusters to show where the difference lie. The first two clusters tested were Cluster 1 and Cluster 2, the results of the Mann-Whitney U Test

revealed there was no statistical difference in total scores for sustainable behaviour at home, Cluster 1 (Md = 36, n = 135) and Cluster 2 (Md 35, n = 85), $U = 5678.5$, $z = -.129$, $p = .8$, $r = .008$.

When Cluster's 1 and 3 were tested, the analysis revealed there was a statistically significant difference in total scores for sustainable behaviour at home between the two clusters, Cluster 1 (Md = 36, n = 135) and Cluster 3 (Md = 39, n = 123), $U = 6234.2$, $z = -3.456$, $p = .001$, $r = .2$ indicating a small effect. The final test was between Cluster 2 and Cluster 3, the results revealed there was a statistically significant difference in levels of reported sustainable behaviour at home between the two clusters, Cluster 2 (Md = 35, n = 85) and Cluster 3 (Md = 39, n = 123), $U = 3821.5$, $z = -3.299$, $p = .001$, $r = .2$ indicating a small effect. Hence the significant differences in reported levels of sustainable behaviour at home are between Cluster 1 and Cluster 3 and Cluster 2 and Cluster 3 however there is no statistical difference in reported behaviour between Clusters 1 and 2.

There was a 'drop off' in reported sustainable behaviour in the holiday condition for all three of the clusters there was no statistically significant difference in total scores for reported sustainable behaviour between members of the three clusters, (Cluster 1, n = 98: Cluster 2, n = 60: Cluster 3, n = 82), $\chi^2 = (2, n = 240) = 1.59$, $p = .45$. Cluster 3 had the highest median score for sustainable behaviour on holiday (Md =

29), Cluster 2 and Cluster 1 had the same median scores for sustainable behaviour on holiday (Md = 26). However a Wilcoxon Signed Rank Test revealed that each of the Clusters showed a statistically significant decrease in total reported sustainable behaviour between the home and holiday conditions, Cluster 1 at home (Md = 36, n = 135) and on holiday (MD = 26, n = 98), $z = -6.938$, $p < .001$: Cluster 2 scores for total sustainable behaviour at home (Md = 35, n = 85) and on holiday (Md = 26, n = 60), $z = -5.351$, $p < .001$: Cluster 3 at home (Md = 39, n = 123) and on holiday (Md = 29, n = 82), $z = -6.953$, $p < .001$ each cluster showed a medium effect $r = .4$.

5.26.2 Section Summary

In summary the three clusters were distinctively different, in terms of their attitudes towards holiday transport and travel, Clusters 2 and 3 had the most extreme differences, with Cluster 2 being the least pro-environmental and Cluster 3 being the most especially in terms of attitudes towards holidays and the environment. Profiling of the cluster members further identified the traits that each segment was differentiated by, and that the profile tended to match reported pro-environmental behaviour. Cluster 2 was identified as showing the least concern for the environment when making decisions regarding their holidays also were the lowest scorers on a range of pro-environmental or sustainable behaviours at home and on holiday. Furthermore Cluster 3 were identified as having the most concern for the environment when making decisions regarding their holidays and also reported a

higher commitment to the environment via sustainable behaviours in the home environment and whilst on holiday. The next section will explore the link between environmental attitudes; behaviour and environmental impact through the use of ecological footprinting using REAP for each of the Clusters.

5.27 Exploring the environmental impact of Clusters using REAP for Tourism ecological footprinting software

The data gathered via the survey to generate ecological footprint using the REAP for Tourism software was amalgamated with the results of the segmentation analysis. The premise of this was to test whether there is difference in the environmental impact of the three clusters, so that a cluster that represented a group of people with less concern for the environment might be expected to have greater environmental impact than members of a cluster who expressed greater concern for the environment and reported more commitment to pro-environmental behaviours. This is important for testing whether attitudes, behaviour and environmental impact match.

Each participant that completed the survey data pertaining to ecological footprinting was assigned their cluster number from the analysis and a total EF and an average daily EF were generated and assigned to each the holiday components. (Table 5.31)

	Cluster 1 (n=64)		Cluster 2 (n=35)		Cluster 3 (n=43)	
Accommodation type (number of visitors & nights stayed in resort)						
	(n)	(nights)	(n)	(nights)	(n)	(nights)
Hotel	25	139	9	44	11	74
VFR	6	30	6	30	2	14
Self-catered	15	97	7	49	9	55
Holiday Park	4	28	4	28	10	70
Camping	14	98	9	59	11	57
		392		210		270
Transportation mode & mileage						
	(n)	(km)	(n)	(km)	(n)	(km)
Car	50	22710	32	12770	39	15900
Bus	4	1750	2	750	2	1200
Train	10	3600	0	0	2	700
Air	0	0	1	12000	0	0
		28060		25520		17800

Table 5.31: Table showing the nights stayed for each of the Clusters by accommodation type and mode of transport and mileage.

5.27.1 Cluster 1

There were 64 participants from Cluster 1 who successfully completed the Ecological footprinting element of the survey. The most popular accommodation choice amongst members of this cluster was hotel accommodation with 25 participants staying a total of 139 nights, this was followed by 15 participants in self-catering

accommodation staying 97 nights, 14 participants camping for 98 nights, 6 staying with friends and relatives for a total of 30 nights and finally 4 participants staying 28 nights in holiday park accommodation. 41 participants were staying in the Paington case study area and 24 were staying in the Minehead case study area (Table 5.31).

In terms of modes of transport 50 (78.1%) of Cluster 1 participants' main mode of transport was the car with which they travelled a total of 22710 kilometres to and from their holiday resort. 10 participants travelled 3600 kilometres by train, 4 travelled a total of 1750 kilometres by bus.

The table shows the total EF generated by Cluster 1 to be 96583.92m², the largest impact came from the purchase of food either for self-catering purposes or via 'eating out' in cafes and restaurants and totalled 60364.26m² (62.4%), the next highest impact came from travel and transport, this included travelling to and from the destination as well as travel undertaken during the holiday the total EF generated 18442m² (19.0%). Accommodation accounted for 7181.83m² of the total EF, shopping 6995.67m² and activities 3600.16m². (Table 5.31)

5.27.2 Cluster 2

There were 35 members of Cluster 2 who successfully completed the ecological footprinting section of the questionnaire. In terms of holiday accommodation 9 Cluster 2 participants camped a total of 59 nights, 7 participants stayed a total of 49 nights in self-catering accommodation, 9 participants stayed 44 nights in hotel accommodation, 6 visited friends and relatives for a total of 30 nights and 4 participants stayed a total of 28 nights in holiday park accommodation. 20 participants were staying in the Paignton case study area and 15 were staying in Minehead case study area. (Table 5.31)

In terms of transport the majority of Cluster 2 participants used the car as their main mode of transport with 32 (91.4%) travelling a total of 12770 kilometres to and from their holiday destination, 2 travelled by bus for a total of 750 kilometres and 1 member of Cluster was an international visitor and used air travel as their main mode of reaching their holiday destination they travelled approximately 12000 kilometres to and from their holiday destination.

The table shows the total EF generated by members of Cluster 2 which totalled 78590.69m². Once again the highest impact came from food purchase and total 53967.16m², the next highest was generated by travel and transport which totalled

11348.73m², shopping for goods other than food generated the next highest impact for Cluster 2 members at 7929.11m², followed by accommodation at 3528.96m² and activities at 1816.73m². (Table 5.32)

5.27.3 Cluster 3

There were 43 members of Cluster 3 that successfully completed the EF section of the questionnaire and were therefore included in the analysis. 11 participants stayed a total 74 nights in hotel accommodation, another 11 participants stayed a total of 57 nights camping, 10 participants stayed 70 nights in holiday park accommodation, 9 participants spent 55 nights in self-catered accommodation and 2 participants stayed a total of 14 nights with friends and relatives. 31 participants were staying in the Paignton case study area and 11 were staying in Minehead. (Table 5.31)

The car was the most widely used mode of transport for members of Cluster 3 with 39 (90.6%) travelling a total of 15900 kilometres to and from their holiday destination, 2 travelled 1200 kilometres by bus and a further 2 travelled 700 kilometres by train.

The total EF generated by members of Cluster 3 was 69806.92m² (table below). The highest impact was generated by food purchase and totalled 45871.63m², followed by travel and transport at 11680.05m², shopping at 5562.03m², accommodation 4290.74m² and activities at 2402.47m². (Table 5.32)

	Total EF (m ²) for segmented clusters (n=142)		
	Cluster 1 (n= 64)	Cluster 2 (n=35)	Cluster 3 (n=43)
Accommodation	7181.83	3528.96	4290.74
Food	60364.26	53967.16	45871.63
Transport	18442.00	11348.73	11680.05
Shopping	6995.67	7929.11	5562.03
Activities	3600.16	1816.73	2402.47
Total	96583.92	78590.69	69806.92

Table 5.32: Total EF for each of the Clusters generated in the segmentation analysis

In summary, the highest total EF was generated by Cluster 1 with 96583.92m² with most of the impact coming from food purchased either eating out or for self-catering purposes (60364.26m²). The lowest total impact was for Cluster 3 whose total impact was 69806.92m². As with all of the previous analysis most of the impact generated across all three clusters came from food and travel and transport.

5.28 Exploring the average daily EF between Clusters

The most interesting and relevant results were generated when an average daily EF is calculated. (Table 5.33)

	Average daily EF (m ²) for segmented clusters (n=142)		
	Cluster 1 (n= 64)	Cluster 2 (n=35)	Cluster 3 (n=43)
Accommodation	18.32	16.80	15.89
Food	153.99	256.99	169.89
Transport	47.05	54.04	43.26
Shopping	17.85	37.76	20.60
Activities	9.18	8.65	8.90
Total	246.39	374.24	258.54

Table 5.33: Average Daily EF for each of the Clusters generated in the segmentation analysis.

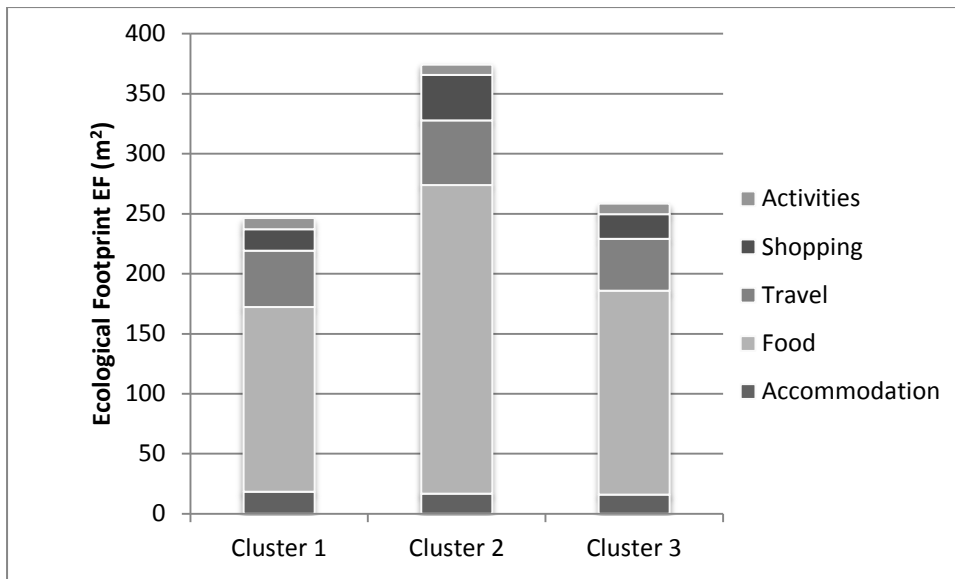


Figure 5.22: Average daily EF of the three Clusters by source of impact.

The highest daily impact came from Cluster 2 with 374.74m² with the largest differences in impact coming from Cluster 2 food purchase and consumption per visitor day which totalled 256.99m² compared to Cluster 3 at 169.89m² and Cluster 1 at 153.99m². This result appears to support the cluster profile, in so much as, Cluster 2 was associated with less concern for the environment and reported less pro-environmental behaviours when at home and on holiday as the average daily EF is much higher than the other two clusters. These results suggest a clear link between attitudes and behaviour towards the environment and environmental impact. However Cluster 3 members who were associated with higher scores on environmental attitudes and reported higher levels of sustainable behaviour around the home did not differ greatly from Cluster 1 in terms of environmental impact. The results suggest somewhat of a contradiction in so much as, Cluster 2 which was identified with the lowest concern for the environment, scored the lowest in terms of

reported sustainable behaviour and had the largest environmental impact. However Cluster 3 which was identified with the greatest concern for the environment and reported the highest levels of sustainable behaviour does not appear to have much less of an environmental impact than Cluster 1. A Kruskal-Wallis test did not detect a statistically significant difference in average daily EF for each of the Clusters, (Cluster 1, n = 67; Cluster 2, n = 35; Cluster 3, n = 41), $X^2(2, n = 143) = 4.32, p = .1$. Cluster 2 had the highest median score (Md = 296.09) and Cluster 1 (Md = 218.87) and Cluster 2 (Md = 218.58) median scores. A Mann Whitney U Test was applied to pairs of Clusters to further test any statistically significant difference in average daily EF specifically Cluster 1 and 2, and Cluster 2 and 3 were tested. To control for type 1 errors a Bonferroni adjustment was made to the Alpha level, therefore the Alpha level for this test was 0.25. The results revealed there was no statistical difference in average daily EF between Cluster 1 (Md = 218.66, n = 66) and Cluster 2 (Md = 296.10, n = 35), $U = 891, z = -1.984, p = .04, r = .1$. The results for Cluster 2 and 3 revealed there was statistically significant difference in average daily EF between the clusters, Cluster 2 (Md = 291.10, n = 35) and Cluster 3 (Md = 218.58, n = 41), $U = 556, z = -1.683, p = .09, r = .1$

5.29 Chapter Summary

This chapter has provided a comprehensive analysis of the data gathered via the large scale questionnaire survey undertaken during the summer of 2011. The data

gathered has produced a comprehensive picture of holidaying behaviour amongst tourists in both case study areas. Furthermore data relating to environmental attitudes, holiday, travel and transport have also been assessed along with exploration of home and holiday sustainable behaviours. Another novel aspect of this analysis rests on the use of REAP for Tourism ecological footprint analysis which were used to generate individual environmental impact footprints. Finally, as dictated by a social marketing methodology, a segmentation analysis was undertaken which identified three distinct Clusters of which one would be suitable for targeting with a social marketing intervention to encourage behaviour change.

The next chapter will explore the qualitative side of data collection and analysis which is focussed on identifying the barriers to, and motivations for greater levels of sustainable on site tourist behaviour.

CHAPTER SIX - Results of The Semi-structured interviews

6.1 Introduction

This research is centred on using a social marketing methodology to investigate the most appropriate way to encourage sustainable behaviour amongst tourists. Social marketing works on the principle that in order to fully understand behaviour and therefore encourage change the researcher must fully appreciate how people understand and experience their world. In this case the research needs to fully explore how 'tourists' perceive their holiday behaviour and establish what factors they perceive to be barriers to behaving in a more sustainable way when on holiday, what might motivate them to change their behaviour in future.

The use of semi-structured interviews allows the participant to articulate more freely their opinions and how they perceive their behaviour and is therefore lead by the participant, whereas quantitative research is much more led by the researcher and responses as a result are somewhat restricted and do not allow for the uniqueness of human understanding and experience to be demonstrated. Thus once the quantitative survey had been administered and the results recorded a semi-structured interview schedule was developed. This was based around a combination of gathering further details regarding certain aspects of the survey, and around generating more specific information regarding factors that participants perceive inhibit sustainable tourist behaviour and what they perceive might motivate them. More specifically this chapter aims to achieve the following objectives:

- To explore how participants perceive the nature of their holiday, what it means to them on a personal level.
- To establish what participants perceive to be the barriers to sustainable tourist behaviour.
- To establish what participants perceive might motivate them to behave in a more sustainable manner whilst on holiday.

The results were gathered over 2 months in the summer season of 2011 after participants had returned from their holiday. Participants were selected from questionnaire survey participants who supplied their details on the survey. They were then contacted by e-mail after they returned to their home and an interview date and time was set up at a time convenient them. Twenty participants took part in the interviews which were conducted via the telephone and were recorded for transcription purposes. The interviews were fairly short, lasting between 8 and 13 minutes depending on how much detail was provided by the participants.

6.2 Profile of participants

There were 20 participants in the interview stage of the research, 10 from each of the two case study areas. Fifteen of the participants were female and five were male their ages ranged from 24 years to 65 years. (Table 6.1)

Case Study Area	Name	Gender	Age	Number of children & ages	Car Owner	Occupational Status
Minehead	Rosemary*	(f)	31	0	Y (2)	Teacher
Paignton	Elsbeth*	(f)	45	2 (12, 16)	Y (2)	Professional
Minehead	Mary*	(f)	60	0	Y (1)	Retired
Paignton	Flora*	(f)	61	0	Y (1)	Retired
Paignton	Roger*	(m)	30	2 (5, 3)	Y (2)	Manager
Paignton	Ellen*	(f)	46	2 (10, 7)	Y (2)	Office Admin
Minehead	Kate*	(f)	24	1 (1)	Y (1)	Manual
Minehead	Michael*	(m)	48	0	Y (2)	Manager
Paignton	Ray*	(m)	60	0	Y (1)	Retired
Paignton	Heather*	(f)	58	0	Y (4)	Surveyor
Minehead	Samantha*	(f)	32	2 (8,5)	Y (4)	Manager
Paignton	Catherine*	(f)	62	0	Y (1)	Secretary
Minehead	Clare*	(f)	30	2 (2, 1)	Y (3)	Not working
Paignton	Mark*	(m)	32	2 (6,4)	Y (2)	Manager
Minehead	Anthony*	(m)	45	0	Y (2)	Teacher
Minehead	Abbie*	(f)	45	2 (13, 18)	Y (2)	Shop worker
Paignton	Jane*	(f)	33	1 (11)	Y (1)	Admin
Paignton	Julie*	(f)	41	2 (13, 16)	Y (2)	Carer
Minehead	Paula*	(f)	36	2 (10, 8)	Y (1)	Cleaner
Minehead	Cassie*	(f)	27	1 (3)	Y (1)	Carer

Table 6.1: Table showing interview participant characteristics. (*fictitious names used to protect anonymity)

6.3 Interview Analysis

The next section will explore what the interview analysis revealed regarding sustainable tourist behaviour amongst the participants of this research. Each of the themes that emerged from the transcripts will be worked through in turn and quotes from these transcripts will be provided as examples of the themes. Once all of the themes have been explained the final stage will be to draw the evidence together in order to answer the research objectives.

In order to establish rapport with the participants and to set the scene regarding the nature of the interview participants were asked what their holiday meant to them. Upon analysis of the transcripts it became obvious that there were two common themes reoccurring throughout, these focussed on the perceived psychological and physical benefits of taking a holiday away from home. (Appendix 8 details the interview schedule employed)

6.4 Psychological and Physical Benefits of a 'Holiday'

A holiday is perceived by the participants of this research to be an important part of their lives as it offers a chance to relax and recuperate away from the stresses of life and work at home. In fact the anticipation and planning for the holiday was perceived to be almost as important as the actual holiday as it gave participants something to

focus on and to look forward to. This is perfectly represented by one of the participants in the following excerpt

'I really look forward to my holiday, the closer it gets the more excited I get, I dunno I s'pose it's the anticipation of being somewhere new, seeing new things, I really like knowing that even weeks ahead' (Abbie)

Another comment suggested that anticipation of the upcoming holiday in itself had personal psychological benefits but that these benefits were also perceived to be important for the whole family.

'Going on holiday is really important for me, well for the whole family...I have a really busy work life, I'm always on the phone, driving, and going away means I can just switch off' (Roger)

When the participants were in the holiday environment they identified many common themes as benefits; time with the family, time off from paid work, enjoyment of scenery and climate and free time. One of the most common themes running through the transcripts was how important holidays were perceived to be in terms of 'family time'. Holiday's appeared to provide family's the time to reconnect and re-establish relationships between members this is especially evident in the following extract

'...we don't get together much when we are at home, you know the kids are always out or in bed when I come home from work and weekends are hectic,

but when we are on holiday I get to see them all day, we get to do things together' (Mark)

The following source follows a similar theme but here the participant has drawn particular attention to how important she feels a holiday for children in terms of spending time together:-

'...the kids really love coming away, they know they'll get our attention all day, we get to do things together which they really look forward to' (Ellen)

It appears this reconnection does not just occur between parents and children but also with other members of the family as seen in the following

'my parents often come on holiday with us...we like it that way, the children get to see their grandparents, we get time off to do things alone, it's a win, win situation' (Ellen)

A holiday as part of 'time away' from paid work was of course, one of the most common benefits mentioned by respondents and was perceived as an essential part of the year.

'Oh I really, really look forward to going away, even if it's just for a few days, just to get away from work is really important to me...' (Roger)

'Work has been really hectic over the last few months, so it's great to come down to the West Country and get away from it all' (Michael)

Participants who had holidayed in both case study areas were interviewed, and one of the most commonly cited benefits of their holiday was related to the geographical location and natural landscape. The scenery in terms of countryside, beaches and cliff areas of both Minehead in Somerset and Paignton in Devon were both mentioned repeatedly as benefits of holidaying in the region.

'We come to Devon every year, we love the area, the coastline is beautiful and the beaches are amazing and it's so different from where we live' (Mary)

'The beaches are what makes it for us'. (Ellen)

In terms of physical benefits accrued by a holiday, there were several mentions of the environment of the South West lending itself to being more physically active.

'We love the area...it gives a chance to be outside a lot more, we do a lot of walking, even if the weather's not great we still enjoy it...it's all that fresh air' (Mary)

'The children bring their bikes and because we are on a campsite they tend to be outside all day playing and riding their bikes' (Samantha)

'This year we tried surfing for the first time...it really great, but cold, but it didn't really matter'. (Samantha)

Therefore the results suggest that a holiday is perceived as an important and much anticipated period of time away from the home and work environment. Many of the perceived benefits centred on re-establishing of family relationships and enjoyment

of shared new experiences and activities. There appeared to be a general appreciation of the natural environment in the South West of England by those interviewed and it was this was a motivating factor for holidaying in the region. It was this natural environment that was perceived to be beneficial in terms of encouraging outdoor activities. All in all, the holiday, according to analysis of the transcripts appears to be viewed as an intrinsic part of these participants lives, and as such offers a valuable period of time away from the routine of the home environment and its inherent stresses and strains.

6.5 Holiday decision-making

The main objective of this qualitative section of the research is to uncover the barriers and motivations to sustainable tourist behaviour. Therefore it was important to establish with the participants how they selected their holiday destination, their accommodation, transport and travel decisions and what factors influenced these decisions, and further whether pro-environmental factors were included in the decision making process. The analysis focussed on identifying more obvious decisions that reflected a concern for the environment such as deliberate selection of accommodation that had been rated as 'pro-environmental' such as those businesses which are members of the Green Tourism Business Scheme (GTBS) or businesses or resorts that promote themselves as environmentally friendly in terms of the facilities that they offer. Decisions made that did not necessarily reflect a

concern for the environment but could nonetheless be considered more sustainable, such as the use of public transport instead of the personal car, or accommodation selection based on proximity to amenities, so that the car would not be required were also identified in this section. The following section of the analysis then moved on to specifically identify what participants perceived to be the barriers to sustainable tourist behaviour whilst on holiday.

6.6 Important factors in holiday decision-making process

The quantitative survey included information regarding the factors that could be useful to participants when they were selecting their final holiday destination, these included what types of information sources were the most helpful and the attributes of the resort itself. The results suggested that internet search engines were the most useful source of information regarding the selection of holiday destination and that having visited the resort before, the resort being family friendly and the area having a good climate and pleasant scenery were also deciding factors. Whilst this information gives some idea of what was important to the participants when selecting their holiday it does not provide enough detail regarding how the search process operates and which factors are the most influential in the search process. The interviews therefore provide the participants with much more scope to elaborate on how the decisions were reached and from this it should be possible to ascertain whether issues of sustainability featured anywhere in the decision process.

Participants were asked how they went about selecting their holiday. It appears from the transcripts that participants had already selected a geographical location in which they wished to holiday, as most of the participants gave the name of the county which they had selected or stated which coast they had planned to take their holiday.. The knowledge of where the intended holiday was to take place appeared to be influenced by a number of factors, including the composition and needs of other holiday group members especially children, the range of amenities available and the type of holiday experience the participants wanted to have. The following excerpts demonstrate these concepts

'...well we chose Devon, it's got everything really that we like to do, beaches and lots of things for the kids to do' (Ellen)

'We always go to either Devon or Cornwall, mostly for the coast, if the weather's good it's even better' (Julie)

'This year we stayed near Minehead, basically we chose it cos we hadn't been there before and the family is getting older so we thought we could explore Exmoor' (Abbie)

In terms of accommodation selection, the analysis suggested that there were a number of competing factors which influenced the final choice of accommodation; these were cost both financial and time costs, suitability of accommodation for the needs of the holiday group, and geographical location. It appeared from the analysis that most participants already knew what 'type' of accommodation they were looking

for i.e. they knew they wanted to self-cater, or would be camping, or required catered hotel, or bed and breakfast accommodation. Therefore specific accommodation selection decisions made regarding where to stay were made based on the prior knowledge of accommodation type and then selected in terms of the other criteria. The quotes below demonstrate these points:

'We always look for holiday cottage, because we have a lot of different age groups with us, it makes it easier to cater for everyone's needs' (Samantha)

'Yes, we go camping, and so we look for campsites that have good facilities, that are not too expensive but are also near to the beach' (Paula)

'This year we went to a holiday park and stayed in one of their caravans, we thought it would be easier as everything is in one place and they have a pool and entertainment if the weather isn't great' (Ellen)

The participants tended to draw a lot of attention towards the 'price' of the accommodation and it appears that financial cost is the most important criteria when searching for accommodation, followed by location and amenities, so much so, that if an accommodation is perceived to be too costly then a less expensive alternative is sought and a compromise is made on location and amenities.

'We were looking around and comparing prices...in the end we stayed somewhere a bit further away cos it was a bit cheaper' (Jane)

'We knew what week we wanted to go away and where, but we had to be careful how much it cost so we did a lot of shopping around' (Clare)

'We looked at a few places, the one we chose eventually had a deal on, book for 2 nights and 3^d night free, something like that' (Ray)

Participants were asked about which information sources they used and which were most useful when deciding upon accommodation. There were a variety of responses however the most often cited was the internet, this was utilised in various ways either as a general 'search' for information regarding what activities were available in the area or as a specific 'search' for 'accommodation' in the chosen location. In terms of accommodation searches many participants first started their internet search for accommodation using their chosen holiday destination, rather than using dedicated holiday accommodation websites. Again cost, location, facilities and amenities were the most important factors that the participants used when sifting through possible holiday accommodation on-line, as is demonstrated in the following;

'I used the internet quite a lot, it's really useful, I just typed in where I wanted to go, and it brought up whole lists of places, from there I chose one that was at the right price and in the right area' (Ellen)

'The holiday cottage we stayed in was in a complex and they had a really good website, that's really what made our minds up' (Catherine)

'We used, I think, the Devon website, and then made a search for places to stay from there' (Roger)

In order to assess whether sustainability featured during the holiday decision making process the transcripts were scrutinised to see if any mention was made for a need for facilities such as provision for recycling, energy efficiency appliances, car-free days out, close to public transport links and the use of locally produced or organic food. However none of the participants explicitly mentioned a requirement for these facilities therefore it could be concluded that sustainability is not a priority when making a decision regarding a holiday destination or accommodation.

6.7 Sustainable Behaviour

6.7.1 Sustainable Behaviour at Home

The next stage of the interviews were designed to address more directly sustainable behaviour whilst on holiday, in the first instance respondents were asked about their behaviour whilst at home and then whether they continue to undertake the same behaviours when on holiday. The quantitative questionnaire survey suggested a definite 'drop off' in commitment between the two environments but the interview process should allow participants to elaborate more freely on their perceptions and behaviours.

When asked about their commitment to activities like recycling and using energy efficient appliances at home the consensus of opinion was that it was routine behaviour and if the facilities allowed all of the participants were happy to. For example

'oh yes, we recycle tins, glass, cardboard and paper every week it's not hard cos the local council come and collect it' (Ellen)

'Yes we recycle everything we can' (Clare)

'...we've got used to recycling at home, sorting out all the rubbish, but I suppose we're lucky cos our local council collects it from the house, even food waste, so we don't have to take it anywhere, that makes it a lot easier'. (Julie)

In terms of the use of energy efficient appliances and undertaking energy saving behaviour around the home, again the participants made positive comments and perceived this behaviour as routine. From the analysis it appears that participants understand that energy saving behaviours and the use of energy efficient appliances has benefits for themselves, and it is these benefits, motivates them to undertake the behaviour. Most participants who specifically mentioned the benefits of using energy efficient appliances and undertaking energy saving behaviours linked it to a personal financial gain. So by undertaking the behaviour they would be saving money on energy bills due to either a reduction of electricity used to power the appliances, or the purchase of energy efficient appliances that use less energy to power them. This can be demonstrated by the following quotes taken from the transcripts;

'We try to make sure that everything is switched off, especially try to get the children to turn off TV's and computers, I know you can save quite a lot by doing that' (Ellen)

'Yes, that is something we do at home [turning off electrical appliances]...it makes sense really' (Ray)

'It's tempting to leave everything on 'stand by' but we do make the effort especially overnight to turn everything off...even if it only saves a few pence that adds up over the whole year' (Clare)

In terms of the use of energy efficient appliances;

'It makes sense to buy stuff that is energy efficient cos you'll be making savings in the longer term' (Anthony)

'We always buy energy efficient light bulbs, they've got a lot better recently, not so expensive...so we've gradually changed all of them' (Clare)

'Yes, we do use them, and if we are buying something new like a washing machine it makes sense to buy one that is energy efficient, although I would say that it would depend on the price' (Paula)

Therefore it appears that participants were committed to energy efficient behaviours and the use of energy efficient appliances in the home environment. The next stage of the analysis was to assess their perceptions of these behaviours when on holiday.

6.7.2 Sustainable Behaviour on Holiday

The interview proceeded to ask whether participants considered that it was important for tourism destinations and businesses to offer facilities to enable recycling, energy efficient appliances and to encourage energy efficient behaviours by their visitors, and whether they actively sought these facilities when in the destination. Upon analysis of the transcripts the responses illustrated similar themes, in so much as there tended to be an acknowledgment that provision of these facilities were desirable, and that if they were available then participants, if prompted tended to use them. However the participants did not necessarily actively seek out the facilities, or feel they were a pre-requisite of the decision-making process.

'I think the campsite we stayed on had separate recycling bins for tins and paper and the like' (Paula)

'Yes, we stayed in a hotel and there were signs up encouraging guests to turn off the TV and not to have the towels changed every day I remember that...I think it's good when they try to do things' (Ray)

'I think there were energy efficient light bulbs in our holiday cottage, bins for tins, paper and glass so we used them cos it was easy like at home' (Flora)

It appears therefore, where facilities exist participants used them and perceived their provision as positive, however when prompted participants acknowledged that these were not facilities that they would actively seek, and the provision would not directly

influence their decision to select a particular destination or accommodation as is demonstrated in the following quotes;

'Yes, there were facilities provided, but I didn't know about them before we arrived, I don't think it's something that would've influenced me' (Paula)

'It's good when places provide facilities, but I don't necessarily look for them' (Clare)

6.7.3 Holiday Transport and Travel

The next area under discussion was transport and travel decision making and behaviour, as it is the transport element of the holiday which is generally responsible for most of visitor environmental impact. In terms of the holidaymakers visiting the South West of England the majority of journeys made to the destination are undertaken by car. The results gathered in the quantitative section of this research revealed just over 85% of the visitors surveyed travelled by car to their respective holiday destinations. This information however, does not give any further details regarding the reasons why people choose their car over other forms of transport, and how they might be persuaded to use other modes of transport.

All of the participants interviewed reported using their car to travel to and from their holiday destination. The analysis showed that the participants all gave similar reasons for selecting this mode of transport over the use of public transport, these

centred on themes of convenience, time, financial cost and holiday group composition. Convenience of using their own car was one of the most important factors stated by participants using their own car, not only as transport to and from the destination, but also during the holiday in order to visit local attractions and for shopping purposes. This is demonstrated by the following quotes;

'Yes, we use our car to go on holiday, it's easier, it means you can leave when you want, and when you are there you can get around a lot easier'

(Mark)

'It's good to have use of the car, I mean we were self-catering and you have to do your food shopping like at home, so you need to have it...it wouldn't be much of a holiday if you had to go to the supermarket by bus' (Abbie)

The concepts of 'time' and 'convenience' appeared to be inextricably linked, in so much as, time spent travelling by car is perceived to be less than for other modes of transport and it is this that allows participants to be flexible in planning journey times to meet the needs of the holiday group.

'Driving is just easier...you can travel door to door, you can go when you want to' (Samantha)

'We've got two young children it's just not feasible to go any other way than by car, we have to take so much stuff with us...pushchairs and a travel cot...you couldn't take that much on a train' (Clare)

'I just think going by car is the only option, it's not just the convenience, it's the cost as well, you know it's so expensive going by train and then you have to either get a taxi, or bus to where you are staying...it all adds up' (Mary)

The participants were asked about how they travelled around once in their holiday destination to assess whether there was scope for encouraging sustainable travel choices once visitors have arrived in their holiday destination. The participants identified various ways they travelled around during their holiday and these differing travel modes tended to reflect the activity being undertaken during that particular day. Furthermore the travel mode selection also directly corresponded to the location of the activity and to the requirements of the holiday group as described in the following excerpts;

'...well it depends on what we're doing that day, so if we were going to the beach and where we were staying was close enough we'd walk, but on other days we'd need to take the car' (Paula)

'...we generally tend to take the car, especially to visit places, it's just easier, we've got two young children and loads of stuff to take for the day' (Clare)

'...we didn't use the car every day, it's nice not to have to drive, but if we were visiting somewhere that was a long way away then we'd usually use the car' (Catherine)

The interview participants were then encouraged to discuss what might encourage them to use more sustainable forms of transport, both for to travel their holiday destination and whilst on holiday. Differentiating between travel and transport to and from the destination and travel during the holiday is important, as the car is likely to remain the most frequently used form of transport for travel to South West England. However travel during the holiday is something that holiday destinations and resorts at a local level can have an influence over and therefore a change in visitor behaviour would be might more feasible.

The participants identified several factors which they perceived might motivate them to use more sustainable forms of travel and transport whilst on holiday. Most of the comments recorded in the interviews mentioned how important it is, whilst on holiday that any transport services are easy and convenient to use, that services are regular and reliable, information and access and to these services is straightforward. This point is illustrated by one of the comments recorded in the interview in relation to the use of local bus services whilst on their holiday;

'...we did use the bus when we were there, which was good in some ways because we got to see the countryside and didn't have to worry about parking, but coming back wasn't so easy as we had to wait a long time and it was raining so we were hanging around just waiting for bus' (Flora)

Another area for concern that the participants drew attention to was the financial cost of using public transport when on holiday, especially if the holiday group was fairly

large and the age range and requirements of the holiday group also affected whether sustainable forms of travel and transport were viable options;

'...yes, well, it's the price, it can get quite expensive if there is a lot of you...it's not at that easy when you have very young children and older ones'. (Paula)

'I think we might have considered using the bus if it wasn't too expensive...it all adds up' (Clare)

Information regarding public transport services, or walking and cycling routes was also perceived by participants to be something that might have encouraged them to leave the car behind as the following quotes demonstrate;

'...we weren't really aware that was any other way to get around, although by the end of the week we did realise there was a short cut to the beach...that we could walk to' (Anthony)

'...maybe some bus times could be given out when you check in, with maybe some prices...that would make it easier' (Jane)

'...we all take our bikes, but sometimes we don't know if it's safe enough for us all to cycle places so we tend to take the bikes on the car and then use them there...so it would be good to know where was safe, and how hard it would be to cycle or walk to places' (Ellen)

The location of the holiday accommodation was also something that makes accessing public transport services particularly difficult, especially for those

participants who were staying in self-catered accommodation which is often located in rural areas where public transport services are limited;

'...well I suppose it depends where you are staying, I mean we were in a holiday cottage up on Exmoor and there just wasn't any public transport, so that makes it difficult' (Michael)

'...we were staying on campsite in the middle of nowhere, which was good 'cos we wanted to do a lot of walking, but in terms of going shopping or visiting other places, you really do need a car' (Heather)

'...it would have been good to have had a regular mini-bus or something into the nearest town...then we wouldn't have had to use the car all the time' (Samantha)

Therefore it appears from the analysis that participants would be willing to take fewer car journeys whilst on holiday if services were available, were affordable, reliable, regular and met their individual needs in terms of convenience and ease of use.

6.7.4 Food purchase and 'eating out'

Another aspect of sustainable behaviour surrounds choices made regarding food; locally produced and sourced food is perceived to be a more sustainable choice than mass produced food sourced from a globally distant marketplace. The ecological

footprint of food retail is perhaps the best way to understand the impact of bringing an extensive range of food stuffs from around the world as it takes account of the full environmental impact in terms of energy required to grow, process and transport intensively produced food. (Chambers, Simmons & Wackernagel, 2000) This point is further demonstrated by the results of the ecological footprinting undertaken as part of this research , the results showed that food purchased as part of 'eating out' and/or for self-catering purposes was responsible for just over 65% of the tourists' surveyed environmental impact. Therefore it is important to recognise that the choices tourists make regarding food whilst on holiday are also an essential part of sustainability.

The interview participants were thus invited to explain their food choices whilst they were on their holiday, discussion took place regarding where they purchased food, for what purpose and what factors influenced these decisions. From the analysis of the transcripts it appeared that food purchase and consumption on holiday fell into several different types, the first type of food purchase was dependent on the type of accommodation that participants were staying in. Those staying in 'catered' accommodation such as hotels, guest houses and bed and breakfasts had food provided for them as part of their accommodation, the remainder were staying in a form of 'self-catered' accommodation, here food was purchased in order to provide meals very much like in the home environment. The other type of food purchase

was as part of 'eating out' in restaurants, cafes and public houses, finally all other food purchases were made outside of meals and were in the form of snacks, these purchases tended to be made when the participants were visiting attractions or sightseeing, the following quotes demonstrate the complexity of holiday food purchase and consumption;

'we were camping, so the way we did it was to buy food for breakfasts in the morning and then on daily basis we would decide if we were going out to buy things for a picnic or buy something like a pasty or sausage roll for lunch...then generally in the evening we would go to the pub for a bar meal, a couple of times during the week we had a bar-be-que at the campsite, but that's only okay if the weather's good...and it wasn't particularly' (Clare)

'...we had breakfast in the hotel and then we didn't usually have anything again until the evening, then we either ate out in a restaurant or had a takeaway, sometimes we had a snack in the daytime maybe sandwiches or a cream tea or something' (Ray)

'...we didn't eat out that much...we pretty much bought the same as at home, in fact we actually bought quite a lot with us...we did have a couple of takeaways during the week, fish and chips and pizza but that was it really' (Abbie)

The participants were then asked more specifically about the sources of their food, in terms of whether they specifically bought locally produced food, or whether they

were served any in an 'eating out' establishment, or by their accommodation provider. Further discussion took place regarding their perceptions of sustainable food and what might encourage them to purchase more in the future. The participants tended to associate locally produced food with traditional food types which are associated with the South West of England, so cream teas, Cornish pasties and fish and chips were mentioned most frequently in discussions of locally produced food. It appeared from the transcripts that the participants tended, if shopping for food for self-catering purposes to behave mostly as they do in their home environment by shopping in the nearest supermarket. However food purchased for 'eating out' in restaurants/cafes and pubs, or as a takeaway were the most likely outlets where the participants acknowledged purchasing locally produced food.

'...er local food, yes we had a really nice cream tea in Dunster when we visited the castle, that's something you only really get when you come to the West Country' (Mary)

'well we were self-catering so we bought most of our food from the supermarket on the campsite, but we did eat out a bit, we had home-made pasties in a pub we visited' (Heather)

'...I think the only real local food we ate was when we went to Kings Wear and stopped in a pub and they had a 'specials' board with mackerel on it, and we found out that the landlord had fishing boat and it had been caught that morning...' (Julie)

'We stayed in a holiday cottage on a farm and they had their own eggs and bacon and other types of meat, so we tried the eggs and bacon for breakfast' (Cassie)

In terms of encouraging the participants to purchase more locally sourced food, other than in 'eating out' establishments, the consensus amongst participants was that this would be more time consuming, and probably would incur greater financial cost. However, they were not against the idea of locally produced food, in fact they perceived it as an essential part of the holiday experience. They felt, that as locally sourced food was less readily available, especially in terms of daily staples such as bread and milk, mass produced supermarket food was more convenient when on holiday. This concept links with the others defined previously, in so much as the 'holiday' is a special time where any routine tasks that need to be undertaken, such as travel or shopping, need to be as convenient and stress free as possible;

'...I think buying all your food from local shops when you are on holiday would be quite difficult, you'd have to go to lots of different shops...it would take too long...and probably be more expensive' (Mark)

'I would buy more local food if it was easier, but when you are on holiday, you don't want to spend your whole time food shopping' (Catherine)

'When I'm at home I do try and buy some local stuff from the farm shop but when you're on holiday you don't always know where one is so it's just easier to get your food from the supermarket' (Abbie)

In conclusion it appears from the analysis that locally sourced food was an attractive proposition to the participants of this research project, but that they perceived local food when on holiday more in terms of regional specialities, rather than a source of every day staples. Further, local food or regional specialities appeared to be deemed as important aspects of the holiday 'experience' in so much as, a visit to the South West of England would not complete without sampling a Devon cream tea or a Cornish pasty. However when purchasing food for self-catering purposes, participants, tended to behave very much as they did in their home environment and relied on mass produced supermarket food. Sustainable food choices were therefore perceived to be less convenient and more expensive choices when on holiday and unless the participants were presented with them directly, as in the previous example where the holiday accommodation produced their own food, participants were unlikely to seek these sources out.

6.8 After the holiday – defining the benefits

The final section of the interview surrounded how the participants felt about their holiday once they had returned to their home environment, whether they experienced the benefits they anticipated, how they felt about destination in terms of the environment, whether they might be likely to holiday there again in the future, and whether there was anything they would thought could have improved their experiences. The rationale for including this in the analysis was see whether participants identified areas that could be linked to issues of sustainability as areas for improvement, such as travel and transport links, facility and infrastructure provision, locally produced food being more widely available, if so, this could act as a motivating force to facilitate change.

In terms of participants' perceptions of their holiday experience, most identified their holiday as a positive experience, any negative reflections tended to focus on the weather conditions during the holiday period, as this had a direct impact on some of the planned holiday activities. Other themes that developed throughout this section centred on the financial cost, and whether the facilities and amenities matched the requirements of the holiday group. In situations where improvements were suggested these were directly linked to personal needs of those in the holiday group rather than the characteristics of the destination or the resort as the following quotes demonstrate;

'...yes we...had a good time, the weather wasn't great so that meant we couldn't go the beach as much as we wanted to' (Paula)

'...We did everything we wanted to...but everything seemed to be so expensive, mainly cos the children needed somewhere to play, we had a lot of rain so they couldn't play outside' (Ellen)

'...We enjoyed ourselves, but we probably wouldn't go back there again cos there wasn't much for the children to do...the area was nice though, but not very good if you have young children' (Mark)

In terms of a repeat visit to the area in the future, all of the participants responded similarly in that they would most certainly visit the South West of England in future and many responded that they tended to return yearly. The participants identified improvements to travel and transport links to the region, as areas that might improve their holiday experiences. The themes that tended to re-occur throughout the transcripts in terms of improvements to transport systems were focussed on upgrades to roads in the region, in terms of motorway access, or major roads to many rural areas. Other suggestions surrounded public transport systems, within resort areas, particularly those participants staying the Minehead case study area, who noted that the closest mainline railway station was 20 miles away which meant travelling to the area by train was not an option;

'...Well I suppose the only thing that is quite difficult is roads in the area, you can't get around very quickly, and at times queues for car parks is a nightmare, we found that really annoying' (Roger)

'...I would have liked to have maybe have used the train to get to Minehead but I was just too difficult cos there is no train station, so maybe that might be an improvement' (Mary)

'Yes, we enjoyed the holiday, probably the most irritating thing was parking there never seemed to be enough and the roads were really busy, but I suppose it was August and the most busy time of the year' (Abbie)

In terms of whether participants derived the expected benefits from their holiday, most viewed their experiences in a positive light. However the analysis revealed that many participants' specific pre-holiday expectations in terms of benefits were not explicitly recalled after their holiday. This perhaps suggests that in the period of time before a holiday the 'anticipated benefits' are an important motivational factor and may even be used to justify decisions made, and the financial costs associated with taking a holiday. However once the holiday has been taken the benefits appear to be related more directly to actual experiences, in terms of the resort, facilities, travel and transport and has less to do with the psychological and physical benefits of a holiday. The following excerpts illustrate the dichotomy between the previously stated anticipated benefits and the benefits derived directly from the 'holiday'

'...Erm, yes it was a good holiday, maybe it was a bit different to what we expected, but we really did enjoy it, we did most of what we had planned' (Mark)

' Well we probably would have liked to do more stuff outdoors but the weather kind of let us down, so for a couple of days we were pretty much stuck in the caravan' (Roger)

'...we had a really good time, it was a lot fun, we were in a big group, 2 families and all the children, so they all played together so it wouldn't really have mattered where we were cos they had each other...so we all did as well' (Ellen)

In terms of whether the participants planned to return to the same area for another holiday, the responses identified three significantly different types of repeat visitor; regular repeat visitors – participants that return to the same resort year after year; exploring visitors – visitors that state they plan to return but intend to explore other areas within the region; possible repeat visitors – visitors who will most likely return to the area but do not make a direct commitment. There were other responses but the likelihood of a repeat visit was due to pre-existing ties to the area such as family visitation and a friend who owned a holiday home in the region. The following quotes from the transcripts demonstrate the differing responses;

'...oh well, we will definitely be back, we come every year, it's just got everything we like' (Kate)

'...I think we will go back...sometime, although probably not to the same place, we like to try different places' (Ray)

'...I expect we would go back, but we don't have any definite plans' (Anthony)

'We come down quite a lot because we visit family' (Jane)

In conclusion, it appears from the transcripts that the participants were relatively content with their holiday experiences, although they were able to suggest room for improvement in terms of transport and travel provision in the region. The climate of the South West of England is also an area that impacted on participant's holiday pre-planned behaviour however this seemed not to necessarily have a negative impact on their perceptions of the region or impact on their decision to re-visit.

6.9 Integration of categories

The next stage of the analysis involved drawing together the concepts identified in the interview scripts and creating links between them in order to gain a deeper understanding of tourist behaviour and the motivations and barriers to sustainable tourist behaviour. Grounded theory analysis involves creating a diagrammatic representation of the problem space in order to fully appreciate the dynamics of the research question. (Glasser & Strauss, 2009) Therefore a flow chart diagram was developed that represented the analysis of the interview transcripts, each section of the diagram will be described with the links and impacts as perceived by the

participants used to understand the barriers and motivations to sustainable tourist behaviour.

6.10 Model showing the barriers to sustainable tourist behaviour

The model (figure 6.1) describes the results of the interviews with the participants in terms of their pre-holiday decision-making and selection, their on holiday behaviour and their post-holiday experiences and describes their perception of the barriers to sustainable tourist behaviour. Each section of the model will be described in turn with emphasis on how and what the participants perceive to be the barriers to sustainable tourist behaviour.

6.11 Pre-holiday - Benefits

The results from the analysis suggest that there are several different stages that the participants go through prior to taking their holiday. These stages are all inextricably linked and impact on the final decision-making and selection process. It appears from the analysis that the 'benefits' that participants hope to gain from their holiday experience guide the process from the beginning, thus those participants hoping for a relaxing holiday will therefore include these requirements when searching and deciding on a particular destination. The benefits that the participants hoped to

derive from their holiday tended to be grouped into psychological and physical benefits.

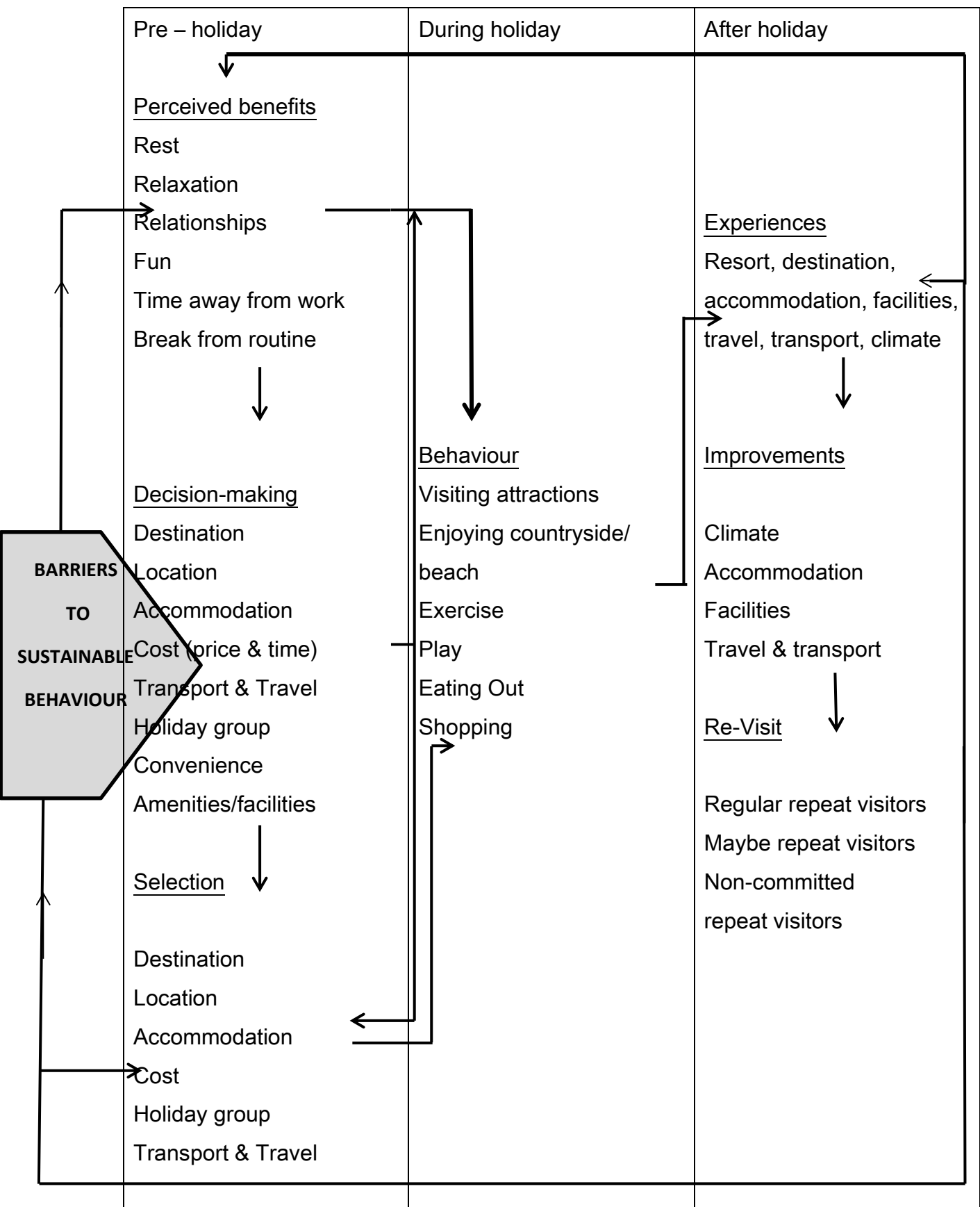


Figure 6.1: Model showing integration of the categories derived from the interviews.

In terms of psychological benefits, the holiday offered a period of time away from the routines of the home environment, and benefits included rest, relaxation, and re-establishing of family/friend relationships. These benefits were linked directly to the anticipated benefits of the nature of the location, in so much as, the climate, coast and countryside of the South West of England offered both physical benefits, in terms of exercise and time spent outdoors and the psychological benefits of time away from the stresses of everyday life.

6.12 Pre-holiday - Decision-making

The next stage in the process is the decision-making stage; here consideration is given to the specifics of the holiday in terms of the destination, its location and accommodation type. These decisions are impacted directly by the requirements of members of the holiday group, in terms of the facilities and amenities that will enable them to have a successful holiday. These requirements are weighed up against the financial, and time costs associated with a particular destination or accommodation selection. Decisions made regarding destinations and accommodation, tend only to be impacted on by travel and transport options when participants are using public transport to reach a destination. Therefore those travelling by personal car to their holiday destination will be less likely to select their resort based on availability of public transport routes and links.

6.13 Pre-Holiday - Destination Selection

The final destination selection occurs when participants have weighed up the anticipated benefits of the particular holiday against the requirements of the holiday group. Selection of specific accommodation is preceded by a desire to visit a particular geographic location and selection is informed by financial cost, location, amenities and information provided by the accommodation providers. In the case of the participants in these interviews, issues regarding transport and travel were less important than the selection and booking of accommodation as all of the participants interviewed travelled by car to the region. However should any of the participants have been travelling to the region by public transport, consideration would have needed to be given to whether particular resorts and accommodation would be accessible by public transport, as many areas of the South West of England do not have adequate public transport links.

6.14 Perceived benefits

Once the decision-making and selection process has been undertaken and bookings made, and in the period running up to the holiday, participants appear to focus back on the perceived benefits of the up and coming holiday. The perceived benefits act to build up anticipation for the holiday, which ensures that participants believe their holiday will provide respite from the routines of daily life.

6.16 Barriers to sustainable tourist behaviour

The flow diagram illustrates that the barriers to sustainable tourist behaviour act throughout the holiday decision-making and selection process, and continues through the 'on holiday' phase, linking directly to the post-holiday phase. In the pre-holiday phase participants perceived that making sustainable choices regarding accommodation, transport and travel would impact negatively on their holiday experiences. These negative impacts were perceived to threaten the perceived benefits of the holiday in terms of the effort involved in engaging in activities that are less damaging to the environment. Furthermore more sustainable forms of accommodation and transport were perceived to be more costly both in time and money, further decreasing the benefits of being away from the routines of the home environment. Whilst participants were willing to undertake sustainable behaviours such as recycling routinely in the home environment they were less likely to be concerned about this when on holiday. (Tudor et al, 2007; Barr et al, 2011) Thus the 'holiday' is perceived to be a 'special' time away from routine behaviours, and choices made, tend to reflect this, therefore sustainable options are perceived to be more costly in terms of effort, convenience and financially more expensive.

6.17 During holiday - Behaviour

Once on holiday, the focus moves to realising the pre-holiday perceived benefits in terms of rest, relaxation and time away from the home environment. Thus the destination, accommodation and visitor attractions in the area are sought out, in order to meet the expectations of the holiday group. Whilst on holiday travel and transport are an intrinsic element to the holiday, with access to visitor attractions and coastal and countryside areas being an essential part of the holiday experience. Decisions made regarding visiting the surrounding area tend to be dependent on the characteristics of the holiday group, in so much as those holiday groups with young children will have very different requirements in terms of mode of travel and final destination, when compared to a holiday group of adults only.

In terms of activities undertaken during the holiday these tend to take the form of visiting visitor attractions or countryside/coastal areas. The activities undertaken in these locations reflect the needs of specific members of the holiday group, the weather at the time, the financial costs, and the requirement to meet the anticipated experiences of the holiday.

The other notable behaviours undertaken whilst on holiday revolve around shopping, food purchase and consumption. There are two types of food purchase undertaken

whilst on holiday; food for self-catering purposes; and food purchased and eaten in 'eating out' establishments such as cafes, restaurants and public houses. Those purchasing food for self-catering purposes, do so as a consequence of their holiday accommodation selection or to subsidise the meals provided for them in catered accommodation. Food purchased for self-catering purposes tended to be bought by participants from the closest supermarket to their holiday accommodation, however choices made regarding food purchased in 'eating out' establishments tended to be more varied. Participants based their decisions either on cost and convenience, or a desire to consume food that was traditionally associated with the region, such as Cornish pasty's and Devon cream teas. Where locally produced and sourced food was available, this was viewed positively, but was perceived by participants to be best suited to food bought as part of an 'eating out' experience rather than for self-catering purposes. Participants perceived making choices regarding sustainable food purchase for self-catering purposes to be more financially costly, and less convenient, than food purchased via mass produced food outlets such as supermarkets.

6.18 Barriers to sustainable tourist behaviour

As stated previously the model demonstrates that the barriers to sustainable tourist behaviour continue to operate throughout the holiday process. Participants perceive that making sustainable decisions during the holiday regarding accommodation,

activities undertaken, transport and travel, shopping and food purchase and consumption would have a negative impact on their holiday experience, in so much as selecting more sustainable options would, they perceive, be more expensive financially, require more effort and eat into their holiday time. This is particularly the case with sustainable transport and travel options, where the use of the car is perceived to be essential when on holiday in the South West of England. The barriers to more sustainable travel options are perceived to be the suitability of public transport for differing members of the holiday group and the subsequent financial cost implications. Furthermore information and service provision was not perceived adequate enough to enable public transport to be a viable option when on holiday. The barriers to sustainable tourist behaviour therefore link directly back to the pre-holiday anticipated benefits of the holiday, suggesting that participants perceive that behaving sustainably would impact negatively on the benefits they hoped to gain as a consequence of taking the holiday, as these options are perceived to be associated with an increase in effort, time and are also associated with being less convenient.

6.19 After holiday phase - Experiences

In the period following the 'holiday' participants recalled their experiences of their time away. These recollections focussed directly on the specifics of the holiday experience in terms of whether activities undertaken and accommodation choices

matched the requirements of the holiday group. Any negative comments tended to be related to factors that were outside the decision or selection process, such as weather conditions which had impacted on the types of activities undertaken during the holiday period.

In terms of the benefits accrued by the participants during their holiday these were directly related to the participant's experiences of the area, the accommodation and the activities or visits made during the holiday, rather than the benefits anticipated in the pre-holiday stage of the process.

6.20 After Holiday Phase – Suggested Improvements to the holiday

In terms of whether there should, or could, be anything that would have improved their holiday experience, participants perceived that transport and travel options, and facilities could be improved in the areas they visited. Road networks and public transport options were specific factors which were suggested could improve their experiences of the location. Other improvements to their holiday reflected more personal factors, such as being more careful when selecting accommodation, and ensuring that facilities matched the requirements of the holiday group. As mentioned previously the weather was an area that participants felt could have improved their

holiday, as this had impacted directly on planned activities, and finding additional activities undercover was also associated with additional financial expenditure.

6.21 After Holiday Phase - Re-visit

Repeat visitation of holiday resorts is an important part of the continued success of tourism destinations, and therefore it was important to assess whether participants were, in the light of their holiday experiences, likely to re-visit the area. The analysis revealed there to be three different types of repeat visitor, those that are committed regular repeat visitors perhaps returning year after year, those visitors who state they intend to visit the region again, but are less specific about when and where the visit will be, and the final type who state they are likely to visit the area in future but do not commit to a specific return.

The diagram shows that post-holiday recollections via immediate experiences and improvements link directly to the concept of re-visitation. Therefore if past experiences of the destination are favourable and any improvements can be facilitated by changing decisions, made regarding accommodation and facilities, the likelihood of a re-visit is increased, this then links back to the pre-holiday planning and perceived benefits stage of the model.

6.22 Barriers to sustainable tourist behaviour

As indicated by the model, the barriers to sustainable tourist behaviour operate throughout all phases of the 'holiday'. Sustainable behaviour whilst on holiday is perceived to impact negatively on holiday experiences, as the behaviour is perceived to require more effort, and is therefore less convenient, increases the overall financial cost of the holiday and might therefore interfere with plans to revisit the destination in the future. Therefore the barriers to sustainable tourist behaviour can be defined as follows;

Cost – time and financial

The perceived barriers to sustainable behaviour whilst on holiday are cost, both in terms of time, and in terms of perceived increased financial cost. Here participants perceive undertaking more sustainable behaviours whilst on holiday will mean that they will have to sacrifice time during their holiday as they believe sustainable options require more effort in order to reach the same end. This is particularly perceived to be the case with selecting sustainable travel options such as using public transport services to travel to and from the holiday destination and during the vacation. The lack of information regarding services and the increased time and effort associated with travelling on public transport further adds to these perceptions. There is also a perception that making sustainable choices whilst on holiday will add a

greater financial cost to the holiday. The larger the holiday group, wider the range of ages, further inhibits the chances of tourists selecting public transport options. (As public transport services charge per person the cost increases greatly the larger the group, often holiday group members have a wide age range requiring differing facilities and this is also perceived to be a barrier to sustainable travel decision-making). In terms of locally sourced and produced food, the barriers to selection are again related to increased financial cost and the perceived time required to source food items.

Convenience

When considering sustainable choices on holiday, along with the concept of the costs of 'time', participants also perceived that these options were less convenient than their regular choices. Most of the participants stated that it was important to them that the choices they made on holiday did not intrude on their enjoyment of the holiday. For the participants the important part of visiting an attraction is arriving and enjoying the facilities rather than the journey to the attraction. Therefore they perceive, selecting a sustainable transport option would impact on this overall enjoyment, as it would inevitably be less convenient, as the journey would have to be undertaken when the service ran rather than when the participants were able to travel. This concept further interacts with the effects of the requirements and

characteristics of those in the holiday group. For example those holidaying with very young children, with disabled group members, or elderly relatives perceive that sustainable travel options would be less convenient than travelling by car due to timetabling of services and the characteristics of vehicles used thus creating a barrier to sustainable tourist behaviour.

6.23 Motivations to sustainable behaviour

One of the objectives of the interview stage of analysis was to identify the motivations to encouraging sustainable tourist behaviour. The quantitative stage of this research project demonstrated that there was a distinctive 'drop off' in reported sustainable behaviours between the home and holiday environments. It is important therefore, to try and explain this difference in behaviour, and to find ways to close the gap, so that sustainable behaviour on holiday becomes as routine as sustainable behaviour in the home.

The previous section identified what participants perceived to be the barriers to behaving more sustainably in the holiday environment. These barriers focussed on the cost, both financially and in terms of lost holiday time in making sustainable choices regarding travel, transport and food choices whilst on holiday. It was also felt that sustainable options were less convenient and would impact negatively on

the holiday experience. These barriers act constantly throughout the pre-holiday, on holiday and post-holiday stages.

A social marketing methodology dictates that in order to fully understand a social problem and in this case, sustainable tourist behaviour, the research must uncover from the individual's standpoint what the barriers and motivations to encouraging that behaviour are. Therefore the motivations to encouraging sustainable tourist behaviour lie in addressing the barriers. The perceived barriers act throughout the process preventing participants from making sustainable decisions.

In order to encourage sustainable behaviour on holiday the issue of 'costs' in terms of time and expenditure need to be addressed. Motivating individuals to behave in a sustainable manner requires them to perceive their holiday time differently, that time spent on public transport/walking/cycling is not time lost, but allows for greater freedom and a chance to experience the scenery without the problems associated with driving. Furthermore that there are benefits to leaving the car behind, in so much as it provides an opportunity for a break from the stress of driving, avoiding traffic congestion as well as saving money on petrol and parking charges. This needs to be supported by the provision of regular services travelling to destinations that visitors want rather than incorporating services into normal local bus/train routes. The vehicles need to be fit for purpose and accessible for those with differing

requirements and fares need to be incentivised, so that large groups travel more cheaply, and tickets can be used as discounted entry to visitor attractions. Information regarding the services and discounts need to be encouraged at all stages of the holiday process, so that individuals are aware they exist prior to booking their holiday, know how to use them once on holiday, remember them when they return from their holiday. So that they are motivated either to re-visit and utilise them again, or to search for the same facilities and services on further holidays.

In terms of locally sourced and produced food, participants perceived the notion of locally produced food in different ways, food for 'eating out' in restaurants or other dining establishments and food purchased for self-catering purposes. When thinking about locally produced food eaten in dining establishments most participants associated this with traditional local dishes such as Devon cream teas and Cornish pasties. When making choices regarding food purchased for self-catering purposes participants tended to purchase their food very much as they did in their home environment via the local supermarket. Whilst purchase of locally produced food in the form of food eaten in restaurants/cafes/pubs was perceived favourably, locally sourced and produced food for self-catering purposes was perceived to be more costly and less convenient than mass produced supermarket food. In order to address this issue and to motivate visitors to purchase locally sourced food it would be advantageous for supermarkets to stock locally produced food and market it thus,

so that visitors would be aware that they were purchasing local food and supporting local producers. Many accommodation providers already use locally sourced and produced food in their catered accommodation and use this as a selling point so this is something could be rolled out to other accommodation types. Self-catering establishments could provide pre-ordered food packs for use on arrival as a way of addressing the barriers to purchase of locally sourced and produced food stuffs. Pre-packed picnic lunches for visitors could be used to showcase local food.

Established routine home behaviours such as recycling of paper, tins and cardboard needs to be encouraged in the holiday environment, therefore provision of facilities also needs to be consistent across the whole of the region. This provision needs to be at all levels from destination level right down to small accommodation providers and visitors need to aware of the existence of these facilities, there also needs to be an expectation that visitors are required to use them during their stay.

6.24 Chapter Conclusion

In conclusion the interview section of this research has assisted in exploring and explaining the results derived in the quantitative data analysis. In so much, as the quantitative section was able to show that participants reported less commitment to

sustainable behaviours when on holiday, the interviews were able to uncover how the participants perceive their holidays and what they identify as the barriers to sustainable tourist behaviour. The barriers to sustainable behaviour whilst on holiday were related to cost in terms of money and time lost undertaking sustainable tasks and inconvenience. These barriers interacted at all stages of the holiday, before the holiday in terms of impacting on the perceived anticipated benefits that the holiday was expected to bring to the participant and the holiday group in general. During the holiday, sustainable behaviours were perceived to be more financially expensive and to be more costly in terms of time undertaken to complete them. This increased expenditure was perceived to have a negative impact on the holiday impacting directly on the anticipated benefits of the holiday. Finally in the post-holiday phase where participants would be considering re-visiting, any aspects that would make the process more expensive, more time consuming and therefore less enjoyable would impact negatively on the decision to repeat their holiday experiences. The solution therefore is to convert the perceived barriers of sustainable tourist behaviour into motivating factors.

The participants of this research demonstrated that they perceive sustainable behaviour on holiday negatively, in terms of cost and convenience and something that would impact negatively on their enjoyment. So in order to motivate, or encourage them to behave more sustainably they would need to believe that

sustainable options were more attractive than 'everyday' behaviour. The only way this could be successfully achieved is to create the conditions within the tourism destination where provision of sustainable services are all that is available and thus the decision-making process is removed from the process. Furthermore with sustainability built naturally into the 'holiday' visitors would need to appreciate the different 'experiences' created as a result, so for example, a car-free destination would mean the destination would be quieter, cycling and walking for children and adults alike would be safer and more attractive. Thus the holiday experience would be somewhat different with perhaps more activities being undertaken in a smaller geographical area, which would have benefits for the destination as money would be spent in local businesses. The change in experiences of both the holiday, and sustainability would re-conceptualise visitors perceptions of sustainable behaviour by associating the behaviour with positive experiences thus re-enforcing the behaviour in the future. By so doing, the holiday environment could lead to increased sustainability in the home environment as the associations between behaviour and experiences would be positive.

The insight gained from the interviews suggests that encouraging sustainable behaviour whilst on holiday needs to be treated differently than sustainable behaviour undertaken in the home environment, because the 'holiday' is a special environment in terms of what it means to individuals, and the expectations of the

benefits accrued as result of the time away from home. Any behaviour that is perceived to intrude and impact negatively on these anticipated benefits will be rejected. For this reason attitude and behaviour change cannot be the sole responsibility of the 'tourist', destination and resorts need to change the focus of their activities in order to create the environment where sustainability exists as the norm. Destination marketing and endorsement would be central to the success of the principles of the sustainable tourist resort. As stated previously the tourism destination should be the leading force in encouraging sustainable tourist behaviour by providing the resources and environment for all tourism stakeholders to participate. Thus the 'tourist' would only have to make one decision, that is, to stay in the destination, once there everything else would be taken out of the decision-making process and would therefore be inevitable in terms of transport, food, accommodation and entertainment.

CHAPTER SEVEN – Discussion & Conclusion

7.1 Introduction

This chapter of the thesis will focus on drawing together the results obtained during the fieldwork and assessing whether the aims and objectives of the research have been met. The overarching aim of this research project was to assess the potential of a social marketing methodology in encouraging sustainable behaviour amongst tourists. The principles of social marketing rest on changing attitudes and behaviour for the purpose of improving a social problem. In the case of this research the goal is to understand the best way to encourage sustainable behaviour when people are on holiday. Social marketing approaches 'social problems' in a 'bottom up' way by aiming to uncover how the target audience, in this case tourists, perceive their behaviour and what they perceive might encourage them to change their attitudes and ultimately their behaviour. Whilst a social marketing methodology has been applied successfully to varying 'social problems' related mostly to health and social welfare (substance misuse, healthy eating and family planning) and is beginning to be applied in encouraging sustainable behaviour, social marketing has not been applied specifically in the tourist environment. McKenzie-Mohr, 2010) One of the most important aspects of a social marketing methodology is the concept of audience segmentation and targeting. The methodology encourages the use of segmentation in order that individuals can be grouped together in a 'segment', thus members of the same segment will share similar beliefs, attitudes and behaviours.

This allows for pinpointing of the segment or segments that would be most amenable to targeting with an intervention to encourage attitude and behaviour change. (French & Blair-Stevens, 2010; Andreasen, 2006) Another unique element of this thesis is the use of ecological footprinting software to calculate estimated individual environmental impact of tourists whilst in their holiday destination. This exploratory technique allows the environmental impact of tourist behaviour to be assigned a value by which it can be compared, and specific particularly impactful behaviour pinpointed. Furthermore once a calculation of individual footprints has been undertaken a direct link can be established between the environmental attitudes and behaviour of that individual and their actual environmental impact – thus testing whether holding positive attitudes towards the environment and acting upon them actually leads to a smaller environmental impact.

This chapter will be divided into two sections the first section will provide a detailed discussion of the results obtained during the fieldwork and how these meet the aim and objectives of this research. The second will be more pragmatic in nature and will aim to set the findings within a social marketing process framework, before discussing the limitations and providing further discussion of suggestions for future research.

7.2 Meeting the Objectives of this thesis

7.2.1 Objective One: **To describe and explain the behaviour of tourists within a destination, to include travel to, from and within the destination and also include all consumer behaviour undertaken during the holiday.**

In order to fully understand tourist behaviour from the standpoint of the individual it was essential to collect detailed data relating to all areas of the holiday experience, from the pre-visit planning stage through to the actual holiday, thus providing a benchmark measurement of holiday behaviour. The following discussion will draw together the data gathered in both the quantitative (questionnaire survey) and qualitative (interviews) to provide a complete picture of the behaviour of tourists within the destination case study areas.

Pre-visit Stage – Much of the literature reviewed in chapter 2 related to tourist behaviour and established that motivation and decision-making are essential parts of the process; therefore this research took a similar route, exploring the sources of information and destination characteristics which motivate destination selection. For the participants of this study their ‘holiday’ was perceived as an essential element of their lives and the anticipated psychological and physiological benefits were

associated with notions of 'rest', 'relaxation', and 'recuperation' and were important for re-connecting family relationships.

In terms of the information sources utilised in order to motivate destination selection, the use of the internet to explore detailed information regarding amenities and facilities was the most important source of information. However first-hand experience and word of mouth recommendation from trusted friends and relatives also facilitated the process. (Crompton & Ankomah, 1992) Selection of component parts of the holiday such as accommodation were directly influenced by the requirements of the holiday group, with children being an important determinant in the selection process, which is consistent with the findings of previous research. (Thornton, Shaw & Williams, 1997; Kerstetter, 1994) Financial 'cost' and 'time' expenditure were also important constraining and motivating factors when selecting suitable accommodation provision and is the geographical location of the accommodation in relation to various tourist attractions (McKean, Johnson & Walsh, 1995; Nicolou & Mas, 2006; Sirakaya & Woodside, 2005).

The participants were asked to define the specific characteristics of the destination which were important in the selection of their current holiday. The majority of respondents rated their own personal experience of visiting the destination on a previous occasion as an important motivating factor for their current holiday. The

attributes of the destination in terms of the natural landscape and climate were important in motivating destination selection as were the range of amenities on offer. Destination accessibility in terms of being able to be easily accessed via the road network also played its part in motivating selection of the final destination.

Visitor Characteristics: In order to meet and fulfil the objective one, it was important to build a detailed picture of those on holiday in the two case study areas. The majority of those sampled in this survey were 'staying-visitors' with over 80% staying more than 4 nights in the region, for 65% of those on holiday this was to be their 'main' holiday for the year, although the majority of those for whom this was their main holiday admitted that they were planning to take further short breaks or holidays in the following twelve months and these 'breaks' would most likely to be taken either in the UK or Europe. For those participants who responded that this was not their main holiday, the majority cited either somewhere in the UK as their main holiday or a long-haul destination outside of Europe. The rise in the popularity of a number of 'short breaks' distributed throughout the year is one of the areas of tourist behaviour that needs to be tackled in order for tourism to be more sustainable. This is due to the environmental impact related to the travel component of the holiday, in order to address this issue it is suggested that people should take less frequent holidays over a longer period.

Holiday Group Composition: The majority of those holidaying or visiting the two case study areas were made up of family groups with and without children, followed by those visiting in groups of friends. This is not a particularly surprising result as both case study areas are seaside resorts with a tradition for family holidays due their close proximity to beaches and coastal areas.

Accommodation: The most popular type of holiday accommodation was serviced accommodation including hotels, bed and breakfasts or guest houses followed by self-catering units and then those camping in tents or caravans.

Travel and transport: The car was by far the most commonly used form of transport used to travel to and from the case study areas, with a tiny majority arriving by bus, coach or train. This result has significant implications, as it demonstrates the importance of the car for holidaymakers to the region, even where a destination has a mainline railway station as is the case for Paignton very few people utilise the service as their main form of holiday transport. Therefore in terms of increasing sustainability, sustainable transport options need to be prioritised and the barriers which constrain their use lowered in order to encourage greater use.

In terms of transport used during the holiday, the car was identified as the most regularly used form of transport used to visit attractions whilst on holiday in the case study areas. However local bus services, cycling and walking were also used as ways of getting around whilst in the holiday destination. The car was perceived as an important way to maximise time usage whilst on holiday, the convenience, flexibility and which enabled members of the holiday group to visit various attractions in comfort. However the interviews revealed that the car was not necessarily used every day and that depending on their specific location many chose to walk or cycle and this added to their overall holiday experience.

Holiday Activities: The participants undertook a range of activities whilst in their respective holiday areas, the most frequently undertaken activities were visits made to Houses and Gardens, followed by boat trips, with exploration of the natural landscape, coastal walking and beach trips being the top three activities undertaken in the two case study areas.

In conclusion, the requirements of 'objective one' of this research has been met and fulfilled by both the quantitative and qualitative data collected. The data provides a clear picture of the visitors to the two case study areas. It demonstrates the sources of information that are important to the selection process, the factors which constrain and motivate choice such as 'holiday group composition', 'time' 'cost' and

'convenience' and that these factors are important as they impact directly on the anticipated psychological and physiological benefits associated with taking a holiday.

It should be noted however that the 'consumer behaviour' element of this objective involved the gathering of data relating to all purchases made during the holiday and the data here was used for fulfil Objective Four of this thesis.

7.2.2 Objective Two: To identify, the barriers and motivations for adopting more sustainable tourist behaviour.

Attitudes towards the environment: A crucial element in the debate regarding pro-environmental or sustainable behaviour is the whether being environmentally aware or holding positive attitudes towards the environment is a prerequisite for engagement in a range of sustainable behaviours. Therefore this research measured attitudes towards a range of statements relating to the environment and climate change. The statements were designed to explore levels of concern related to the imminent threats associated with a change in climate, personal responsibility for mitigating impact, trust in scientific facts related to the man-made element of climate change. There were varying levels of agreement in relation to general attitudes towards the environment amongst participants; whilst there was a general

acceptance and belief that the earth's climate is changing and global warming is taking place, personal responsibility and trust in scientific knowledge relating to the 'man-made' element of impact was either denied or participants remained 'neutral' in their opinions. These results suggest that there are general issues with 'trusting' scientific information relating to the threats of climate change and as result this impacts negatively on intentions to act (Hungerford & Tomera, 1986). Attitudes towards the importance of protecting and preserving the environment were very positive with nearly 80% supporting the statement, and over 60% stated they were willing to change their behaviour but would be more likely to do more if they felt others were doing the same. These results suggest that there is 'social normative' is an element of engagement in sustainable behaviour as suggested by Ciadlini, Reno and Kallegren (1990).

Attitudes toward holiday transport and travel: The study also explored attitudes towards the environment specifically in relation to holiday travel and transport. The statements focussed heavily on attitudes towards transport modes and attitudes towards short breaks. An important element of sustainable tourist behaviour is related to the mode of transport used to arrive in the destination, the fastest and therefore the most convenient modes (air travel, car etc) tend to have the most impact therefore it is important that these journeys are reduced. Attitudes towards the importance of selecting the 'fastest' mode of transport to reach the holiday

destination suggested that for over a third of people this was important but for the remaining two thirds this was not important or they remained neutral. In terms of actively avoiding polluting forms of transport when selecting their holiday destination the majority either disagreed with the statement or chose to remain neutral suggesting that the environmental impact of travel behaviour is rarely considered when making decisions relating to holidays.

In terms of 'short breaks' these were perceived to be very important to participants, suggesting that multiple short holiday breaks have become an entrenched part of the holiday process now, and this may be an important and significant barrier to the adoption of more sustainable tourist behaviour.

Home and holiday sustainable behaviour: Research has demonstrated a 'drop off' in commitment between sustainable behaviours routinely undertaken in the home environment and commitment to the same behaviours in a holiday environment. (Barr et al, 2011; Tudor et al, 2007) Levels of commitment to a range of sustainable behaviours (recycling, composting, water saving, electrical efficiency, re-used bags, transport etc.) were measured in the home and holiday environments. The results supported the work of Barr et al, (2011) and others and demonstrated there was a significant 'drop off' in commitment to all of the sustainable behaviours between the two environments. The results demonstrated no significant difference between

males and females in their levels of commitment to sustainable behaviours (Lehmann, 1999; Van-Liere & Dunlap, 1980). However when participants were divided separated into age groups the results showed that the oldest age group, those over 60 years of age demonstrated a greater level of commitment to a range of sustainable behaviours in the home environment; however this did not extend into the holiday environment. Comparison between case study areas showed that reported sustainable behaviour was consistent between the areas, some behaviours particularly the easier, less economically or time heavy behaviours show the greatest levels of commitment (recycling, switching electrical equipment off from 'stand-by', energy efficient light bulbs and carrier bag re-use), on the other hand the use of water saving devices, consumer behaviour and food choices tend to be occasional. Sustainable transport options appear to be the most resistant to selection and consistently show levels of commitment and uptake (Stern 2000, Steg & Vlek, 2002).

Barriers to sustainable tourist behaviour: The quantitative element of the research process allowed for confirmation of the 'drop off' in commitment to a range of sustainable behaviours between the home and holiday environment. However, the qualitative interview stage allowed for exploration and identification of the perceived and actual barriers to sustainable tourist behaviour. The interviewees confirmed the findings of the quantitative research in that the respondents were committed to a range of sustainable behaviours at home and were happy to use them if they were provided in the holiday environment, but these services were not sought out and did not influence their holiday destination decision-making (Aberg, 2000). In terms of

sustainable transport modes the perceived and actual barriers identified by the participants were related to financial cost, time cost and convenience. (Cooper, 1981; Thornton et al, 1997) These considerations were moderated by the requirements of the holiday group, particularly the needs of young children who require additional equipment (pushchairs etc.) and physical needs for sleep and food which acts as a significant barrier to the selection of sustainable transport options (Thornton et al, 1997; Swarbrooke & Horner, 2001). The selection of sustainable options was perceived negatively by participants in terms of cost and convenience as this would impact the anticipated benefits of a holiday, such as rest, relaxation and pleasure.

Motivations to encouraging greater levels of sustainable tourist behaviour: In order to address the barriers to behaviour and motivate a change, sustainable options need to be perceived more positively. So that the constraints of 'time lost' due to walking or taking public transport is a positive experience whereby the individual is freed from the stress of driving and parking, enabling a wider experience of the culture and landscape. Whilst changing perceptions is important, as important is the provision of adequate and suitable sustainable infrastructure and services. Especially in the case sustainable of transport options in which vehicles and services need to accessible and fit for purpose responding directly to the requirements of holidaymakers specifically rather than being 'tagged' onto existing residential

services. Incentivising the use of such services by reducing the cost and including entrance to tourist attraction would motivate uptake to sustainable options. Adequate information provided at the time of booking to allow for planning of alternative routes and sustainable options would encourage usage.

In terms of selection of locally produced and sourced food, individuals need to have access close to their accommodation and catered and self-catered accommodation could provide an avenue for this.

As established previously routinely engaged in sustainable behaviours such as recycling, re-using and composting needs to be encouraged in the holiday environment by the provision of facilities which are consistent across accommodation types and visitor attractions.

In summary, the data gathered has met the requirements of Objective Two by the confirmation of 'drop off' in routine sustainable behaviours between the home and holiday environments. Furthermore the research has established the actual and perceived barriers to sustainable behaviour are linked to the financial cost, time cost, and convenience acts to constrain selection of sustainable alternatives. Motivation

to change in behaviour need to be realised through addressing and lowering these barriers and suggestions for doing this have been provided above.

7.2.3 Objective Three: Based on the previous objectives, the thesis identifies using segmentation analysis, specific lifestyle groups that could be targeted with a social marketing intervention to encourage sustainable tourist behaviour.

Social marketing dictates that targeting of interventions to encourage a change in attitudes and behaviour works most effectively on segmented groups of individuals who share similar beliefs and attitudes. (French & Blair-Stevens, 2010) Therefore this research utilised a statistical clustering technique in which individuals were grouped according to their attitudes towards holiday travel and transport.

The analysis revealed three distinct clusters of individuals;

Cluster One – Members of this cluster held moderate levels of concern towards the environmental impact of their holidaying behaviour, however they enjoyed using public transport whilst in the destination, but were unlikely to change their holiday plans as a response to issues like climate change. In terms of attitudes towards short breaks, these were perceived to be moderately important to members of this cluster. Members of this cluster were predominately female, over 60 years of age and

retired. They were the most likely of the three clusters to hold a concessionary travel card, likely to own up to two cars per household and holiday at least twice a year. This cluster was the least likely to regularly recycle their waste in the home environment, purchase locally produced food, eco-friendly household goods but most likely to re-use carrier bags. However members of this cluster were the most likely of the three to use public transport both at home and whilst on holiday. The fact that this cluster is more likely to use public transport means that members could be specifically targeted with an intervention to encourage wider use of local bus and train services whilst in their holiday destination.

Cluster Two: Members of this cluster held the lowest scores on all aspects of environmental concern suggesting very little commitment or interest in sustainability. Members of this cluster were predominately male and lived in household with at least three children under 16 years, have 2 cars per household and take between three to five holidays per year. In terms of accommodation choice, members of this cluster were most likely to self-cater either by camping or staying on a holiday park or cottage.

In the home environment members of this cluster reported the high levels of commitment to recycling but this dropped significantly when they were on holiday, in fact their drop in commitment was greater than either of the other two clusters. In

terms of commitment to the other sustainable behaviours this cluster was least committed of the three both at home and when in the holiday environment. They were also the least likely cluster to ever use public transport either at home or on holiday.

Therefore it could be concluded that Cluster Two show minimal interest or commitment to sustainable behaviour, this could be due to constraining factors such as the necessities needed to support families with young children. In terms of developing a social marketing intervention to encourage behaviour change, lowering the barriers to behaviour change would be the most problematic and significant for this cluster and therefore would not be undertaken unless resources were limitless and heavily incentivised.

Cluster Three: Members of this cluster demonstrated the highest levels of concern towards the environmental impact of their holidaying behaviour. They scored highly on the use of public transport on holiday, demonstrated concern in relation to the use of air travel for holiday purposes. Members of this cluster also scored highly on willingness to change their behaviour; however they still felt that short breaks were important to them.

Members of Cluster Three were most likely to be professional females aged between 30 and 60 years. This Cluster reported the highest number of holidays per year with 15% reporting to more than five holidays in a year. In terms of accommodation choices, this Cluster were the most likely of the three clusters to be staying in serviced accommodation and be holidaying in a family group with children.

In terms of sustainable behaviours at home and on holiday this Cluster were the most committed to all of the behaviours apart from the use of public transport.

To conclude, Cluster Three is the most environmentally concerned and committed to a range of sustainable behaviours both at home and on holiday. There is also a willingness to change behaviour, thus suggesting that this Cluster would be most appropriate to target with a social marketing intervention.

The results of the segmentation analysis demonstrated three distinct clusters of respondents differentiated by their attitudes towards the environmental consequences of their holiday behaviour. Cluster Three were identified, as a result of the analysis to be the most appropriate cluster to target with a social marketing intervention to encourage greater levels to sustainable behaviour whilst on holiday thus fulfilling the requirements of Objective Three.

7.2.4 Objective Four: To measure the environmental impact, using REAP for Tourism Ecological Footprinting Software, of visitors on the two destination case study areas.

Ecological footprint calculations provide an effective way to quantify the environmental impact of human behaviour. Hunter (2002) was the first commentator to recognise that ecological footprint analysis could provide a better understanding of the impact of tourist behaviour as previously it was notoriously difficult to separate tourist impact from resident impact. (Hall, 2008)

Therefore this research sought to utilise a specially designed tourist ecological footprint software program to generate individual environmental footprints of tourists in the two destination case study areas. This would allow for pinpointing of behaviours associated with high environmental impact, allow for comparison between visitors staying in different forms of tourist accommodation and comparison between case study areas. Furthermore the ecological footprint analysis could test the link between levels of environmental concern and actual environmental impact by comparing the individual footprint calculations of members of each of the Clusters identified in the previous Objective.

In order to fulfil the requirements of Objective Four, the data was gathered via the questionnaire survey, and detailed information regarding purchases made for food, clothing, books, magazines, toys and other consumer goods were captured in relation to the duration of the holiday. Further data relating to activities undertaken and frequency of these activities was also gathered, along with information relating to accommodation, transport mode and distances travelled. This information was inputted into the REAP for Tourism software and generated 142 individual tourist footprints and comparisons made between accommodation type, case study area, pinpointing particularly heavy areas of environmental impact. Food and travel were identified as the areas with the highest environmental impact.

The analysis allowed average ecological footprints to be compared between members of the three clusters. Cluster Two who showed the least environmental concern and the lowest commitment to a range of sustainable behaviours both at home and on holiday was found to have the largest average ecological footprint of the three clusters. Interestingly Cluster Three who demonstrated the greatest concern for the environment and commitment to sustainable behaviours at home and on holiday did not differ significantly in terms of their average ecological footprint to Cluster One. These results appear to show that having little or no environmental concern and undertaking a minimal amount of sustainable behaviour is in fact linked to higher environmental impact especially when on holiday. However, Cluster Three

who demonstrated the highest levels of concern and were committed to greatest range of sustainable behaviours both at home and on holiday did not have a significantly lower holiday ecological footprint. These results may suggest that those who consider themselves environmentally conscious and undertake what they perceive to be sustainable behaviours may in fact have 'hidden' behaviours which are contributing to their environmental impact. Another explanation might be in relation to the change in context between home and holiday environments, Cluster 3 may indeed engage in a greater range of behaviours in both environments, but they still exhibit a 'drop off' in commitment, although less than the other Clusters therefore their holiday footprint might be higher than could be expected. A social marketing intervention directed at Cluster Three in order to encourage them to maintain their levels of environmental behaviours between home and holiday environments might be enough to lower their ecological footprint to be in-line with their levels of environmental concern.

In summary, the ecological footprint analysis undertaken utilising the REAP for Tourism software program yielded some interesting results. The holiday behaviours associated with the most environmental impact centred on the purchase of food and in relation to travel and transport. The analysis also demonstrated links between low levels of environmental concern and behaviour and higher ecological footprints amongst holidaymakers. Furthermore high levels of environmental concern and

commitment do not always translate into significantly lower ecological footprints especially in a holiday environment. These results support the idea that the 'holiday' is special in the sense of freedom and hedonism it imbues and means that even the most dedicated environmentalists abandon some of their commitment to sustainable behaviour when on holiday. As this group is the most likely to respond to an intervention to encourage greater levels of sustainable behaviour, they need to be encouraged to continue their commitment across all contexts.

7.2.5 Section Summary

This section of the chapter was devoted to a detailed discussion of how each of the objectives has been fulfilled by the research and analysis undertaken. One of the most important aspects of any research is that it contributes to knowledge in the relevant area. This research is focussed on applying a previously never used methodology, namely social marketing to the challenge of encouraging greater levels of sustainable behaviour amongst tourists. Social marketing works on the premise of understanding behaviour from the standpoint of the individual, thus only by exploring how individuals perceive their own behaviour, is it possible to identify the perceived and actual barriers to behaviour. Once identified the barriers can be addressed and lowered in order to encourage greater participation (Andreasen, 2006, French & Blair-Stevens, 2010). This research utilised a mixed methods approach to understanding tourist behaviour, firstly by using a large scale questionnaire survey

which detailed all aspects of reported on-site tourist behaviour and in the second stage by the use of semi-structured interviews to hone in on identification of the barriers to sustainable tourist behaviour. The results demonstrated that the barriers to sustainable behaviour on holiday are related to notions of cost in terms of time lost, financial expense, inconvenience and engagement is associated with an impingement on pleasure and enjoyment levels.

The research was also able to demonstrate and confirm research by others which suggested that the holiday environment was somewhat special, in that even for those committed to engagement in multiple sustainable behaviours at home this did not extend into the holiday environment (Barr et al, 2011; Tudor et al, 2007). The results of this analysis demonstrated a significant 'drop off' of reported commitment to range of behaviours between home and environment.

Furthermore undertaking a social marketing approach to understanding behaviour proposes that individuals should be segmented into groups who share similar attitudes and beliefs in relation to the social problem. This research undertook a segmentation analysis and identified three distinct clusters of individuals each with differing attitudes towards the environmental impact of their holiday behaviour. One Cluster (Cluster Three) were identified to exhibit the highest levels of environmental concern in relation to their holiday behaviour and were also the most willing to

change their behaviour. Therefore Cluster Three would be the group of individuals for which a social marketing intervention would be developed designed and implemented for.

The use of ecological footprinting to quantify tourist behaviour is becoming an increasingly important way to measure environmental impact. (Cole & Sinclair, 2002; Peeters & Schauten, 2006; Martin-Cerras & Sanchez, 2010) Although most of these studies focus on a specific component of tourist behaviour, the current research provided a calculation of individual ecological footprint across the whole holiday which allowed for comparisons between visitor types and between case study areas. Furthermore the analysis undertaken in this section allowed for testing of the link between environmental attitudes, behaviours and environmental impact. The results suggests that for those with low levels of environmental concern their environmental impact is consistent, in that it is significantly higher than for those exhibiting moderate to high levels of environmental concern. On the other hand, those individuals reporting high levels of environmental concern and the highest commitment to a range of sustainable behaviours did not differ significantly in their holiday ecological footprint to those reporting moderate levels of interest and commitment.

To conclude, this research has demonstrated a significant contribution to knowledge in this area, it has applied social marketing as a methodology, and identified the barriers to sustainable tourist behaviour. It has identified three distinct clusters one of which would be suitable for targeting with an intervention to encourage greater levels of sustainable behaviour whilst on holiday. Finally it has successfully utilised ecological footprint analysis to quantify the environmental impact of on-site tourist behaviour. Furthermore a direct link has been established between environmental attitudes, behaviour and holiday environmental impact.

The next section will return explicitly to the applying the current research directly to the practical process of undertaking a social marketing campaign in order to gain a fuller appreciation of the data in relation to what would be expected during a campaign.

7.3 Practical application of a social marketing campaign

The main aim of this research is to apply the principles of a social marketing methodology to the 'problem' of encouraging sustainable behaviour amongst tourists. Therefore in order to test this process, the data gathered during this research will be applied to the eight-point benchmark criteria as set out by French and Blair-Stevens (2010). The key concepts and principles are defined below (Table

7.1) and each stage will be addressed in more detail filling in the required information gathered from this research in order to fulfil the obligations of the research aims and objectives.

Social marketing – 8-point benchmark criteria (French & Blair-Stevens, 2010)	
Customer - orientation	Research focused on a robust understanding of the ‘audience’ combining data from different sources
Behaviour & behavioural goals	Understanding behaviour and focused on achieving specific behavioural goals
Theory based	Draws on various behavioural theories to inform and direct research
Insight	Focused directly on a ‘deeper’ insight into individuals lives with the intention of uncovering what motivates their behaviour
Exchange	Understanding what behaviour change means in terms of the costs and benefits
Competition	Understanding what elements compete with the desired behaviour
Segmentation	Creating distinct audience ‘segments’ based on specific and relevant attitudes and beliefs
Marketing mix	Identifies the ‘intervention’/marketing mix that will be most effective in encouraging behaviour change amongst the ‘audience’

Table 7.1: Eight-point benchmark social marketing criteria (French & Blair-Stevens, 2010)

7.3.1 Customer Orientation

The first element of the 8-point benchmark criteria is the focus on 'customer orientation', this means the focus of enquiry rests on understanding the audience that is being addressed by the social marketing research. In the case of this research the target audience are 'tourists', the quantitative survey was designed to meet the first of the criteria by establishing demographics, the nature and type of holiday being undertaken, travel and transport decisions and behaviour, home and holiday sustainable behaviour, and holiday activities and expenditure. Knowledge regarding attitudes towards climate change and the environment and general attitudes towards holidays, travel and transport were also garnered. This first stage of the research set the baseline from which the rest of the research process could be explored.

The research was able to demonstrate that there were significant differences in levels of commitment to sustainable behaviour between the home and holiday environments. The qualitative stage focussed further on trying to explain how participants understood these differences. Further discussion took place regarding what the participants perceived as the barriers to sustainable behaviour whilst on holiday and in turn, what might encourage them to behave in a more sustainable manner when on holiday. The results revealed that participants perceived that sustainable behaviour whilst on holiday would be costly, both in financial terms but

also in terms of time lost undertaking sustainable behaviours. These 'costs' it was perceived, would impact negatively on the anticipated benefits that a holiday is associated with, such as a time for rest, relaxation and a break from the routines of the home environment.

The first stage of the process sets the groundwork for fully understanding both the problem under investigation and how those being investigated perceive the realities of their behaviour and any potential change in behaviour.

7.3.2 Behaviour and Behavioural Goals

The focus on behaviour and behavioural goals is an essential element of any social marketing campaign. It is important in the first instance, to focus on explaining and understanding existing behaviour in terms of the motivations and perceptions of the said behaviour. In the case of this research a fuller understanding of how participants perceived their holiday time, what was important for them, what benefits they hoped to derive from the holiday were as important as the 'actual behaviour' undertaken during the holiday. The next essential element of the methodology is to establish the desired 'behavioural goals' of the social marketing campaign. In the case of this research project the behavioural goal is greater levels of sustainable behaviour amongst tourists. It should be noted that in a traditional social marketing

campaign a number of specific measurable behavioural goals would be established in order to determine the effectiveness of the social marketing intervention, however this was beyond the scope of this research project. The timeframe did not allow for the development and implementation of a social marketing intervention to encourage sustainable behaviour. Nevertheless this research was able to provide a greater understanding of the existing sustainable behaviour both in the home and holiday environments, and also expose what participants perceived to be the barriers to sustainable behaviour when on holiday. Based on these perceived barriers it is then possible to define what might motivate and encourage greater commitment to sustainable behaviour.

7.3.3 Theory Based

Social marketing uses behavioural theories to aid and understand the motivations and perceptions of the individuals under investigation. In this case the research data gathered was analysed and suitable behavioural theories were sought that would provide a fuller explanation of behaviour and further the most appropriate ways to encourage a change.

In the case of the results of this research '*Attribution Theory*' would fit the participants' perceptions of the barriers to sustainable behaviour. Attribution Theory

states that individuals often attribute their behaviour to either internal or external factors. When an individual explains their behaviour often they will perceive that their behaviour is a consequence of 'external factors' that are outside of their control. In this case of this research the participants claimed that one of the barriers to sustainable behaviour whilst in the holiday environment was due to increased financial cost, the cost of utilising public transport is something that is outside the control of the individual. In terms of internal factors, these factors exist within the individual where they perceive they are personally responsible for a particular behaviour. For example, someone who regularly recycles all of their waste may attribute this to their own sense of dedication to the cause rather than as a result of excellent service provision by the local authority (Heider, 1958).

The results gathered during this research project support concepts laid down by Attribution Theory in that the participants of this project appear to attribute the barriers to sustainable tourist behaviour to both external and internal sources;

External - The participants explain that they feel that behaving sustainably whilst on holiday would cost them more money, the services would not suit the composition of the holiday group and service provision is not adequate to meet the requirements of the holiday.

Internal – The participants explained they perceived sustainable behaviour whilst on holiday would have a negative impact on the psychological and physiological benefits they anticipated gaining from their holiday.

An important element of *Attribution Theory* lies not only in how individuals attribute their behaviour but also on how they might be motivated to change behaviour. *Attribution Theory* proposes that self-efficacy is an important aspect of whether participants can be motivated to change their behaviour. Therefore if an individual feels that the conditions exist whereby the behaviour change can be undertaken with ease they are more likely to be empowered to do so. For example and the purpose of this research if the conditions existed within the resort to make sustainable behaviour the only and easiest choice then there would be a greater likelihood of behaviour change.. Furthermore if perceptions regarding the 'costs' in terms of increased expenditure and decreased benefits could be altered, sustainability might be viewed more positively and thus seen as less of an intrusion on a significant and special time of the year.

Attribution Theory therefore assists in explaining how the participants of this research attribute the perceived barriers to sustainable tourist behaviour to both external and internal factors. By so doing the theory helps to explain how behaviour change could be encouraged through the use of techniques to increase and encourage self-efficacy amongst tourists.

7.3.4 Insight

The fourth element of the criteria relates to ensuring that the understanding gained through the research focusses on gaining a deep understanding of what motivates individuals. This part of the research goes beyond examining the group as a collective whole but goes further by attempting to identify key factors that could be used to actively influence behaviour. In the case of this research the key factors that were important to the participants was the perceived extra financial cost of sustainable behaviour and the time lost in undertaking sustainable behaviour which in turn would have a negative impact on their holiday experience. This insight illustrates that in order to encourage sustainable tourist behaviour services would need to be provided that were easier and less expensive to use and perceptions regarding the nature of sustainable activities would need to be addressed.

7.3.5 Exchange

The concept of 'exchange' focusses on understanding and explaining what individuals would have to 'give' up in order to reach the desired behaviour. The analysis of the data should ensure it provides a full appreciation of the 'costs' to the individual of a change in behaviour and this is balanced against the benefits of a change in behaviour. This research has clearly demonstrated that the participants perceived that sustainable behaviours undertaken on holiday would be more financially expensive and costly in terms of time undertaken to achieve them.

Therefore a change in behaviour would have to mitigate these costs and at the same time provide benefits to the participants. Hence changing behaviour in the holiday environment could be incentivised by financial discounts on entry to tourist attractions when arriving by public transport for example. The benefits for the participants would be a financial reduction, but in order to fully motivate individuals to undertake the behaviour the services would need to be tailored to the needs of the holidaymaker rather than as a part of a local resident transport network. Furthermore a change in the perceptions of public transport needs to be developed, so that journeys are not perceived to be longer, less convenient and uncomfortable than travel by personal car. The experience of the journey needs to be emphasized with the benefits of experiencing the countryside, lack of traffic congestion and parking difficulties being cited as part of a positive holiday experience.

7.3.6 Competition

This element adds to the previous section by recognising all of the elements that compete for the attention of the target audience are addressed. This criteria acknowledges that a target behaviour has competition from both 'internal' (psychological factors, rest, relaxation, stress etc) and 'external' factors (family pressures, time, behaviour, cost) these factors interact and reinforce established existing behaviours.

In this research the participants identified a number of barriers to sustainable holiday behaviour, these factors, both internal and external, interact, and compete thus reducing the likelihood that sustainable choices will be made. Factors such as size of the holiday group and the age of the holiday group members directly influence decisions regarding sustainable behaviour options. So if the holiday group comprises of very young children, disabled or elderly individuals then their personal requirements will rank higher in importance than sustainable options. Furthermore if the financial cost of choosing sustainable options interacts with holiday group requirements then the chance of sustainable decisions being made further diminishes.

7.3.7 Segmentation

The process of segmentation allows for the data gathered to be grouped into clusters of individuals who share similar beliefs and attitudes. Thus allowing for groups to be identified that would be most likely to respond to some type of intervention, the intervention would be designed to target the group specifically rather than a 'blanket' approach covering the entire target audience.

The current research revealed there to be three distinct clusters of individuals each sharing similar beliefs regarding the environment, climate change and attitudes

towards holidays and short breaks. The third cluster was revealed to hold the strongest commitment to protection of the environment and also reported the highest levels of sustainable behaviour in the home environment and also while on holiday. The second cluster showed the least pro-environmental attitudes towards holidays and travel and transport and would therefore be less receptive to a social marketing intervention to encourage sustainable tourist behaviour.

As part of this research Cluster 3 was identified to be the most pro-environmental of the segments. In the light of these results a social marketing campaign would need to be developed that matched the attitudes and profile of members of this cluster. Profiling suggested that members of this segment were predominately female, middle aged professionals, they were likely to have two children aged under 16 years and would be likely to have two or more cars per family. In terms of their attitudes towards holidays and short breaks this Cluster reported enjoying utilising public transport whilst on holiday and admits to thinking about reducing the environmental impact of their holiday behaviour. This Cluster also showed the highest levels of willingness to change their holidaying behaviour in the light of the threats of climate change; however they still believe that taking short breaks are important especially as members of this Cluster reported taking the highest number of holidays or short breaks of the three clusters. As a consequence of these results any social marketing intervention would need to reflect the profile membership of the Cluster.

In terms of sustainability the desired change in behaviours required to ensure a tourist destination was more sustainable should be as follows;

- A reduction in the use of personal cars for sightseeing and holiday activities, increase use of public transport, walking and cycling.
- Longer holidays to be taken over the whole year, rather than lots of short breaks taken throughout a short season of five to six months.
- An increase in the use of recycling facilities, with greater emphasis on accommodation providers and attractions providing consistent facilities to enable and encourage the behaviour.
- Increased use of locally sourced food by both visitors and accommodation providers, eating out establishments and attractions.

In order to achieve these changes Cluster 3 could be targeted with an intervention that reflects attitudes towards transport, travel and holidays. This Cluster demonstrated that it would be willing to change their behaviour but that taking short breaks was important. Therefore an intervention would need to be designed that encouraged the benefits of longer holidays with emphasis placed on the greater breadth of experiences that could be enjoyed as part of a longer slower holiday rather than short breaks that provide only glimpse of what an tourist destination has to offer. Furthermore this Cluster also demonstrated that it enjoyed utilising public

transport services whilst on holiday which is also something that could be built on, by encouraging and incentivising the use of public transport, cycling or walking to visitor attractions. The longer in duration but slower paced holiday would also fit in well with encouraging the use of more sustainable transport options. Incentivising the use of Green accredited businesses would also encourage this cluster to utilise more sustainable holiday options, one suggestion might be to offer a nationwide 'Green' membership scheme that allowed points to be gathered that could be collected throughout the year in the home environment and redeemed at 'Green' businesses when on holiday.

7.3.8 Methods Mix

The final section of the benchmark criteria is focussed on the development of an intervention designed specifically to address the 'social problem' in response to the data gathered from the target audience. Here a range of different approaches could be used to encourage a change in behaviour not only focussed on the target audience but also on the environment within in which the desired behaviour will be taking place. In the case of this research the intervention should not only focus on 'tourists' but also on those providing tourism services: local authorities, tourism accommodation providers, transport providers and visitor attractions. As stated previously the development and implementation of a social marketing intervention to encourage sustainable tourist behaviour is beyond the scope of this research,

however the data and analysis provided herein would enable a social marketing intervention to be developed and implemented and fully test the effectiveness of social marketing in encouraging sustainable tourist behaviour.

The results gathered throughout the analysis have built a detailed picture of tourist behaviour within two case study areas in South West England, identified three distinct clusters of tourists, one of which would be the most amenable to behaviour change. Therefore the application of a social marketing methodology to the problem of encouraging sustainable tourist behaviour has been successful. The implementation of the final stage the 'intervention' has not been tested and evaluated but the evidence exists that would make this possible. French and Blair-Stevens (2010) state that the eight-point benchmark criteria was never intended to be a process model, or a 'how to do social marketing' model, instead it was intended to act as a checking mechanism to ensure that all of the elements had been utilised during the process. As a result of this a linear model was developed called the Total Planning Process (TPP) which was designed to support and inform effective social marketing interventions, throughout the process from planning and development through to implementation of the intervention.

The TPP has five primary sequential stages;

Scoping

Developing

Implementing

Evaluating

Following-up

7.4 The Total Planning Process

Each of the stages will now be described in more detail and related directly to the results of this research and suggestions made regarding further work that could be undertaken to test whether social marketing could be effective in encouraging sustainable tourist behaviour.

7.4.1 Scoping

This initial stage focusses on building a strong base from which the development of an intervention can be based and is undertaken in three phases. Therefore the work undertaken during this stage is based on gaining a wide understanding of the target audience, through sound research gathering, building relationships between stakeholders and understanding the specifics of the location the social marketing intervention will be undertaken in.

7.4.4.1 Phase 1

The first phase focusses on the behaviour that is to be influenced; the location in which the behaviour is taking place, and attention is given to the individuals that the intervention is hoping to influence. In this stage any pre-existing data regarding the target behaviour and target audience is collated and any gaps in knowledge are noted. This stage will also focus on identifying stakeholders that would also need to be engaged in the project.

7.4.1.2 Phase 2

In this phase the focus is on developing primary research based on the findings of the first phase with the aim of filling the identified knowledge gaps. In terms of the current research the data gathered via the survey questionnaire and interviews fulfils this stage. Detailed data was gathered regarding holiday decision-making and behaviour, attitudes towards the environment and climate change, attitudes towards short breaks and holidays and levels of commitment to sustainable behaviour in the home environment and whilst on holiday. Furthermore the barriers and motivations to sustainable tourist behaviour were also ascertained and segmentation of groups were undertaken to establish the most those individuals are likely to be influenced by an intervention.

7.4.1.3 Phase 3

In phase three the information gained in the previous two stages are combined and a decision is made regarding the specific behaviour to be targeted and the target audience. In this research project Cluster 3 were identified as the group most likely to be influenced by a social marketing campaign and by analysing the profile, attitudes and reported behaviour of this segment suggested that this group actively enjoyed using public transport whilst on holiday, were willing to change their behaviour and showed the highest levels of commitment to sustainable behaviour both in the home environment and whilst on holiday. Therefore if a social marketing intervention were to be designed it should reflect the findings of the research. One suggestion could be to focus on targeting members of the segment encouraging them to utilise more sustainable travel options, this could be achieved through incentivising joint travel and visitor attraction tickets, focussing on the personal benefits of leaving the car behind for the whole holiday group, the benefits to the environment in terms of emissions but also that car free areas are more pleasant for pedestrians and cyclists.

7.4.2 Developing

This stage of the process works on developing the intervention, working with the target audience and pre-testing ideas to see if they are viable. In respect of this research project this is not a stage that could be tested but in theory if the

suggestions generated in the previous section were applied then a marketing plan would be developed and tested on the target audience. A series of focus groups could be undertaken where the ideas could be trialled with the target audience to ensure that the insights gained would be actionable and be likely to lead to a change in behaviour. Work would also need to be undertaken with tourism stakeholders to gain their support for the plans and ensure that the services exist and that there was a general 'buy in' to the principles of the project.

7.4.3 Implementation

This is the stage where the social marketing intervention is implemented, so in the case of the ideas proposed by this research an integrated plan for encouraging increased use of sustainable transport options would be undertaken. This could involve a targeted marketing campaign focussed on the Cluster identified as most likely to respond favourably to selecting sustainable transport options. The system of incentivised travel would also be in place and this would enable tracking and monitoring of the successfulness of the intervention. Constant monitoring of uptake would take place during this stage and adjustments would be undertaken if required.

7.4.4 Evaluation

The evaluation stage of the process is where the original aims and objectives of the project are reviewed in order to establish whether the social marketing intervention has been effective. The evaluation process gathers and reviews the data collected during the period of the intervention and provides a collated report of whether a significant change in behaviour has occurred. In the case of the current research, the data gathered during the implementation stage, regarding uptake of sustainable travel options would, show whether there was a good uptake of the services and whether joint incentivised entry to visitor attractions and transport had encouraged people to change their behaviour. This stage would also assess whether the process undertaken to encourage a change in behaviour was successful, whether there had been a significant impact and whether the intervention was cost-effective. Cost-effectiveness is an important consideration when encouraging changes in behaviour, for example, in the case of this research if the cost of providing additional bus/train services, improving cycle paths, creating a joint incentive programme outweighed the benefits of a small change in behaviour, then the intervention could not be deemed successful. In this research a change in behaviour should be beneficial on many levels, to the environment, which could be proven through the use of ecological footprinting the decrease in emissions, to the destination in terms of a cleaner less polluted environment, to tourism stakeholders as more visitors would be drawn to the area because it is more attractive which should in turn

increase prosperity, and finally to the 'tourist' themselves as they have a different holiday experience.

7.4.5 Follow-Up

The final stage of the process draws together all those involved in the intervention and those with an interest in the area to dissect what has been learned through the intervention program. This stage considers the wider impact of the intervention and the long term outcomes. This stage is used to disseminate the outcomes and messages learned throughout the intervention program to a wider audience. The findings are finally written-up, with the purpose of publishing and promoting learning in the area, suggesting further proposals for taking the issue further.

In the current research project, the final report would link together the data gathered in the quantitative and qualitative chapters, describe the three clusters identified by the research and the associated ecological footprints of the cluster members. Further information would be given on the intervention and its rate of success in encouraging sustainable travel decisions amongst tourists and lessons learned for future initiatives. This information would be useful to other destinations in planning their visitor transport systems and provide justification for investment in services and initiatives.

7.4.6 Section Summary

This section of the chapter has been devoted to applying the data and analysis derived in the current research project to the tenets of a social marketing methodology. The purpose was to reconnect the findings of the current research with the aim of this project, which was to test the applicability of a social marketing methodology in encouraging sustainable tourist behaviour. This is particularly important as the time constraints of this project did not allow for development and testing of an actual social marketing intervention, therefore the results of the analysis might have appeared obscure if not related back and applied to the process of social marketing.

The following section will explore some of the limitations of the current research and suggestions for further research, before providing some concluding remarks and viewing the findings in wider context.

7.5 Limitations of this research and suggestions for further research

This research set out to explore the potential of social marketing methodology to encourage greater levels of sustainable behaviour amongst tourists. The research generated some interesting findings and fulfilled each of its objectives, however due

to the limited time scale for the research was unable to apply the findings and develop and implementation of a social marketing campaign. Therefore, whilst the research methodology, in terms of what social marketing expects has been applied, the full process could not be put into action and the efficiency tested. Thus a suggested further study could work to complete the stages unmet during this research; this could involve working with tourism stakeholders to establish their perceptions of the barriers and motivations for them to provide sustainable options for visitors. Once completed an intervention could be developed in conjunction with members of Cluster 3 which would reflect their perceptions of the situation. This could then be implemented and any change in behaviour could be monitored and would fully test the potential of utilising social marketing to encourage greater levels of sustainable behaviour amongst tourists.

In respect of the ecological footprinting aspect of this research, this is the first time that the REAP for Tourism software has been used on a relatively large sample of visitors, and the results gained are extremely useful in pinpointing impact. However, in order to fully capture behaviour, collection of data could be more comprehensive in nature. A suggestion for achieving this would be to have tourists undertake a diary-based reporting of all behaviour on a day-to-day basis for the duration of the holiday. In order not to be too intrusive to the holidaymaker, one suggestion might be the development of an 'App' which could be downloaded to mobile devices and

details entered each day and then uploaded to a 'server' each night. This would enable a larger and more representative sample to be collected and analysed and would provide even more accurate information relating to visitor environmental impact.

To summarise, this research successfully applied the early stages of a social marketing methodology to the problem of sustainable tourist behaviour, however the limited time frame restricted full testing of the process, however further research could utilise these findings and work through the final stages and allow for the full potential of social marketing as a tool to encourage sustainable tourist behaviour to be assessed.

7.6 Concluding Remarks – Setting the research in a wider context

This research project had the aim of examining the potential of a social marketing methodology in encouraging sustainable behaviour amongst tourists. The data gathered, analysed and presented herein has utilised this methodology and provided essential information regarding tourist behaviour, motivations, decision-making coupled with data regarding the environmental impact of tourist behaviour within destination areas. The following section of this chapter will set the results of this research project within the wider context of the tourism environment and provide

recommendations and suggestions regarding how destinations could encourage greater levels of sustainable behaviour amongst their visitors.

7.6.1 Sustainable tourism; encouraging sustainable tourist behaviour

The current research has focussed primarily on understanding the behaviour of tourists within two destination areas, in order to encourage greater levels of sustainable behaviour, rather than focussing on what constitutes sustainable tourism. The results demonstrate that there is potential for encouraging behaviour change by addressing the barriers to sustainable behaviour, however this information cannot be viewed outside of the policy context. Tourism as an activity is extremely diverse in its nature involving a multitude of services, resources, businesses and taking place across a wide geographical area. Therefore consideration needs to be given to the tourism stakeholders who are responsible for providing the tourism services. The infrastructure and provision of services, in terms of accommodation, transport, and visitor attractions amongst others, all need to be considered in planning any tourism destination's strategy. One of the important debates surrounds the issue of how to define the concept of sustainable tourism, should destinations seek to limit growth through limiting visitors and decreeing a maximum 'carrying capacity' for the destination? (Getz, 1983) Or should the emphasis lie in using the destination's natural and cultural resources to secure the long-term economic success of tourism activity? (Saarinen, 2006) This suggests that

tourism destinations are likely to have different interpretations of the notion of 'sustainability', and that sustainability is likely to be at odds with how the destination would prefer to plan its tourism strategy. The nature of tourism activity is very diverse, but is mostly directed towards maximum revenue generation thus changing behaviours which could be perceived to have a detrimental effect on income is likely to be perceived negatively by those involved in the industry. Those in a position to develop a destination's tourism strategy are likely to find it particularly difficult to implement radical sustainability strategies without some resistance from key stakeholders. Therefore a sustainable tourism strategy would need the 'buy in' of all those involved in the provision of tourism infrastructure and services as well as the tourists. Changing perceptions of sustainable behaviour amongst tourism stakeholders is almost as important as encouraging tourists to behave in a more sustainable manner. In so much as tourism stakeholders are likely to be concerned that designating a resort as 'car free' would be likely to lead to a drop in visitor numbers and ultimately a loss in profits. Thus it is essential when developing a sustainable tourism strategy that stakeholders perceive there to be an economic advantage to a change in behaviour. Any scheme that develops a 'car free' destination would require significant economic and community investment, in order to provide the infrastructure to support such activity, and by those inhabitants residing in the destination. Marketing activities would need to be of prime importance in a tourism strategy that introduces a 'car free' resort by means of press releases,

newsletters, events to promote the concept and a website to support and promote the uniqueness of the destination.

The previous section hinted that encouraging sustainable tourist behaviour is not only dependent on 'tourists' changing their perceptions and behaviour, but is also dependent on the facilities and infrastructure to support such activities. One of the most significant difficulties with tourism provision and strategy is that those with responsibility for driving its direction operate on so many levels. In England, tourism strategy is developed by national government which sets out how tourism should develop over the coming five years, then there is strategy at regional level driven by destination management organisations operating at county level, and then finally there is strategy developed at the resort level, plus numerous other organisations with specific responsibilities for areas such as National Parks. Unless there is coherence, in terms of encouraging sustainable tourist behaviour amongst all levels of strategy, there is likely to be significant barriers to changing the way services are provided.

7.6.2 Concluding Remarks

This research has sought to understand the nature and complexity of tourist behaviour within two destination case study areas, with the intention of exploring a

potential way to encourage greater levels of sustainable behaviour amongst those on holiday. A social marketing methodology was employed with a view to understanding how tourists perceive their holidays and what they perceive the barriers to, and the motivations for, sustainable tourist behaviour. Furthermore additional information recorded individual environmental impacts using an ecological footprinting software program. This program generates a personal ecological footprint which illustrates what types of behaviour and which type of tourist generate the greatest environmental impact, thus enabling pinpointing of the types of behaviour and types of tourist that cause the greatest environmental impact in a holiday destination with a view to targeting this behaviour to reduce environmental impact. The footprinting tool also allows for scenario testing, whereby a change in behaviour can be modelled and the resultant change in impact observed.

The results generated within this thesis form a basis for working towards a situation where tourists could be encouraged to behave more sustainably whilst in the holiday environment. Those tourists who responded to the survey reported being significantly less committed to a range of sustainable behaviours in the holiday environment compared to at home. Further exploration of the participants' perceptions of the barriers to holiday sustainable behaviour identified a range of both internal and external factors that interacted to inhibit the selection of sustainable choices when on holiday. These factors appear to act throughout the holiday, from

the pre-holiday decision-making phase, to during the holiday and they also exert influence in the post-holiday phase impacting on future holiday plans.

A holiday destination or resort wishing to encourage greater levels of sustainable behaviour amongst its visitors would therefore have to focus not only on providing the services and infrastructure to make this possible, but also recognise that the 'holiday' is psychologically and physiologically a significant experience for its visitors. The 'value' of a holiday in terms of the experiences anticipated prior the holiday, during the holiday and the memories recalled afterwards are unique and encouraging sustainable behaviour must reflect this. Monetary value is also an important consideration when planning an intervention to change behaviour; therefore any changes made must consider the 'cost' for the tourist of the sustainable option.

References:

Ajzen, J. (1991). The theory of planned behaviour, *Organizational Behaviour and Human Decision Processes*, 50 (2): 179.211.

Akers. R. L., (1973), *Deviant Behaviour; A Social Learning Approach*, Belmont, CA: Wadsworth Publishing Co.

Andreasen, A. R. (1994). *Marketing Social Change: Changing Behaviour to Promote Health, Social Development, and the Environment*. Washington: Jossey-Bass Publishers.

Andreasen, A. R. (2002). Marketing Social Marketing in the Social Change Marketplace. *Journal of Public Policy & Marketing*, 21(1), 3-13.

Andreasen, A. R. (2006). *Social Marketing in the 21st Century*. London: Sage Publications.

Bagozzi, R. (1975) Marketing as Exchange. *Journal of Marketing*, 39:32-39.

Bandura, A., (1986), *Social Foundations of Thought and Action; A Social Cognitive Approach*, Englewood Cliffs: Prentice Hall.

.

Baron-Yelles, N., (1999), French coastal wetlands: in search of sustainability, *Tourism Geographies*, Vol 1, pp 108-120.

Barr, S. (2008). *Environment and Society: Sustainability, Policy and the Citizen*. Hampshire: Ashgate Publishing.

Barr, S. & Gilg, A. W. (2006), Sustainable Lifestyles; framings environmental actions in and around the home, *Geoforum*, 37, Vol 37, (6), pp 906-920.

Barr, S., Gilg, A. W. & Shaw, G. (2011), 'Helping People Make Better Choices: Exploring the behaviour change agenda for environmental sustainability, *Applied Geography*, Vol 31, (2), pp 712-720.

Barr, S., Shaw, G., Coles, T., & Prillwitz, J. (2010) 'A holiday is a holiday': practicing sustainability, home and away. *Journal of Transport Geography*, Vol 18, (3). 474-481.

Becken, S., & Patterson, M. (2006), Measuring National Carbon Dioxide Emissions from Tourism as a Key Step Towards Achieving Sustainable Tourism, *Journal of Sustainable Tourism*, Vol 14, (4), pp 323-338.

Beeton, S., & Benfield, R., (2002), Demand control: The case for de-marketing as a visitor and environmental management tool, *Journal of Sustainable Tourism*, Vol 10, (6), pp 497-806.

Beeton, S. (2005). The Case Study in Tourism Research: a Multi-method Case Study Approach, in Ritchie, B. W., Burns, P., & Palmer, C.(eds) *Tourism Research Methods: Integrating Theory with Practice*, Wallingford: CABI Publishing.

Bercheri, E., (1991), Rimini and Co – the end of a legend?: Dealing with the algae effect. *Tourism Management*, Vol 12, 229-235.

Beckan, S., Simmons, D. G., & Frampton, C., (2003), Energy use associated with travel choices, *Tourism Management*, Vol 24, (3), pp 267-277.

Berger, I. E. (1997), The demographics of recycling and the structure of environmental behaviour, *Environment and Behaviour*, Vol 29, (4), pp 515-531.

Berry, S., & Ladkin, A., (1997), 'Sustainable tourism: a regional perspective'. *Tourism Management*, Vol 18, (7), 433-440.

Black, J. S., Stern, P. C. & Elworth, J. T. (1985). Personal and contextual influences on household energy adaptations, *Journal of Applied Psychology*, 70 (1): 3-21.

Blake, J., (1999), Overcoming the 'value-action gap' in environmental policy: Tensions between national policy and local experiences, *Local Environment: The International Journal of Justice and Sustainability*, Vol 4, (3), pp 257-278.

Bloom, P. N. & Novelli W. D. (1981). Problems and challenges in social marketing. *Journal of Marketing*, 45, 79-88.

Bramwell, B., & Lane, B., (1993), Sustainable Tourism: an evolving global approach, *Journal of Sustainable Tourism*, Vol 1, (1), pp 1-5.

Budeanu, A., (2007), Sustainable Tourist Behaviour – a discussion of opportunities for change, *International Journal of Consumer Studies*, Vol 31, pp 499-506.

Buhalis, D., (2000), Marketing the competitive destination of the future, *Tourism Management*, Vol 21, (1), pp 97-116.

Chafe, Z., (2005), *Consumer Demand and Operator Support for Socially and Environmentally Responsible Tourism*, (WWW document) <http://www.ecotourism.org> (accessed September 2012).

Chambers, N., Simmons, C., & Wackernagel, M., (2000), *Sharing Nature's Interest; Ecological Footprints as an Indicator of Sustainability*, London: Earthscan.

Cialdini, R. B., Reno, R. R. & Kallgren C. A. (1990). A Focus Theory of Normative Conduct: Recycling the Concept of Norms to Reduce Littering in Public Places. *Journal of Personality and Social Psychology*, 18 (6): 1015-1026.

Coccosis, H. & Parpairis, A., (1996), Tourism and carrying capacity in coastal areas: Mykonos, Greece, In Priestly, G. K., Edwards, J. A., and Coccosis, H., (eds.), *Sustainable Tourism: European Experiences*, Wallingford: CAB International.

Cohen, E. (1972). Toward a Sociology of International Tourism, *Social Research*, 39 (1):164-182.

Cohen, E. (1979). A Phenomenology of Tourist Experiences, *Sociology*, 13 (2): 179-201.

Cohen, S. A., Higham, J. E. S., & Reis, A. (2013), Sociological barriers to developing sustainable discretionary air travel behaviour, *Journal of Sustainable Tourism*, Vol 21, (7), 982–998.

Cooper, C. P. (1981), Spatial and temporal patterns of tourist behaviour, *Regional Studies*, Vol 15, pp 359-371.

Croall, J., (1995), *Preserve or destroy: tourism and the environment*, London: Calouste Glubenkien Foundation.

Crompton, J. L. (1979) Motivations for Pleasure Vacation. *Annals of Tourism Research*. 3: 408-424.

Crompton, J. L., & Ankomah, P.K. (1992), Choice set propositions in decision making, *Annals of Tourism Research*, Vol 20, (3), 461-476.

Dann, S., Harris, P., Sullivan-Mort, G., Fry, M. & Binney, W. (2007). Reigniting the fire: a contemporary research agenda for social, political and non-profit marketing. *Journal of Public Affairs*, 7: 291-304.

Davenport, J., & Davenport, J. L. (2006), The impact of tourism and personal leisure transport on coastal environments, *Estuarine, Coastal & Shelf Science*, Vol 67, (1-2), pp 280-292.

Day, G. S., & Montgomery, D. B., (1999), Charting new directions for marketing, *The Journal of Marketing*, Vol 63, pp 3-13.

Decrop, A., (2010), Destination Choice Sets: An Inductive Longitudinal Approach, *Annals of Tourism Research*, Vol 37, (1), pp 93-116.

Decrop, A., & Snelders, D., (2005), A grounded typology of vacation decision making. *Tourism Management*, Vol 2 (1), pp 121-132.

Derksen, L., & Gertrell, J., (1993), The social context of recycling, *American Sociological Review*, Vol 58, (3), pp 434-442.

Delleart, B. D. C., (1998), Multi-faceted travel decisions: a constraint-based conceptual framework to describe tourists' sequential choices of travel components. *Tourism Management*, Vol 19 (4), 313-320.

Department of the Environment, Food and Rural Affairs (DEFRA), 2008, Framework for Environmental Behaviours, DEFRA, London.

De Young, K., (2000), Expanding and evaluating motives for environmentally responsible behaviour. *Journal of Social Issues*, Vol 56, (3), 509-526.

Dingle, P. (1985), Practical Green Business, *Insights*, March, London; ETB.

Dolnicar, S., & Leisch, F., (2008), Selective marketing for environmentally sustainable tourism, *Tourism Management*, Vol 29, (4), pp 672-680.

Dredge, D., (2006), 'Policy networks and the local organisation of tourism', *Tourism Management*, Vol 27, (2), pp 269-280.

El-Ansary, A. I., & Kramer, Jr, (1973), Social marketing the family planning experience, *Journal of Marketing*, Vol 37, (3), pp 1-7.

Elliot, J., (1997), *Tourism, Politics and Public Sector Management*, London: Routeledge.

Fox, K. F. A., & Kotler, P., (1980), The marketing of social causes: the first 10 years, *The Journal of Marketing*, Vol 44, (4), 24-33.

Festinger., L, (1957), *A Theory of Cognitive Dissonance*, Stanford, CA: Stanford University Press.

French, J., Blair-Stevens, C., McVey, D., & Merritt, R. (2010). *Social Marketing & Public Health: Theory and Practice*. Oxford: Oxford University Press.

Garcia-Ramon, M. D., Canoves, G., & Valdovinos, N., (1995), Gender and farm tourism and the environment, *Annals of Tourism Research*, Vol 22, (2), 267-282.

Gartner, W. C., (1993), Image formation process, *Journal of Travel & Tourism Marketing*, Vol 2: 191-215.

Glaser, B. G., & Strauss, A. L., (1967), *The Discovery of Grounded Theory: Strategies for Qualitative Research*, (7th Ed), Chicago: Transaction Publishers.

Gössling, S, & Peeters, P., (2007), 'It does not harm the environment', An Analysis of Industry Discourses on Tourism, Air Travel and the Environment, *Journal of Sustainable Tourism*, 15, (4), pp 402-417.

Great Britain, Climate Change Act (2008), *Carbon Target and Carbon Budgeting 2008*, Elizabeth II, Chapter 27 (Part 1), (2008), London: The Stationary Office.

Great Britain, Department for Energy and Climate Change, *Climate Change Act (2008), Carbon Target and Carbon Budgeting*, (on-line), Available: <http://www.legislation.gov.uk/ukpga/2008/27/contents>, (accessed September, 2011).

Green Tourism Business Scheme, Criteria (Online) http://www.green-business.co.uk/GreenBusiness_Criteria_Introduction.asp (accessed 5 July, 2010).

Hall, C. M. (2008), *Tourism Planning; Policies, Processes and Relationships*, (2nd Ed), Harlow: Pearson Education.

Hares, A, Dickinson, J., Wilkes, K. (2010), Climate Change and air travel decisions of UK tourists, *Journal of Transport Geography*, Vol 18, (3), pp 466-473.

Hastings, G., & Haywood, A., (1994), Social marketing: a critical response, *Health Promotion International*, Vol 6, (2), 135-145.

Hastings, G. & Saren, M. (2003). The Critical Contribution of Social Marketing: Theory and Application. *Marketing Theory*, 3(3):305-322.

Heider, F., (1958), *The Psychology of Interpersonal Relations*, New York NY: John Wiley & Sons.

Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987), Analysis and Synthesis of Research on Responsible Environmental Behaviour: A Meta-Analysis. *The Journal of Environmental Education*, Vol 18, (2), pp 1-8.

Hobson, K., (2002), Competing discourses of sustainable consumption: does the 'rationalization of lifestyles' make sense?, *Environmental Politics*, Vol 11, pp 95-120.

Holden, A., (2000), *Environment and Tourism*, London: Routledge.

Hunter, C., & Green, H., (1995), *Tourism and the environment: A sustainable relationship*, London: Routledge.

Hunter, C., & Shaw, J., (2007), The ecological footprint as a key indicator of sustainable tourism, *Tourism Management*, Vol 28, (1), pp 45-57.

Intergovernmental Panel on Climate Change (IPCC), 2007, Climate Change Synthesis Report of the Fourth Assessment, IPCC, Geneva.

Jackson, E. L., & Rucks, V. C. (1995), Negotiation of leisure constraints by junior-high and high school students: An exploratory study, *Journal of Leisure Research*, Vol27, (1), pp 85-195.

Jenner, P., & Smith, C., (1992), *The tourism industry and the environment*, London: EIU,

Kempton, W. Boster, J. S., & Hartley, J. A. (1995), *Environmental Values in American Culture*, Cambridge, Massachusetts: MET Press.

Klemm, M., (1992), Sustainable tourism development: Languedoc and Roussillon, *Tourism Management*, 169-180.

Kollmuss, A. & Agyeman, J. (2002). Mind the Gap: why do people act environmentally and what are the barriers to pro-environmental behaviour? *Environmental Education Research*. 8, (3): 239-260.

Kotler, P. & Zaltman, G. (1971). Social Marketing: An Approach to Planned Social Change *The Journal of Marketing*, 35: 3-12.

Krippendorff, I, (1987), *The Holiday Makers*. London, Heinemann.

Lang, G. E., & Lang, G. (1983), *The battle for public opinion: The president, the press and the polls during Watergate*, New York: Columbia University Press.

Laczinak, G. R., Lusch, R. F. & Murphy, P. E. (1979). "Social Marketing: Its ethical dimensions". *Journal of Marketing*, 43, (Spring), 29-36.

Lillywhite, M., & Lillywhite, L., (1991), Low impact tourists. In S. Medik, (ed.), *Managing Tourism*, London: Butterworth-Heinemann.

Macionis, J. J., (2002), *Social Problems*, Upper Saddle Back River, NJ: Prentice-Hall

Malkis, A., & Grasmick, H. G., (1977), 'Support for the ideology of the environmental movement: tests of alternative hypothesis', *Western Sociological Review*, Vol 8, pp 25-47.

Martens, S., & Spaargaren, G. (2005), The politics of sustainable consumption; the case of the Netherlands, *Sustainability, Practice and Policy*, Vol 1, (1) pp 1-10.

Mathieson, A., & Wall, G., (1982), *Tourism, Economic, Physical and Social Impacts*, London: Longman.

Maslow, A. H., (1970), *Motivation and Personality*, (2nd Ed), New York: Harper & Row.

Matthews, C. (2010), Appendix A - West Somerset Tourism Delivery Plan – January 2010. (Online), West Somerset District Council.

<http://www.westsomersetonline.gov.uk/getattachment/Tourism---Leisure/Tourism/Tourism-delivery-plan-Jan-10-V4.pdf.aspx> (accessed 30 June, 2010)

Mayor, K., & Tol, R. S. J., (2007), The Impact of the UK aviation tax on carbon dioxide emissions and visitor numbers, *Transport Policy*, Vol 14, (6), pp 607-613.

McKenzie-Mohr, D. & Smith W. (1999). *Fostering Sustainable Behaviour: An Introduction to Community Based Social Marketing*. Canada: New Society.

Mercher, B. (1983), Some fundamental truths about tourism: Understanding tourism's social and environmental impacts, *Journal of Sustainable Tourism*, Vol 1,(1) pp 6-16.

Mc Michael, A. J., Woodruff, R. E., & Hales, S. (2006), Climate Change and Human Health Present and Future, *The Lancet*, vol. 367, (9613), pp 859-869.

McVey, D., Crosier, A., & Christopolous, A., (2010) '*Evaluation*', In French, J., Blair-Stevens, C., McVey, M., & Merritt, R., (eds.), *Social marketing and public health: Theory and Practice*, Oxford: Oxford University Press.

Michalic, T,(2002), Tourism & Economic Development Issues, in Sharpley, R., & Tefler, D. J., (ed), *Tourism and Development, Concepts and Issues*, Clevedon: Channel View Publications.

Middleton, V. T. C., & Hawkins, P., (1998), *Sustainable Tourism; a marketing perspective*, Oxford: Butterworth-Heinemann.

Mill. R. C., & Morrison, A. M., (1985), *The Tourism System*, Englewood Cliffs, NJ: Prentice Hill.

Miller, C. A. (2003), Consumption in sustainable tourism; a survey of UK consumers, *Journal of Sustainable Tourism*, Vol 11, (1), pp 17-39.

Miller, G. T., & Spoolman, S. E. (2008), *Sustaining the Earth; An Integrative Approach*, Belmont CA: Brooks/Cole.

Mosiander, J. (2007), Motivational Complexity of Green Consumerism, *International Journal of Consumer Studies*, Vol 31, (4), pp 404-409.

Mowforth, M., & Munt, I, (1998), *Tourism and Sustainability; Development, globalization and development in the third world*, New York: Routeledge.

Murdock, S. H. & Schriener, E. C. (1997), 'Social determinants of the level of support for environmental protection and economic growth in rural population' Paper presented at the Annual Meeting of Rural Sociological Society, Madison: Wisconsin.

Nordlund, A. M., & Garvill, J., (2003), Effects of values, problem awareness and personal norm on willingness to reduce personal car use, *Journal of Environmental Psychology*, Vol 23, (4), pp 339-347.

Office for National Statistics, (2011), Characteristics of Workers in Tourism, (Online); Available <http://www.ons.gov.uk/ons/rel/tourism/tourism-employment-summaries/characteristics-of-workers-in-tourism--2011/rep-chartour.html> (accessed Nov, 2013)

Owens, S. (2000), 'Engaging the public'; information and deliberation in environmental policy', *Environment and Planning A*, Vol 32, pp 1141-1148.

Parvatiyar, J., (2000), *Handbook of Relationship Marketing*, Thousand Oaks, CA: Sage Publications.

Pattullo, P., (1996), *Last Resorts: The cost of tourism in the Caribbean*, London: Cassell.

Pearce, D. G. (1988). Tourist Time-Budgets, *Annals of Tourism Research*, 15: 106-121.

Pearce, P. L. (1981). Route Maps: A Study of travellers' perceptions of a section of country side, *Journal of Environmental Psychology*, 141-155.

Pearce, P. L. (1982), *The Social Psychology of Tourist Behaviour*, Oxford: Pergamon.

Peattie, S. & Peattie, K. (2003). Ready to fly solo? Reducing social marketing's dependence on commercial marketing theory. *Marketing Theory*, 3(3): 365-385.

Peattie, K., & Peattie, S. (2009), Social marketing: A pathway to consumption reduction?, *Journal of Business Research*, Vol 62, (2), pp 260-268.

Penner, J. E., Lister, D. H., Griggs, D. J., Dokken, D. J. & McFarland, M. (eds), (1999), *Aviation and the Global Atmosphere; A Special Report of IPCC Working Groups I & II*, Cambridge: Cambridge University Press.

Pidgeon, N., (1996), Grounded theory: theoretical background, In; Richardson, J. T. E. (ed) *Handbook of Qualitative Research Methods for Psychology and the Social Sciences*, (3rd Ed); Leicester: British Psychological Society.

Pidgeon, N., & Henwood N., (1996), Grounded theory: practical implementation, In; Richardson, J. T. E. (ed) *Handbook of Qualitative Research Methods for Psychology and the Social Sciences*, (3rd Ed); Leicester: British Psychological Society.

Plog, S. C. (1972), *Why destination areas rise and fall in popularity*. Paper presented at Southern California Chapter of the Travel Research Association.

Plog, S. C. (1987), Understanding psychographics in tourism research. In J. R. Brent-Ritchie and Goeldner, C. R. (eds.), *Travel, Tourism and Hospitality Research: A Handbook for Managers and Researchers*, New York: John Wiley.

Plog, S. C. (1991), *Leisure Travel, making it a growth market...again!*, New York: John Wiley.

Prochaska, J. O., & DiClementi, C. C., (1983), Stages and processes of self-change of smoking: towards an integrated model of change, *Journal of Consulting and Clinical Psychology*, Vol 51, (3), pp 390-395.

Ram, Y., Nawijn, J., & Peeters, P., (2013), Happiness and limits to sustainable tourism mobility; a new conceptual model, *Journal of Sustainable Tourism*, Vol 21, (7), 1017-1035.

Rathouse, K., Scarles, C., Holmes, K., & Tribe, J. (2010), Public understanding of sustainable tourism, *Annals of Tourism*, Vol 37, (3), pp 627-646.

Ritchie, G. I., Ritchie, I., & Brent, J. R. (2005), Application of the Analytic Hierarchy Process to Choice and Decision Making: A Review and Illustration Applied to Destination Competiveness, *Tourism Analysis*, Vol 10, (1), pp 17-29.

Roe, N., Leader-Williams, D., & Dalal-Clayton, B., (1997), *The environmental impacts of wildlife tourism*, Wildlife & Development Series, 10, IIED.

Reynolds, L., & Merritt, R., (2010), 'Scoping' In French, J., Blair-Stevens, C., McVey, D., & Merritt, R. (eds.). *Social Marketing & Public Health: Theory and Practice*. Oxford: Oxford University Press.

Ryan, C., (1998), The travel career ladder: an appraisal. *Annals of Tourism Research*, 25 (4), pp 936-957.

Saarinen, J., (2006), Traditions of sustainability in tourism studies. *Annals of Tourism Research*, Vol 33, (4), pp 1121-1140.

Schultz, W. (2001). The Structure of Environmental Concern: Concern of Self, Other People, and the Biosphere, *Journal of Environmental Psychology*, 21:327-339.

Schoorl, J., & Visser, N., (1991), *Towards Sustainable Coastal Tourism: Environmental Impacts of Tourism on the Kenyan Coast*. Discussion Paper, Netherlands Ministry of Agriculture, Nature, Management and Fisheries.

Sharma, K. K., (2004), *Tourism & Socio-cultural Development*, New Dehli: Sarup & Sons.

Shaw, G., & Williams, A. (2002) From Lifestyle Consumption to Lifestyle Production; Changing Patterns of Tourism Entrepreneurship, In Thomas, R, (ed) *Small Firms in Tourism; International Perspectives*, Amsterdam: Elsevere.

Shove, E. (2003), *Comfort, Cleanliness and Convenience: The Social Organisation of Normality*, Berg, Oxford.

Shostack, G. L., (1977), Breaking Free From Product Marketing, *Journal of Marketing*, Vol 41, pp 73-80.

Sinclair, T., (1998), Tourism & Economic Development: A Survey, *The Journal of Development Studies*, Vol 34, (5), pp 1 – 51.

Sirakaya, E. & Woodside, A. G. (2005), Building and testing theories of decision making by travellers, *Tourism Management*, Vol 26, (6), pp 815-832.

South West Tourism Alliance, (2008), *The Value of Tourism 2008; Executive Summary*, South West Tourism.

South West Tourism. *Value of Tourism Somerset*, (Online)
<http://www.swtourism.org.uk/documents/q/category/finance-facts-figures-documents/value-of-tourism-archive/value-of-tourism-2008/> (Accessed 9 July 2010)

Sparrowhawk, J., & Holden, A., (1999), Human development: the role of tourism based NGO's in Nepal, *Tourism Recreation Research*, Vol 24, pp 37-44.

Stankey, G. H., Cole, D. N., Lucas, R. C., Petersen, M. E., & Frissell, S.S. (1985), *The limits of acceptable change (LAC) system for wilderness planning*, Gen, Tech Report, INT-176, USDA, Forest Service Intermountain Forest & Range Experiment Station, Ogden, UT

Steg, L., & Vlek, C., (2009), Encouraging Pro-environmental Behaviour: An integrative review and research agenda, *Journal of Environmental Psychology*, Vol 29, (3), pp 309-317.

Stern, P. C. & Dietz, T., (1994), The Value Basis of Environmental Concern, *Journal of Social Issues*, Vol 50, (3), 65-84.

Stern, P. C., Dietz, T., Abel, T., Gregory, A., Guagnano, A., & Kalof, L., (1999), A Value-Belief-Norm of Support for Social Movements, *Research in Human Ecology*, Vol 6, (2), pp 81-97.

Stern, P. (2000). Toward a Coherent Theory of Environmentally Coherent Behaviour. *Journal of Social Issues*, 56 (3): 407-424.

Swarbrooke, J., (1999), *Sustainable Tourism Management*, Oxford: CABI Publishing.

Swarbrooke, J., & Horner, S. (2001), *Business Travel and Tourism*, Oxford: Butterworth-Heinemann.

Thorgersen, J., (1999), Spillover processes in the development of a sustainable consumption pattern, *Journal of Economic Psychology*, Vol 20, (10), 51-81.

Thornton, P. R., Williams, A. M., Shaw, G. (1996). Revisiting time-space diaries: an exploratory case study of tourist behaviour in Cornwall, England. *Environment & Planning A* 29 (10); 1847-1868 .

Thornton, P. R., Shaw, G., & Williams, A. M. (1997), Tourist group holiday decision-making and behaviour: the influence of children, *Tourism Management*, Vol 18, (5), 287-297.

Torbay Development Agency, (2010), *Turning the tide for tourism in Torbay*. Torbay Council.

Torbay Council, (2014) *Recycling and Waste*, [online] Available at <http://www.torbay.gov.uk/index/yourservices/waste.htm> (accessed 6 June 2014)

Truss, A., Marshall, R. & Blair-Stevens, C. (2010) 'A history of social marketing', *In* French, J., Blair-Stevens, C., McVey, D., & Merritt, R (eds). *Social Marketing and Public Health; Theory and Practice*. Oxford: Oxford University Press.

Um, S, & Crompton, J. L, (1990), Attitude Determinants in tourism destination choice, *Annals of Tourism Research*, Vol 17, (3), 432-438.

UNEP & UNWTO, (2005), *Making Tourism More Sustainable – A Guide for Policy Makers*, [online] <http://sdt.unwto.org/content/about-us-5> (accessed June 2014)

Valentine, P. S. (1992), Eco-tourism and nature conservation; a definition with some recent developments in Micronesia, *In* B. Weiler (ed.), *Ecotourism*, Canberra Bureau of Tourism.

Van Liere, K. D. & Dunlap, R. E. (1980) A social bases of environmental concern; A review of Hypothesis, Explanations and Empirical Evidence, *Public Opinion Quarterly*, 44, (2), pp 181-197.

Vargo, S. L. & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68: pp 1-17.

Vargo, S. L. & Lusch R. F. (2006). Service Dominant Logic: What it is, What it is not, What it might be. In Lusch S. L. & Vargo, S. L. (eds). *The Service Dominant Logic of Marketing: Dialog, Debate & Directions*. New York: M. E. Sharpe.

Vargo, S. L. & Lusch, R. F. (2008), Service Dominant Logic; continuing the evaluation, *Journal of the Academy of Marketing Sciences*, 36: pp 1-10.

Wackernagel, M., & Rees, W. E., (1996), *Our ecological footprints: Reducing Human Impact on the Earth*, Gabriolo Island; New Society Publishers.

Walker, G. J., Jackson, E. L. & Jinyany, D. (2007), Culture and leisure constraints: A comparison of Canadian & Mainland Chinese University Students, *Journal of Leisure Research*, Vol 39, (4), pp 567-590.

Wall, G., (1996), Is ecotourism sustainable? *Environmental Management*, Vol 2, pp 207-216.

Wall, G., & Mathieson, A., (2006), *Tourism Change, Impacts & Opportunities*, Harlow: Pearson.

Walmsley, D. J. & Jenkins, J. M. (1992). Tourism Cognitive Mapping of Unfamiliar Environments, *Annals of Tourism Research*, 19: 268-286.

Webster, F., (1992), The changing role of marketing in the corporation, *Journal of Marketing*, Vol 56, pp 1 – 17.

West Somerset District Council, (2014), *Recycling and Waste*, [online]; Available at <http://www.westsomersetonline.gov.uk/Recycling---Waste>, (accessed 6 June, 2014)

WCED 1987: *Our Common Future, The World Commission on Environment and Development*, Oxford: Oxford University Press.

Wheeller, B., (1991), 'Tourism's troubled times – Responsible tourism is not the answer', *Tourism Management*, Vol 12, pp 91-96.

Wheeller, B. (1994), Ecotourism: A ruse by any other name, *Progress in Tourism, Recreation and Hospitality Management*, Vol 6, pp 3-11.

Wiebe, G. D. (1952). Merchandising Commodities and Citizenship on Television. *Public Opinion Quarterly*, Winter: 679-691.

World Tourism Organisation, (1992), *Tourism Carrying Capacity: Report on the Senior-level Expert Group Meeting*, June 1990, Madrid: WTO.

World Tourism Organisation, (2005) *Making tourism more sustainable – A Guide for Policy Makers*, Madrid: WTO.

Williams, A., & Shaw, G., (1991). *Tourism & Economic Development; Western European Experiences*, London: Belhaven Press.

Table of Acronyms

DEFRA	Department for the Environment & Rural Affairs
DMO	Destination Management Organisation
EF	Ecological Footprint
EIA	Environmental Impact Assessment
EXP	Exmoor Tourism Partnership
GTBS	Green Tourism Business Scheme
IPCC	Intergovernmental Panel on Climate Change
LAC	Limits of Acceptable Change
NOA	Needs, Opportunities, Abilities Model
REAP	Resource Energy Analysis Program
SD	Sustainable Development
SEI	Stockholm Environment Institute
SWT	South West Tourism
TPB	Theory of Planned Behaviour
TRB	Theory of Reasoned Behaviour
UNEP	United Nations Environment Program
UNWTO	United Nations World Tourism Organisation
WCED	World Commission on Environment & Development
WTO	World Tourism Organisation

APPENDICES

Appendix 1 – Questionnaire Survey Staying Visitors

Appendix 2 – Questionnaire Survey Day Visitors

Appendix 3 – Interview Schedule

Appendix 4 – Description and Critique of REAP for Tourism

Appendix 5 – Questionnaire Survey Demographics

Appendix 6 – Destination Decision-making Data

Appendix 7 – Reported Sustainable Behaviour between Clusters

Appendix 8 – Cluster Demographics

Appendix 9 – Holiday Characteristics

‘Your holiday...understanding your experiences’

A Survey of Holiday & Travel Behaviour

INTRODUCTION

Thank you for agreeing to complete this survey. The questions contained within this survey will assist in the completion of my PhD research providing a greater understanding of holiday behaviour.

PLEASE ANSWER ALL SECTIONS OF THE QUESTIONNAIRE

PRIZE DRAW: By completing this survey you will be entered into a prize draw to win **£100 Marks & Spencer’s Vouchers**. Please provide your contact details in the space provided below

PARTICIPATION: The research will also be running a series of telephone interviews as a way of providing more detailed information about holiday behaviour. The interview will take place after your holiday at a time convenient to you. **If you are selected to take part in an interview you will receive a £10 Amazon Voucher or High Street Voucher of your choice.** If you would be willing to undertake an interview please complete your contact details below.*

I would like to:

Enter Prize Draw Take part in interview

Name	
Address	
Postcode	
Telephone	
E-mail	

***Confidentiality: If you have completed your personal details above, please be assured that the responses you provide in the survey will be stored separately from your contact details.**

If you require further information about this questionnaire, please do not hesitate to contact me.

Julie Wooler

E-mail: j.wooler@exeter.ac.uk

Telephone: 07791509412

Geography, College of Life & Environmental Sciences
University of Exeter
Amory Building, Rennes Drive
Exeter EX2 4RJ

HOLIDAY MOTIVATIONS & DECISION-MAKING – The first section looks at motivations and decisions you make before you take your holiday. I would like to know about what influenced and informed the choices you made regarding your current holiday.

1. When you began your search for your current holiday what kinds of information did you find helpful in this search. Please rate the following information sources in terms of how influential they were in your decision-making process. (1 being not at all useful and 5 being extremely useful)

	1	2	3	4	5
Word of mouth recommendation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet search engines (google etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Printed brochure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ad in newspaper/magazine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TV advertisement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tourist Information Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Travel agent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Thinking back to when you were deciding where you would take your holiday, please rate how important the following factors were in your choice of holiday destination. (1 being not at all important 5 being extremely important)

	1	2	3	4	5
The resort has a good range of amenities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The resort is easily accessed by the road network	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The resort has good links to public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have visited the resort before and want to go back	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The resort is family friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The resort has a good climate/pleasant scenery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friends/family live close to the resort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The resort works hard to protect the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YOUR HOLIDAY – the following section relates to your current holiday. I would like to gather some details regarding where you are staying, your travel behaviour and the types of visits you have or plan to take during this holiday.

3. Please select from the list below which best describes the purpose of your current visit:- (tick all that apply)

- Holiday (staying more than 4 nights)
- On a short break (staying 1 – 3 nights)
- Staying with friends & family
- Other please specify _____

4. Is your current holiday your ‘main’ holiday for this year?

- Yes – go to Q5 No – go to Q7

5. If this is your main holiday, are you likely to take any other holidays/breaks in the next 12 months?

- Yes – go to Q 6 No Not sure

6. If you are likely to be taking further holidays this year, where are you planning to go?

- UK Europe Other _____

7. If this is NOT your main holiday for this year, where will your main holiday be?

- UK Europe Other _____

8. How many short breaks/holidays are you planning to take in the next 12 months? _____

9. Thinking about your current holiday, are you visiting the resort:

- Alone
- As part of a family group that includes children
- A family group that without children
- As part of an organised tour group
- With friends

10. What type of holiday accommodation are you staying in?

- Hotel, B&B, Guest House, Inn
- Holiday Park (eg Butlins etc)
- Self-catering unit (holiday cottage, flat)
- Staying friends or relatives
- Camping (touring caravan, tent, mobile home)
- Other (please specify) _____

HOLIDAY ACTIVITIES cont'd – Now thinking about shopping activities you have, or plan, to take part in during this holiday. Please state how many times you have, or plan to take part in the following activities. Please also state how much you have or are likely to spend shopping on each of the following items.

14. Now thinking about **shopping activities you have, or plan, to take part in during this holiday**, please state how many times you have, or plan to take part in the following activities. Please also

TRAVEL & TRANSPORT – this section looks at travel and transport during your current holiday. The questions will cover the types of transport you used to get to your holiday and how you travel once you arrive at your destination.

11. Please indicate the main mode of transport you used for travel from your home to your current holiday destination and the main mode you have used during your holiday/break

	Transport mode to destination	Transport mode during holiday
Car	<input type="checkbox"/>	<input type="checkbox"/>
Motorbike	<input type="checkbox"/>	<input type="checkbox"/>
Bus/Coach	<input type="checkbox"/>	<input type="checkbox"/>
Train	<input type="checkbox"/>	<input type="checkbox"/>
Boat	<input type="checkbox"/>	<input type="checkbox"/>
Bicycle	<input type="checkbox"/>	<input type="checkbox"/>
Walk	<input type="checkbox"/>	<input type="checkbox"/>
Air	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

12. Thinking about travel undertaken whilst on your current holiday/break to visit attractions and for sightseeing. How far have you/or are you likely to travel using the following forms of transport:

- Car travel _____ (estimated mileage)
 Train travel _____ (estimated mileage)
 Bus/coach travel _____ (estimated mileage)

HOLIDAY ACTIVITIES – The next section is related to the types of activities you have, or plan, to take part in during your current holiday.

13. Thinking about the types of attractions you have or are likely to visit during your current holiday – please state from the list how many times you have/or plan to visit during this holiday

	Not visited	1 – 2 Visits	3 – 4 Visits	5+ visits
Museum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Church/abbey/monastery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
House & gardens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zoo/animal park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Theme park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carnival/concert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fun fair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vintage/steam railway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boat trip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exploring nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swimming/surfing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sailing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

state **how much you have or are likely spend shopping on each of the following items.**

	None	1 – 2 times	3 – 4 times	5+ times	Spend in £ sterling £ _____
Food/ grocery shopping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____
Clothes & Shoes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____
Furniture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____
Jewellery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____
Toys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____
Antiques	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____
Books	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____

Takeaway £ _____

17. If you are self-catering, please state how much you have, or are likely to spend on the following during your whole holiday.

Meat	£ _____	Fish	£ _____
Fruit & Veg	£ _____	Dairy	£ _____
Cereals	£ _____	Alcoholic drinks	£ _____
Sweets & Chocolate	£ _____	Non-alcoholic drinks	£ _____

18. Please rate your behaviour according to how often you engage in them

1=Always, 2=usually, 3=Sometimes, 4 =Rarely 5=Never

At home

On Holiday

HOME & HOLIDAY BEHAVIOURS – the next section is designed to gather information regarding the types of pro-environmental behaviours you routinely engage in at home and on holiday.

	1	2	3	4	5		1	2	3	4	5
Regularly recycle paper, cardboard, tins & glass											
Regularly compost food waste											
Use energy efficient appliances											
Ensure all electrical appliances are turned off from standby											
Use water saving devices											
Use energy efficient light bulbs											
Purchase eco-friendly goods											
Buy organic food											
Buy food from local farmers markets											
Grow your own vegetables											
Re-use plastic carrier bags/or use 'bags for life' when shopping											
Buy seasonal locally produced food											
Use public transport											
Walk/cycle where possible											

15. Thinking

now about **'eating out' during your current holiday**, please state how many times you have visited, or plan to visit the following food outlets during your stay:-

16. Please also state how much you spent approximately on **'eating out' during your current holiday at the following food outlets.**

	None	1 – 2 times	3 – 4 times	5+ times	Spend In £ sterling £ _____
Pub/café	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____
Restaurant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	£ _____

A Survey of Day Visitor Behaviour

INTRODUCTION

Thank you for agreeing to complete this survey.

The questions contained within this survey will assist in the completion of my PhD research and provide a greater understanding of holiday and day visitor behaviour.

PLEASE ANSWER ALL SECTIONS OF THE QUESTIONNAIRE

PRIZE DRAW: By completing this survey you will be entered into a prize draw to win **£100 Marks & Spencer’s Vouchers**. Please provide your contact details in the space provided below

PARTICIPATION: I will also be running a series of telephone interviews as a way of providing more detailed information about day visitor behaviour. The interview will take place after your visit at a time convenient to you. **By taking part in an interview you will receive a £10 Amazon Voucher or High Street Voucher of your choice.** If you would be willing to undertake an interview please complete your contact details below.*

I would like to:

Enter Prize Draw Take part in interview

Name	
Postcode	
Telephone	
E-mail	

*** If you have completed your personal details above, please be assured that this information will only be used to contact you in relation to either the prize draw or the interview and will NOT be used in any other way.**

If you require further information about this questionnaire, please do not hesitate to contact me.

Julie Wooler
E-mail: j.wooler@exeter.ac.uk
Telephone: 07791509412

Geography, College of Life & Environmental Sciences
 University of Exeter
 Amory Building, Rennes Drive
 Exeter EX2 4RJ

VISITOR MOTIVATIONS & DECISION MAKING – The first section looks at motivations and decision making before you decide to undertake a day visit.

1. When you began the search for your current day trip what kinds of information did you find helpful in this search. Please rate the following information sources in terms of how influential they were in your decision-making process (1 being not at all useful and 5 being extremely useful)

	1	2	3	4	5
Word of mouth recommendation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internet search engines (google etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Printed brochure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ad in newspaper/magazine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TV advertisement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tourist Information Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Travel agent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. When you were deciding where to take your visit today, please rate how important the following factors were in choice of day visit (1 being not at all important – 5 being extremely important)

	1	2	3	4	5
The attraction/area has a good range of amenities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The attraction/area is easily accessed by the road network	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The attraction/area has good links to public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have visited the attraction/area before and want to go back	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The attraction/area is family friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The attraction/area has pleasant scenery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friends/family live close to the attraction/area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The attraction/area works hard to protect the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YOUR DAY VISIT

3. Are you taking this day visit:-

- Alone
- As part of a family group that includes children
- A family group without children
- As part of an organised tour group
- With friends

4. Regarding your visit today, how far have you travelled (approximately) from you home to make this visit? _____(miles)

5. What mode(s) of transport did you use to travel here? (tick all that apply)

- Car Bicycle
- Motorbike Walk
- Bus/Coach Air
- Train Other

6. What is the main purpose of your visit today?

- Museum visit Fun Fair
- Historic house and or gardens Vintage/ Steam Railway
- Zoo/Animal/Farm Park Shopping
- Theme Park Visiting friends or relatives
- Carnival/concert or event Visiting beach or countryside
- Other (please specify) _____

7. During your visit today, please state if you have eaten or intend to eat, in any of the following food outlets and how much you have spent or think you are likely to spend?

- | | | |
|--------------|--------------------------|------------------------|
| | I have visited | Spent in
£ sterling |
| Café/tearoom | <input type="checkbox"/> | £ _____ |
| Pub | <input type="checkbox"/> | £ _____ |
| Takeaway | <input type="checkbox"/> | £ _____ |
| Restaurant | <input type="checkbox"/> | £ _____ |

8. The next question relates to any shopping you may have undertaken as part of your visit, please state how much you have spent or are likely to spend on the following items during your visit TODAY:-

- | | |
|------------------|------------------|
| | Spent £ Sterling |
| Food | _____ |
| Clothes & Shoes | _____ |
| Furniture | _____ |
| Jewellery | _____ |
| Toys | _____ |
| Antiques | _____ |
| Books/newspapers | _____ |

9. Are you planning to visit other attractions/sites before you return to your home?

- Yes No

10. How often do you undertake similar day trips in your local area?

- less than once a month
- 1 – 3 times per month
- 4- 6 times per month
- more than 7 times per month

HOME BEHAVIOURS – the next section is designed to gather information regarding the types of pro-environmental behaviours you routinely engage in at home.

11. Please rate your behaviour according to how often you engage in them
1 = always, 2= usually, 3= sometimes, 4= rarely
5= never

	1	2	3	4	5
Regularly recycle paper, cardboard, tins & glass					
Regularly compost food waste					
Use energy efficient appliances					
Turn off all appliances from stand by					
Use water saving devices					
Purchase eco-friendly goods					
Buy organic food					
Buy food from local farmers markets					
Grow your own vegetables					
Re-use carrier bags or use bags for life					
Use public transport					
Walk or cycle where possible					

12. This question is about your **attitudes towards a range of statements about the environment and climate change**. Please tick the answer that most closely matches your feelings about the environment and climate change.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
The earth’s climate is changing and global warming is taking place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am concerned that my behaviour is having an adverse effect on the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is now an established scientific fact that climate change is largely man-made	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that protecting and preserving the environment is extremely important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate change is happening but not yet proven to be largely man-made	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am willing to change my behaviour in order to protect the long term future of the Earth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would be willing to do more to protect the environment if I felt that others were doing the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The threats of climate change have been exaggerated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that it is my responsibility to behave in a way that protects and preserves the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. The next question is related to your attitudes towards travel and transport for short breaks and on holidays. **Please state YOUR level of agreement with the following statements.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
When I go on holiday, I try to use the fastest mode of transport possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I like to use public transport when I am on holiday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer to avoid highly polluting forms of transport like air travel when I go away	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to avoid public transport when I go on holiday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think about how I can reduce environmental damage when I am on holiday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking short breaks is important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am unlikely to change my holiday plans in response to issues like global climate change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don’t worry about the environment when I make choices concerning my holiday travel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX 3 -Semi-structured Interview Schedule

Warm Up Phase:

Introduction

Good morning/afternoon/evening as appropriate, I am calling regarding the appointment I made in order to undertake a short interview in relation to your recent holiday in the South West of England. Are you still happy to take part in the interview? And is this still convenient for you?

As you are already aware I am working on my PhD which is looking at tourism and tourist behaviour. The questions I am about to ask you relate to your experiences and behaviour on your recent holiday in the Minehead/Paignton area.

Areas of interest

Anticipated benefits associated with the holiday

1. Please think back to when you were deciding to go holiday, can you tell me what you hoped the holiday would be like? (Prompt: what you think the benefits might be to you and your holiday group/family/partner etc)
2. Are there are particular activities you were looking to do while you were on holiday?

3. Any specific locations/places of interest you were interested in visiting?

Holiday decision-making (motivations, influences, constraints)

4. When you were choosing your holiday, what things were important in that choice?

(prompt: accommodation, places of interest, family requirements, features of the resort)

5. How did you choose and make bookings for your holiday? (Prompt: was the internet useful, brochures, etc)

In the next section we are going to spend a few moments exploring the kinds of sustainable behaviour you undertake when you are at home. By sustainable behaviour I mean things such as recycling, composting and using public transport.

Sustainable behaviour at home and on holiday

6. Could you tell me about the types of sustainable behaviour you regularly engage in at home? (Prompt: things like recycling or turning the TV off from standby)
7. Do you think these behaviours are important and why do you do them?
8. How about when you are on holiday? Are these behaviours you would also do on holiday?

9. How about transport and travel is public transport something you use regularly?

Transport and travel

10. How did you travel to your holiday destination? (if car move to Q11)

11. Why do you use the car? Did you consider any other ways of travelling to your

holiday destination? If so, can you tell me why you decided against not using them?

12. Can you tell about how you travelled around once in your holiday resort?

13. Did you have any car free days? If so what did you do on those days?

14. Is there anything you feel might encourage you to use public transport when you are

on holiday?

Food and 'eating out'

15. Could you tell me about food you purchased when you were holiday? (Prompt: eating

out in restaurants, food for self-catering)

16. Can you tell me about any 'local food' that you had during your holiday?

Now we are going to move on to how you feel about your holiday since you've been home.

After the holiday

17. Can you tell me a little about how you feel about your holiday since you've come home?

18. Do you feel that your holiday provided the benefits you hoped for before going?

19. Would you be likely based on your experiences to return to the same destination again? (If so why?)

We have now come to the end of your interview. I would like to thank you for taking the time to take part, do you have any other points you feel would be helpful to my research in terms of understanding tourist behaviour? If not, many thanks once again.

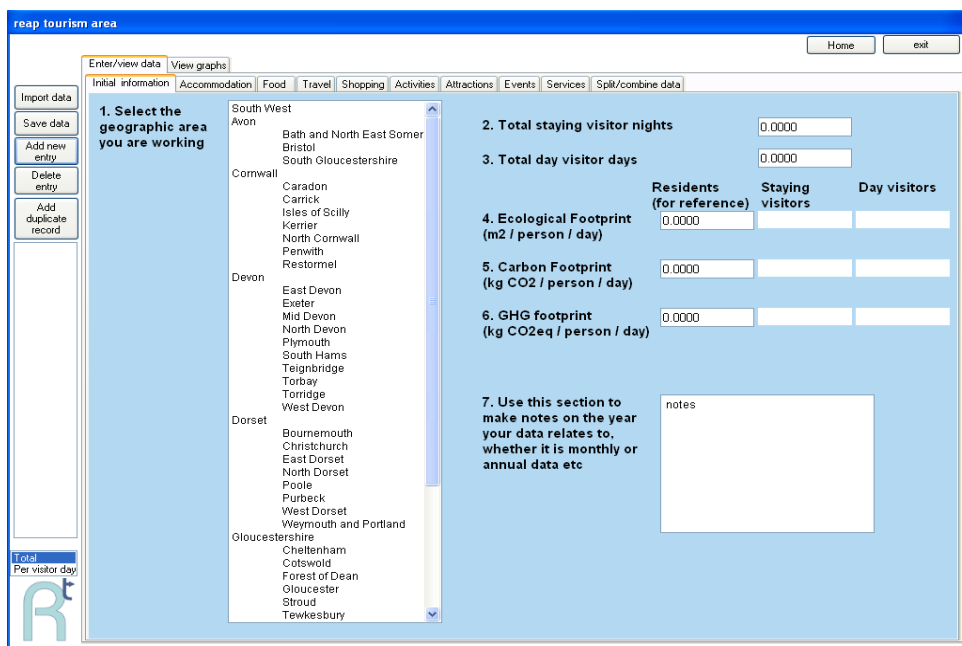
APPENDIX 4 – REAP DESCRIPTION AND CRITIQUE

REAP for Tourism Software Program

Opening page (below) showing each of the sections which can be used to inputting data.



On 'clicking' the 'Area' tab – the screen below shows the areas that it is possible input data



1. Allows selection of the geographical area for which data can be inputted.
2. In '2' input the number of nights the visitor stayed in the region or
3. The number of 'day visitor' days spent in the region
4. Once input the EF/Carbon Footprint/GHG will be displayed for the whole trip in boxes 4,5 and 6.

At the top of this page is series of 'tabs' (Accommodation, Food, Travel, Shopping, Activities, Attractions, Events, and Services)

reap tourism area

Home exit

Enter/view data View graphs

Initial information Accommodation Food Travel Shopping Activities Attractions Events Services Split/combine data

Import data
Save data
Add new entry
Delete entry
Add duplicate record

Enter your data here:

Total staying visitor nights

1 Caravan	0.0000
2 Camping	0.0000
3 Campus	0.0000
4 Holiday village	0.0000
5 Hostel	0.0000
6 Self catering and serviced apartments	0.0000
7 Guest accommodation	0.0000
8 Hotel	0.0000
9 Inn / restaurant with rooms	0.0000
10 Second homes	0.0000
11 Visiting family and friends	0.0000

Your environmental impacts of Accommodation will appear here:

Staying visitors

Ecological Footprint	0.0000
Carbon Footprint	0.0000
GHG Footprint	0.0000
Direct water use	0.0000
Waste	0.0000

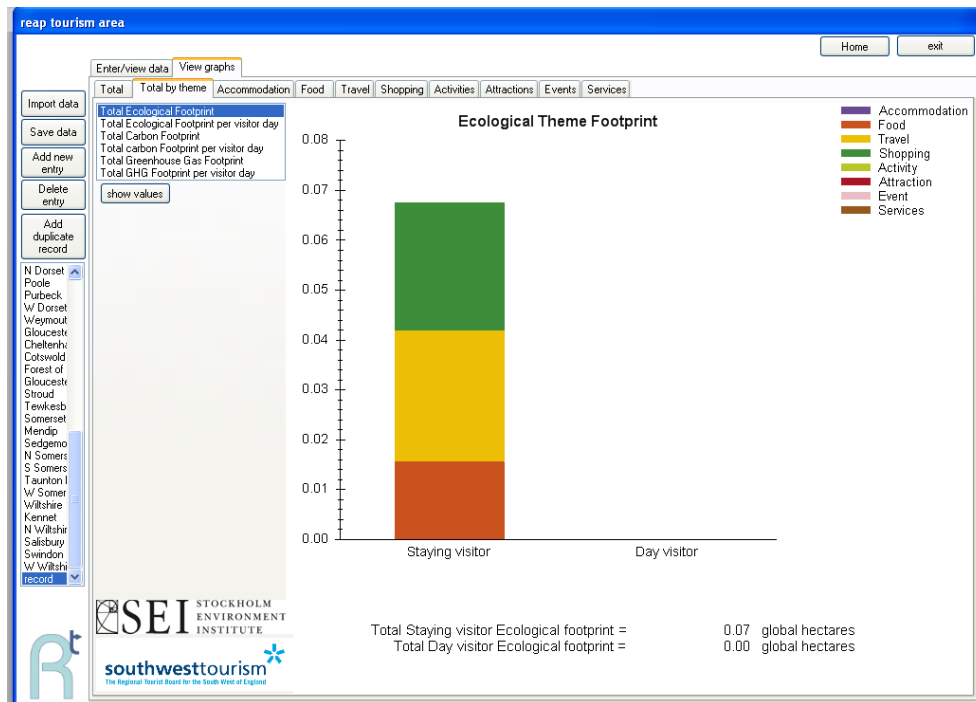
Total
Per visitor day

Rt

By 'clicking' on the 'accommodation' tab it is possible to input the number of nights spent in a particular accommodation type by a visitor or visitors.

The section at the bottom of the page displays each of the footprints attributed to staying in any of the accommodation types – the results are specific the geographical location.

Similar 'tabs' are available for inputting relating to transport mode and distance travelled, for food, activities undertaken – when all of the data has been inputted for an individual – the software provides a breakdown of the estimated environmental impact – as shown below



The Stockholm Environment Institute (SEI) and South West Tourism (SWT) worked together to produce this environmental footprint calculator specifically for use with the tourism sector. The methodology uses national carbon dioxide accounts which are broken down sector and then uses a series of input-output analysis to disaggregate the data. This data is further broken down using ‘conversion’ factors which enable the impact in tonnes of carbon dioxide to be calculated for each pound ‘sterling’ spent on any consumer category. So along as it possible to know how much is spent on products or services it then possible attribute an estimation of environmental impact. (SEI, 2007) The calculation incorporates the full lifecycle and supply chain of manufacture in the final output.

Limitations

This environmental footprint calculator is the first specifically designed for use with the tourism sector and is in its early stages, therefore there are limitations in terms of accuracy. The program is reliant on pounds (sterling) spent on products and services in order to generate an environmental footprint. However this over reliance on ‘money’ spent means that some activities or behaviours which do not incur a financial cost are attributed with a ‘zero’ environmental impact. For example the tab labelled ‘events’ contains a section for ‘carnivals’ but attributes a ‘nil’ environmental impact

to this. However in Somerset the carnival season has a huge environmental impact, as the carnival floats are lit with hundreds of thousands of electric lightbulbs, generators, huge motorised floats pulled articulated lorries generating pollution etc. Furthermore accommodation choices such as 'camping' can vary dramatically in the type of impact generated, someone 'backpacking' carrying a tent is likely to have much less of an impact compared to someone with a large tent or caravan.

In terms of food purchase, although the calculator allows for inputting of food eaten in commercial eating out establishments, there is also a section for food purchased for self-catering purposes and each food type is broken down into sections (meat, fish, fruit, vegetables, dairy, cereals, pasta, sweets, alcoholic drinks and non-alcoholic drinks) and an estimation of locally produced or organic food percentage needs to be inputted. In reality, the data required to accurately complete this section is very difficult to capture and means that the 'food' element of the calculation may well not be a true representation of the environmental impact food and catering.

Conclusion

The REAP for Tourism software program is a useful tool for calculating and ascribing the environmental impact of tourist behaviour within a destination area. However the results should be viewed with a measure of caution as there are still areas of the tool which need to be adjusted in order to provide a more accurate representation of the environmental impact of specific behaviours. The over reliance on ascribing environmental impact based on 'spend' is one of the biggest limitations of this tool and one with which the developers need to develop additional ways of measuring impact when there is not an associated spend.

	Overall Results (%)	Minehead Case Study Area (%) (n=193)	Paignton Case Study Area (%) (n=187)	South West Regional Tourism Data (South West Tourism, 2010)
Completed questionnaires (n=380)				
Male	173 (45.5)	87 (45.0)	86 (45.9)	41%
Female	202 (53.3)	103 (53.3)	99 (52.9)	59%
Age				
Under 16 years	7 (1.8)	5 (1.3)	2 (0.5)	*
16-19 years	3 (0.78)	2 (0.5)	1 (0.2)	*
20-29 years	30 (7.89)	12 (3.2)	18 (4.7)	*
30-44 years	99 (26.0)	41 (10.7)	58 (15.2)	*
45-59 years	95 (25.0)	53 (13.9)	42 (11.0)	*
60-74 years	126 (33.1)	68 (17.8)	58 (15.2)	*
75+	17 (4.47)	12 (3.2)	5 (1.3)	*
Missing data	3 (0.8)			
Employment Status				
Professional (teacher, doctor)	67 (17.6)	35 (9.2)	32 (8.4)	**
Managerial	32 (8.4)	18 (4.7)	14 (3.7)	**
Skilled manual	28 (7.4)	12 (3.2)	16 (4.2)	**
Un-skilled manual	44 (11.6)	26 (6.8)	18 (4.7)	**
Un-skilled non-manual	20 (5.23)	11 (2.8)	9 (2.4)	**
Skilled manual	21 (5.5)	12 (3.2)	9 (2.4)	**
Retired	122 (32.1)	54 (14.2)	68 (17.9)	**
Student	15 (39.4)	7 (1.8)	8 (2.1)	**
Not working for medical reasons	1 (0.2)	0	1 (0.2)	**
Unemployed	3 (0.8)	1 (0.2)	2 (0.4)	**
On maternity/paternity leave	3 (0.8)	0	3 (0.8)	**
Homemaker/Carer	16 (4.2)	4 (1.05)	12 (3.2)	**
Other	1 (0.2)	1 (0.2)	0	**
Missing data	3 (0.8)			

APPENDIX 6 – Case Study Comparison – Destination Decision-making

	Minehead Case Study Area					Paignton Case Study Area				
	Not at all useful	Slightly useful	Useful	Quite Useful	Extremely useful	Not at all useful	Slightly useful	Useful	Quite Useful	Extremely useful
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Word of mouth recommendation	95 (49.2)	9 (4.7)	9 (4.7)	25 (13.0)	55 (28.5)	82 (43.9)	9 (4.8)	30 (16.0)	24 (12.8)	42 (22.5)
Internet Search Engine	66 (34.2)	8 (4.1)	19 (9.8)	30 (15.5)	70 (36.3)	61 (32.6)	6 (3.2)	17 (9.1)	36 (19.3)	67 (35.8)
Printed Brochure	100 (51.8)	14 (7.3)	21 (10.9)	21 (10.9)	37 (19.2)	109 (58.3)	13 (7.0)	15 (8.0)	24 (12.8)	26 (19.2)
Advertisements in printed media	156 (80.6)	15 (7.8)	14 (7.3)	2 (1.0)	6 (3.1)	144 (77.0)	15 (8.0)	13 (7.0)	9 (4.8)	6 (3.2)
TV advertisement	170 (88.1)	10 (5.2)	5 (2.6)	5 (2.6)	3 (1.6)	156 (83.4)	9 (4.8)	11 (5.9)	7 (3.7)	4 (2.1)
Tourist Information Centre	147 (76.2)	7 (3.6)	16 (8.3)	9 (4.7)	14 (7.3)	133 (71.1)	13 (7.0)	11 (5.9)	19 (10.2)	11 (5.9)
	Minehead Case Study Area					Paignton Case Study Area				
	Not at all important	Slightly important	Important	Quite Important	Extremely Important	Not at all important	Slightly important	Important	Quite Important	Extremely important
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Range of amenities	47 (24.4)	12 (6.2)	40 (20.7)	36 (18.7)	58 (34.6)	38 (20.4)	10 (5.4)	31 (16.7)	34 (18.3)	73 (39.2)
Easily accessed	38 (19.7)	21 (10.9)	34 (17.6)	39 (20.2)	61 (31.6)	37 (19.8)	16 (8.6)	31 (14.6)	37 (19.8)	64 (34.2)
Public transport links	82 (42.5)	23 (11.9)	31 (16.1)	14 (7.3)	42 (21.8)	69 (37.1)	23 (12.4)	22 (11.6)	28 (15.1)	44 (23.7)
Visited before	70 (36.5)	10 (5.2)	15 (7.8)	26 (13.5)	71 (37.0)	62 (33.2)	7 (3.7)	15 (8.0)	16 (8.6)	86 (46.0)
Family friendly	68 (35.4)	10 (5.2)	35 (18.2)	24 (12.5)	54 (28.1)	61 (32.6)	5 (2.7)	16 (8.6)	24 (12.8)	81 (43.3)
Good climate	33 (17.1)	7 (3.6)	24 (12.4)	58 (30.1)	71 (36.8)	39 (21.0)	3 (1.5)	25 (13.4)	42 (22.6)	77 (41.4)
Family close by	128 (66.7)	12 (6.3)	7 (3.6)	10 (5.2)	35 (18.2)	134 (71.7)	8 (4.3)	13 (7.0)	5 (2.7)	27 (14.4)
Resort protects environment	68 (35.2)	22 (11.4)	47 (25.4)	23 (11.9)	33 (17.1)	65 (35.1)	20 (10.8)	47 (25.4)	29 (15.7)	24 (13.0)

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Recycling						
Never	8.4	17.9	5.3	17.6	6.7	19.1
Rarely	2.1	12.0	0	11.8	2.2	9.6
Sometimes	2.1	22.2	1.1	26.5	0.7	19.1
Usually	7.0	17.9	8.5	16.2	2.2	19.1
Always	80.4	29.9	85.1	27.9	88.1	33.0

Appendix 7.1: Levels of reported recycling between Clusters at home and on holiday.

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Composting						
Never	32.2	55.6	35.5	58.7	20.9	49.4
Rarely	7.0	14.8	6.5	12.7	6.0	14.9
Sometimes	5.6	10.2	5.4	15.9	11.9	11.5
Usually	7.7	9.3	11.8	1.6	7.5	9.2
Always	47.6	10.2	40.9	11.1	53.7	14.9

Appendix 7.2: Levels of food composting behaviour between Clusters at home and on holiday

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Energy Efficient Appliances						
Never	6.4	31.8	4.3	28.1	9.1	26.7
Rarely	5.0	16.8	3.2	12.5	2.3	17.4
Sometimes	24.8	29.0	21.5	31.3	10.6	33.7
Usually	24.8	12.1	32.3	10.9	28.8	9.3
Always	39.0	10.3	38.7	17.2	49.2	12.8

APPENDIX 7 – Reported sustainable behaviours between Clusters

day

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Turn off appliances from 'stand by'						
Never	11.2	22.5	6.4	24.7	7.4	15.2
Rarely	6.3	14.1	4.3	18.3	3.0	3.8
Sometimes	14.7	23.9	22.3	23.7	11.9	25.0
Usually	25.2	12.7	28.7	12.9	24.4	21.2
Always	42.7	26.8	38.3	20.4	53.3	34.8

Appendix 7.4: Reported turning off from 'stand by' of electrical appliances between Clusters at home and on holiday

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Use water saving devices						
Never	22.5	36.1	24.7	36.5	15.2	25.6
Rarely	14.1	19.4	18.3	17.5	3.8	15.1
Sometimes	23.9	25.9	23.7	27.0	25.0	36.0
Usually	12.7	8.3	12.9	3.2	21.3	12.8
Always	26.8	10.2	20.4	15.9	34.8	10.5

Appendix 7.5: Reported use of water saving devices between Clusters at home and on holiday

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Purchase eco-friendly goods						
Never	18.6	35.9	10.9	32.3	18.0	29.9
Rarely	15.7	19.4	18.5	12.3	9.8	8.0
Sometimes	50.0	35.9	52.5	35.4	38.3	46.0

Usually	10.0	5.8	8.7	7.7	17.3	10.3
Always	5.7	2.9	9.8	12.3	16.5	5.7

Appendix 7.6: Reported levels of eco-friendly goods purchase between Clusters at home and on holiday

	home (%)	holiday (%)	home (%)	holiday (%)	Cluster 3 (n+134)	
					Home (%)	Holiday (%)
Purchase organic food						
Never	22.7	33.3	23.7	44.6	18.5	31.0
Rarely	20.6	20.0	22.6	16.9	18.5	19.5
Sometimes	44.7	35.2	34.4	27.7	40.0	35.6
Usually	3.5	5.7	10.8	3.1	14.8	8.0
Always	8.5	5.7	8.6	7.7	8.1	5.7

Appendix 7.7: Reported levels of organic food purchase between Clusters at home and on holiday.

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Purchase food from local farmers markets						
Never	20.36	22.6	17.0	29.2	14.2	25.6
Rarely	21.3	21.7	14.9	12.3	11.2	16.3
Sometimes	36.9	35.8	36.2	40.0	33.6	36.0
Usually	8.5	9.4	16.0	12.3	21.6	15.1
Always	12.8	10.4	16.0	6.2	19.4	7.0

Appendix 7.8: Reported levels of food purchased locally between Clusters at home and on holiday.

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Plastic Carrier bag re-use/'bags for life' use when shopping						
Never	11.2	18.5	7.4	13.8	7.4	18.4
Rarely	4.2	9.3	4.3	10.8	5.2	11.5
Sometimes	5.6	15.7	8.5	24.6	3.7	16.1
Usually	11.9	19.4	16.0	15.4	17.8	16.1
Always	67.1	37.0	63.8	35.4	65.9	37.9

Appendix 7.9: Reported levels of plastic carrier bag re-use between Clusters at home and on holiday.

	Cluster 1 (n = 144)		Cluster 2 (n=95)		Cluster 3 (n+134)	
	Home (%)	Holiday (%)	Home (%)	Holiday (%)	Home (%)	Holiday (%)
Use public transport/walk/cycle where possible						
Never	14.0	12.8	13.8	14.1	13.4	14.9
Rarely	15.4	12.8	21.3	25.0	11.9	14.9
Sometimes	28.0	26.6	37.2	35.9	32.1	35.6
Usually	11.2	16.5	10.6	7.8	16.4	16.1
Always	31.5	31.2	17.0	17.2	26.1	18.4

Appendix 7.10: Reported use of public transport/walking/cycling between Clusters at home and on holiday.

APPENDIX 8 – CLUSTER MEMBERSHIP DEMOGRAPHICS AND HOLIDAY CHOICES

	Cluster 1 %		Cluster 2 %		Cluster 3 %	
Gender						
	Male %	Female %	Male %	Female %	Male %	Female %
	38.7	61.3	53.8	46.2	48.1	51.9
Age Groups						
Under 16yrs	0.7		4.2		1.5	
16 – 19 years	0		1.1		1.5	
20 – 29 years	7.1		7.4		8.8	
30 – 44 years	24.8		30.5		25.0	
45 – 59 years	22.0		26.3		27.6	
60 – 74 years	40.4		27.4		30.1	
75years +	5.0		3.2		5.1	
Occupational Status						
Professional	14.2		20.2		21.2	
Managerial	8.5		12.8		6.0	
Skilled manual	8.5		6.4		7.5	
Un-skilled non manual	12.1		9.6		13.5	
Skilled non-manual	5.0		5.3		5.3	
Unskilled manual	6.4		5.3		3.8	
Retired	39.0		24.5		31.6	
Student	1.4		8.5		3.8	
Not working for medical reasons	0		0		0.8	
Unemployed	1.4		1.1		0	
On maternity/paternity leave	0.7		1.1		0.8	
Homemaker/carer	2.8		4.3		6.0	
Disability						
	17.6		12.6		14.9	

Membership of an Environmental Organisation (WWF, Green Peace, National Trust etc)			
	Cluster 1 %	Cluster 2 %	Cluster 3 %
	40.1	47.8	61.8

Appendix 8.1: Demographic of Cluster membership

	Cluster 1 %	Cluster 2 %	Cluster 3 %
Holiday group composition			
Alone	7.9	3.2	8.5
Family group with children	29.3	48.4	44.4
Family group without children	42.9	31.6	33.1
Organised tour group	6.4	6.3	4.5
With friends	13.6	10.5	9.8
Holiday Accommodation Type			
Serviced	39.3	27.9	31.5
Holiday Park	10.7	11.8	14.1
Self-Catering	21.4	27.9	25.0
Visiting friends or relatives (VFR)	11.6	8.8	7.6
Camping	16.1	23.5	20.7
Holidays taken per year			
0 - 2	50.5	55.6	54.5
3 - 5	38.6	33.3	31.2
5+	9.9	11.1	14.3

Appendix 8.2: Holiday information for each of the Clusters

	Cluster 1 %	Cluster 2 %	Cluster 3 %
Car Ownership Per Household			
No car	7.0	3.2	4.4
1 car	40.1	34.7	39.0
2 cars	42.3	49.5	43.4
3 cars	5.6	8.4	10.3
4 + cars	4.9	4.2	2.9
Bicycle ownership Per Household			
No bicycle	35.7	29.5	27.9
1 bicycle	18.9	15.8	19.9
2 bicycles	23.6	14.7	22.8
3 bicycles	14.0	17.9	21.3
4+ bicycles	7.7	22.1	7.4
Concessionary Travel Card			
Yes	51.7	44.2	49.3

Appendix 8.3: Transport information for each of the Clusters

APPENDIX 9 – Holiday Characteristics

	Overall Survey Results	Minehead Case Study Area (%)	Paignton Case Study Area (%)	South West Tourism Regional Data (2010)
Purpose of current visit				
- Holiday 4+ nights)	277 (62.2)	92 (51.9)	135 (72.2)	68%
- Short break (< 3 nights)	39 (10.7)	17 (9.6)	22 (11.8)	
- Staying with friends/relatives	12 (3.3)	9 (5.0)	3 (1.6)	
- Day Visitor	85 (23.3)	59 (33.3)	26 (13.9)	
- Other	2 (0.5)	1 (0.5)	1 (0.5)	
- Missing Data	15			
Is the current holiday, your main holiday for this year?				
- Yes	149 (53.7)	52 (44.8)	97 (60.2)	50%
- No	128 (46.3)	64 (55.2)	64 (39.8)	
If this is your main holiday are you likely to take any other breaks this year?				
- Yes	86 (58.5)	29 (58.0)	57 (58.8)	
- No	23 (15.6)	5 (10.0)	18 (18.6)	
- Not sure	28 (25.9)	16 (32.0)	22 (22.7)	
If yes, where are you likely to go?				
- UK	84 (70.5)	33 (71.1)	51 (69.9)	
- Europe	27 (22.7)	10 (21.7)	17 (23.3)	
- Other	8 (6.7)	3 (6.5)	5 (6.8)	
How many holidays/short breaks are you planning for the next 12 months?				
- Up to 2	132 (53.4)	45 (43.7)	87 (60.4)	
- Between 3 and 5	87 (35.2)	45 (43.7)	42 (29.2)	
- More than 5	28 (11.3)	13 (12.6)	15 (10.4)	

APPENDIX 9 – Holiday Characteristics

	Overall Survey Results (%)	Minehead Case Study Area (%)	Paignton Case Study Area (%)	South West Tourism Regional Data (2010)
Are you visiting the resort:-				
- Alone	25 (6.7)	15 (7.8)	10 (5.4)	
- As part of a family group with children	146 (39.6)	60 (31.6)	88 (47.8)	
- A family group without children	135 (36.1)	65 (34.2)	70 (38.0)	
- As part of an organised tour group	21 (5.6)	17 (8.9)	4 (2.2)	
- With friends	45 (12.0)	33 (17.4)	12 (6.5)	
Type of holiday accommodation:-				
- Serviced accommodation	94 (33.8)	35 (29.9)	59 (36.6)	
- Holiday Park	36 (12.9)	13 (11.1)	23 (14.3)	
- Self-catering unit	66 (23.7)	26 (22.2)	40 (21.4)	
- Staying with friends	26 (9.4)	20 (17.1)	6 (3.2)	
- Camping	54 (19.4)	21 (17.9)	33 (17.6)	
- Other	2 (0.7)	2 (1.7)	0	
Transport used to travel to holiday destination:-				
- Car	321 (85.4)	165 (85.9)	156 (84.8)	68% (arrived by car, van, motorcycle)
- Motorbike	0	0	0	
- Bus/coach	22 (5.9)	16 (8.3)	6 (3.3)	
- Train	18 (4.8)	5 (2.6)	13 (7.1)	
- Walk/cycle	2 (0.5)	1 (0.5)	1 (0.5)	
- Air	10 (2.7)	5 (2.6)	5 (2.7)	
- Other	2 (0.5)	0	2 (1.1)	

APPENDIX 9 – Holiday Characteristics

	Overall Survey Results (%)	Minehead Case Study Area (%)	Paignton Case Study Area (%)	South West Tourism Regional Data (2010)
Transport used during holiday:-				
- Car	255 (73.3)	87 (81.4)	115 (65.3)	
- Bus/coach	49 (14.1)	16 (9.3)	33 (18.8)	
- Train	23 (6.6)	11 (6.4)	12 (6.8)	
- Wal/cycle	23 (6.0)	5 (2.9)	16 (9.1)	