International Journal of Consumer Studies ISSN 1470-6423

Sustainable tourist behaviour – a discussion of opportunities for change

Adriana Budeanu

The International Institute for Industrial Environmental Economics, Lund University, Sweden

Keywords
Sustainable tourism, tourist behaviour, environmental behaviour, sustainable consumption, tourism impacts, eco-labels

Correspondence
Adriana Budeanu, The International Institute for Industrial Environmental Economics, Lund University, and IIIEE Lund University, PO Box 196, S-221 00 Lund, Sweden.
E-mail: adriana.budeanu@iiiee.lu.se

doi: 10.1111/j.1470-6431.2007.00606.x

Abstract

Research shows that despite their declared positive attitudes towards sustainable tourism, only a few tourists act accordingly by buying responsible tourism products, choosing environmentally friendly transportation or behaving responsibly towards destination communities. The low support from customers is one of the main barriers for progress towards sustainable tourism. One reason can be that existing initiatives are missing customers' attention, discouraging industry and governments to continue promoting sustainable tourism. Positive attempts to encourage sustainable consumption in other sectors indicate that specific barriers may reside in the nature of tourist choices. Taking a critical look at tourism research and literature, this article examines the interplay between reasons for tourists' choice of products and services, and environmental motivations. After identifying possible gaps that may explain current failures to stimulate responsible tourist choices, the article concludes by discussing the implications for the effectiveness of informative and awareness-raising tools aimed to facilitate the shift towards responsible tourist behaviour and actions.

Introduction

Tourism is the largest migration in the history of humankind, performed yearly by more than 10% of the world's population. Desired worldwide for its potential to generate income and economic growth, tourism is expanding fast and predicted to double in the next 15 years (WTTC, 2007). In pursuit of sustainability goals, businesses (TOI, 2003), governmental and intergovernmental organizations (OECD, 2002; UNEP, 2005; European Environmental Agency, 2006) make commendable efforts to mitigate negative effects, while keeping or enhancing benefits from tourism. As a result, there are encouraging signs that tourist provision can be improved in terms of resource consumption, waste management and transport optimization (Upham, 2001; Götz *et al.*, 2002; WTTC, 2002; VISIT, 2005). These initiatives seem however, to overlook the need for sustainable action on the demand side too.

Compared with corporate and governmental efforts, tourists are much less interested to adopt sustainable lifestyles or support responsible tourism products. Tools and strategies such as awards, eco-labels and certification schemes, communication, awareness and educational campaigns are designed to steer tourists' behaviour towards responsible tourism. However, tourist response is still low and fails to parallel industry's sustainability goals (Martens and Spaargaren, 2005). Despite their declared positive attitudes towards sustainable tourism, only 1 in 20 tourists act upon them and purchase responsible tourism packages, choose environmentally friendly transportation or buy local produce (Chafe, 2005).

The low response of tourists indicates a possible gap between environmental attitudes and tourist choices. Looking for potential explanations for the slow adoption of environmentally benign tourism services and products, this article uses literature accounts for evaluating the changes needed for reducing negative impacts from tourist consumption, building a broader understanding of the processes that lead to tourist choices and prospective changes. This article ends with a discussion about the effectiveness of tools used today to stimulate sustainable tourist choices.

Tourism consumption and its environmental significance

A significant stream of research on tourism demand comes from social sciences (Cohen, 1988; Holden, 2006) explaining the importance of individual meanings (Urry, 2002), landscape attributes (Kreisel, 2004) and cultural diversity (Lew and Hall, 1998) in the creation and management of tourist flows (Ryan and Cave, 2005; Lew and McKercher, 2006). Additional contributions made by behavioural studies explain the interplay of motivations that create the diversity of tourism demand (Dann, 1983; Ajzen, 2001; Wickens, 2002). However, holidays are composite products (Laws and Scott, 2003) with tangible and intangible elements (Smith, 2004), and tourist demand for each of them has a different significance for the sustainability of tourism destinations. In order

to understand and evaluate how such impacts can be reduced, it is necessary to distinguish between the different choices made by individual tourists during holidays. A comprehensive view over the effects of tourist consumption is possible by looking at the totality of thoughts and actions of tourists before, during and after the trip (Woodside and Dubelaar, 2002), and their consequent environmental and social impacts.

Choosing the holiday package

Subsequent to the decision to take a holiday, come the choices related to different elements of the tourism product, starting with the location (destination), transport and accommodation that will secure the holiday experience (Seddighi and Theocharous, 2002). Europe continues to be the world's top tourist destination, which received 47% of tourist arrivals in 2006 (UNWTO, 2007). One consequence is that popular tourist destinations are becoming overcrowded, and suffer from water and air pollution, litter, dirty seawater and beaches, congestion, aesthetic pollution and litter, shortage of resources and waste overcapacity (European Commission, 2004). According to recent evaluations, many destinations around the Mediterranean Sea are already or close to being overcrowded (Schmidt, 2002a) and present environmental risks, for humans and the natural environment.

Related to the choice of destination are the selection of tourist transport and accommodation. Most tourist transportation in the European Union (EU)-plus[1] area is done by car (68%), and only about 39% is done by air (European Commission, 2004). The third most used transportation mode is by coach/bus or by rail, with British, French, Italian, Finnish and Swedish tourists giving greater priority to rail transportation (Schmidt, 2002b). From an environmental perspective, the most desired transportation is by rail, which has least contributions to the greenhouse effect compared with air and car transport (European Commission, 2003). The use of accommodation services may also be a source of negative impacts through resource consumption (water and energy) and waste generation (waste water and solid waste) (CREM, 2000; Rosenblum *et al.*, 2000; Chan and Lam, 2002). Industry measurements indicate that energy consumption in hotels range from 15 to 90 kWh per room per day, while water consumption varies between 200 and 450 l per room per day (UNEP, 2006; Accor Group, 2007). The expected growth of tourism worldwide is expected to increase the pressures on the environment also (European Environmental Agency, 2005).

Choices at the destination

Once arrived at the destination, one of the tourist activities with high potential to generate environmental problems is choice of local transportation, which contributes to increasing air pollution, congestion, noise and risk of accidents in the region (OECD, 2002; European Commission, 2004). Some of the tourist entertainment activities may also have a negative impact on destinations by disturbing biodiversity habitats (Christ *et al.*, 2003), or overusing the natural space such as intense skiing activities in the Alpine ecosystem (Snepenger *et al.*, 2007). Even dispersed entertainment activities are significant with respect to their energy use (Becken and Patterson, 2006), with exotic activities such as diving and scenic flights being the most energy intensive. The behaviour that tourists display during their holidays has important consequences on the well-being of the local community. During holidays, tourists tend to replicate their usual leisure patterns, such as alcohol consumption and sexual activities, which in the case of pleasure-oriented tourists reach excessive levels (Carr, 2002a). Differences in culture, status, economy and religions between guests and hosts can cause clashes and tensions, ending with social disruptions in local community and antagonizing atmosphere towards tourism (Holloway, 1998), and even pushing residents away from downtown areas in destinations with high tourist traffic (Snepenger *et al.*, 1998).

Tourist purchase is a major source of income for destination communities. Not only products, for example food, souvenirs and fashion products, but also services account for tourist expenditure, such as hairdressers and medical services (Suh and McAvoy, 2005). Although abundant, the income generated often leaks out from the region due to imports (luxurious products such as Kodak film, Pepsi and cosmetics must be brought from outside the region) or foreign ownership of tourist facilities. The average import-related leakage is estimated at 40–50% for small economies and 10–20% for advanced economies (UNEP, 2005).

The return

A factor that retrospectively influences tourist decisions is the hedonic value derived from the holiday experience, which reshapes personal preferences (European Commission, 2004) and may influence subsequent tourist choices (Duman and Mattila, 2005). Important to notice is that Europeans found the poor environmental quality to be, by far, the most disturbing aspect and leading disappointing reason for their holiday (8%) (European Commission, 1998). Resentment, lack of welcome and low quality of services from local residents discourage tourists to return, and considering the personal nature of the negative motivation (rejection), it has a compelling effect on tourists (Middleton and Hawkins, 2002).

The overview of individual tourist choices throughout the holiday process and potential impacts, illustrated in Fig. 1, gives a general idea of the complex challenges encountered when trying to reduce damaging effects of tourism. The diversity of impacts, from air pollution to social disturbances, their occurrence over time and at different locations indicate that minimizing them may require a combination of strategies, and emphasize the key role that tourists play in sustainable tourism.

Predicted shifts of households' tourism patterns from one long holiday a year to 4–5 shorter, indicate that while overnight stays might be increasing steadily, tourist travel (now accounting for 17% of each transportation mode: land, air, water) is likely to grow even more (European Commission, 2004). Physical impacts generated from tourist use of accommodation (including restaurants) seem less severe than transport, but their cumulative effects over time lead to the slow deterioration of destinations. Similarly, consequences of tourist purchase of souvenirs or entertainment, individual consumption or tourist's gaze on hosts (Urry, 2002), may add up to significant negative impacts when considering the

[1]EU-plus countries include all 27 EU member states plus Norway and Switzerland.

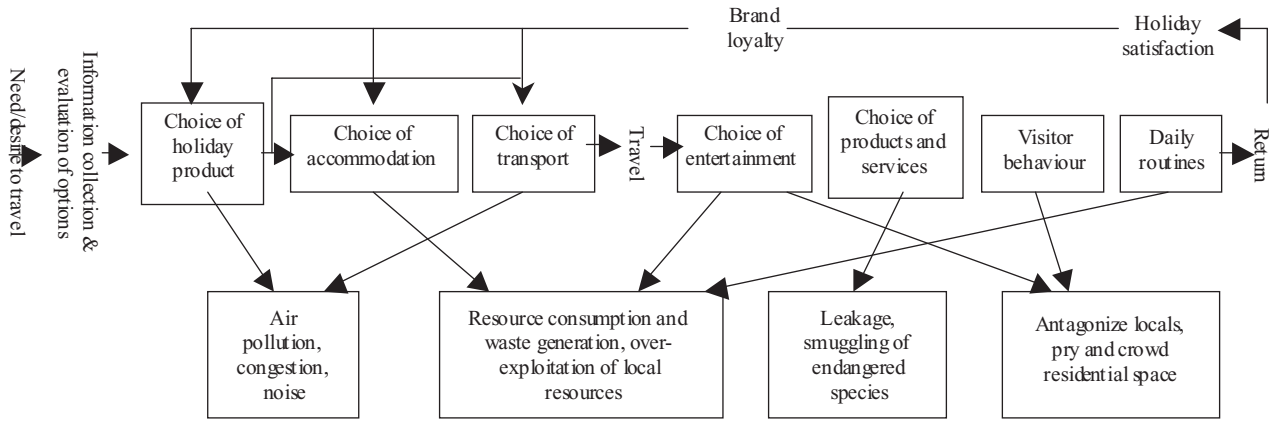

Figure 1 Tourist holiday choices and associated environmental impacts.

large volume of more than 850 millions of tourists who travel yearly (WTTC, 2007).

Ideally, a sustainable tourist consumption may involve the adoption of efficient mobility schemes (Martens and Spaargaren, 2005) or the reduction of travel distance to half (van den Bergh and Verbruggen, 1999), the use of eco-efficient accommodation, and adoption of respectful non-prying behaviour, non-polluting, least resource-consuming patterns, avoiding excessively harming entertainment and souvenirs from endangered species. Some authors (Butcher, 2003) consider this scenario improbable. Others, proponents of technological solutions (Kornevall, 2002), are more optimistic and believe that a sufficient reduction of impacts can be achieved by using highly efficient facilities. Voicing concerns for the survival of non-commercial tourism assets (biodiversity and culture), international organizations, such as the United Nations Environmental Programme (UNEP, 2005) and the World Tourism Organization (WTO, 2003), advocate the need to increase awareness and tourist participation in initiatives aimed at sustainable tourism.

Attitudes and beliefs of tourists to sustainable tourism alternatives

When choosing their holiday packages, over half of German and Dutch tourists expect their destination to have a good environmental quality; thus, they do not consider it necessary to inquire about these aspects prior to purchasing their packages (CREM, 2000). By contrast, a large majority of British tourists (over 85%) consider it very or fairly important that their holidays do not harm the environment, including visits to experience local culture (77%) and benefit the local community (71%) (Martin, 2001). However, only 32% of British tourists have chosen holidays that were specifically designed to reduce negative impacts on destinations (Goodwin and Francis, 2003). While over 56% of travellers in Central Eastern Australia were aware of environmental threats from tourism (Hillery *et al.*, 2001), half (53%) of US travellers endorse the protection of destination communities' well-being and culture (Chafe, 2005).

Inquiries over tourists willingness to pay for environmental protection and the well-being of local communities show Dutch tourists to be uninterested (CREM, 2000), over 81% of British tourists being willing to pay up to 3% of the value of their holiday (Martin, 2001), while international tourists in Thailand show no desire to pay for environmental quality, but they are willing to do so for raising the quality of service (Baddeley, 2004).

After experiencing the accommodation in hotels certified with the Green Key eco-label, 69% of Danish tourists are willing to pay extra for staying at eco-labelled hotels (Chafe, 2005). Over 62% of Italians and 42% of German tourists see the environmental performance of accommodations to be an important factor for a satisfactory holiday, while many Dutch tourists (86%) would welcome a 'star system' combining environment and quality performances, and 90% of Italian tourists are in favour of having one eco-label system (CREM, 2000, p. 25). A 2002 survey of the International Hotel Environmental Initiative quoted by Chafe (2005) indicates that 57% of US tourists, 62% of Australian and 74% of British tourists would favour hotels that employ local staff, with good wages and working conditions.

Individual tourist consumption is well documented for British tourists, who make sure that they left no litter (84%), visit natural areas (63%), save water by showering instead of bathing (30%), and switched off the air conditioning to save energy or had their towels washed less frequently (10%) (Martin, 2001). Upon return, 18% of British tourists would not return to a hotel without visible care for the environment (Chafe, 2005) and, 24% of Dutch tourists declared their disappointment with the poor environmental performance of their hotels.

Studies of British tourists indicate they wish to receive more information about available environmental options of holiday services (Goodwin and Francis, 2003; Miller, 2003) and they are likely to use it in their purchases. The most desired information for Dutch tourists is about eco-labelled hotels, the region and entertainment, and for British ones, about social and environmental status of destinations (CREM, 2000, p. 27). They wish to access such information in tourist offices, guides, the Internet and during the trip. By contrast, German tourists prefer to find their own environmental details about destinations, which may be a sign of distrust in industry as a source of information (VISIT, 2005).

Overall, surveys indicate that tourists are largely aware of environmental and social problems caused by tourism and they have

positive attitudes towards efforts to reduce them. Despite optimistic views generated by studies of tourist preferences, research indicates that while 70–80% of tourists state their high concerns for eco-social components of holidays, only about 10% convert this concern to purchasing decisions (Chafe, 2005) and, in reality, the majority are reluctant to change their own behaviour in support of sustainability goals (CREM, 2000; Grankvist, 2002; Yan *et al.*, 2006).

One reason for the differences between stated environmental attitudes and actual behaviour may be the social desirability bias (Leggett *et al.*, 2003), which entice people to answer positively to questions related to concerns about sensitive subjects such as environmental protection (Chung and Monroe, 2003). Furthermore, asking tourists about their behaviour in hypothetical situations may trigger positive answers that give a good impression but are less truthful (Trudgill, 1990; Dickinson and Dickinson, 2006), which reduces the reliability of results. However, methods useful for avoiding biased answers, such as ex post investigations of previous acts (Kahneman, 2003), are largely missing in tourism. Besides methodological challenges, several authors point out that informed decisions about how to steer tourist actions require more detailed investigations of the different typologies that may exist within tourist segments (Becken, 2001; Woodside and Dubelaar, 2002; Arentze and Timmermans, 2005). Overall, scattered and incomplete information about the multiple reasons that determine tourist acts may be an important reason for failures to engage tourists on sustainable tourism initiatives.

Questioning assumptions for sustainable tourist behaviour

The Theory of Reasoned Action (TRA) indicates that the most important determinant of a person's behaviour is behavioural intent (Ajzen, 1971), which reflects the willingness to perform a certain act and is determined by individual attitudes and subjective norms. Attitudes represent an individual's evaluation of the possibilities to perform (Wurzinger, 2003). Subjective norms reflect the individual's willingness to comply with the desires of relevant social actors (Trafimow and Finlay, 2001), and result from normative beliefs according to social and moral values, balanced by personal motivations (Kaiser *et al.*, 1999). The TRA was developed further into the Theory of Planned Behaviour (TPB) by including the concept of perceived behavioural control as a determinant of behavioural intent (Ryan, 1982; Ajzen, 1991) following the individual evaluation of the opportunities and resources available for performing.

The TRA and TPB are among the most utilized models for explaining attitudes–beliefs related to ecological behaviours (Kaiser *et al.*, 2003), travel choices (Bamberg *et al.*, 1999; Bamberg, 2002), willingness to pay for environmental protection (Pouta *et al.*, 2002), the marketing of environmentally friendly products (Kalafatis *et al.*, 1999), and green consumerism (Sparks and Shepherd, 1992). In tourism they are used for explaining destination choices (Lam and Hsu, 2006), tourist segmentation (Carr, 2002b) and satisfaction with holiday experiences (Bigne *et al.*, 2005).

Studies presented in the previous section of this article indicate that positive attitudes of tourists towards environmentally benign holiday products and services are not reflected in their actions. Possible explanations for this gap may be found by investigating the importance of various determinants that influence tourist decisions to act, as suggested by the theory of planned behaviour.

Tourist motivations for travelling steer their choice of destinations as the best locations for satisfying their desires to escape and to seek authentic experiences (Iso-Ahola and Park, 1996). In addition, tourists use precise criteria for choosing the final holiday location by comparing costs, climate, the quality of facilities offered and aesthetic value (Goodwin and Francis, 2003). One strategy for avoiding overcrowded destinations is to dissipate tourist flows across time and space (European Environmental Agency, 2006). However, in order to be successful, propositions of new destinations need to satisfy tourist motivations (escapism and seeking) and have competitive price and quality, which are important limiting factors for tourist choice (Swarbrooke and Horner, 2001), especially in mass tourism markets, where cost is the salient characteristic for tourist choice (Font, 2000).

Tourist choice of natural or cultural holiday products may be easily confused with willingness to protect these tourist attractions. Although related, these two are not equivalent. As landscape, the environment is a motivation for people to travel and sometimes a particular attraction, for example deserts, tropical forests and mountains. For others, climate and landscape are criteria in selecting one holiday package instead of another (Swarbrooke and Horner, 2001). Although related to environmental features, none of these reasons actually indicate that tourists would act to protect biodiversity or avoid negative effects on local society. The only instances when tourist motivations coincide with environmental ones are when the holiday purpose is environmental or social protection, such as the case of 'voluntary holidays' or eco-tours, when there is a clear intention to benefit the destination by taking the trip (Hjalager, 1997), although the true benefit to the community is still arguable (Molstad, 2002).

Tourist choice of travel depends on flexibility, comfort, convenience, relaxation, a sense of freedom and 'no stress' (Anable and Gatersleben, 2005). In addition, the choice of transportation to and from the destination is determined by the availability of time to travel. According to these criteria, the most desirable transportation for European tourists is the individual car, followed by air transport (European Commission, 2003). Environmentally friendly transport alternatives are rail tours (Götz *et al.*, 2002) or more complex mobility schemes that involve mixed forms of public transportation (Brown *et al.*, 2003). Although offered in convenient packages together with other services, such as accommodation or meals, they only seem to appeal to specific market segments that have the time and personal preferences for rail transport (Schmidt, 2001). The low interest of mass tourists in such options can be related to their availability of traveling time, which is a scarce resource during a 1-week holiday.

At the destination, transportation choices are triggered by tourists' subjective attitudes, personality and lifestyle (Cao and Mokhtarian, 2005), and habits (Schmidt, 2001). Attempts to reduce traffic congestion are cost-attractive alternatives of local transportation (Nilsson and Kuller, 2000; Bamberg *et al.*, 2003), or biking and walking (Anable and Gatersleben, 2005). Australian research indicates a great potential for reducing impacts by encouraging alternative transport, showing that such initiatives can yield as much as 7% reduction in car use, with a resulting increase of 11% in walking, 13% in public transport and 67% in bicycling

(Socialdata Australia, 2003). However, alternative transportation proves to be ineffective for people with clear preferences for mobility who are not interested in increased accessibility (Salomon and Mokhtarian, 1998). In addition, environmental attitudes are shown to have lower importance compared with habitual lifestyles (Garvill *et al.*, 2003).

The choice of tourist accommodation is primarily determined by their quality, safety and proximity to attractions (Miller, 2001). The high occupancy of hotels becomes problematic in mass tourism destinations, where accumulated effects of resource consumption and waste generated at peak season may overload local infrastructure (CREM, 2000), although some authors suggest that mass tourism enclaves might be beneficial by concentrating tourist-related pollution and making it easier to treat or prevent (Butler, 1998; Font, 2000). A relative success in promoting accommodation facilities with high environmental performances is noticed in relation to the use of eco-labels such as the European Eco-label (European Commission, 2000) or the Swan eco-label in Sweden (Björner *et al.*, 2002). However, their success resides in the high quality of services that accompany good environmental performances (SIS Miljömärkning, 2002).

It is a general opinion that if tourists choose to stay in environmentally adapted accommodation facilities, the impact associated to their stay is automatically lower. This assumption is not true, and research has shown that, once people know they are using an environmentally friendly device, they tend to use it longer, and end up by consuming more resources, phenomenon known as the rebound effect (Hertwich, 2005). Individual consumption during holiday replicates to a large extent the consumption lifestyle at home, and suggestions to limit them for the sake of environmental protection may be easily misunderstood as a reduction of comfort (Shove, 2002) for which they pay. Therefore, successful demands for changes of tourist behaviour with respect to resource consumption (of, for instance, water or energy) and waste generation require clear explanations of the reasons and ways of avoiding the consumption of unnecessary resources.

At the destination, decisions are mostly automatic, continuing routines from home (Bargeman and van der Poel, 2006) and replicating daily lifestyle (Carr, 2002a). Lifestyles have their roots in personal preferences, mostly of hedonic nature, and they are hardly countered by environmental arguments (Demeritt, 2005). With the experiential element linked into the tourist perception of holiday value (Duman and Mattila, 2005), even financial compensations may be ignored if they endanger the hedonic satisfaction (Wakefield and Blodgett, 1999). Therefore, shifting holiday choices requires the use of similar arguments when proposing alternative behaviors and lifestyles: rational explanations of price changes, hedonic (emphasizing the experiential benefits for tourists) and attitudinal (emphasizing social benefits such as status and prestige), associated, when necessary and possible, with tangible benefits (compensations).

Holiday behaviour is strongly determined by personal safety concerns, motivations, culture and race, and is influenced by the surrounding groups (Carr, 2002a). Furthermore, according to Carr (2002a), there is a specific culture in holiday destinations that encourages people to behave in a hedonistic manner that is not acceptable in the place of origin. However, the careless attitude of tourists towards locals' social priorities accounts mostly for their ignorance of cultural differences, rather than on their conscious malevolence (Roggenbuck, 1992). Awareness-raising campaigns organized by local authorities and industry in destinations countries such as Thailand, and international campaigns against child labour and prostitution (UNEP, 2005), show some positive results that can be explained by the creation of public social norms against performing such acts. Similar campaigns, but with more limited success, promote holidays in support of Fair Trade campaigns in destinations (Tourism Concern, 2001).

The return to a destination depends on cost and quality, as well as on political security for areas where troubles have been known to happen (Seddighi and Theocharous, 2002). The hedonic value of travel experience acts as feedback on tourist behaviour by altering perceptions and feelings towards a place (Seddighi and Theocharous, 2002) and influencing the choice of travel modes (Cao and Mokhtarian, 2005; Duman and Mattila, 2005). Considering all the pros and cons discussed above, it seems that attempts to change tourist automatic decisions require clear information about what, why and how individuals can make a difference, while in order to change decisions based on long-term habits, the proposed alternatives must be convenient and tourists well informed.

Understanding personal barriers of tourists

Given the same quality and function fulfilled, environmental alternatives to products and services are likely to be preferred by customers (Mont *et al.*, 2006). However, environmental alternatives may be far away and difficult to access, less comfortable (coach transport), less appealing or require additional time for tourists (shifting from aeroplane to train transportation). While some tourists may be prepared to accept the alternatives, they have to have the available resources to do so (time, money, information).

Internal barriers preventing people from purchasing environmentally friendly products come from individuals' lack of knowledge and ability to understand the consequences of their acts, and habits (Shove and Warde, 2002; Mont, 2004). Individual decisions to act are also determined by external aspects that relate to the availability of benign products and services, the convenient to access them, and to the belief that one person cannot make a difference (Demeritt, 2005; Yan *et al.*, 2006). External barriers are stronger than internal knowledge and motivations in hindering tourist environmental behaviour (Kaiser *et al.*, 1999; Tanner *et al.*, 2004). An important limiting factor for tourist choices is the availability of financial resources. Choosing the annual holiday is a major event for a household, being one of the most important expenses in a year, involving long-term evaluation of options in terms of price, service quality and time (Swarbrooke and Horner, 2001). Given the financial implication of holiday expenses, for the average household this is a rational decision, and altruistic arguments pleading for better attitudes and considerations towards locals and nature may not work. Moreover, inconveniences seem to hinder more environmental actions in the long term, while for short-terms actions, internal barriers, such as habits and lack of resources, prevail (Åberg, 2000).

A few concluding ideas are important to remember here for the rest of the discussion. First, in order to steer tourist choices and behaviours towards sustainable patterns, a better understanding and more precise knowledge about tourist environmental profiles is necessary. As discussed above, environmental attitudes and

preferences may not have enough explanatory power for sustainable behaviour of tourists (Dickinson and Dickinson, 2006). Assumptions based on incomplete information may lead industry and public authorities to wasted resources and energy, by approaching tourists who are not interested in environmental protection, or by making demands that conflict with tourist choices. Second, responsible holiday services must deliver good quality and the same entertainment as conventional holidays. Third, it is important that demands towards tourists are formulated in a language that tourists relate to, using a mix of rational arguments (related to individual finances, health, safety, security) and hedonic ones (emphasizing the experiential element of tourism).

A good understanding of how attitudes, personalities and lifestyles influence tourist choices will support the design of more effective policies (Cao and Mokhtarian, 2005), and of successful propositions of sustainable tourism products, that match tourists' willingness to behave in an environmentally responsible way (European Environmental Agency, 2005). The low level of tourist engagement in sustainable tourism indicates that a good understanding of barriers that prevent tourists from behaving responsibly is still missing. This section identified a few potential sources of conflict between environmental and tourist motivations. The next section will examine how instruments used currently by industry and authorities to persuade sustainable acts of tourists, address the issues identified above.

Tools aimed at steering sustainable tourist behaviour

Concerns over the sustainability of tourist consumption stimulate the initiatives of industry and public authorities aimed at reducing potential negative impacts. Asked to behave responsibly, individuals find often in a conflict situation between their short-term personal gains and the long-term societal needs, such as concerns for sustainable development. Although considered the most difficult ones to solve, such societal traps must be broken in order to achieve a sustainable future for all (Bell *et al.*, 1996). Some tools for breaking such social traps and leaning the balance in favour of environmentally responsible behaviour are:

- increasing the costs of environmentally destructive behaviour (fines, fees);
- decreasing the costs of environmentally proactive actions;
- providing education to make people aware and also show how they can contribute;
- giving feedback to people about the consequences of their behaviour;
- rationalizing available resources for a better distribution, etc.

Most common tools used for influencing travelling choices and behaviour are informative tools such as eco-labels and awareness campaigns. Fewer economic instruments (taxes, fees) and regulatory measures are orientated towards change of encouraging tourist behaviour. The slow uptake by customers of environmentally benign tourism products (Chafe, 2005) raises questions about the level of change that can be expected from informative tools.

Eco-labels

Eco-labels are the most frequent tools used by tourism businesses and destinations to promote environmental products and enhance customer awareness. In 2002 there were over 70 tourism eco-labels in Europe (Font and Tribe, 2001). Research shows controversial results about the effectiveness of eco-labels for promoting better tourism products, but two aspects are constantly in attention. One is the tourist confusion due to too many eco-labels (Fairweather *et al.*, 2005), which fail to reach their purpose and annoy, more than help, tourist choices. The second is that eco-labels seem to miss their initial purpose – of leading to environmental purchasing – and serve more as general awareness-raising tools (Fairweather *et al.*, 2005) and for business-to-business promotion (Font and Buckley, 2001). Although informed decisions are likely to facilitate the shift of tourist choices to ecological products and services, the confusion is a strong barrier to the actual purchase of eco-labelled products.

Furthermore, very few tourists are aware of the existence of eco-labels, around 3–19% in Germany and 6% in the Netherlands (CREM, 2000). Despite their high informative value, eco-labels are not sufficient for determining final choices, unless they present positive qualities of environmental offers in terms of convenience and clarity about customer personal benefit. Associating quality and environmental aspects may raise customer attention to environmental alternatives, as indicated by the high recognition of the International Blue Flag label for beach quality, from over 27% of tourists. While eco-labels may be too succinct to provide adequate guidance for tourist purchases, environmental product declarations are considered more useful for composite products such as tourism packages (Leire *et al.*, 2004). Despite their drawbacks, the informational value of eco-labels has a positive influence on tourist attitudes (Grankvist, 2002; Fairweather *et al.*, 2005) and give legitimacy to environmental actions. However, there is no evidence that they support overcoming limiting factors related to tourist availability of resource, which determine planned behaviour.

Awareness-raising tools

Companies often cite their environmental reports for the informative value. Although most of annual corporate reports do not reach individual customers, they help strengthen corporate images and some authors have noticed that tourists are inclined to prefer purchasing from companies of environmentally or socially responsible profile (Goodwin and Francis, 2003; Miller, 2003; Chafe, 2005). The recent growth of corporate social responsibility reporting in the UK has contributed to the consolidation of customer trust in tourism providers. In destinations, information with general character, about conservation projects or environmental quality, is useful for creating tourist awareness and positive attitudes towards sustainable tourism. Specific and succinct information about the performance and benefits of environmental alternatives is helpful in enabling tourist choices, and can eliminate internal behavioural barriers by explaining what tourists can do to contribute to sustainable tourism. As research shows, persuasive measures such as awareness campaigns are most effective when tourists act out of ignorance and unintentionally, but have little influence on altering behaviours driven by desires to claim status and belonging to a certain group (Roggenbuck, 1992).

Including environmental information into marketing materials is done by airlines, hotels and tour operators, through their in-flight magazines and videos, in printed brochures or travel

vouchers (Budeanu, 2004). However, marketing campaigns focused on promoting tourism products with lower environmental impacts are seldom seen on the market. Research indicates that almost 20% of German tourists welcome marketing materials of tour operators, hotels and destinations that indicate environmentally friendly options (VISIT, 2005). Over 80% of Dutch tourists desire to find environmental issues in marketing materials (brochures), and 73% state that they would use the information for selecting accommodations (Chafe, 2005). The use of marketing power of tour operators (Ooi, 2003) for inspiring tourist environmental behaviour, using lessons learnt from social marketing techniques (Stead *et al.*, 2007), remains an unexplored potential for business and sustainability.

Who may listen to sustainable propositions

How individuals relate to the environment and the well-being of others determines their willingness to engage in environmentally and socially responsible activities (Wearing and Neil, 2001). Tourists belong to three major groups: greens (inclined to act on behalf of others), grey (not interested in others' well-being) and brown (ambivalent to such issues) (Swarbrooke and Horner, 2001). For a sustainable future, the desired tourists are the greens, although they only represent a small fraction of the population (Lohmann, 2004). The largest part of population is ambivalent or not interested in environmental issues (Fairweather *et al.*, 2005). In order to receive positive response, offers of sustainable tourism products and services must be oriented to groups that are willing to listen (the green and the brown tourists). Making such strategies successful requires detailed knowledge about the environmental profile of tourist segments.

Conclusion

One of the reasons why communications and other methods to alter attitudes fail is that they do not address the correct beliefs (Fishbein and Manfredo, 1992). As the present paper discusses, people have intrinsic reasons for not behaving in a responsible manner, related to habits, convenience and personal preferences. Conflicts between motivations for tourist choices and environmental ones have the potential to hinder sustainable tourist behaviour. The effectiveness of measures aimed at changing tourist behaviour depends on individual's reason for acting wrongfully. While informative tools are indispensable for creating a shift to sustainable tourist behaviour, they influence only the strengthening of environmental attitudes, but do not address the barriers that prevent tourists from acting according to the attitudes. Therefore, their effect on changing tourist behaviour is slow and discouraging for industry and authorities. The environmental situation of many destinations demands quicker and more radical changes in tourist behaviour, which may be achieved using stronger mechanisms (taxes, fees) and incentives.

Limited understanding of the dynamics between different determinants of tourist sustainable behavior is a challenge that hinders sustainable progress. Research providing input to policymakers needs to broaden its spectrum in order to provide effective recommendations. At the moment, incomplete information about tourist hypothetical preferences proves to be ineffective, showing very low results. Tools and strategies designed based on this information (e.g. eco-labels, informational campaigns) come with no guarantees with regards to their effectiveness, leading industry and governments to believe that sustainable tourist consumption is close to impossible. Although current research focusing on identifying sustainable preferences has opened the way, by predicting possible tourist acts, a serious look at the quality of information about tourist environmental behaviour seems appropriate. Further studies need to develop such knowledge and complement it with the study of the dynamics between tourist motivations and environmental values. Finding the balance between the two sets of motivations (tourism-related and sustainability-oriented) has high chances of leading to a sustainable tourism behaviour and consumption.

In pursuit of sustainable tourism, both industry and authorities share the challenge of providing incentives for tourists to adopt a sustainable behaviour. In destinations, authorities need to create the institutional contexts in which sustainable tourism products can be developed by the industry, while providing the necessary infrastructure to secure an easy access by tourists to these alternative products. At the same time, the industry has a double challenge of, on one hand, investing in innovative sustainable products without the certainty of market support, and, on the other hand, creating incentives for a sustainable tourist behaviour. Although demanding, the foreseen sustainable path of tourism suggests that, behind these challenges, there are also great opportunities for tourism to reinvent its markets and practices.

References

Åberg, H. (2000) *Sustainable Waste Management in Households – From International Policy to Everyday Practice*. Göteborg University, Göteborg.

Accor Group (2007) *Environment Guide for Hotel Managers*, [WWW document]. URL http://www.accor.com/gb/upload/pdf/guide_env/Accor_guide_GB.pdf (accessed on March 7, 2007).

Ajzen, I. (1971) Attitudinal vs. normative messages: an investigation of the differential effects of persuasive communications on behavior. *Sociometry*, **34**, 263–280.

Ajzen, I. (1991) The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, **50**, 179–211.

Ajzen, I. (2001) Nature and operation of attitudes. *Annual Review of Psychology*, **52**, 27–58.

Anable, J. & Gatersleben, B. (2005) All work and no play? The role of instrumental and affective factors in work and leisure journeys by different travel modes. *Transportation Research Part A: Policy and Practice*, **39**, 163–181.

Arentze, T.A. & Timmermans, H.J.P. (2005) Information gain, novelty seeking and travel: a model of dynamic activity-travel behavior under conditions of uncertainty. *Transportation Research Part A: Policy and Practice*, **39**, 125–145.

Baddeley, M.C. (2004) Are tourists willing to pay for aesthetic quality? An empirical assessment from Krabi Province, Thailand. *Tourism Economics*, **10**, 45–61.

Bamberg, S. (2002) Implementation intention versus monetary incentive comparing the effects of interventions to promote the purchase of organically produced food. *Journal of Economic Psychology*, **23**, 573–587.

Bamberg, S., Kuhnel, S.M., et al. (1999) The impact of general attitude on decisions. *Rationality Society*, **11**, 5–26.

Bamberg, S., Ajzen, I. & Schmidt, P. (2003) Choice of travel mode in the theory of planned behavior: the roles of past behavior, habit, and reasoned action. *Basic and Applied Social Psychology*, **25**, 175–187.

Bargeman, B. & van der Poel, H. (2006) The role of routines in the vacation decision-making process of Dutch vacationers. *Tourism Management*, **27**, 707–720.

Becken, S. (2001) Energy consumption of tourist attractions and activities in New Zealand. Landcare Research and Tourism Research and Education Centre (TREC), Lincoln University, Christchurch, New Zealand.

Becken, S. & Patterson, M. (2006) Measuring national carbon dioxide emissions from tourism as a key step towards achieving sustainable tourism. *Journal of Sustainable Tourism*, **14**, 323.

Bell, P.A., Greene, T.C., et al. (1996) *Environmental Psychology*. Holt, Rinehart, and Winston, Inc., Orlando, FL.

van den Bergh, J.C.J.M. & Verbruggen, H. (1999) Spatial sustainability, trade and indicators: an evaluation of the 'ecological footprint'. *Ecological Economics*, **29**, 61–72.

Bigne, J.E., Andreu, L., et al. (2005) The theme park experience: an analysis of pleasure, arousal and satisfaction. *Tourism Management*, **26**, 833–844.

Björner, T.B., Gårn Hansen, L., Russel, C.S. & Olsen, T. (2002) *The Effect of the Nordic Swan Label on Consumers' Choice*. Department of Economics, Vanderbilt University, Nashville, TN.

Brown, H.S., Vergragt, P., et al. (2003) Learning for sustainability transition through bounded socio-technical experiments in personal mobility. *Technology Analysis and Strategic Management*, **15**, 291–316.

Budeanu, A. (2004) *Integrating Sustainability in the Product Development of Tour Operators*. IIIEE, Lund.

Butcher, J. (2003) *The Moralisation of Tourism: Sun, Sea and . . . Saving the World?* Routledge, London.

Butler, R. (1998) Sustainable tourism – looking backwards in order to progress? In *Sustainable Tourism: A Geographyraphical Perspective* (ed. by M.C. Hall and A. Lew), p. 236. Addison-Wesley Longman Ltd, Harlow, Essex.

Cao, X. & Mokhtarian, P.L. (2005) How do individuals adapt their personal travel? Objective and subjective influences on the consideration of travel-related strategies for San Francisco Bay Area commuters. *Transport Policy*, **12**, 291–302.

Carr, N. (2002a) A comparative analysis of the behaviour of domestic and international young tourists. *Tourism Management*, **23**, 321–325.

Carr, N. (2002b) The tourism-leisure behavioural continuum. *Annals of Tourism Research*, **29**, 972–986.

Chafe, Z. (2005) *Consumer Demand and Operator Support for Socially and Environmentally Responsible Tourism*. [WWW document]. URL http://www.ecotourism.org/webmodules/webarticlesnet/articlefiles/62_consumer%20Demand%20For%20Responsible%20Tourism.pdf (accessed on February 20, 2007).

Chan, W.W. & Lam, J.C. (2002) Prediction of pollutant emission through electricity consumption by the hotel industry in Hong Kong. *International Journal of Hospitality Management*, **21**, 381–391.

Christ, C., Hillel, O., et al. (2003) *Tourism and Biodiversity: Mapping Tourism's Global Footprint*. Conservation International, Washington, DC.

Chung, J. & Monroe, G.S. (2003) Exploring social desirability bias. *Journal of Business Ethics*, **44**, 291.

Cohen, E. (1988) Traditions in the qualitative sociology of tourism. *Annals of Tourism Research*, **15**, 29–46.

Consultancy and Research for Environmental Management (CREM) (2000) *Feasibility and Market Study for a European Eco-label for Tourist Attarctions (FEMATOUR)*. CREM, Amsterdam.

Dann, G.M.S. (1983) Comment on Iso-Ahola's 'toward a social psychological theory of tourism motivation'. *Annals of Tourism Research*, **10**, 273–276.

Demeritt, L. (2005) What makes a green consumer? [WWW document]. URL http://www.djc.com/news/en/11170267.html (accessed on December 7, 2006).

Dickinson, J.E. & Dickinson, J.A. (2006) Local transport social representations. Challenging the assumptions for sustainable tourism. *Journal of Sustainable Tourism*, **14**, 192–208.

Duman, T. & Mattila, A.S. (2005) The role of affective factors on perceived cruise vacation value. *Tourism Management*, **26**, 311–323.

European Commission (1998) *Facts and Figures on the Europeans on Holiday*. European Commission (Directorate General XXIII – Enterprise), Brussels.

European Commission (2000) *The European Eco-label at a Glance*. [WWW document]. URL http://www.europa.eu.int/comm/environment/ecolabel/index.htm (accessed on October 23, 2006).

European Commission (2003) *Basic Orientations for the Sustainability of European Tourism*. European Commission, Brussels.

European Commission (2004) *Feasibility and Preparatory Study Regarding Multi-stakeholder European Targeted Action Sustainable Tourism and Transport*. European Commission, DG Enterprise, Hague.

European Environmental Agency (EEA) (2005) *Household Consumption and the Environment*. EEA, Copenhagen.

European Environmental Agency (EEA) (2006) *Priority Issues in the Mediterranean Environment*. EEA, Copenhagen.

Fairweather, J.R., MasIin, C., et al. (2005) Environmental values and response to ecolabels among international visitors to New Zealand. *Journal of Sustainable Tourism*, **13**, 82–99.

Fishbein, M. & Manfredo, M.J. (1992) A theory of behaviour change. In *Influencing Human Behaviour: Theory and Applications in Recreation, Tourism and Natural Resources Management* (ed. by M.J. Manfredo), pp. 29–50. Sagamore Publishing Inc., Champaign, IL.

Font, A.R. (2000) Mass tourism and the demand for protected natural areas: a travel cost approach. *Journal of Environmental Economics and Management*, **39**, 97–116.

Font, X. & Buckley, R.C. (2001) *Tourism Ecolabelling: Certification and Promotion of Sustainable Management*. CAB International Publishing, Wallingford, UK.

Font, X. & Tribe, J. (2001) Promoting green tourism: the future of environmental awards. *International Journal of Tourism Research*, **3**, 9–21.

Garvill, J., Marell, A., et al. (2003) Effects of increased awareness on choice of travel mode. *Transportation*, **30**, 63–79.

Goodwin, H. & Francis, J. (2003) Ethical and responsible tourism: consumer trends in the UK. *Journal of Vacation Marketing*, **9**, 271–285.

Götz, K., Loose, W., et al. (2002) *Mobility Styles in Leisure Time: Reducing the Environmental Impacts of Leisure and Tourism Travel*. Öko-Institut e.V, Freiburg.

Grankvist, G. (2002) *Determinants of choice of Eco-labeled Products*. Department of Psychology, Göteborg University, Göteborg.

Hertwich, E.G. (2005) Consumption and the rebound effect: an industrial ecology perspective. *Journal of Industrial Ecology*, **9**, 85–99.

Hillery, M., Nancarrow, B., et al. (2001) Tourist perception of environmental impact. *Annals of Tourism Research*, **28**, 853–867.

Hjalager, A.-M. (1997) Innovation patterns in sustainable tourism – an analytical typology. *Tourism Management*, **18**, 35–41.

Holden, A. (2006) *Tourism Studies and the Social Sciences*. Routledge, Cornwall.

Holloway, J.C. (1998) *The Business of Tourism*. Addison-Wesley Longman Limited, New York.

Iso-Ahola, S.E. & Park, C.J. (1996) Leisure-related social support and self-determination as buffers of stress-illness relationship. *Journal of Leisure Research*, **28**, 169–188.

Kahneman, D. (2003) Experiences of collaborative research. *American Psychologist*, **58**, 723–730.

Kaiser, F.G., Wolfing, S., et al. (1999) Environmental attitude and ecological behaviour. *Journal of Environmental Psychology*, **19**, 1–19.

Kaiser, F.G., Doka, G., et al. (2003) Ecological behaviour and its environmental consequences: a life cycle assessment of a self-report measure. *Journal of Environmental Psychology*, **23**, 11–20.

Kalafatis, S.P., Pollard, M., et al. (1999) Green marketing and Ajzen's theory of planned behaviour: a cross-market examination. *Journal of Consumer Marketing*, **16**, 441–460.

Kornevall, C. (2002) Sustainability is everybody's business. *Industry and the Environment (UNEP)*, **25**, 30–32.

Kreisel, W. (2004) Geography of leisure and tourism research in the German-speaking world: three pillars to progress. *Tourism Geographies*, **6**, 163–185.

Lam, T. & Hsu, C.H.C. (2006) Predicting behavioral intention of choosing a travel destination. *Tourism Management*, **27**, 589–599.

Laws, E. & Scott, N. (2003) Developing new tourism services: dinosaurs, a new drive tourism resource for remote regions? *Journal of Vacation Marketing*, **9**, 368–380.

Leggett, C.G., Kleckner, N.S., et al. (2003) Social desirability bias in contingent valuation surveys administered through in-person interviews. *Land Economics*, **79**, 561–575.

Leire, C., Thidell, Å., et al. (2004) *Consumer Perceptions, Understanding and Use of Product Related Environmental Information – A Literature Review of the Nordic Knowledge Base*. Nordic Council of Ministers, Copenhagen.

Lew, A.A. & Hall, M.C. (1998) *Sustainable Tourism: A Geographyraphical Perspective*, pp. 199–203. Addison-Wesley Longman Ltd, Harlow.

Lew, A. & McKercher, B. (2006) Modeling tourist movements: a local destination analysis. *Annals of Tourism Research*, **33**, 403–423.

Lohmann, M. (2004) *New Demand Factors in Tourism*. European Tourism Forum, Budapest.

Martens, S. & Spaargaren, G. (2005) The politics of sustainable consumption: the case of the Netherlands. *Sustainability: Science, Practice and Policy*, **1**, 29–42.

Martin, A. (2001) *Attitudes towards Package Holidays and ABTA – 2000.* [WWW document]. URL http://www.ipsos-mori.com/publications/ajm/package-holidays.pdf (accessed on February 17, 2006).

Middleton, V.T.C. & Hawkins, R. (2002) *Sustainable Tourism: A Marketing Perspective*. Butterworth-Heinemann, Oxford.

Miller, G. (2001) Corporate responsibility in the UK tourism industry. *Tourism Management*, **22**, 589–598.

Miller, G. (2003) Consumerism in sustainable tourism: a survey of UK consumers. *Journal of Sustainable Tourism*, **11**, 17–39.

Molstad, A. (2002) *Ecotourism: Curse or Blessing?* [WWW document]. URL http://unesdoc.unesco.org (accessed on August 15, 2006).

Mont, O. (2004) Institutionalisation of sustainable consumption patterns based on shared use. *Ecological Economics*, **50**, 135–153.

Mont, O., Dalhammar, C., et al. (2006) A new business model for baby prams based on leasing and product remanufacturing. *Journal of Cleaner Production*, **14**, 1509–1518.

Nilsson, M. & Kuller, R. (2000) Travel behaviour and environmental concern. *Transportation Research Part D: Transport and Environment*, **5**, 211–234.

OECD (2002) *Household Tourism Travel: Trends, Environmental Impacts and Policy Responses.* [WWW document]. URL http://www.oecd.org/longAbstract/0,3425,en_2649_34289_2087243_119832_1_1_1,00.html (accessed on August 10, 2006).

Ooi, C.-S. (2003) *Crafting Tourism Experiences: Managing the Attention Product*. 12th Nordic Symposium on Tourism and Hospitality Research. Stavanger University College, Stavanger.

Pouta, E., Rekola, M., et al. (2002) Willingness to pay in different policy-planning methods: insights into respondents' decision-making processes. *Ecological Economics*, **40**, 295–312.

Roggenbuck, J.W. (1992) Use of persuasion to reduce resource impacts and visitor conflicts. In *Influencing Human Behavior – Theory and Applications in Recreation, Tourism and Natural Resources Management* (ed. by M.J. Manfredo), pp. 149–208. Sagamore Publishing Inc., Champaign, IL.

Rosenblum, J., Horvath, A. & Hendrickson, C. (2000) Environmental implications of service industries. *Environmental Science and Technology*, **34**, 4669–4676.

Ryan, M.J. (1982) Behavioral intention formation: the interdependency of attitudinal social influence variables. *Journal of Consumer Research*, **9**, 263–279.

Ryan, C. & Cave, J. (2005) Structuring destination image: a qualitative approach. *Journal of Travel Research*, **44**, 143–150.

Salomon, I. & Mokhtarian, P.L. (1998) What happens when mobility-inclined market segments face accessibility-enhancing policies? *Transportation Research Part D: Transport and Environment*, **3**, 129–140.

Schmidt, H.-W. (2002a) How Europeans go on holiday, Eurostat.

Schmidt, H.-W. (2002b) Tourism and the environment, Eurostat.

Schmidt, W.-P. (2001) Strategies for environmentally sustainable products and services. *Corporate Environmental Strategy*, **8**, 118–125.

Seddighi, H.R. & Theocharous, A.L. (2002) A model of tourism destination choice: a theoretical and empirical analysis. *Tourism Management*, **23**, 475–487.

Shove, E. (2002) *Sustainability, System Innovation and The Laundry*. Department of Sociology, Lancaster University, Lancaster.

Shove, E. & Warde, A. (2002) Inconspicuous consumption: the sociology of consumption, lifestyles, and the environment. In *Sociological Theory and The Environment* (ed. by R.E. Dunlap, F. Buttel, P. Dickens & A. Gijswijt), pp. 230–252. Rowman and Littlefield, Lanham, MD.

SIS Miljömärkning (2002) *Estimated Environmental Gain When Using Swan Marked Lawnmowers*. [WWW document]. URL http://www.svanen.nu/pdf/LawnmoversEnvironmentalReport.pdf (accessed on May 5, 2006).

Smith, S.L. (2004) The tourism product. In *Tourism: Critical Concepts in the Social Sciences* (ed. by S. Williams), pp. 229–243. Routledge, London.

Snepenger, D.J., Reiman, S., et al. (1998) Is downtown mainly for tourists? *Journal of Travel Research*, **36**, 5–12.

Snepenger, D., Snepenger, M., et al. (2007) Meanings and consumption characteristics of places at a tourism destination. *Journal of Travel Research*, **45**, 310.

Socialdata Australia (2003) *Travel Behaviour Change Program: Final Report*. Socialdata Australia Pty Ltd, Fremantle.

Sparks, P. & Shepherd, R. (1992) Self-identity and the theory of planned behavior: assessing the role of identification with 'green consumerism';. *Social Psychology Quarterly*, **55**, 388–399.

Stead, M., Hastings, G., et al. (2007) The meaning, effectiveness and future of social marketing. *Obesity Reviews*, **8**, 189–193.

Suh, Y.K. & McAvoy, L. (2005) Preferences and trip expenditures – a conjoint analysis of visitors to Seoul. *Korea Tourism Management*, **26**, 325–333.

Swarbrooke, J. & Horner, S. (2001) *Consumer Behaviour in Tourism*. Butterworth-Heinemann, Oxford, UK.

Tanner, C., Kaiser, F.G., et al. (2004) Contextual conditions of ecological consumerism. *Environment and Behavior*, **36**, 94–111.

Tour Operators Initiative (TOI) (2003) *Sustainable Tourism: The Tour Operators' Contribution.* TOI, Paris.

Tourism Concern (2001) *Tourism Concern Statistics*. [WWW document]. URL http://www.tourismconcern.org.uk (accessed on February 21, 2006).

Trafimow, D. & Finlay, K.A. (2001) The relationship between normatively versus attitudinally controlled people and normatively versus attitudinally controlled behaviors. *Social Science Journal*, **38**, 203–217.

Trudgill, S. (1990) *Barriers to a Better Environment: What Stops Us Solving Environmental Problems?* Belhaven Press, London.

World Travel & Tourism Council (WTTC), IFOTOI, International Hotel & Restaurant Association (IHRA), International Council of Cruise Lines (ICCL) (2002) *Industry as a Partner for development: Tourism.* World Travel and Tourism Council, International Federation of Tour Operators, International Hotel and Restaurant Association, International Council of Cruise Lines. United Nations Environment Programme, (UNEP), Paris.

United Nations Environment Programme (UNEP) (2005) *Making Tourism More Sustainable – A Guide for Policy Makers*. United Nations Environmental Programme (UNEP) and World Tourism Organization (WTO), Paris.

United Nations Environment Programme (UNEP) (2006) *A Practical Guide to Good Practice: Managing Environmental Social Issues in the Accommodations Sector*. [WWW document]. URL http://www.uneptie.org/pc/tourism/library/good-practices-hotel.htm (accessed on December, 2006).

UNWTO (2007) *UNWTO World Tourist Barometer*. [WWW document]. URL http://www.unwto.org/facts/menu.html (accessed on February 20, 2007).

Upham, P. (2001) A comparison of sustainability theory with UK and European airports policy and practice. *Journal of Environmental Management*, **63**, 237–248.

Urry, J. (2002) *The Tourist Gaze*. Sage Publications Ltd, London.

VISIT (2005) *The Tourism Market: Potential Demand for Certified Products.* [WWW document]. URL http://www.yourvisit.info/brochure/en/070.htm#nachfrage (accessed on December 18, 2006).

Wakefield, K.L. & Blodgett, J.G. (1999) Customer response to intangible and tangible service factors. *Psychology and Marketing*, **16**, 51–68.

Wearing, S. & Neil, J. (2001) Expanding sustainable tourism's conceptualization: ecotourism, volunteerism and serious leisure. In *Tourism, Recreation and Sustainability: Linking Culture and the Environment* (ed. by S.F. McCool & R.N. Moisey), pp. 233–254. CABI Publishing, Wallingford.

Wickens, E. (2002) The sacred and the profane – a tourist typology. *Annals of Tourism Research*, **29**, 834–851.

Woodside, A.G. & Dubelaar, C. (2002) A general theory of tourism consumption systems: a conceptual framework and an empirical exploration. *Journal of Travel Research*, **41**, 120–132.

World Tourism Organization (WTO) (2003) *CE/70/2/Doc S. Report of the Secretary general – Meeting Document.* [WWW document]. URL http://www.world-tourism.org/newsroom/speeches/2003/ce702_doc_seance_A.pdf (accessed on June 14, 2003).

World Travel and Tourism Council (WTTC) (2007) *The 2007 Travel and Tourism Economic Research.* [WWW document]. URL http://www.wttc.org/TSA%202007/1.World.pdf (accessed on March 2007).

Wurzinger, S. (2003) *Are Ecotourists Really More 'Eco'? A Comparison of General Environmental Beliefs, Specific Attitudes, General Ecological Behaviour, and Knowledge Between Swedish Ecotourists and Non-ecotourists*. Lund University, School of Architecture, Lund.

Yan, J., Barkmann, J., et al. (2006) *Sustainable Production and Consumption in the Domestic Chinese Tourism Market: The Sceptics' Challenge for Sustainable Tourism in the Southwestern China Biodiversity Hotspot.* Sustainable Consumption and Production: Opportunities and Challenges Conference (SCORE). SCORE, Wuppertal.