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# Barriers to sustainability among tourism-related businesses : identification and reduction

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University of Plymouth

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**BARRIERS TO SUSTAINABILITY AMONG TOURISM-RELATED  
BUSINESSES: IDENTIFICATION AND REDUCTION**

**by**

**JONATHAN ANDREW VERNON**

A thesis submitted to the University of Plymouth  
in partial fulfilment for the degree of

**DOCTOR OF PHILOSOPHY**

Department of Geography  
Faculty of Science

In collaboration with  
Caradon District Council

**November 2002**

**Jonathan Andrew Vernon**

**Barriers to sustainability among tourism-related businesses:  
identification and reduction**

**Abstract**

The attainment of sustainable development has emerged as one of the main challenges facing society and the economy in the twenty-first century. In tourism, the English Tourism Council (2001a, p.11) recognise that sustainable tourism can no longer be regarded as an optional extra, but is fundamental to safeguarding the long-term competitiveness of the industry. To establish sustainable development as a primary strategic objective within the tourism industry represents a substantial challenge. Such a goal is problematic not least because the sector is so diverse and is based around a large number of small businesses which are not always accessible or responsive to change and innovation.

The purpose of this thesis is to examine the response of tourism-related businesses to environmental sustainability issues in South East Cornwall. The research represents a three-year joint project funded by the University of Plymouth and Caradon District Council, with support from South West Tourism and the European Regional Development Fund through Caradon Area LEADER II (1999-2001). The aims of the project were to obtain a more detailed understanding of the issues and barriers that tourism businesses face in the implementation of sustainable business practices. The results had practical outcomes in the formulation of a district-wide strategy for sustainable tourism. Through a mixed-method research programme, almost half of tourism businesses in the district contributed to the study. The results revealed a diversity of behaviour, attitudes and motives that are currently not recognised within policy interventions or conceptual models of business behavior. Additionally, the research demonstrated that business responses are modified by a range of complex barriers, which operate at different geographical scales and require a broad policy focus. Within policy initiatives for sustainable tourism, small tourism businesses cannot be treated as scaled-down versions of large businesses. More sophisticated policy interventions will have to be developed if sustainable development is to become a reality within the sector.

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## Author's Declaration

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award.

This study was funded jointly by Caradon District Council and the University of Plymouth, in collaboration with South West Tourism and Caradon Area LEADER II.

Relevant scientific seminars and conferences were regularly attended at which work was often presented; external institutions were visited for consultation purposes and several papers prepared for publication.

The papers prepared for publication were:

- Vernon, J., Essex, S. and Pinder, D. (2002) 'Barriers to sustainability among tourism-related in south east Cornwall', *Environment Paper Series*, 5(1): 2-9 (see copy in Publications section).
- Vernon, J., Essex, S., Pinder, D. and Curry, K. (accepted) 'The 'greening' of tourism micro-businesses: outcomes of focus group investigations in south east Cornwall', *Business Strategy and the Environment*.
- Vernon, J., Essex, S., Pinder, D. and Curry, K. (submitted) 'Partnerships and governance in tourism: removing barriers to sustainability among tourism-related businesses in south east Cornwall', *Annals of Tourism Research* (with referees).
- Vernon, J., Essex, S. and Pinder, D. (submitted) 'Encouraging innovation in sustainable development among tourism-related businesses in south east Cornwall', *Franco-British Rural Geography Conference Book*.
- Vernon, J. (2000) 'Barriers to sustainability in tourism-related businesses in south east Cornwall: results of discussion groups with tourism business owners', Working Paper No. 1, University of Plymouth, Department of Geographical Sciences.
- Vernon, J. (2001) 'Barriers to sustainability in tourism-related businesses in south east Cornwall: results of a questionnaire survey', Working Paper No. 2, University of Plymouth, Department of Geographical Sciences.
- Vernon, J. (2001) 'Barriers to sustainability in tourism-related businesses in south east Cornwall: results of in-depth interviews with tourism business owners', Working Paper No. 3, University of Plymouth, Department of Geographical Sciences.

The papers presented at conferences were:

- Vernon, J. (2000) 'Barriers to sustainability among tourism-related micro-businesses in south east Cornwall', *The 2000 Eco-Management and Auditing Conference*, University of Manchester, 29-30 June.
- Vernon, J. (2001) 'Barriers to sustainability among tourism-related micro-businesses in south east Cornwall', *Royal Geographical Society – Institute of British Geographers Conference*, University of Plymouth, 2-5 January.
- Vernon, J., Essex, S. and Pinder, D. (2001) 'Barriers to sustainability among tourism-related businesses in south east Cornwall', *New Directions in Managing Rural Tourism and Leisure: Local Impacts, Global Trends International Conference*, Scottish Agricultural College, Auchincruive, 5-8 September.

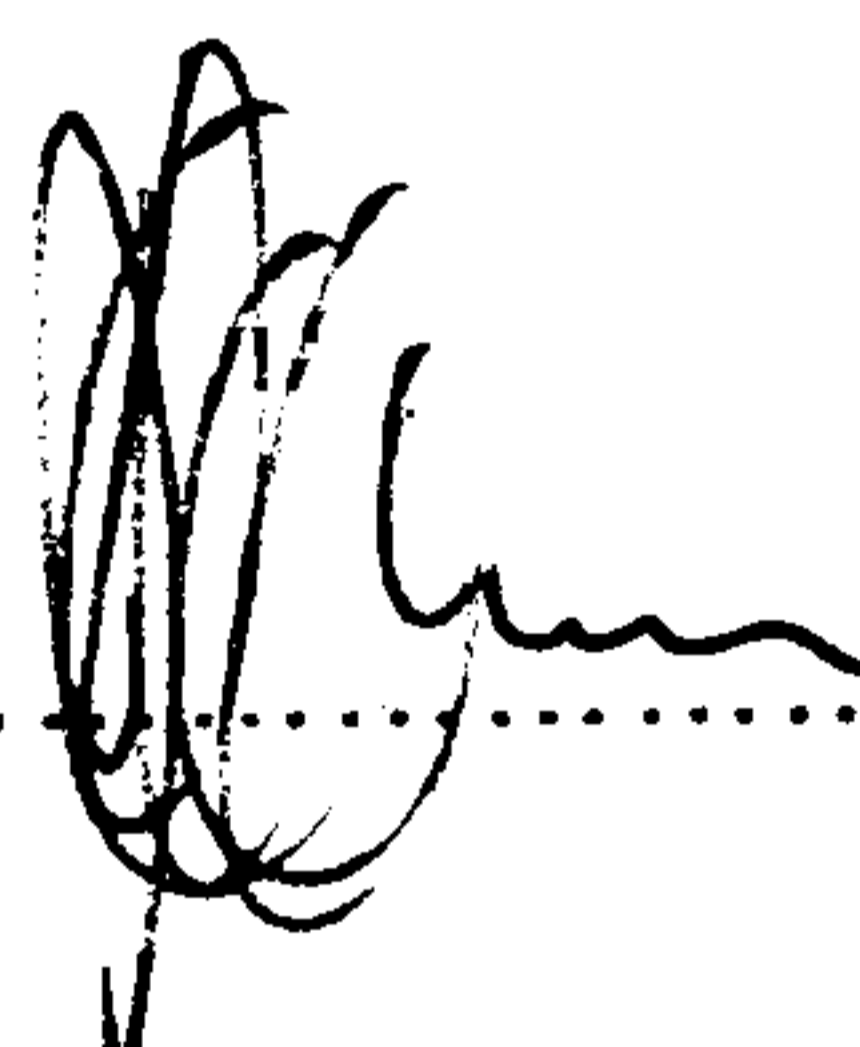
Presentations of the research findings were also made at the following practitioner meetings and events:

- Caradon District Council Countryside Committee, Liskeard, February 1999.
- Caradon District Council Tourism Advisory Panel, Liskeard, October 1999.
- Caradon District Council Local Agenda 21 and Recycling Sub-committee, Liskeard, December 1999.
- West Country Tourist Board Green Audit Kit Revision Workshop, Brimpts Farm, Dartmeet, 2 December 1999.

- South East Cornwall Tourism Strategy Study Seminar, Caradon District Council, Liskeard, 14 February 2001.
- South West Tourism Sustainable Tourism Workshop, 24 April, 2001.
- Caradon Sustainable Tourism Strategy Consultation Workshop, Liskeard Public Halls, 2 May 2001.
- Horizon South West Sustainable Tourism Workshop, Bridgewater, 27 September 2002.

A number of relevant conferences were also attended:

- *The 1999 International Sustainable Development Research Conference*, University of Leeds, 25-26 March 1999.
- *Symposium on British Tourism: The Geographical Frontier*, RGS/IBG Limited Life Working Group on the Geography of Tourism, Exeter University, 21-23 September 1999.
- *A Journey Too Far? Tourism Conference*, The College of St Mark and St John, Plymouth, 22 March 2000.
- *Breaking New Ground in Sustainable Tourism, Countryside Recreation Network Seminar*, The Moat House Hotel, 6 June 2000.
- *International Conference on Sustainable Tourism: A European Perspective*, University of Venice, 18 December 2000.

Signed.....  
  
 Date..... 15.5.03.....



# Chapter One

## Tourism, sustainability and the role of the private sector

### 1.1 BACKGROUND

The achievement of sustainability has emerged as one of the greatest challenges facing society in the twenty-first century. The notion of realising a balance between the needs of humanity and those of its natural environment is not new, but the popularisation of the concept within public policy has only arisen in the 1990s in response to global concerns about resource depletion, environmental degradation and social equity (Pepper, 1994; Sachs, 1999; Munton and Collins, 1998). The general consensus is that sustainability can be achieved through a transformation of the development process, termed 'sustainable development', to incorporate social and environmental imperatives alongside economic concerns of production and consumption, where quality is as important as the quantity of growth (Soussan, 1992). In its simplest form, sustainable development is defined as "*[development that] meets the needs of the present without compromising the ability of future generations to meet their own needs*" (World Commission on Environment and Development [WCED], 1988).

The central thesis of sustainable development is that the most pressing global environmental problems are interrelated and have arisen as a consequence of inappropriate forms of human activity, particularly economic activity. It is suggested that through the universal application of new tenets of behaviour at all levels of human organisation such issues can be resolved globally. The scope of the concept is, by definition, ambitious and is predicated on the ability of individuals to influence local, regional and global conditions through their collective actions. Sustainable development is conceptualised, not as fixed state to be achieved, but as a constantly shifting goal, where the ultimate end-point can never be attained:

*"... sustainable development is not a fixed state of harmony, but rather a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are made consistent with future needs as well as present needs"* (WCED, 1988).

Great importance is attached to the role of commercial businesses within this process. Businesses are highlighted as the main instruments of economic activity and, therefore, the main medium through which environmental degradation occurs and through which corrective action can be achieved (Redcliff, 1996; Welford and Starkey, 1996; Shrivastava, 1997a). The extent to which

businesses are able to reconcile the conflicting aspirations of economic growth and environmental protection within decision-making processes is, therefore, a central issue within sustainable development and an important focus for research (Redclift, 1996).

A wide body of literature exists, written by both academics and practitioners, which attempts to define, conceptualise and translate sustainable development into terms and activities that can be understood and adopted by businesses at all levels. Research into the response of businesses to the sustainability agenda, however, has tended to concentrate on large enterprises in heavily polluting industries. Few studies have focused on service industries, such as tourism, or on the response of micro-businesses, defined by the Commission of the European Community (CEC) as businesses with less than ten employees (CEC, 1996). This omission is surprising in view of the prominence of service industries in developed countries following economic restructuring and the importance of micro-businesses within the economies of all countries of the world. Micro-businesses account for over 95 per cent of enterprises in the UK and 30 per cent of private sector employment (Department of Trade and Industry [DTI], 2000). In the absence of specific studies, what is 'known' about the response of the smallest businesses to sustainability has largely been deduced or surmised from studies of larger enterprises without empirical verification.

This research gap is a particular issue within tourism, where sustainability has acquired special status, evidenced by the emergence of 'sustainable tourism' as a sector-specific goal and operating principle, and where micro-businesses predominate. Becker, Dunn and Middleton (1999) estimate that micro-businesses welcome and provide services to 90 per cent of all international, domestic and day visitors in the UK. Within the European Union (EU), 96 per cent of the 1.3 million hotels and restaurants are small firms with less than nine employees (Smeral, 1998). These characteristics are replicated in the tourism sectors of other advanced industrial countries, such as the United States of America, Japan, and New Zealand (Page *et al.*, 1999). Concepts of 'sustainable tourism' attempt to balance the needs of all stakeholders, including visitors, residents, and the tourism industry, both now and in the future, while minimising any negative impacts on the economy, society and the environment. The widespread endorsement of sustainability within tourism reflects a recognition that the industry is dependent upon the quality of the environment (whether natural, built or cultural) as the main attraction for visitors to an area, and a growing concern that the deleterious impacts of, what is widely acclaimed to be, 'the world's largest industry' (World Tourism Organisation [WTO], 2001a; World Travel and Tourism Council [WTTC],

1998) may constrain its future growth. Middleton (1999) states that the widespread adoption of sustainable tourism will not be achieved unless it is embraced fully by the small business community.

Although the implementation of sustainable tourism is in the interests of the industry, most tourism businesses have been slow to respond (Berry and Ladkin, 1997; Stabler and Goodall, 1997; Donovan and McElligott, 2000). Consequently, public sector intervention has been necessary to expedite the adoption of more sustainable business practices. In 1999, the UK government published a strategy for tourism, 'Tomorrow's Tourism' (Department of Culture, Media and Sport [DCMS], 1999), which stressed the importance of a 'wise growth' approach to future development through a recognition of the economic, social and environmental implications of tourism. The strategy created a hierarchy of responsibility within the public sector, at national, regional and local levels, for directing the transition towards more sustainable forms of tourism. Subsequent national strategies for tourism in rural areas, 'Working for the Countryside' (Countryside Agency and English Tourism Council [ETC], 2001), and for sustainable tourism, 'Time for Action' (ETC, 2001a), have stressed the importance of local authorities taking a lead within destination areas to encourage more sustainable practices within the industry. Yet, research into the experiences and concerns of the private sector regarding environmental and sustainability issues, which might inform such strategies, have been largely absent.

The primary purpose of this study was to address this research gap: to develop a detailed understanding of how tourism businesses have responded to sustainability within their operations, and so to contribute to the design and implementation of local government policy interventions. In particular, this study has sought to highlight the key issues and barriers that have constrained the adoption of more environmentally sustainable business practices within the industry and which might form the target of such interventions.

The purpose of this first chapter is to review the theoretical and practitioner debates regarding the application of sustainability to tourism, and the extent to which tourism businesses are expected to contribute towards its achievement. Discussion commences with a review of the different theoretical perspectives of the meaning of sustainability and sustainable development and the responsibility of the private sector in their implementation (Section 1.2). Section 1.3 then considers how the context of tourism has influenced the sustainability agenda within the sector and examines

the various interpretations of 'sustainable tourism' as a specific policy goal. The inherent problems in implementing the principles of sustainability within the tourism industry are then considered in Section 1.4 to indicate the importance of outside intervention and leadership within strategies for sustainable tourism. The manner in which the concept of 'sustainable tourism' has been translated to the operations of individual businesses within public, private and voluntary sector strategies and practitioner guides is discussed in Section 1.5. The list of practices that tourism businesses are expected to adopt within the practical framework of sustainable tourism provides a basis for assessing the extent to which individual operators have responded to the challenges of sustainability. The chapter concludes by outlining the specific objectives of the study and the manner in which they will be examined in the rest of the thesis (see Sections 1.6 and 1.7).

## **1.2 'SUSTAINABILITY' AND 'SUSTAINABLE DEVELOPMENT'**

The targeting of 'sustainability' and 'sustainable development' as explicit goals within public policy requires some clarification. Despite almost universal support for the two concepts, both are value-laden and contested, reflecting an ideological schism amongst their advocates and requiring careful consideration of the precise form of sustainability that is being implemented.

### **1.2.1 Defining 'sustainability'**

Paehlke (1999) identifies three 'everyday' uses of sustainability. A first use is 'resource sustainability', reflecting a concern for the availability and continuity of resources for economic production. Although such considerations are well established within conservation, agriculture and industry (Selman, 1996), Paehlke (1999) traces the modern usage of the term to the 'limits to growth' debate in the 1970s and concerns about the depletion of natural resources in the light of world population growth. A second use is 'environmental' or 'ecological sustainability' (Redclift, 1995; Sachs, 1999), which focuses upon sustaining the natural environment and biodiversity as essential components of a global ecosystem. Paehlke (1999) attributes this view to the popularisation of ecology as a 'new' science in the 1960s. Redclift (1993) stresses that sustainability obtains scientific meaning only in the context of ecology, where it describes the dynamic equilibrium between successional changes in flora and fauna communities. Its use in other contexts is either as a point of reference to the ecological balance, or as a metaphor or model for environmental and resource management. A third use is a broad notion of sustainability, which

comprises and attempts to integrate three elements: 'economic sustainability', 'environmental sustainability' and 'social sustainability'. Overall, sustainability is dependent upon achieving a state of dynamic equilibrium between all three elements.

In each of Paehlke's first two definitions, sustainability, through a single focus, acquires precise meaning and invites scientific measurement and scrutiny, notwithstanding the problems associated with measuring a diverse and complex ecosystem (Godwin, 1995). In contrast, Paehlke's broad notion offers a multi-dimensional view of sustainability. No single element is prioritised above the others (Becker, Jahn and Stiess, 1999). Instead, the concurrent achievement of each becomes a system condition. Since it is mathematically impossible to simultaneously optimise more than one element, broad sustainability offers both a balanced and constrained vision, likely to stimulate conflicts between interested groups. It is this broad definition of sustainability that is emphasised within public policy, as a means of conceptually integrating and reconciling economic, environmental and social imperatives.

### **1.2.2 Defining 'sustainable development'**

The most widely quoted definition of sustainable development was provided by the report of the World Commission on Environment and Development (WCED), 'Our Common Future' (WCED, 1988), also known as the 'Brundtland Commission Report' after the Commission's Chair, Gro Harlem Brundtland. Mandated by the United Nations (UN) General Assembly to review and respond to global issues of environment and development, the Commission concluded that critical environmental and social problems were related to inappropriate forms of development and that a solution lay in changing the nature of development to 'sustainable development'.

*"...many present development trends leave increasing numbers of people poor and vulnerable, while at the same time degrading the environment. How can such development serve next century's world of twice as many people relying on the same environment? ...we came to see that a new development path was required, one that sustained human progress not just in a few places for a few years, but for the entire planet into the distant future."*  
(WCED, 1988, p.4)

The report defines sustainable development as development that *"...meets the needs of the present without compromising the ability of future generations to meet their own needs"* (WCED, 1988, p.8). While this headline definition was short, simple and memorable, prerequisites for any successful soundbite, it belied a long list of agenda items, which are referred to in other parts of the 400-page report (see Table 1.1).

**Table 1.1 Elements of the WCED definition of sustainable development**

<b>Scope</b>	<p>"All nations will... have a role to play in securing peace, in changing trends, and in highlighting an international economic system that increases rather than decreases numbers of poor and hungry" (p.309)</p> <p>"The changes in attitudes, in social values, and in aspirations that the report urges will depend on vast campaigns of education, debate and public participation" (p.xiv)</p>
<b>Content</b>	<p><i>meeting human needs &amp; equity</i> "Sustainable development requires meeting the basic needs of all and extending to all the opportunity to fulfil their aspirations for a better life" (p.8) "Sustainable development requires that societies meet human needs both by increasing productive potential and by ensuring equitable opportunities for all "(p.44)</p> <p><i>conservation of resources</i> "Most renewable resources are part of a complex and interlinked ecosystem, and maximum yield must be defined after taking into account system-wide effects of exploitation" (p.46) "A society may in many ways compromise its ability to meet the essential needs of other people in the future – by overexploiting resources" (p.46) "...use [of non-renewable resources] reduces the stock available for future generations. But this does not mean that such resources should not be used. Sustainable development requires that the rate of depletion of non-renewable resources should foreclose as few future options as possible" (p.46)</p> <p><i>environmental protection</i> "At a minimum, sustainable development must not endanger the natural systems that support life on Earth" (p.45) "Development tends to simplify ecosystems and reduce their diversity of species. And species, once extinct, are not renewable. The loss of plant and animal species can greatly limit the options of future generations; so sustainable development requires the conservation of plant and animal species" (p.46)</p>
<b>Process</b>	<p><i>reviving growth</i> "Meeting essential needs depends in part on achieving full growth potential, and sustainable development clearly requires economic growth in places where such needs are not being met elsewhere it can be consistent with economic growth provided the content of growth reflects the broad principles of sustainability and non-exploitation of others" (p.44) "...it recognises that the problems of poverty and underdevelopment cannot be solved unless we have a new era of growth in which the developing countries play a large role and reap large benefits" (p.40)</p> <p><i>managing the limits to activity</i> "The concept of sustainable development does imply limits – not absolute limits but limitations imposed by the state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities" (p.80) "Growth has no set limits in terms of population or resource use beyond which lies ecological disaster. Different limits hold for the use of energy, materials, water and land... The accumulation of knowledge and the development of technology can enhance the carrying capacity of the resource base. But ultimate limits there are, and sustainability requires that long before these are reached the world must ensure equitable access to the constrained resources and reorient technological efforts to relieve the pressure" (p.45)</p> <p><i>changing consumption</i> "Sustainable global development requires that those who are more affluent adopt life-styles within the planet's ecological means" (p.9) "...sustainable development requires the promotion of values that encourage consumption standards that are within the bounds of the ecological possible and to which all can reasonably aspire" (p.44)</p> <p><i>minimising the impacts of production</i> "So-called free goods like air and water are also resources. The raw materials and energy of production processes are only partly converted to useful products. The rest comes out as wastes. Sustainable development requires that the adverse impacts on the quality of air, water and other natural elements are minimized so as to sustain the ecosystem's overall integrity" (p.46)</p> <p><i>population strategies</i> "An expansion in numbers can increase the pressure on resources and slow the rise in living standards in areas where deprivation is widespread... sustainable development can only be pursued if demographic developments are in harmony with the changing productive potential of the ecosystem" (p.44)</p> <p><i>holistic decision-making</i> "The concept of sustainable development provides a framework for the integration of environmental policy and development strategies" (p.40) "...sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and embrace both current and future potential to meet human needs and aspirations" (p.46)</p>

Source: WCED (1988)

Sustainable development and broad notions of sustainability share obvious similarities and are inevitably linked through a common lineage and conceptual base to be found within the evolving debates regarding environmental protection, resource conservation and social equity. These debates are comprehensively documented within the literature (see Dasmann, 1984; McCormick, 1989; Simmons, 1989; Middleton *et al.*, 1993; Sale, 1993; Pepper, 1994; Soussan, 1992; Sachs, 1999). However, the Brundtland definition differs from Paehlke's broad notion of sustainability in a number of respects. A first difference is that sustainable development gives centrality to the human condition, safeguarding the ability of current and future generations to meet their needs through a collective ethic (Jacobs, 1995; Hunter, 1995; Butler, 1998). Second, while sustainability is concerned only with defining system conditions, sustainable development acquires political direction and intent through an emphasis upon 'development' (widely equated to economic growth) as a preferred methodology (Elkins, 1993; Hunter, 1995; Soussan, 1992; Paehlke, 1999). Although presenting a qualified legitimisation of development, the concept was sufficiently appealing to be endorsed by over 150 governments who signed up for Agenda 21 at the Rio Earth Summit (Munton and Collins, 1998). Third, although sustainable development acknowledges environmental and social limits to development, these are not absolute limits, but can be overcome through technical innovation and careful management. In this respect, sustainable development places great importance upon the role of private enterprise to secure required rates of growth to meet human needs, to change the essential quality of such growth, and to reorientate the focus of technology (Eden, 1994). Where sustainability evokes images of stability, regularity and perpetuity, sustainable development implies constant change (Wall, 1997a; Sachs, 1999).

### **1.2.3 Theoretical perspectives on sustainability and sustainable development**

As research frameworks, sustainable development and broad notions of sustainability present a number of problems. While the WCED Report provides the most widely quoted definition of sustainable development, over 300 alternatives have been recorded (Charters, 1995). Different theoretical perspectives emphasise different elements of sustainability. All recognise that change is required and that the activities of businesses will be central to the process of change. However, the nature and extent of such change, and the manner in which it might be achieved, are matters of contention (Bebbington and Gray, 1993; Hunter, 1995; Stabler, 1997; Gowdy, 1999).

Redclift (1992) identifies two ideologically opposed interpretations of sustainability, which reflect humanity's intellectual, spiritual and economic relationship with nature (Macnaghten and Urry, 1997). Within a 'deep green' ecocentric perspective, humanity is positioned firmly within nature and is required to respect ecological limits. Nature is revered for its spiritual and welfare value, and obtains moral standing and intrinsic value beyond its economic utility (Jacobs, 1991; Shrivastava, 1997b; Stead and Stead, 1996). This perspective is rooted in the transcendentalist and romantic movements of the nineteenth century in the US and UK, and is greatly influenced by the neo-Malthusian critique of economic growth in the 1970s (Pepper, 1984). The central thesis of the ecocentric perspective is that capitalism, the market system, and the growth assumptions upon which they are predicated, are implicitly implicated within past social and environmental degradation and are inherently unsuited to the task of delivering non-financial objectives (Gordon, 1991; Shrivastava, 1995; Slaughter, 1996; Gowdy, 1999). Sustainable development is dismissed as an oxymoron, combining, semantically, two essentially contradictory elements (Wall, 1997a; Paehlke, 1999; Becker, Jahn and Stiess, 1999; Redclift, 1999).

In place of a market system, the ecocentric perspective offers alternative visions of human activity, requiring a radical change of values, priorities and strategies (Athanasidou, 1997; Reboratti, 1999). Growth and consumption are rejected as measures of social well-being, and more holistic indicators substituted in their place as societal and organisational goals (Douthwaite, 1993; Stead and Stead, 1996; Angel and Huber, 1996; Stabler, 1997). Businesses are viewed as part of a larger social ecosystem with a responsibility to contribute to the entire system rather than any single element (Hatch, 1997; Shrivastava, 1997b).

*"The ultimate purpose of business is not or should not be, simply to make money... The promise of business is to increase the well-being of humankind through services, a creative intention and ethical philosophy"* (Hawken, 1995, p.1).

Human behaviour is restrained, not by the limitations of supply and demand, but through a morality towards nature: what Leopold (1989) termed, a 'bioethic' (Hunter, 1995). However, the ideological basis of the ecocentric perspective, and its reliance on alternative models, which cannot be measured or proved, confine it mainly to the periphery of the sustainability debate (Jacobs, 1991).

A contrasting view of sustainability is provided by the anthropocentric or economic perspective, which conceptualises nature as a resource base for the use of humanity. This perspective is premised upon the efficacy of economic markets to achieve a sustainable allocation of resources and seeks to interpret and operationalise sustainable development through economic theory



(Pezzey, 1992; Reboratti, 1999). Whilst the social and environmental consequences of past economic growth are acknowledged, growth *per se* is not vilified, only the quality of growth is questioned (Jacobs, 1991). By assigning value to resources, which reflect both their welfare and economic utility, it is suggested that the more holistic decision-making processes demanded by sustainability can be accommodated within market systems (Cairncross, 1995). This perspective is a pro-business ideology, which places great faith in the innovative qualities of businesses to solve the problems of non-sustainability without the need for difficult choices (Elkington and Burke, 1989; Pearce *et al.*, 1989; Porter, 1996; Schmidheiny *et al.*, 1996). Given the right market signals, it is hypothesised that businesses can, and will, modify traditional modes of production through the application of science and technology to reduce the environmental impact of their activities, leading to improved efficiency and profitability (Cairncross, 1995; von Weizsäcker *et al.*, 1997; Athanasiou, 1997). The only social responsibility attributed to business is to optimise long-term profitability within the context of the market system (Elkington and Burke, 1989; Friedman, 1993). It is the responsibility of governments to set the allowable limits and provide the necessary market signals (Schot *et al.*, 1997).

Between the extremes of the ecocentric and anthropocentric perspectives, Shrivastava (1995a) detects a middle-ground position, which acknowledges a requirement to change behaviour, but does not seek a radical transformation of the market system. This perspective seeks to reform business activity by balancing profit priorities with a wider social and environmental responsibility through the adoption of new management practices and the formation of partnerships with the public, voluntary and community sectors to advance the sustainability agenda (Shrivastava, 1995; Welford, 1995). The main criticism of this position is from the ecocentric perspective, which views such measures as shallow and cosmetic, deflecting attention away from the key issues, which are more fundamental (Welford, 1995; Eden, 1996).

*“Sustainability will not be achieved by inventing management techniques to combat the contradictions of development” (Redclift, 1996, p.2).*

Bonsal (1995) suggests that the middle-ground position is illusory and that evidence of a wider business responsibility merely reflects a search for economic legitimacy within a changing market.

Sustainability is revealed as value-laden and contested. Far from reconciling the positions of diverse ideologies, the arguments and debates that preceded and led to the popularisation of the concept, continue unabated. The essential ambiguity of the concept has allowed sustainability to

be used as a central policy construct by diametrically opposed ideological positions to legitimise extant strategies (McKercher, 1993a; O'Connor, 1997; Hunter, 1995; Reboratti, 1999). Butler (1998, p.25) describes the widespread acceptance of sustainability as "both satisfying and disturbing". As a multi-dimensional concept where traditional disciplines converge, all theories relating to sustainability are viable (Becker, Jahn and Stiess, 1999). The challenge for the researcher is not necessarily a choice between different iterations of sustainability, but in establishing a common theoretical ground to facilitate an inter-disciplinary approach. Becker, Jahn and Stiess (1999) suggest that a commonality of theory within the social sciences can be established in a number of areas. For example, there is agreement that sustainability requires a process of change focusing upon the relationship between society and nature. Additionally, sustainability is most appropriately analysed in its negative form. There is more consensus about non-sustainability than about sustainability. A further area of agreement is that sustainability is inherently visionary, bound to normative strategies and socially negotiated goals. As a research focus, therefore, sustainability is inevitably immersed in the priorities and objectives of its sponsors. The manner in which sustainability has been interpreted and applied within the context of tourism requires closer examination to establish a relevant framework against which individual business responses might be assessed.

### **1.3 TOURISM AND SUSTAINABILITY**

The sustainability debate within tourism reflects the essential nature and scale of the modern industry, its relationship with the environment, and processes of economic restructuring within the industry.

#### **1.3.1 The nature and scale of the tourism industry**

Tourism is usually defined and measured in terms of the activities of 'tourists'. The most widely quoted definition was developed by the WTO and endorsed by the UN Statistical Committee in 1993, as "*the activities of persons travelling to and staying in places outside their normal environment for not more than one consecutive year for leisure, business and other purposes*" (WTO, 1994). As an industry, tourism comprises a range of diverse sectors which had developed to meet the needs of tourists and collectively give form and meaning to the tourist experience (see Table 1.2). Such sectors have little in common, other than they are dependent upon tourists to

**Table 1.2 UK definition of tourism-related industries**

<i>SIC (1992) code</i>	<i>Sector</i>	<i>Business activities included</i>
551	Hotels	<ul style="list-style-type: none"> <li>- Hotels and motels, with restaurant</li> <li>- Licensed hotels and motels</li> <li>- Unlicensed hotels and motels</li> <li>- Hotels and motels, without restaurant</li> </ul>
552	Camping sites and other provision of short-stay accommodation	<ul style="list-style-type: none"> <li>- Youth hostels and mountain refuges</li> <li>- Camping sites, including caravan sites</li> <li>- Other provision of lodgings not elsewhere classified</li> <li>- Holiday centres and holiday villages</li> <li>- Other self-catering holiday accommodation</li> <li>- Other tourist or short-stay accommodation</li> </ul>
553	Restaurants	<ul style="list-style-type: none"> <li>- Restaurants</li> <li>- Licensed restaurants</li> <li>- Unlicensed restaurants and cafes</li> <li>- Take-away food shops</li> <li>- Take-away food mobile stands</li> </ul>
554	Bars	<ul style="list-style-type: none"> <li>- Bars</li> <li>- Licensed clubs</li> <li>- Independent public houses and bars</li> <li>- Tenanted public houses and bars</li> <li>- Managed public houses and bars</li> </ul>
633	Activities of travel agencies and tour operators; tourist assistance activities	<ul style="list-style-type: none"> <li>- Activities of travel agencies and tour operators; tourist assistance activities not elsewhere classified</li> <li>- Activities of travel agencies</li> <li>- Activities of travel organisers</li> <li>- Activities of tour guides</li> <li>- Other tourist assistance not elsewhere classified</li> </ul>
925	Library, archives, museums and other cultural activities	<ul style="list-style-type: none"> <li>- Library and archive activities</li> <li>- Museum activities</li> <li>- Preservation of historical sites and buildings</li> <li>- Botanical and zoological gardens and nature reserve activities</li> </ul>
926	Sporting activities	<ul style="list-style-type: none"> <li>- Operation of sports arenas and stadiums</li> <li>- Operation of ice rinks and roller skate rinks</li> <li>- Operation of other sport arena and stadiums not elsewhere classified</li> <li>- Activities of racehorse owners</li> <li>- Other sporting activities not elsewhere classified</li> </ul>
927	Other recreational activities	<ul style="list-style-type: none"> <li>- Gambling and betting services</li> <li>- Other recreational activities not elsewhere classified</li> </ul>

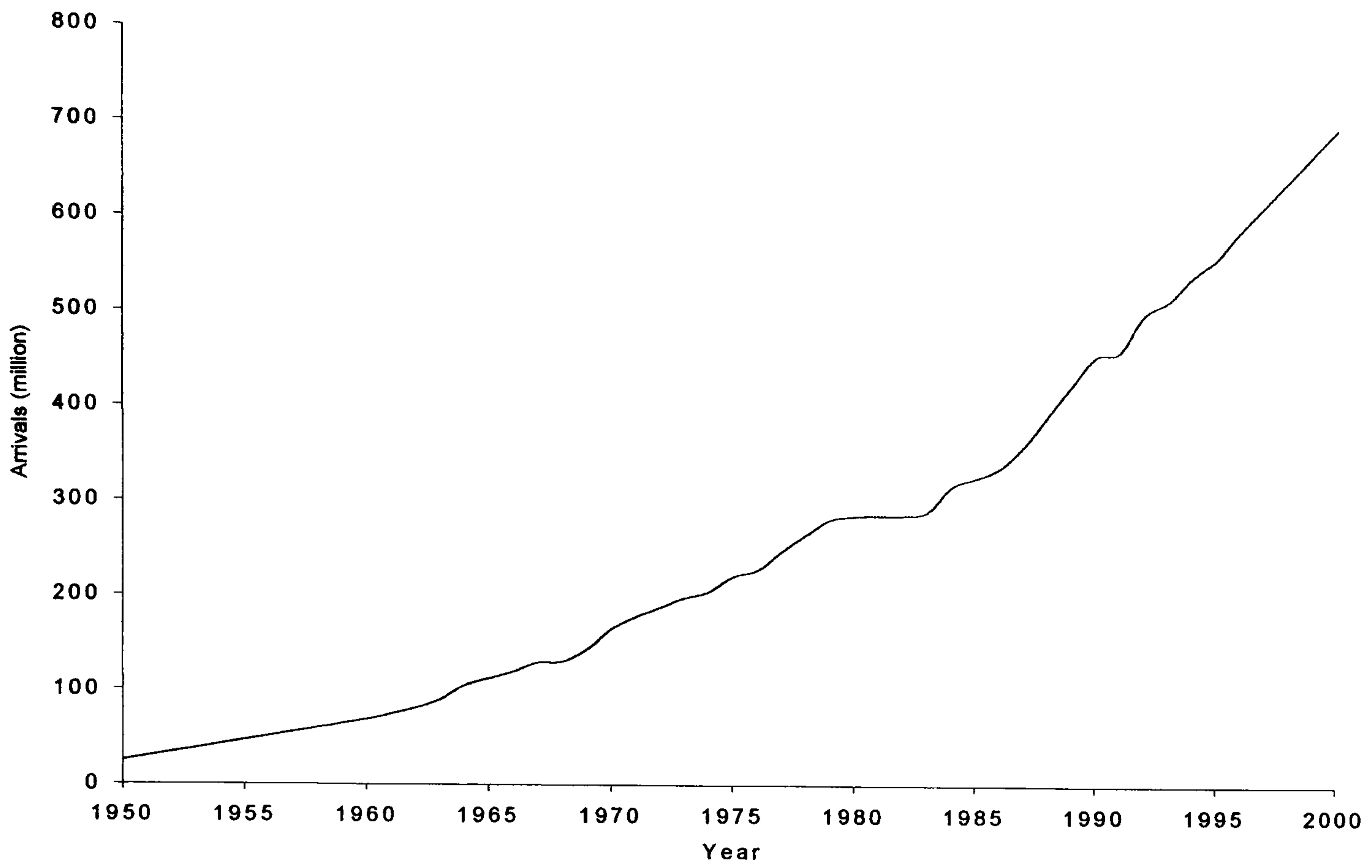
Source: Office of National Statistics (2001)

varying degrees for their viability. Tourism, therefore, does not readily conform to traditional definitions of an 'industry' where firms can be "assumed to be alike in all economically important dimensions except for their size" (Porter 1979, p.214). Indeed, rather than describe tourism as a single industry, Medlik (1993) suggests 'tourism-related industries' as a more accurate terminology to reflect the diverse nature of economic activity and varying levels of dependency amongst the businesses that rely upon tourism.

As a world-wide industry, tourism has grown rapidly in the last 50 years attributed to advances in and the popularisation of air travel, rising incomes and leisure time in developed countries, and product innovations, such as the foreign packaged holiday (Shaw *et al.*, 1991; Lavery, 1993; Williams and Gillmor, 1995). International arrivals have grown more than twenty-five fold, from 25 million arrivals in 1950 to 664 million in 1999 (an average annual growth rate of seven per cent) (see Figure 1.1). Over the same period, international tourism receipts grew by more than two hundred and twenty-fold, from US \$2.1 billion to US \$455.0 billion (an average annual growth rate of 11.6 per cent) (see Figure 1.2) (WTO, 2001a). Depending upon how the tourism industry is defined, the WTTC estimates that the industry's contribution to world gross domestic product (GDP) and employment in 2001 will have ranged from US\$ 1381.5 billion (4.2 per cent) to US\$ 3497.1 billion (10.7 per cent), and from 78.2 million jobs (3.1 per cent of world employment) to 207.1 million jobs (8.2 per cent) respectively (WTTC, 2001). It has been estimated that tourism accounts for between four and five per cent of GDP in the UK and 7 per cent of employment in Great Britain (DCMS, 1999). As 'the world's largest industry' (WTTC *et al.*, 1996; WTO, 2001a) and 'the most successful industry in the twentieth century' (English Tourist Board [ETB] and Employment Development Group [EDG], 1991), it was inevitable that the industry would need to confront issues of environmental sustainability.

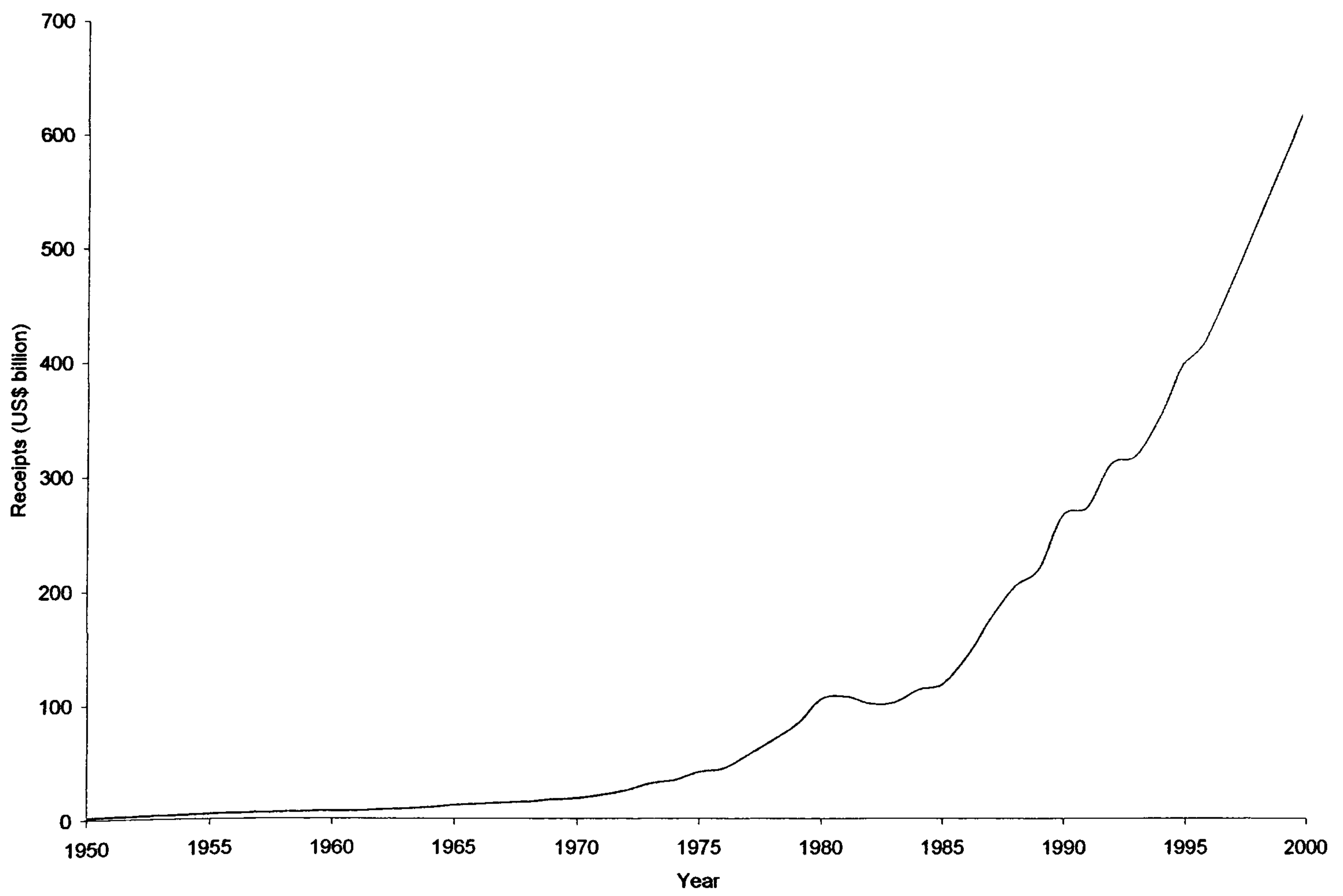
### **1.3.2 Tourism's dependency upon the environment**

More than most industries, tourism is dependent upon the quality of its environment for its economic viability (Murphy, 1985; Wight, 1994; Cooper *et al.*, 1998). Tourism businesses 'feed off' the resources in the surrounding area to portray a package of attractions for potential visitors that extends beyond the boundaries of their own operations (Murphy, 1985; Farrell and Runyan, 1991; Romeril, 1994; Pigram and Wahab, 1997). Tourism benefits from a good quality environment and is threatened when the environment is degraded, either by its own activities or those of other



Source: WTO (2001a)

**Figure 1.1 International tourism arrivals 1950-1999**



Source: WTO (2001a)

**Figure 1.2 International tourism receipts 1950-1999**

industries (Ryan, 1991; Williams, 1998). Through the nature of its dependence, tourism has a fundamental interest in sustaining the environment (Pearce, 1989; Murphy, 1997a; Butler, 1991; Goodwin, 1995). However, a lack of direct ownership of many of the resources upon which the industry depends has created what Hardin (1973) would term 'a commons issue' (Stabler, 1997). Where resources are owned publicly (e.g. beaches, seawater quality, air quality) or collectively (e.g. the overall sense of place that characterises a particular location), they are available free for unlimited use or 'consumption' without recourse. Individual visitors and businesses are free to maximise their own short-term utility from public resources in the knowledge that the costs of such exploitation are shared amongst all stakeholders (Haywood, 1993; Gratton and van der Straaten, 1994; Leiper and Harris, 1995; Gössling, 2000). A long-term interest in sustaining the overall quality of the environment can, therefore, be in direct conflict with short-term business profit-maximisation motives which seek to externalise costs where possible. McKercher (1993b) describes the inherent contradictions within the industry as the 'fundamental truths of tourism', which unless addressed will ultimately lead to its demise (see Table 1.3). Concepts of 'sustainable tourism' attempt to reconcile such contradictions by engendering a collective responsibility amongst all stakeholders as a basis for modified behaviour (Wanhill, 1997; MacLellan, 1997).

### **1.3.3 The environmental impacts of tourism**

Although it is often argued that, in comparison to heavy industrial or agricultural processes, the environmental consequences of tourism are negligible (Murphy, 1997a; Ryan, 1991; Gratton and van der Straaten, 1994; Goodall, 1994), the global scale of the industry and a tendency for developments to be concentrated in aesthetically attractive locations, often with fragile and sensitive ecosystems and small resident communities, has created pressure upon the industry to manage its own impacts. The literature relating to the impacts of tourism is extensive. Cohen (1978) identifies two main perspectives on the subject. The first is inherently optimistic and considers the impacts of tourism to be largely beneficial (see Table 1.4) (Budowski, 1976; Pigram, 1980; Briassoulis and van der Straaten, 1992). This perspective characterised early studies, which viewed tourism largely as a clean business activity, unencumbered by the environmental impacts associated with heavy industry (Ap and Crompton, 1998; Romeril, 1989a; MacLellan, 1997; Archer and Cooper, 1997). Great emphasis is placed upon the multiplier economic effects of tourism development (e.g. employment and secondary economic growth), which have attracted the interest of national and local governments, who view tourism as a means to regenerate local and national

**Table 1.3 The 'fundamental truths' of tourism**

1. As an industrial activity, tourism consumes resources, creates waste and has specific infrastructure needs;
2. As a consumer of resources, it has the ability to over-consume resources;
3. Tourism, as a resource-dependent industry, must compete for scarce resources to ensure its survival;
4. Tourism is a private sector dominated industry, with investment decisions being based predominantly on profit maximisation;
5. Tourism is a multi-faceted industry, and as such, it is almost impossible to control;
6. Tourists are consumers, not anthropologists;
7. Tourism is entertainment;
8. Unlike other industrial activities, tourism generates income by importing clients rather than exporting its product.

Source: McKercher (1993b)

**Table 1.4 The positive impacts of tourism**

Type of impact	Impact
Economic impact	<ul style="list-style-type: none"> <li>- Stimulates regional and national economic growth</li> <li>- Generates employment</li> <li>- Stimulates secondary growth in other sectors through 'multiplier' effect</li> <li>- Revitalises market towns and rural areas</li> <li>- Diversifies the local and national economy</li> <li>- Assists in the redistribution of income</li> <li>- Provides an enhanced understanding of the destination region's resource base</li> <li>- Improves the national balance of payments through foreign exchange earnings</li> <li>- Reduced unemployment costs and increased tax revenue</li> </ul>
Social and cultural impacts	<ul style="list-style-type: none"> <li>- Provides personal benefits to individual tourists</li> <li>- Helps to foster positive environmental awareness/values amongst tourists and residents</li> <li>- Increases cultural consciousness</li> <li>- Helps to preserve local cultures</li> <li>- Supports traditional arts and crafts</li> <li>- Provides Improved local services and facilities</li> <li>- Helps to maintain/upgrade transport infrastructure</li> </ul>
Environmental impacts	<ul style="list-style-type: none"> <li>- Provides a demand/market for conservation and environmental protection</li> <li>- Upgrade local environmental services</li> <li>- Encourages political support for conservation</li> <li>- Stimulates the preservation/restoration of heritage sites</li> <li>- Encourages the creation of national parks/wildlife parks</li> <li>- Displaces more environmentally damaging industries</li> <li>- Improved development design standards</li> <li>- Introduce/tighten administration and planning controls</li> </ul>

Source: Pearce (1989); Mathieson and Wall (1992); Gratten and van der Straaten (1994); Hunter and Green (1995); Archer and Cooper (1997); Stabler and Goodall (1997)



economies (Cooper *et al.*, 1998; Williams, 1998). In this respect, tourism assumes strategic importance as a mechanism to deliver economic, social and environmental goals. Wall (1997b) suggests that this optimistic perspective is typically held by economists, developers and marketing experts.

The alternative perspective is essentially pessimistic and grounded within wider concerns about the social and environmental implications of economic development *per se* in the 1960s and 1970s, and an emerging debate about the relationship between tourism, conservation and the environment (Myers, 1975; Greenwood, 1972; Gunn, 1978; Gilbert *et al.*, 1994). The main focus is upon the deleterious social, cultural and environmental implications of tourism development, informed by a growing body of research within a range of disciplines, including ecology, the natural sciences, sociology and geography (Pearce, 1985; Hunter and Green, 1995; Green *et al.*, 1990) (see Table 1.5). In particular, large scale mass tourism developments that were built hastily during the 1960s, 1970s and 1980s have been criticised heavily for ignoring the intrusive social and environmental impacts of their construction and operation (e.g. encouraging large numbers of tourists to 'unspoil' destination areas, impact upon the landscape and consumption of resources) (Poon, 1993; Butler, 1998). Wall (1997b) suggests that the pessimistic perspective is held primarily by environmentalists, planners and anthropologists whose focus is upon potential disruptions to socio-cultural and ecological environments.

Cohen (1978) acknowledges that both the optimistic and the pessimistic perspectives may be valid under different conditions and warns against a generalised view. Individual tourism developments will generate both positive and negative impacts, the nature and seriousness of which will be site-specific and depend upon a wide range of complicating factors (Pearce, 1985; Pigram, 1980; Wall, 1997b; Green *et al.*, 1990). Ap and Crompton (1998) suggest that recognition of the inherent complexity of tourism's relationship with its environment is characteristic of a third, more balanced perspective that has emerged during the 1980s and 1990s, and reflected within the concept of sustainable tourism.

#### **1.3.4 Economic restructuring within tourism**

A further impetus for sustainable tourism has arisen from the changing nature of tourism demand in developed countries and long-term economic adjustment within the industry. The literature on

**Table 1.5 The negative impacts of tourism**

Type of impact	Impact
Economic impact	<ul style="list-style-type: none"> <li>- Displaces the economic benefits of other industries</li> <li>- Risk of over-dependence on a single industry</li> <li>- Economic leakages where there is a reliance on outside capital</li> <li>- Local inflation</li> <li>- Introduce instabilities and weaknesses in labour markets</li> <li>- Long-term economic decline through over/insensitive development</li> </ul>
Social and cultural impacts	<ul style="list-style-type: none"> <li>- Not all stakeholders will benefit from tourism</li> <li>- Erosion of traditional lifestyles and values</li> <li>- Erosion of traditional dialects, vocabularies and accents</li> <li>- Unsociable behaviour of tourists</li> <li>- Altered demographic profiles</li> <li>- Conflicts with local residents</li> <li>- Alienation of local residents</li> <li>- Decline in religious practices</li> <li>- Competition for property (residents vs. second homes)</li> <li>- Increased urbanisation/ population density</li> <li>- Congestion</li> <li>- Overload of local infrastructure</li> <li>- Health effects from increased pollution</li> <li>- Transformation of destinations (architectural pollution)</li> </ul>
Environmental impacts (natural and built)	<ul style="list-style-type: none"> <li>- Pollution to air, water and land</li> <li>- Disturbance of ecosystems</li> <li>- Loss of flora and fauna</li> <li>- Deforestation</li> <li>- Depletion of natural resources</li> <li>- Land taken out of primary production</li> <li>- Damage to ancient monuments</li> <li>- Increased waste/ sewerage</li> <li>- Alteration of drainage patterns</li> <li>- Increased erosion</li> <li>- Dispersal of weeds/ alien species</li> <li>- Noise pollution</li> <li>- Loss of wilderness</li> <li>- Change in cultural landscape</li> </ul>

Source: Pearce (1989); Mathieson and Wall (1992); Gratton and van der Straaten (1994); Hunter and Green (1995); Archer and Cooper (1997); Stabler and Goodall (1997)

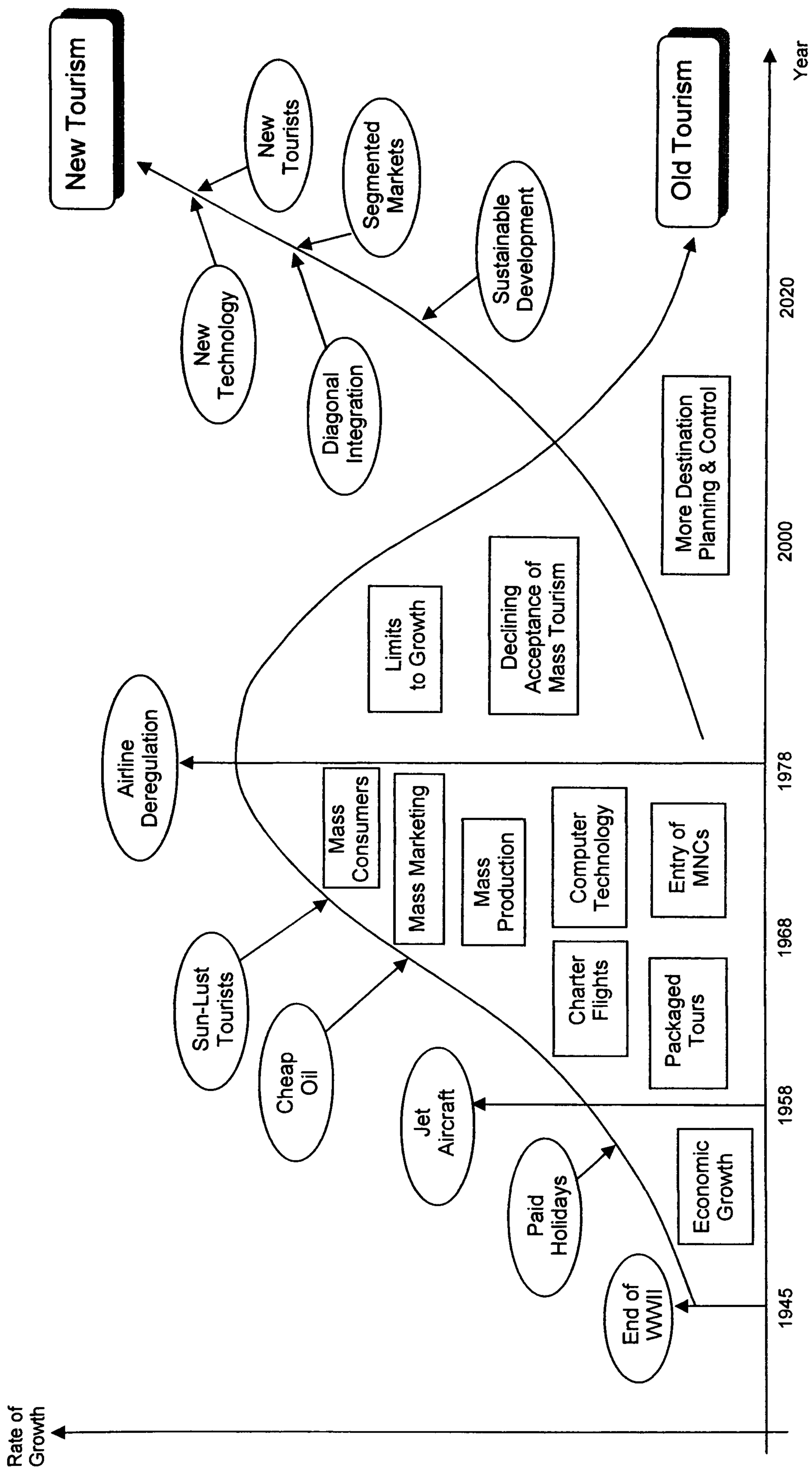
tourism restructuring suggests that Fordist models of production (applying principles of mass production in response to the popularisation of tourism in the 1950s, 1960s and 1970s) have become outmoded, but have not been totally replaced. Instead, a drift to more individual service propositions has been identified, characterised by post-Fordist production systems, which have rejected a standardised product in favour of flexibility to vary the delivery of goods and services according to customer needs and an emphasis upon the quality of experience (see Figure 1.3) (Urry, 1990; Poon, 1993; Williams and Montanari, 1995; Williams and Gillmor, 1995; Archer and Cooper, 1997; Smeral, 1998). UK resorts have been slow to respond to such changes in demand and, by the end of the 1980s, many were described as being in long-term decline (Agarwal, 1997a). Ioannides and Debbage (1998) describe the current state of the tourism industry as a polyglot of Fordist and pre-Fordist organisations, which have changed little in response to demand in the past 50 years. Poon (1993) suggests that the required adjustment within the industry extends beyond investment in new technologies and marketing techniques to a fundamental rejection of environmentally-intensive patterns of growth, characterised by mass tourism developments:

*“Call it by any name – soft tourism, ecotourism, sustainable tourism, new tourism, responsible tourism – environmentally sound tourism is not just a fad. It has become a way of life if the industry and indeed this planet is to be sustained. There is no other choice”* (Poon, 1993, p.6).

In this respect, sustainable tourism is presented, not as a market niche, but a necessary condition of future growth within the sector.

### **1.3.5 Emergence of sustainable tourism**

Although a number of factors inherent within the industry contributed to its emergence, sustainable tourism is widely described as an applied concept, developed and popularised in the light of the Brundtland Report and Rio Earth Summit (Butler, 1991, 1998; Wall, 1997a; Archer and Cooper, 1997). There is no universally accepted definition of sustainable tourism. Interpretations abound, betraying the priorities, values and perspectives of their authors. Coccossis (1996) identifies at least four ways in which sustainability can be interpreted within the context of tourism. The first interpretation is in terms of the economic sustainability of the industry, which seeks to maintain tourism in a format that is economically viable for an indefinite period of time (Butler, 1999). Such a view readily endorses programmes of extensive construction and development to meet the narrow economic needs of the industry (Coccossis, 1996). Butler (1999) states that the economic perspective has little in common with environmental sustainability.



Source: Poon (1993)

Figure 1.3 The changing nature of tourism

The second interpretation is in terms of ecological sustainability, where the main priority is the protection and conservation of the natural environment (Coccosis, 1996). This interpretation corresponds to the ecocentric view of sustainability (Stabler, 1987) and dismisses 'sustainable tourism' as an oxymoron by virtue of the industry's essential nature, reach and scale (Wheeller, 1993; Beioly, 1995).

*"The term 'green tourism' is a classic oxymoron. Nothing could be less green (in the sense of environmentally sound) than travelling hundreds of miles, usually by car, to purchase some non-essential leisure activity that could be pursued equally well nearer to home. In a truly green society, tourism would be severely curtailed, if not banned"* (Beioly, 1995, p.175).

Although the ecological interpretation might contemplate a world without tourism, there is an acceptance that travel and tourism are unlikely to be discontinued (Rosenthal, 1991). 'Soft' forms of tourism activity are tolerated to the extent that they do not cause significant disturbance to the natural environment and are able to contribute to its upkeep (Wight, 1994; Clarke, 1997). Ecological interpretations impose strict conditions on the nature and scale of permitted development to ensure that sufficient economic benefits are directed towards conservation measures and support of the local community, and that the negative impacts of development are minimised (see Table 1.6) (Valentine, 1992; Driml and Common, 1996). Developments that meet such criteria are typically described as small scale, low impact, environmentally sensitive schemes, which employ local people and are operated in a manner that is consistent with community values (Romeril, 1989b; Butler, 1999). Critics have argued that such schemes are unlikely to be transferable to mass market contexts (Butler, 1991; Wheeller, 1992, 1993; Wanhill, 1997) and amount to little more than legitimised development in fragile and sensitive areas (Butler, 1990; Wheeller, 1992; Cater, 1994). In this respect, 'eco' or 'nature-based' tourism may be more environmentally damaging than the forms of mass tourism which they have sought to avoid (Wall, 1997c; Butler, 1998).

The third interpretation, 'sustainable tourism development', acknowledges the aesthetic value of the natural, cultural and social environments as the main attractions for visitors to an area and as a basis of product differentiation (Wall, 1997a; MacLellan, 1997; Pigram and Wahab, 1997; Butler, 1999). Coccosis (1996) describes this interpretation as essentially an economic or marketing perspective: the object of primary concern is the viability of the industry. Sustainability principles are endorsed with enthusiasm to promote a caring image, either as a proactive tool to enhance product differentiation, or as a defensive measure to deflect criticism (Wall, 1997a; Wheeller, 1993;

**Table 1.6 Interpretations of sustainable tourism**

***Ecological interpretations***

***Driml and Common (1996)***

Two conditions must be met:

- a) Tourism must be compatible with the conservation of the existing natural environment; and
- b) Tourism must provide a non-declining stream of economic benefits.

***Valentine (1992)***

Nature-based tourism has the potential to assist nature conservation if there is:

- a) a clear, sustained and adequate benefit to the local community from the nature-based tourism venture;
- b) a clear link between the tourist choice of destination and locally protected nature; and
- c) appropriate land management and skills to provide satisfaction to both the visitors and the local community.

***Tourism as part of a strategy for sustainable development***

***Butler (1993)***

“[Sustainable tourism is] tourism which is developed and maintained in an area (community, environment) in such a manner and at such a scale that it remains viable over an indefinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits development and well-being [sic] of other activities and processes”

***Beioly (1995)***

For tourism to be truly sustainable it must:

- Respect the well-being and concerns of host communities and cultures and help sustain the local economy.
- Respect the character of the local environment and operate within its capacity to regenerate itself.
- Reduce its impact on the wider global environment in terms of depletion of natural resources and pollution.
- Provide a meaningful and satisfying experience for the visitor.

Butler, 1999). Beioly (1995) describes such approaches as 'Trojan horses', which seek to legitimise continued development and obscure a lack of real action.

The fourth interpretation views tourism as part of an overall strategy for sustainable development, where the industry is a strategic partner in the pursuit of system-wide sustainability (see Table 1.6) (Butler, 1999). Strategies for the development of tourism are expected to be integrated within wider policies for sustainable development, rather than formulated and implemented discretely. Butler (1998) describes this interpretation as the only perspective that is consistent with the vision of sustainable development outlined by the Brundland Report. Both Butler's (1993) and Beioly's (1995) definitions (see Table 1.6) resemble ecological interpretations of sustainable tourism in that the nature of acceptable development is carefully caveated and limits to acceptable behaviour are emphasised, but there are fundamental differences. Butler's and Beioly's definitions are intended to be applied to all forms of tourism, not just small-scale developments in fragile environments, and accept that widespread development is inevitable. They do not prevent the use of any natural resources, only require that such use should not preclude the 'development of and well-being of other activities and processes' (Müller, 1994; Beioly, 1995; Hall, 1998; Butler, 1999). This perspective requires all stakeholders to acquire an environmental and community ethic to inform the qualitative or wise growth of tourism in general (Goodall, 1994; Stabler, 1997).

## **1.4 PROBLEMS WITH THE ADOPTION OF SUSTAINABLE TOURISM**

### **1.4.1 Definition and scale**

As a practical framework to inform human activity, 'sustainable tourism' suffers from the same weaknesses as the concepts from which it was derived. The concept is vague, value-laden and contested, which is open to abuse and misunderstanding (Romeril, 1989a, 1994; Wheeler, 1993; Cater, 1994; Müller, 1994; Beioly, 1995; Coccossis, 1996; Archer and Cooper, 1997; Clarke, 1997; MacLellan, 1997; Butler, 1998). Other problems relate to the geographical scale at which sustainable tourism is defined. Although some commentators maintain that sustainability can be applied at the level of an individual business (Inskeep, 1991), others stress that sustainability only obtains relevance and meaning as a holistic system condition (Leiper and Harris, 1995; Wall, 1997a; Butler, 1998, 1999; Milne, 1998). A further criticism is that the concept has been applied selectively within tourism. Interpretations focus primarily upon destination areas and typically ignore

some of the most significant sustainability issues, such as the impact of transport to and from destination areas and the absolute growth in visitor numbers (Wheeller, 1992, 1993, 1994; Butler, 1993, 1998; Wall, 1996; Gössling, 2000).

Despite such criticisms, there is a tacit acceptance that, in the absence of alternative paradigms, interpretations of sustainable development and sustainable tourism provide the most appropriate frameworks for assessing the efficacy of policy interventions to reduce the negative impacts of tourism development, and the response of the key stakeholders to such measures (Bramwell and Lane, 1993a; MacLellan, 1997). In this respect, sustainable tourism is positioned as an aspirational goal against which incremental progress can be planned and monitored (Beioly, 1995; Middleton, 1999).

#### **1.4.2 Industry weaknesses**

Other problems concerning the implementation of sustainable tourism relate to the nature of the tourism industry, which is frequently described as complex, fragmented and heterogeneous (Euromonitor, 1989; Urry, 1990; Wild, 1995; Smith, 1998; Baum, 1999), and, therefore, difficult to influence through policy initiatives. Tourism encompasses a wide range of diverse sectors (see Table 1.2), which have little in common other than they share a proportion of each others' customers. There are few formal links between such sectors. Smith (1998) suggests that, where tourism businesses have formed partnerships, it has only been on a highly specific and localised basis (e.g. for destination marketing), which has constrained the strategic development of the industry.

A further problem is the predominance of small businesses in the sector which has limited the capacity of the industry to innovate. Of the 122,370 tourism-related businesses (as defined by the ONS) operating in the UK at the start of 1999, 83.4 per cent were classified as micro-businesses (less than 10 employees), and 99.7 per cent as small and medium-sized enterprises (SMEs) (less than 250 employees) (see Table 1.7) (Small Business Service [SBS], 2000). Many small tourism businesses have been established for non-financial reasons, for example as lifestyle or retirement decisions (Stalinbrass, 1980; Shaw and Williams, 1998; Wild, 1995; Urry, 1990; Dewhurst and Horobin, 1998; Clegg and Essex, 2000; Thomas *et al.*, 2000). Consequently, business owners may have little interest in growing or developing their business (Margerison, 1998). Small operators



**Table 1.7** Number of businesses in UK tourism-related sectors by size of business (no. of employees) at start of 1999

Sector	Micro (1-9)		Small (10-49)		Medium (50-249)		Large (250+)		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hotels	7000	62.3	3495	31.1	640	5.7	95	0.8	11230	100.0
Camping sites	2740	86.8	355	11.3	50	1.6	10	0.3	3155	100.0
Restaurants	43410	87.3	5780	11.6	460	0.9	55	0.1	49705	100.0
Bars	31710	85.6	5050	13.6	230	0.6	70	0.2	37055	100.0
Travel agencies/ tour operators	5040	85.4	680	11.5	145	2.5	45	0.8	5905	100.0
Libraries/ museums	815	78.7	170	16.4	50	4.8	5	0.5	1035	100.0
Sporting activities	7715	78.6	1750	17.8	295	3.0	65	0.7	9820	100.0
Other recreation activities	3610	81.2	660	14.8	145	3.3	30	0.7	4445	100.0
<b>Total</b>	<b>102040</b>	<b>83.4</b>	<b>17940</b>	<b>14.7</b>	<b>2015</b>	<b>1.6</b>	<b>375</b>	<b>0.3</b>	<b>122370</b>	<b>100.0</b>

Notes: Businesses with no employees are excluded. The Small Business Service (SBS) rounds all counts to the nearest 5 to avoid disclosure – totals may not equal the sum of the data in rows and columns. Percentages may not always add up to 100 owing to rounding.

Source: Small Business Service (2000)

typically operate on the margins of commercial viability and are more concerned about day-to-day survival rather than making long-term plans for environmental conservation. Economic and commercial criteria usually dominate the decision-making of such small businesses (Carlsen, Getz and Ali-Knight, 2001). A large proportion of businesses are run by in-migrants with little previous tourism or business experience (Stalinbrass, 1980; Thomas *et al.*, 2000; Dewhurst and Horobin, 1998; Shaw *et al.*, 1987). Such business owners have limited technical knowledge and awareness of industry 'best practice', possess weak entrepreneurial and general management skills, and show little appetite to develop them (Shaw and Williams, 1998; Urry, 1990; Lee-Ross, 1999; Baum, 1999; Williams and Gillmor, 1995). Any business plans and strategies for expansion are typically informal and rudimentary (Margerison, 1998).

The manner and extent to which small tourism-related have responded to the concept of environmental sustainability is framed within a range of public, private and voluntary sector strategies and action plans which have sought to guide the sector. It is to such institutional interpretations and interventions that the discussion now turns.

## **1.5 THE INSTITUTIONAL RESPONSE TO SUSTAINABLE TOURISM**

### **1.5.1 Strategies and action plans**

The expected contribution of the private sector to practical applications of sustainable tourism is to be found within a range of strategies and action plans that seek to interpret and operationalise the concept (see Table 1.8). At an international level, a number of initiatives have sought to inform the operations of the global industry. Industry associations, the World Travel and Tourism Council (WTTC) and the World Tourism Organisation (WTO), together with the Earth Council, have produced an 'Agenda 21 for the Travel and Tourism Industry' (WTTC *et al.*, 1996). Intended to represent a translation of Agenda 21 into a programme of action for the tourism industry, the report offers 12 guiding principles for private operators, covering aspects such as waste management, resource consumption, community relations, and development design and construction. A similar document, 'Beyond the Green Horizon', has been produced by non-governmental organisations (NGOs), the World Wide Fund for Nature (WWF) and Tourism Concern, based upon experiences within conservation areas in Nepal and Senegal (Eber, 1992). The resultant list of ten principles bears close comparison to the WTTC/WTO list, but with greater emphasis upon the interests of its

**Table 1.8 Strategies and action plans for sustainable tourism**

**a. International strategies**

Strategy	Definition of sustainable tourism	Responsibility of private sector	Responsibility of public sector
<p>'Agenda 21 for the Travel and Tourism Industry' (WTTC, WTO and Earth Council, 1996)</p>	<p>"Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future" (p.30)</p>	<ul style="list-style-type: none"> <li>- Minimise resource inputs and waste outputs</li> <li>- Reduce energy use and emissions</li> <li>- Protect fresh water resources (minimise use)</li> <li>- Minimise waste water output (quantity and quality)</li> <li>- Minimise use of hazardous substances</li> <li>- Reduce impact of transport (own and customer)</li> <li>- Sensitive land-use planning and management</li> <li>- Involve staff, customers and communities</li> <li>- Design for sustainable development</li> <li>- Form partnerships for sustainable development (government, smaller businesses, communities, trade associations, other industries)</li> </ul>	<p><b>Governments, tourism authorities, trade organisations:</b></p> <ul style="list-style-type: none"> <li>- Assess policy framework to bring about sustainable tourism (regulations, economic instruments, voluntary codes)</li> <li>- Review own environmentally performance</li> <li>- Develop training education and public awareness</li> <li>- Integrate within planning processes</li> <li>- Facilitate information exchange – skills, technology</li> <li>- Promote participation from all sectors of society</li> <li>- Design new sustainable tourism products</li> <li>- Measure progress in achieving sustainable dev't</li> <li>- Develop partnerships to promote responsible entrepreneurship</li> </ul>
<p>'Beyond the Green Horizon – Principles for Sustainable Tourism' (Eber, on behalf of World Wide Fund for Nature and Tourism Concern, 1992)</p>	<p>No precise definition offered but a series of operating principles for sustainable tourism targeted at the industry.</p>	<ul style="list-style-type: none"> <li>- Use resources sustainably:</li> <li>- Reduce over-consumption and waste</li> <li>- Maintain diversity</li> <li>- Integrate tourism into planning</li> <li>- Support local economies</li> <li>- Involve local communities</li> <li>- Consult stakeholders and the public</li> <li>- Train staff</li> <li>- Market tourism responsibly</li> <li>- Undertake research</li> </ul>	<p>The responsibilities of the public sector were not defined.</p> <p>"The tourism industry should... ally itself with others – governments and non-government organisations, environmentalists, development agencies, pressure groups and local communities – if not take the lead in the global effort to achieve a sustainable society" (p 2)</p>

**b. UK strategies**

<b>Strategy</b>	<b>Definition of sustainable tourism</b>	<b>Responsibility of private sector</b>	<b>Responsibility of public sector</b>
<p>'Maintaining the Balance: Tourism and the Environment' (English Tourist Board and the Employment Department Group, 1991)</p>	<p>Seven principles for sustainable tourism:</p> <ul style="list-style-type: none"> <li>- The environment has an intrinsic value.</li> <li>- Tourism should be recognised as a positive activity...</li> <li>- The relationship between tourism and the environment must be managed so that it is sustainable in the long-term...</li> <li>- Tourism activities and developments should respect the scale, nature and character of the place...</li> <li>- In any location, harmony must be sought between the needs of the visitor, place and the host community.</li> <li>- In a dynamic world some change is inevitable...</li> <li>- The tourism industry, local authorities and environmental agencies all have a duty to respect the above principles and work together...</li> </ul>	<ul style="list-style-type: none"> <li>- Adopt the principles for the balanced development of tourism</li> <li>- Examine the impact of their own operations</li> </ul>	<p><i>Central government:</i></p> <ul style="list-style-type: none"> <li>- Produce guidance to local authorities on formulating policies at regional and local level</li> <li>- Endorse the principles</li> </ul> <p><i>ETB/Regional Tourist Boards:</i></p> <ul style="list-style-type: none"> <li>- Disseminate guidance on visitor management</li> <li>- Establish pilot projects to demonstrate visitor management</li> <li>- Take into account benefits of visitor management in determining priorities</li> <li>- Recognise examples of best practice</li> <li>- Recognise special importance of London</li> </ul> <p><i>Local authorities:</i></p> <ul style="list-style-type: none"> <li>- With industry and RTBs, take lead for promoting collaborative policies and programmes for harmonious tourism development</li> <li>- Use imaginative traffic management schemes</li> <li>- Adopt the principles</li> </ul>
<p>'Principles of Sustainable Rural Tourism: Opportunities for local action' (Department of National Heritage, Rural Development Commission, English Tourist Board and Countryside Commission, 1995)</p>	<p>Refers to the principles of sustainable tourism within 'Maintaining the balance' (see above)</p>	<ul style="list-style-type: none"> <li>- Use local labour, services and produce</li> <li>- Limit demands made on the environment (use of the Green Audit Kit)</li> <li>- Work with local authorities and voluntary bodies to maintain and improve the local environment</li> <li>- Foster good relations with the local community</li> <li>- Tell visitors about the countryside and the need for conservation</li> </ul>	<p><i>Central government:</i></p> <ul style="list-style-type: none"> <li>- Promote sustainable tourism</li> <li>- Publish good practice</li> <li>- Support local initiatives</li> <li>- Encourage the tourism industry to be environmentally aware – promote Green Audit Kit</li> <li>- Undertake research on impacts and publish data</li> <li>- Provide advice on funding</li> </ul> <p><i>Local authorities can ensure:</i></p> <ul style="list-style-type: none"> <li>- Principles of sustainable tourism integrated in operations and local plans</li> <li>- Tourism and leisure contribute to Local Agenda 21</li> <li>- Community involvement in decision-making</li> <li>- Partnerships between industry and env'l interests</li> <li>- Local impact of tourism is monitored</li> <li>- Measures are evaluated</li> </ul>

Strategy	Definition of sustainable tourism	Responsibility of private sector	Responsibility of public sector
<p>'Tomorrow's Tourism' (Department of Culture Media and Sport, 1999)</p>	<p>"A wise growth strategy for tourism... is one which integrates the economic, social and environmental implications of tourism and which spreads the benefits throughout society as widely as possible" (p.50)</p>	<p>Responsibilities of the private sector are not explicitly stated. The strategy focuses on the role of central and local government.</p>	<ol style="list-style-type: none"> <li>1. <i>Establish an effective policy framework</i> <ul style="list-style-type: none"> <li>- Ensure sustainable tourism strategies/priorities established at national, regional and local levels</li> <li>- Incorporate within Rural/Urban White Papers</li> <li>- Establish sustainable tourism indicators</li> </ul> </li> <li>2. <i>Maximise benefits to local communities</i> <ul style="list-style-type: none"> <li>- Encourage local purchasing</li> <li>- Encourage tourism management partnerships</li> <li>- Review/promote incentive schemes which encourage sustainable practices</li> <li>- Promote visitor payback schemes</li> <li>- Raise awareness of benefits of tourism</li> </ul> </li> <li>3. <i>Manage visitor flows</i></li> <li>4. <i>Address transport issues</i> <ul style="list-style-type: none"> <li>- White Paper on Integrated Transport Policy</li> <li>- Encourage upgrading and promotion of public transport</li> </ul> </li> <li>5. <i>Address tourism planning issues</i></li> <li>6. <i>Build partnerships between public, private and voluntary sectors</i> <ul style="list-style-type: none"> <li>- Promote business understanding of benefits of energy conservation</li> <li>- Disseminate information about sustainable tourism issues through website – focus on specific needs of SMEs e.g. promotion of the Green Audit Kit</li> <li>- Integrate sustainability issues within training</li> <li>- Encourage local authorities/businesses to tell visitors about sustainability issues</li> </ul> </li> <li>7. <i>Increase access to tourism</i></li> </ol>

Strategy	Responsibility of private sector	Responsibility of ETC and partners	Responsibility of local authorities/DMGs*
<p>'Time for Action: A Strategy for Sustainable Tourism in England' (English Tourism Council, 2001a)</p>	<p><i>Protecting and enhancing the environment:</i></p> <ul style="list-style-type: none"> <li>- Raising the awareness of customers of a more sustainable approach</li> <li>- Reducing impacts on the natural environment (e.g. by implementing the <i>Green Audit Kit</i>)</li> <li>- Encouraging customers to use public transport</li> <li>- Contribute to the upkeep of the environment</li> <li>- Becoming familiar with local planning policy</li> </ul> <p><i>Support local communities and their culture:</i></p> <ul style="list-style-type: none"> <li>- Recruiting local labour</li> <li>- Encouraging residents to use facilities</li> <li>- Improving quality and accessibility of service</li> <li>- Promote cultural/heritage events</li> </ul> <p><i>Benefit the economy of tourism destinations:</i></p> <ul style="list-style-type: none"> <li>- Train staff in environmental management</li> <li>- Seek quality accreditation</li> <li>- Survey the needs of customers</li> <li>- Purchase and promote locally produced goods</li> <li>- Encourage business outside of the main season</li> <li>- Develop plans to grow business sustainably</li> </ul>	<p><i>Protecting and enhancing the environment:</i></p> <ul style="list-style-type: none"> <li>- Incorporate sustainability criteria in national competitions</li> <li>- Conduct research into visitor attitudes</li> <li>- Promote the <i>Green Audit Kit</i></li> <li>- Run environmental management training</li> <li>- Scope/inform development of a sustainable tourism accreditation scheme</li> <li>- Disseminate guidance on sustainable practices for SMEs (to be included within a forthcoming <i>Sustainable Tourism Management Tool Kit</i>)</li> <li>- Provide guidance on visitor management</li> <li>- Advocate for improvements in provision/information about, transport</li> <li>- Provide guidance on visitor payback schemes</li> <li>- Disseminate best practice in planning</li> </ul> <p><i>Support local communities and their culture:</i></p> <ul style="list-style-type: none"> <li>- Pilot projects on employment for disabled</li> <li>- Survey resident attitudes to the environment</li> <li>- Provide guidance on involving residents</li> <li>- Guidance on building on local distinctiveness</li> </ul> <p><i>Benefit the economy of tourism destinations:</i></p> <ul style="list-style-type: none"> <li>- Continue to support Welcome Host Scheme</li> <li>- Advocate for training for skill gaps in the industry</li> <li>- Promote existing and develop new tourism quality assurance schemes</li> <li>- Survey visitor satisfaction in England</li> </ul>	<p><i>Protecting and enhancing the environment:</i></p> <ul style="list-style-type: none"> <li>- Provide leadership in meetings with representative bodies as to what needs to happen locally in promoting sustainable management of tourism</li> <li>- Facilitate business partnerships and clubs to share best practice</li> <li>- Promote examples of best practice</li> <li>- Source funding for key sus. mgmt. projects</li> <li>- Advise/assist small businesses to reduce impacts</li> <li>- Provide sufficient recycling facilities for micro- and small tourism businesses</li> <li>- Act as a signposting mechanism for businesses to access grants, partnerships and specialist help</li> <li>- Work with Tidy Britain Group to improve beach and water quality</li> <li>- Draw up transport plans that reflect tourism needs</li> <li>- Initiatives to reduce private car use</li> <li>- Develop visitor management plans</li> <li>- Help set up and promote visitor payback schemes</li> <li>- Take into account tourism in sector-specific plans (e.g. health, transport, waste)</li> </ul> <p><i>Support local communities and their culture:</i></p> <ul style="list-style-type: none"> <li>- Work with regional agencies/bus. to recruit locally</li> <li>- Consult with residents</li> <li>- Raise business awareness of disability issues</li> <li>- Encourage resident use of tourism facilities</li> <li>- Promote cultural/heritage distinctiveness</li> </ul> <p><i>Benefit the economy of tourism destinations:</i></p> <ul style="list-style-type: none"> <li>- Encourage local sourcing of labour</li> <li>- Take part in destination benchmarking</li> <li>- Conduct visitor satisfaction surveys</li> <li>- Encourage purchase of local produce</li> <li>- Promote/coordinate out-of-season events/attract n</li> <li>- Indicators and targets for quality of tourism</li> </ul>
<p><b>Definition of sustainable tourism</b></p> <p>"In essence, it is about managing tourism's impacts on the environment, communities and the economy to make sure that the effects are positive rather than negative for the benefit of future generations" (p.8)</p>	<p>*Destination Management Groups</p>		

Strategy	Definition of sustainable tourism	Responsibility of private sector	Responsibility of public sector
<p>Working for the Countryside: A Strategy for Rural Tourism in England 2001-2005' (Countryside Agency and English Tourism Council, 2001)</p>	<p>Strategy reflects two key principles:</p> <ol style="list-style-type: none"> <li>1. Sustainable tourism " which benefits the economy in tourism destinations, protects and enhances the built and natural environment, and meets the social and cultural needs of people" (p.11)</li> <li>2. The focus of the Government's strategy 'Tomorrow's Tourism', on partnership, quality, competitiveness and wise growth</li> </ol>	<p><i>Influencing and enabling visits:</i></p> <ul style="list-style-type: none"> <li>- Provide information to visitors before and during their visit</li> <li>- Accessibility for disabled visitors</li> <li>- Participation in inspection and accreditation schemes</li> </ul> <p><i>Enriching the rural tourism experience:</i></p> <ul style="list-style-type: none"> <li>- Promotion and use of local produce</li> </ul> <p><i>Fostering rural tourism enterprises:</i></p> <ul style="list-style-type: none"> <li>- Take direct measures to reduce local and global impact on the environment</li> <li>- Use local labour</li> </ul> <p><i>Improving the management of rural destinations</i></p> <ul style="list-style-type: none"> <li>- Work with local authorities and protected area authorities in the promotion of protected areas</li> <li>- Become more aware of special qualities of protected areas and bring to attention of visitors</li> <li>- Promote alternative transport options to guests</li> <li>- Support conservation schemes in local areas</li> </ul>	<p><i>Influencing and enabling visits:</i></p> <ul style="list-style-type: none"> <li>- Research of visitor segments and marketing of rural products and destinations</li> <li>- Increasing the local impact of visitor information</li> <li>- Co-ordination and promotion of public transport</li> <li>- Remove barriers to access to the countryside</li> </ul> <p><i>Enriching the rural tourism experience:</i></p> <ul style="list-style-type: none"> <li>- Research on local supply and demand for accommodation</li> <li>- Encouraging participation in accreditation schemes</li> <li>- Including environmental practice and standards as an aspect of quality</li> <li>- Provide small grants schemes for small bus's</li> <li>- Bringing out local distinctiveness - culture/heritage</li> <li>- Promoting local produce and gastronomy</li> <li>- Making more of activity-based tourism</li> </ul> <p><i>Fostering rural tourism enterprises:</i></p> <ul style="list-style-type: none"> <li>- Providing advice, support and training to businesses</li> <li>- Advice through inspection schemes</li> <li>- Application and co-ordination of grant aid</li> <li>- Relating planning decisions to economic, social and environmental benefits</li> <li>- Encouraging businesses to join networks</li> <li>- Encouraging environmental best practice (e.g. through the <i>Green Audit Kit</i>)</li> <li>- Research on market response to env'l issues</li> <li>- Encourage use of local labour</li> </ul> <p><i>Improving the management of rural destinations:</i></p> <ul style="list-style-type: none"> <li>- Identifying rural tourism destinations for integrated quality management</li> <li>- Strengthening the role of market towns in tourism</li> <li>- Improving visitor and traffic management</li> <li>- Supporting the conservation of landscapes and biodiversity</li> <li>- Encourage community involvement</li> </ul>

sponsors (e.g. biodiversity, protecting the interests of local communities). By their nature, such initiatives focus upon generic issues of relevance to most destination areas world-wide.

Although tourism had been highlighted as one of five priority sectors within the EU's Fifth Action Plan on the Environment (formulated in 1992), because of the opportunity it presents to promote sustainable development and the perceived value of a 'Community-wide approach' (CEC, 1996), no formal strategy for sustainable tourism has been produced. Instead, the EU has adopted a policy of supporting member states in their own implementation of national, regional and local strategies that reflect the varying nature of tourism impacts and the development of the industry within member states (Klein, 2000; EU, 2000). Additionally, a number of demonstration projects have been funded to disseminate appropriate methodologies for sustainable tourism (Bausch *et al.*, 1995; Birkin, 2000; Marsanich, 2000). Within Europe, therefore, public strategies for sustainable tourism are to be found within individual member states.

In the UK, tourism has received special attention within public policy approaches to sustainable development (Beioly, 1995). In 1990, the Government established a special Tourism and Environment Taskforce to consider tourism's relationship with the environment and to apply principles of sustainable development to the industry. The Taskforce's final report, 'Maintaining the Balance' (ETB and EDG, 1991) outlined seven principles of sustainable tourism to inform future developments (see Table 1.8). The principles emphasised the positive benefits of tourism, but introduced additional considerations to conserve and protect the environment, and recognise the interests of host communities. The scope of the report reflected the limited mandate given to the Taskforce, which was to work with the 'current characteristics' and 'future projected trends' for the industry, and to "*look at how visitors can be better managed to ensure that not only will tourism continue to flourish, but that it will do so in harmony with the environment*" (ETB and EDG, 1991, p.2). Not surprisingly, the Taskforce report presented a non-contentious agenda for sustainable tourism which focused primarily upon visitor management schemes as solutions to, what were perceived to be, primarily 'local issues'. More detailed guidance for businesses to examine the impact of their own operations was contained within 'The Green Light: a Guide to Sustainable Tourism' (ETB *et al.*, 1991). The Guide suggested a range of discretionary practices that businesses might adopt with their operations, from managing resources to planning new developments, to tackle "the problems of success". Ashworth (1992) describes 'The Green Light' as an exercise in self promotion, and the Taskforce report as a defensive document, which



responded to the criticisms of tourism, rather than an attempt to address the core problems of sustainability. As such, both publications represent an economic or marketing interpretation of sustainable tourism. Nevertheless, the same principles have formed the basis for subsequent guides and strategies for rural and sustainable tourism in England (see Table 1.8).

A revision of Government policy was signalled in 1998, when a consultation document, 'Tourism – Towards Sustainability' (DCMS, 1998), was published. This document formed part of a wider consultation process for a revised UK strategy for sustainable development and invited opinion on how the economic, social and environmental benefits of tourism might be applied towards and integrated within the overall aim of sustainable development (DCMS, 1998). The Government's subsequent strategy for tourism, 'Tomorrow's Tourism' (DCMS, 1999) recognised that sustainable tourism can no longer be regarded as an optional extra, but is fundamental to safe-guarding the long-term competitiveness of the industry. The strategy sought to encourage the sustainable development or 'wise growth' of tourism, which "*integrates the economic, social and environmental implications of tourism and which spreads the benefits throughout society as widely as possible*" (DCMS, 1999, p.50). The Countryside Agency and ETC's (2001) strategy for rural tourism in England, 'Working for the Countryside' evidenced a similar approach, to establish a single strategy for rural tourism that claimed to be based upon principles of sustainability (see Table 1.8). 'Tomorrow's Tourism' presented a public policy mandate for tourism rather than a detailed agenda for private sector action. Responsibility for developing detailed strategies for sustainable tourism was assigned to the British Tourism Authority, and in England, to the ETC.

In April 2001, the ETC published its strategy for sustainable tourism, 'Time for Action' (ETC, 2001a), together with a series of 20 indicators against which progress was to be monitored (ETC, 2001b). The strategy seeks to encourage all stakeholders to manage tourism in such a way that it "*protects and enhances the built and natural environment; supports local community and culture; [and] benefits the economy of tourism destinations*" (ETC, 2001a, p.13). The private sector is expected to contribute to 15 of 16 key objectives within the strategy (see Table 1.8). Responsibilities extend beyond the control of direct impacts upon the environment (e.g. waste, consumption of resources, energy) to include activities which might enhance the positive benefits of tourism (e.g. local purchasing, recruitment of local labour, contributing to the upkeep of the local environment, promoting cultural and heritage events) and change the nature of the UK tourism

market over the long-term (e.g. diversification, responding to sustainable market niches, reducing dependence upon a limited season).

Considered together, the strategies in Table 1.8 display a number of common themes. In each case (with the exception of 'Beyond the Green Horizon', which is aimed at tourism development in general), the public sector has assumed a leadership role in defining and directing the changes necessary to develop more sustainable forms of tourism. Although the EU has produced over 400 environmental regulations or directives, few have been directed towards tourism and none apply specifically to tourism businesses. In lieu of direct regulation or strong fiscal instruments, the strategies place great emphasis upon the voluntary adoption of sustainable practices by tourism businesses. Additionally, each strategy seeks to encourage partnerships between the public, private and voluntary sectors to engender a common purpose and mandate across the industry.

It is significant that the main focus of each strategy is upon supply-side issues within tourism, rather than attempting to change the nature of demand. In this respect, each strategy has adopted a reformist rather than a radical approach to sustainable tourism. None questions the existence of tourism or seeks to restrict the volume of visitors, which are recognised as unrealistic goals. Indeed, 'Tomorrow's Tourism' (DCMS, 1999) and 'Time for Action' (ETC, 2001a) are both committed to ambitious growth plans to revive the UK industry's share of world markets. The WWF/Tourism Concern strategy (Eber, 1992) acknowledges that tourism can be a preferred form of development in comparison to other industries. Instead, each strategy seeks to harness the benefits of tourism, whilst minimising possible negative impacts as a basis for 'sustainable development'. In each case, the destination area is the main focus of attention.

None of the strategies are binding upon the tourism industry. Whilst each readily suggests responsibilities, there are typically no mechanisms to communicate these to individual businesses, no timescales for adoption, and no incremental budgets to support implementation. Where sustainability indicators are suggested to monitor progress, emphasis is upon the quantifiable economic benefits of tourism rather than the qualitative state of the social, cultural and natural environments. Without funding, accepted responsibilities and timescales, such documents represent discretionary codes of conduct rather than committed action plans. At best, such strategies provide a framework or template for action which still has to be formulated and organised at a local level to obtain meaning and relevance for individual businesses. To this end, the manner

in which sustainability and sustainable tourism have been translated into practical measures by practitioners who engage directly with the industry may provide a more robust research frame and are discussed below.

### **1.5.2 Practitioner guides and initiatives**

A range of guides and schemes are available to tourism-related businesses in the UK to encourage the adoption of sustainable practices and provide more detailed descriptions of the specific contributions that businesses are expected to make to sustainable tourism (see examples in Table 1.9). Welford *et al.* (1999) have identified over 100 such guides world-wide. Initiatives range from global schemes (e.g. the International Hotels Environment Initiative, Green Globe) to local initiatives with a regional emphasis and focus (e.g. the Somerset Green Audit Checklist); and from sector-specific initiatives (e.g. the Holiday Caravan Parks 'Guide to Good Practice') to generic guides aimed at all micro-businesses (e.g. the Green Compass). Within England, the main guide targeted at small tourism operators is the 'Green Audit Kit', which has been endorsed by the Countryside Agency and the ETC (Countryside Agency and ETC, 2000). Developed as a pilot project in South Devon (1992-1995), the Kit takes the form of a self-help guide to apply the principles of sustainable tourism within small tourism operations and local economies (Dingle, 1995). The Kit was introduced by the Rural Development Commission on a national basis in 1996 and revised and relaunched by the Countryside Agency and the ETC in 2000.

Notwithstanding the limited scope of some schemes (e.g. the Building Research Establishment (BRE) Best Practice Guide and the 'Hospitable Climates' benchmarking scheme focus only on energy efficiency in the accommodation sector), there is strong consensus about the ways in which individual businesses can contribute to sustainable tourism (see Table 1.9). Tourism businesses are expected to focus upon five core areas of their operations. A first area is minimising the consumption of resources (e.g. energy, water, raw materials) to reduce the ecological footprint of the business. A discussion of such measures forms the core of each guide. A second area is the production of waste, one of the few aspects of tourism operations that are subject to regulation. Measures to minimise, reduce, or recycle waste materials also offer commercial benefits by reducing disposal costs. Hawkins (1994) suggests that actions to tackle waste and resource issues represent a starting point for environmental management within tourism businesses. Spreading the benefits of tourism amongst the local community represents a third area of focus (e.g. by local

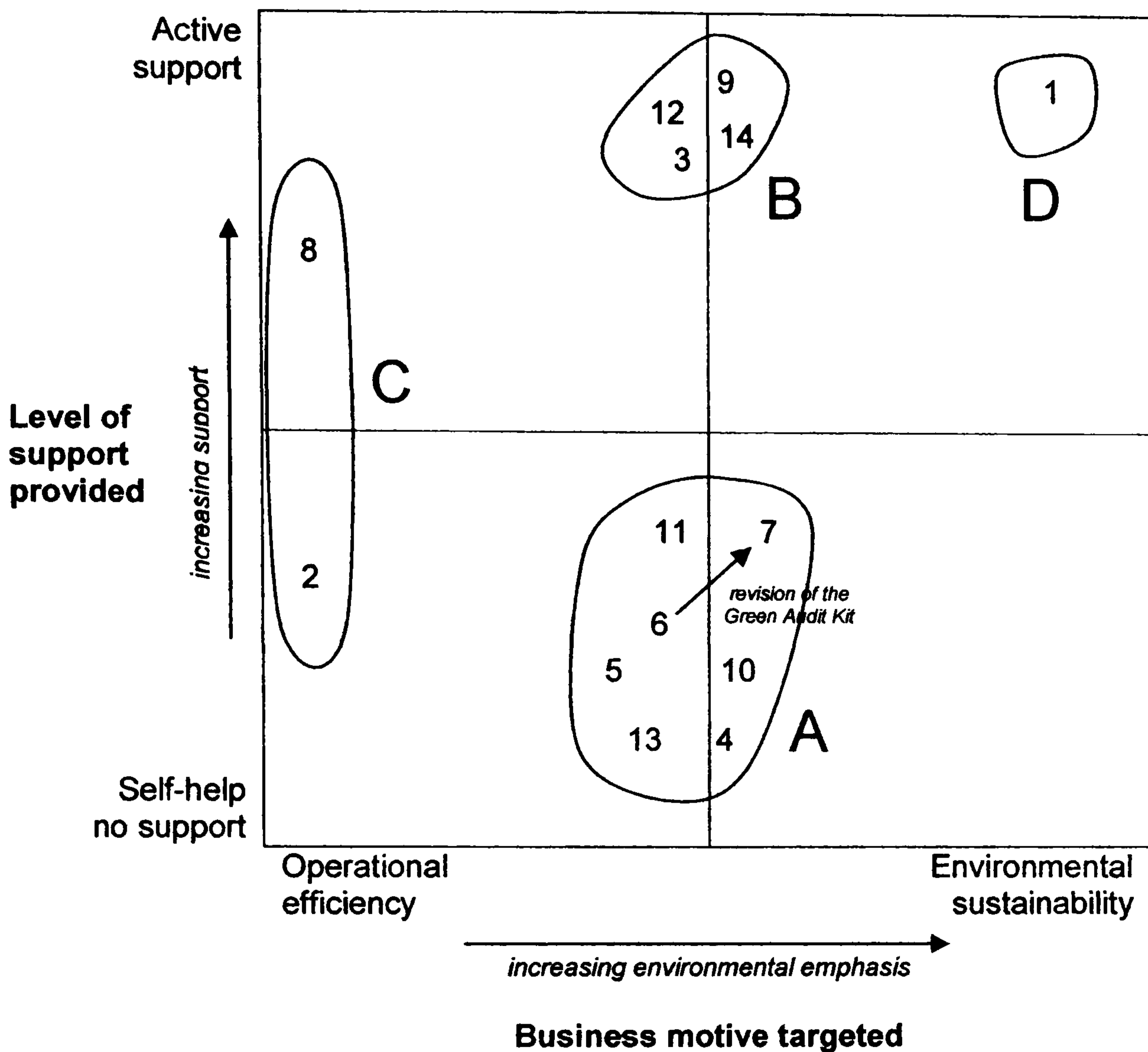
**Table 1.9 Activities encouraged by 'green' business guides**

'Green' business guide/ author (see Figure 1.4 for full reference details)	Use of energy	Use of water	Green purchasing	Local purchasing	Waste reduction	Reusing waste	Recycling	Composting	Encouraging wife	Env'l policy	Business transport	Visitor transport	Involving visitors	Local food on menu	Visitor recycling	Internal env't	Design/construction	Support community	Support local env't	
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<i>Green Audit Kit – 2000</i> (CA and ETC, 2000)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<i>Green Audit Kit (1996)</i> (RDC, 1996)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	●	●
<i>Env'l Mgmt for Hotels</i> (IHEI, 1993)	●	●	●	●	●	●	●	●	●	●	●	●	●	○	●	●	●	●	●	●
<i>The Green Light</i> (ETB et al., 1991)	●	●	●	●	●	●	●	○	●	●	●	●	●	●	○	●	●	●	●	●
<i>Going Green</i> (Tourism and the Env't, 1997)	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	●	●	○	○	○
<i>Green Tourism Bus. Scheme</i> (Scottish Tourist Board, 1998)	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	○	○	○	○	○
<i>Somerset Green Audit Checklist</i> (Sustainable Somerset Group, 1999)	●	●	●	●	○	●	●	○	●	●	●	●	●	○	○	●	○	○	○	○
<i>David Bellamy Cons'n Award</i> (BHP and HPA, 2000)	●	●	●	●	○	○	●	○	●	●	●	●	●	●	○	○	○	●	●	●
<i>Holiday Caravan Parks</i> (Anderson Associates, 1995)	●	●	●	●	●	●	●	○	●	○	○	●	○	○	○	○	○	●	●	●
<i>Solway Greens Award</i> (Solway Rural Initiative, 1999)	●	●	●	●	●	●	●	○	○	○	●	○	●	○	○	●	○	○	○	○
<i>Green Compass</i> (Payback, 2000)	●	●	○	○	○	○	○	○	○	●	●	○	○	○	○	○	○	○	○	○
<i>Hospitable Climates</i> (HCIMA and BRE, 2000)	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
<i>Energy Efficient - Best Practice</i> (BRE, 2000)	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

purchasing and supporting community projects). A fourth responsibility is in protecting and enhancing the environment (e.g. by creating and sponsoring wildlife areas). A final area of consideration is the relationship with customers and the extent to which their impacts upon the environment might be influenced by businesses (e.g. encouraging customer participation in environmental improvements).

Only a minority of schemes consider building design and construction issues and the suggested measures to mitigate the impacts of customers appear somewhat superficial (e.g. encouraging the use of public transport once customers have travelled to their destination). A further concern is that some of the less tangible impacts (e.g. social and cultural impacts), which might require a concerted response, are largely omitted. The schemes attempt to stimulate individual rather than collective responses to sustainability, which reflects the fragmented nature of the industry, the limited resources of sponsoring agencies, and an expectation that the public sector will provide leadership and direction to the industry. Nevertheless, the aggregated list of activities in Table 1.9 presents an agenda of sustainability issues that tourism businesses in the UK are expected to address, and therefore, a practical frame against which progress might be assessed.

There is less agreement about the most appropriate methodology to encourage the adoption of sustainable business practices. Amongst the schemes discussed, a number of distinct approaches can be identified which vary greatly in the level of support provided (in terms of the depth and personalisation of available information and advice) and the business motives targeted (i.e. the extent to which schemes promoted the commercial and environmental benefits of adopting environmental innovations) (see Figure 1.4). A large proportion of the schemes are in the form of stand-alone self-help guides, such as the Green Audit Kit (see group A), with little additional support. A minority have been established as inspection and certification schemes offering site visits and personal assistance from professional advisers (e.g. the Green Tourism Business Scheme, promoted by the Scottish Tourist Board) (see groups B and D). Accordingly, the costs of participation also vary greatly, from £10 for the 'Green Audit Kit' (2000) to almost £200 for membership of the 'Green Tourism Business Scheme'. Most schemes have targeted commercial motives for adopting sustainable practices (see groups A, B and C), primarily through a reduction in costs. The wider environmental or social benefits of adoption are also highlighted, but are secondary to the main commercial motive. Significantly, the revised edition of the Green Audit Kit (2000) has moved away from targeting financial motives explicitly to stress the more holistic and



**Key to numbered initiatives:**

- 1 David Bellamy Conservation Award (British Holiday and Home Parks Association, 2000)
- 2 Energy Efficient Refurbishment of Hotels and Guesthouses: Best Practice Guide (Building Research Establishment, 1996)
- 3 Environmental Management for Hotels: The Industry Guide to Best Practice (International Hotels Environment Initiative, 1993)
- 4 The Green Light (English Tourist Board, Countryside Commission and Rural Development Commission, 1991)
- 5 Going Green (Tourism and the Environment Initiative, 1997)
- 6 Green Audit Kit 1996 (Rural Development Commission, 1996)
- 7 Green Audit Kit 2000 (Countryside Agency and English Tourism Council, 2000)
- 8 Green Compass (Payback, 2000)
- 9 Green Tourism Business Scheme (Scottish Tourist Board, 1998)
- 10 Holiday Caravan Parks: Caring for the Environment, A Guide to Good Practices (Anderson Associates, 1995)
- 11 Hospitable Climates (Hotel and Catering International Management Association and Building Research Establishment, 2000)
- 12 Solway Greens Award Scheme (Solway Rural Initiative, 1999)
- 13 Somerset Green Audit Checklist (Sustainable Somerset Group, 1999)
- 14 Green Globe (Green Globe, 2001)

**Figure 1.4** Initiatives to encourage the adoption of sustainable practices amongst small tourism-related businesses

shared benefits of conserving local tourism resources and the sector's long-term viability, which reflects changing policy within the ETC (see Section 1.5.1). The 'David Bellamy Conservation Award' is distinct, both in its approach and the motives that it targets (see group D). Within the award scheme, camping and caravan parks are advised and assessed by conservation professionals on the basis of their contribution to wildlife habitats and biodiversity. Of the initiatives highlighted in Figure 1.4, arguably, this scheme is the only one that considers tourism from the perspective of the environment rather than the industry.

Considered together, the schemes reflect very different assumptions about the nature of business behaviour and the most appropriate manner in which principles of sustainability can be introduced to private operators. The diverse range of approaches indicates not only the variety of stakeholder interests in tourism, but also a lack of consultation between schemes, and the absence of publicly available research into the effectiveness of each (Goodall, 1995a).

## **1.6 AIMS AND OBJECTIVES**

The primary aim of this study was to inform local policy interventions through a detailed understanding of the manner in which small tourism businesses have responded to environmental sustainability, which has largely been overlooked within the literature. This research was situated within the Cornish district of Caradon in south-west England, where tourism represents the main industry sector and the largest employer (West Country Tourist Board [WCTB], 1997). The study was initiated and part-funded by Caradon District Council for the purpose of informing a strategy for sustainable tourism and represents a partnership between the District Council and the University of Plymouth. The project was also supported by Caradon Area LEADER II (an EU funded initiative for rural development) and South West Tourism (the regional tourist board for south-west England). The specific objectives of the study reflected both the practical needs of the project sponsors and the academic interest in the identified gap in research. The study had three key objectives:

- a. To investigate the extent and manner in which tourism-related businesses within the district of Caradon had responded to the concept of environmental sustainability within their business operations through the adoption of sustainable practices, and thus, gauge their awareness, understanding and potential to adopt additional practices in the future;

- b. To identify the main issues that had constrained the adoption of sustainable practices by tourism-related businesses within the district and represented barriers to the environmental sustainability of the industry; and
- c. To identify and assess the efficacy of relevant policy interventions to reduce the identified barriers, and encourage the adoption of further environmentally sustainable business practices, to inform a district-wide strategy for sustainable tourism.

The final objective of the study was to develop an actionable strategy based upon the results of the research, which the District Council could implement to encourage sustainable business practices within the local industry. This research was, therefore, central to a wider process of strategy development, and in this respect provided a progressive framework of consultation with the industry on behalf of the District Council.

## **1.7 STRUCTURE OF THE THESIS**

Implicit within the above objectives are a number of assumptions relating to the nature of sustainability, its relevance as a public policy goal for local government, and the expected role of private businesses within its achievement, all of which are debated intensely within the literature. It is important, therefore, for any study of this subject to be clearly positioned within established theory and past research. This thesis is divided into seven chapters which develop the discussion from ideological debates to the behaviour and experiences of tourism businesses within the study area.

This first chapter has introduced the study and reviewed the theoretical and practitioner interpretations of sustainability and sustainable development within the context of tourism to highlight the manner and extent to which tourism businesses are expected to contribute to sustainable tourism. Chapter Two positions the study within established theory and past research relating to the response of small businesses to sustainability. In the absence of an empirically tested model of small business behaviour within tourism, the chapter discusses the relevance of theories and models developed within other sectors and amongst larger businesses. The chapter concludes with an assessment of innovation diffusion theory as a relevant theoretical frame, which



attempts to explain the dissemination of new ideas and practices *per se*, and its potential to offer new insights into the behaviour of small businesses.

As a research project to inform local government policy interventions for sustainability, this study is inevitably grounded within the social, economic and environmental issues of the district, particularly in relation to tourism. Chapter Three introduces the study area and outlines the local context, within which past sustainable tourism initiatives have been developed. The various measures that have been targeted at the local industry to encourage the adoption of sustainable practices provide the most immediate terms of reference for the assessment of business responses to sustainability within the district.

Chapter Four presents and critically evaluates the programme of research formulated to meet the objectives of the study. In view of the lack of research into this subject, a mixed method strategy was designed to first explore the nature of the research problem and then progressively examine the main research questions. Chapter Five discusses the findings of an initial series of focus groups to establish an agenda for the later stages of research. The results of a postal questionnaire to all tourism businesses in the district, and follow-up interviews with a sample of business owners are then discussed in Chapter Six. The chapter considers four key issues which had been 'raised' by the focus groups and were central to the development of local policy interventions. The first issue was the extent to which sustainable practices had been adopted in the district, as a benchmark from which the District Council would seek to generate improvements. Second, seeking explanations for variations in the extent to which sustainable practices had been adopted would identify the conditions or behaviours that policy interventions might be required to encourage. Third, identification of the range and complexity of issues that presented barriers to the adoption of sustainable practices would highlight appropriate targets for intervention. Fourth, business views on the utility of potential measures to overcome the identified barriers would ensure that any interventions would reflect business needs and provide an additional insight into the constraints upon adoption.

Chapter Seven summarises and reflects upon the main findings of the study and the manner in which they informed a district strategy to encourage the adoption of sustainable business practices. The wider implications of the results for the design and delivery of both local and national policy interventions, and their contribution to a wider conceptual understanding of small business

behaviour towards sustainability, are discussed. The thesis concludes with a review of the opportunities for future research.

## **1.8 CONCLUSION**

Sustainable tourism is revealed as a widely supported operating principle and methodology to leverage the positive benefits of tourism, whilst minimising any negative impacts, to contribute potentially to the achievement of system-wide sustainability. Like the concepts from which it has been derived, however, sustainable tourism is value-laden and contested, requiring careful consideration of the precise version that is being applied. Through a requirement to inform local government policy interventions, this research is inevitably grounded within institutional interpretations of sustainability, which are continuing to evolve.

Within successive national strategies for sustainable tourism, businesses have not been expected to play a lead role or to contribute to all elements of sustainability, but to attend, primarily, to the direct environmental impacts of their operations. More recently, this responsibility has been extended to include a wider commitment towards local communities and the environment, upon which the industry depends. The manner in which sustainable tourism has been translated to the operations of individual businesses through practitioner guides and initiatives provides a practical framework for the assessment of business performance and potential. A challenge facing local authorities and others, who seek to encourage sustainable business practices, is that they must engage with a fragmented industry with little internal leadership and direction, and which are predominantly micro businesses with limited capacity for innovation, very low levels of cash flow and short-term investment/planning horizons. Past research and theories relating to the response of small businesses to sustainability are discussed in the next chapter.

# Chapter Two

## The response of tourism businesses to sustainability – theory and research

### 2.1 INTRODUCTION

Through a discussion of the theoretical and practitioner debates regarding the meaning and relevance of sustainability and its application within tourism, the previous chapter established a list of operational improvements that tourism-related businesses are expected and encouraged to adopt within public, private and voluntary sector strategies for sustainable tourism. The range of recommended practices relate, not only to the direct environmental impacts and resource implications of business operations, but also to the activities of their customers and wider contributions towards the local community and environment. Notwithstanding concerns about the adequacy of change promoted by such practices to address, what some authors perceive to be the inherently unsustainable characteristics of tourism (McKercher, 1993b; Wheeler, 1993), their adoption is considered by both policy-makers and practitioners to be indicative of a growing industry commitment towards sustainability. As a study that is contextualised within institutional interpretations of sustainability, the same list of sustainable practices provides an obvious framework against which to assess the response of individual businesses.

This chapter reviews the literature relating to the behaviour of businesses towards the sustainability agenda, both within tourism and other industries, to establish a theoretical basis for the research. Although a number of studies have started to explore the nature of business responses to sustainability within tourism, the main body of theory and research is to be found within environmental management studies, economics and the management sciences across a wide range of industries. The chapter commences with a review of this literature to highlight a number of conceptual models that attempt to anticipate and explain the manner in which businesses have approached environmental sustainability issues (Section 2.2). The discussion reveals that such models lack empirical verification and have greater utility as illustrative projections of how businesses might contribute to sustainability rather than robust frameworks to assess performance to date. Section 2.3 then considers past research into the subject which is extensive, but provides little coverage of the experiences and issues faced by the smallest businesses in responding to the sustainability agenda. In the absence of specific research relating to micro-businesses, the

relevance of wider studies of large businesses (with 250 or more employees) and small and medium-sized enterprises (SMEs, businesses with less than 250 employees), which have informed popular perceptions of small business behaviour, are discussed. The limited amount of research within the context of tourism is then considered. Although reaffirming many of the popular assumptions about small businesses, a number of studies have hinted at an underlying diversity of responses to sustainability within tourism businesses. However, because of a lack of relevant theory, such diversity has not been explored in depth. In a search for a theoretical basis, researchers have been directed towards more general theories of business behaviour. In this respect, innovation diffusion theory, which attempts to explain the dissemination of new ideas and practices *per se*, offers a number of advantages to this study and is discussed in Section 2.4.

## **2.2 THEORIES OF BUSINESS RESPONSES TO SUSTAINABILITY**

Theories that purport to anticipate and explain the behaviour of businesses towards sustainability operate at number of levels, providing a range of possible research options. At an industry or regional level, ecological modernisation and industrial ecology present macro-theories for the transformation of industry towards an ecologically sustainable state. At the level of the firm, a variety of models have been developed to describe the progressive nature of business activity with respect to sustainability. Both types of theory are discussed further below as possible research frameworks.

### **2.2.1 System-wide theories**

#### ***a. Ecological modernisation***

Ecological modernisation theory focuses upon the convergence of economic and environmental imperatives within modern society (Mol, 1995). The theory seeks to explain at a system level, why methods of production and public policy debates are paying greater attention to environmental issues (Mol, 1995). The main premise of the theory is that economic and environmental objectives can be reconciled over the long-term (Gouldson and Murphy, 1996; Baylis *et al.*, 1998). The theory does not purport to operationalise sustainability, as it seeks only to reconcile environmental and economic imperatives: social and cultural issues are not explicitly considered. Indeed, pre-eminence is given to the environment with the requirement that industry evolves within the constraints of ecology (Mol, 1995). Neither does the theory suggest that ecological modernisation

is an automatic process, rather than it must be managed and planned centrally through strategic market intervention and regulation. It is within central government that the capacity and opportunities for lasting reconciliation occur (Gouldson and Murphy, 1996). The emphasis on managing and reforming markets, rather than radical transformation, places ecological modernisation within anthropocentric perspectives of sustainability, albeit with a strong emphasis upon respect for ecological limits (Simonis, 1989).

Gouldson and Murphy (1996) state that ecological modernisation theory is characterised by four main themes. The first theme is that there is an assumed synergy between environmental protection and economic improvement. The second theme is that the integration of economic and environmental imperatives must take place initially at government level as a precondition for the modernisation of the entire system. System-wide environmental protection can only be achieved once the broader policy framework is in place. The third theme is that central intervention should not just employ command and control measures, but should choose from a range of policy measures most appropriate to reforming the nature of economic activity (e.g. tradable pollution permits, 'green' taxes). The fourth theme emphasises the importance of the development and adoption of innovative practices to deliver improved environmental performance in response to policy measures. The theory is essentially normative, suggesting that ecological modernisation is the only effective solution (Mol, 1995). Radical transformation of economic systems is rejected because of its social consequences, and softer reforms (e.g. voluntary initiatives, codes of conduct) dismissed because they are not radical enough. As a research framework, ecological modernisation theory is better suited to assess the efficacy of central and local government policy interventions to prompt and facilitate a transformation of business activity, rather than understanding business behaviour and needs which might inform such interventions.

### ***b. Industrial ecology***

Industrial ecology seeks to realign industrial systems by redesigning them in the image of ecology (Hawken, 1995; Mol, 1995; Anderson, 1997). Highly efficient metabolic processes found within nature are used as the inspiration for industrial networks (Marstrand, 1996). The theory seeks to transform the traditional linear pattern of industrial activity to a cyclical process, which minimises the throughput of raw materials, from extraction and transportation, to the production and disposal of waste. The theory is most commonly applied to local networks of businesses that are co-located

and collectively seek to optimise throughput efficiency through a complementary realignment of process. The approach is typically illustrated through selective case studies of cross-sector collaboration within 'green' business parks (see example in Box 2.1). Great importance is placed on the role of technology and innovation to facilitate continuous improvement within individual and aggregated production systems. Frosch (1995) terms 'industrial ecology' as the 'third paradigm of corporate management' in contrast to remedial or 'end-of-pipe' solutions and preventative measures.

**Box 2.1 Industrial ecology - the example of Kalundborg, Denmark**

*"A prototype of industrial ecology is in place right now in Kalundborg, Denmark. In Kalundborg, a coal-fired power plant, an oil refinery, a pharmaceutical company specializing in biotechnology, a sheetrock plant, concrete producers, a producer of sulfuric acid, the municipal heating authority, a fish farm, some greenhouses, local farms, and other enterprises work cooperatively together. The Asnaes Power Plant started this process off in the 1980s by recycling its waste heat in the form of steam. It had formerly condensed the steam directly to the Statoil refinery and the Novo Nordisk pharmaceutical company. It also provides surplus heat to greenhouses, a fish farm owned by the utility, and the residents of the local town, allowing 3,500 oil-burning systems to be shut off.*

*The Statoil refinery produces surplus gas, which was not used prior to 1991 because it contained excessive amounts of sulfur. The refinery installed a process to remove the sulfur, so that a cleaner-burning gas is sold to Gyproc, the sheetrock factory, as well as to the coal-fired utility (saving 30,000 tons of coal); the sulfur that is being retrieved is sold to Kemira, a chemical company. The process that removes the sulphur in the smokestacks of the Asnaes Power Plant also yields calcium sulfate, which they will be selling to Gyproc as a substitute for mined gypsum. The fly ash from coal generation is used in road construction and concrete production. Waste heat from the refinery is used to warm the waters of a fish farm that produces 200 tons of turbot and trout sold into the French market, while its fish sludge goes to local farmers as fertilizers. Meanwhile, Novo Nordisk has developed a process to make the sludge generated in its fermentation process useful for local farmers through the addition of chalk-lime and processing at 90 °C for an hour to kill off any remaining microorganisms"*

(Hawken, 1995, p.62-63)

As a model for sustainability, industrial ecology suffers from a number of problems. Like ecological modernisation, the theory focuses primarily upon the reconciliation of economic and environmental imperatives. Social issues are not addressed directly. Its focus is primarily local, and therefore, does not claim legitimacy at a national or international level. The theory relies upon the close proximity of businesses to deliver economic and environmental synergies. Anderson (1997) suggests that industrial ecology has limited application in the context of rural SMEs because of the transportation issue. Frosch (1995), however, suggests that the theory can also be used conceptually as an environmental management tool to identify and understand the nature of environmental problems in small and rural businesses and arrive at system-wide solutions. It is in this context that industrial ecology is of potential utility to this research.

## 2.2.2 Firm-level theories

At the level of the firm, a number of theories and models have been proposed to explain how and why businesses have adopted environmentally sustainable practices over time, and to anticipate businesses responses to the wider sustainability agenda.

### a. *Theories of voluntary business 'greening'*

Theories and models of business 'greening' relate to the iterative process through which businesses adopt more environmentally benign practices (Schaefer and Harvey, 1998). The term 'greening' suffers from colloquial over-use in a variety of contexts and is used here as a metaphor rather than an organisational goal (Everett, Mack and Oresick, 1993). Models of business 'greening' suggest no common end-point, only a process of continuous environmental improvement, evidenced by the incremental adoption of formal tools and techniques of environmental management (see Table 2.1) (Gladwin, 1993).

Hass (1996) distinguishes between 'continuum' and 'categorised' models of business behaviour. 'Continuum' or 'linear' models, suggest that, from a base-line position of minimum compliance with regulations, businesses will continue to adopt environmentally benign practices on an incremental basis over and above what is legally necessary (Petts *et al.*, 1999). Figure 2.1 illustrates a number of such models. The models differ in the suggested number and type of stages that a business will pass through. However, each model envisages a linear transformation of behaviour, values and strategy. The ultimate goal in each case is a position of holistic management, where environmental imperatives are integrated within all areas of business operations. The models in Figure 2.1 invite comparison with theories of ecological modernisation. Both approaches suggest a reconciliation of economic and environmental priorities over time, but at different scales of analysis. In this respect, the models offer a conceptual link between macro theories of economic and political adjustment, and the activities of the firm.

'Categorised' models are less ambitious. They do not assume or predict the inevitable convergence of economic and environmental imperatives, but emphasise the role of the business owner or manager as a strategic actor and the contextual nature of decision-making. The models suggest that responses are modified by strategic approaches to environmental issues (Taylor, 1996). Figure

**Table 2.1 Tools of environmental management**

<b>Tool</b>	<b>Purpose</b>
Environmental Impact Assessment (EIA)	The identification and quantification of the environmental impacts of new site developments and measures that might mitigate potential impacts. EIAs may be required as part of the Planning process and are compulsory for certain types of major developments under EC Directive.
Environmental Review	A broad and preliminary assessment of the environmental impact of a business' activity, positioned as a necessary precursor to the formulation of an environmental strategy and the targeted improvement of performance.
Environmental Strategy	A formal statement of priorities, targets and responsibilities to achieve a planned improvement in environmental performance over a specified time-frame, based upon an informed awareness of the environmental impacts of a business' activities and the risks and opportunities that such an awareness presents.
Environmental Policy	A corporate statement of policy towards the environment, highlighting the business' awareness of its impact on the environment and commitment to improved environmental performance. Policies may or may not include formal targets for improved performance or be publicly available for inspection.
Environmental Audit	An independent assessment of environmental performance in comparison to regulatory standards and the business' own environmental targets, to quantify business and environmental risk and highlight the opportunities for improvement.
Environmental Management System (EMS)	A formal and integrated system for monitoring environmental performance across the business. EMSs require formal procedures, targets, responsibilities, reporting of environmental information and audits to enable business managers to monitor performance, identify risks and manage improvements over time.
Environmental Standards	Externally verified standards reflecting the operational integrity of environmental management systems. Recognised standards include ISO 14001 and EMAS (Eco-management and Audit Scheme).
Life-cycle Assessment (LCA)	The assessment and quantification of the environmental impact of a product or service through its life. Assessments will include the impacts of resources extraction, production, distribution, consumption, production of waste and disposal of the product after use

Source: After Welford and Gouldson (1993); Roome (1992); Roberts (1995)



<p><b>A hierarchy of organisational objectives and responses</b> Welford &amp; Gouldson (1993)</p> <ol style="list-style-type: none"> <li>1. Minimising costs</li> <li>2. Maximising short-term profitability</li> <li>3. Maximising longer-term profitability</li> <li>4. Innovation in products and strategy</li> <li>5. Recognising a total cost concept</li> <li>6. Integrating the environment</li> <li>7. Widen the environment base</li> <li>8. Planning for uncertainty and risk</li> <li>9. Holistic management</li> </ol>	<p><b>Learning curve of Greening</b> Elkington et al. (1991)</p> <p><b>Ox</b></p> <ul style="list-style-type: none"> <li>• Stubborn compliance</li> <li>• Maintain status quo</li> <li>• Focus on local issues:             <ul style="list-style-type: none"> <li>- factory pollution</li> <li>- insurance requirements</li> <li>- waste collection</li> </ul> </li> </ul> <p><b>Guide dog</b></p> <ul style="list-style-type: none"> <li>• Essentially reactive</li> <li>• Higher level concerns:             <ul style="list-style-type: none"> <li>- car emissions</li> <li>- env'l impact assessment</li> <li>- health &amp; safety</li> <li>- hazardous waste</li> <li>- energy policy</li> </ul> </li> </ul> <p><b>Fox</b></p> <ul style="list-style-type: none"> <li>• Increasingly proactive</li> <li>• Political / environmental scanning</li> <li>• Outwardly concerned with:             <ul style="list-style-type: none"> <li>- ozone depletion</li> <li>- CFC and solvents</li> <li>- recycling</li> <li>- environmental audits</li> <li>- transport issues</li> <li>- eco-labelling</li> </ul> </li> </ul> <p><b>Dolphin</b></p> <ul style="list-style-type: none"> <li>• Interactive</li> <li>• Strategic response</li> <li>• Global concerns:             <ul style="list-style-type: none"> <li>- global warming</li> <li>- sustainable development</li> <li>- alternative energy and efficiency</li> <li>- biotech and genetic engineering</li> <li>- waste reduction</li> <li>- education and training</li> <li>- third world</li> </ul> </li> </ul>	<p><b>Hunt &amp; Auster (1990)</b></p> <p>Stage 1 <b>'Beginner'</b></p> <p>Stage 2 <b>'Fire Fighter'</b></p> <p>Stage 3 <b>'Concerned Citizen'</b></p> <p>Stage 4 <b>'Pragmatist'</b></p> <p>Stage 5 <b>'Proactivist'</b></p>	<p><b>Roome (1992)</b></p> <p><b>Non-compliance</b></p> <ul style="list-style-type: none"> <li>• Little long-term vision of business future</li> <li>• Little concept of the significance of environmental imperatives</li> </ul> <p><b>Compliance</b></p> <ul style="list-style-type: none"> <li>• Legislation sets the agenda</li> <li>• Reactive</li> <li>• Not used for competitive advantage</li> </ul> <p><b>Compliance Plus</b></p> <ul style="list-style-type: none"> <li>• Proactive, strategically led</li> <li>• Integrate env'l management systems</li> <li>• Organisational change encouraged</li> </ul> <p><b>Commercial &amp; Environmental Excellence</b></p> <ul style="list-style-type: none"> <li>• Coincidence of commercial and environmental excellence</li> <li>• Likely to have core corporate and managerial values focused on quality</li> </ul> <p><b>Leading Edge</b></p> <ul style="list-style-type: none"> <li>• State of the art environmental management</li> <li>• Set the standard for other businesses</li> </ul>
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Figure 2.1 Incremental models of business 'greening'

2.2 illustrates a number of such models. Each model seeks to explain point-in-time differences in strategy and behaviour between businesses rather than account for temporal changes in behaviour. Walley and Whitehead (1994) suggest that individual business responses are a function of the financial relevance of environmental issues and the recognised scope for managerial discretion. Environmental issues with a high financial relevance and a high scope for management discretion are expected to prompt the widest variation in response. In such circumstances, Walley and Whitehead (1994) suggest that businesses are likely to adopt strategic positions towards the environment (e.g. as a basis for competitive advantage or as a risk to be managed defensively).

Steger (1993) suggests a similar model where strategy towards the environment is a function of the environmental risks that the business is exposed to and the market opportunities arising. The most innovative responses are expected in circumstances of both high risk and high potential returns. Roome (1992) conceptualises business policies towards the environment as primarily reluctant responses to public and scientific perceptions of environmental risk. It is only when public and scientific concerns about environmental impacts are low that businesses are afforded scope for strategic discretion. In other circumstances, business policy is in a reactive state driven by scientific and social interpretations of environmental issues (Roome, 1992).

As potential research frameworks against which the progress of individual businesses might be assessed, the models in Figures 2.1 and 2.2 suffer from a number of weaknesses. No one model, of either type, has gained popular acceptance. Few authors have been interested in building upon each others work or applying their theories across a range of business sizes and industry sectors (Gladwin, 1993). Although the models purport to describe business behaviour, they tend towards prescription, illustrating levels and strategic positions that companies should aim for, using motivational, rather than analytical language (Eden, 1996). Few models have been empirically tested. Studies that have attempted to use the models as research frameworks concluded that they were inadequate to classify business responses. Business behaviour was found to be much more complex than the models suggested, operating concurrently on multiple levels (Schot, 1992; Hass, 1996; Schaefer and Harvey, 1998). Hass (1996) concluded that the value of such models was as conceptually based typologies rather than empirically grounded taxonomies.

Roome (1992)

HIGH	Reactive (threat driven)	Reactive (legislation driven)	HIGH
LOW	Discretionary (management driven)	Reactive (communications driven)	LOW
			Public perception of environmental impact

Steger (1993)

LARGE	Offensive	Innovative	LARGE
SMALL	Indifferent	Defensive	SMALL
			Corporate environmental risks

Walley and Whitehead (1996)

HIGH	Operational response	Strategic response	HIGH
LOW	Technical / Organisational response		LOW
			Scope for discretionary response to environmental issue

Figure 2.2 Categorized models of business 'greening'

## ***b. Theories of business responses to sustainability***

Theories relating to business responses to sustainability adopt wider terms of reference, beyond the restricted focus of business 'greening', to include responsibilities to society, including equity, justice, rights, empowerment, biodiversity, ethics and a range of social issues (Williams *et al.*, 1993; Angel and Huber, 1996; Welford *et al.*, 1998; Welford, 1998). The scope of theory extends beyond the boundaries of the firm to consider businesses' role within the achievement of system-wide sustainability as a goal for society as a whole (Schot *et al.*, 1997). Theories of business responses, therefore, focus upon the extent to which businesses can, and should, contribute to this collective goal. Figure 2.3 illustrates the different ways in which the 'environmentally sustainable business' has been conceptualised within the literature (Welford *et al.*, 1998).

Van Someren (1995) emphasises the long-term nature of planning required for sustainability. His model of the 'ideal sustainable development corporation' requires a fundamental shift from short-term, 'end-of-pipe' solutions to a long-term perspective, where business processes are redesigned to minimise disturbance to ecological capacities (see Figure 2.3a). Shrivastava and Hart (1995), however, stress that the scope of transformation must extend beyond business processes to the essential nature of the business organisation (see Figure 2.3b). They advocate the adoption of 'total environmental management' as a new corporate discipline, which extends beyond the boundaries of the firm to take a system-wide view of a business's interaction with the environment and seeks to optimise the entire business-environment system. To facilitate this extended focus, Shrivastava and Hart (1995) require a radical change in all elements of business organisation and management practices, including structure, strategy, culture and performance measures. Figure 2.3c illustrates the envisaged level of change. Significantly, social and equity issues only emerge in Shrivastava and Hart's conditions of 'deep change', and not at all in van Someren's 'ideal sustainable development corporation'. Social dimensions receive greater emphasis in Welford's conceptualisation of sustainability as the 'six Es': environment, empowerment, economics, ethics, equity and education (see Figure 2.3d). Welford's model (1997) emphasises the multidimensional nature of sustainability. It does not suggest the management structures or economic systems necessary to achieve sustainability, only the tools applicable to managing the required transition. As such, Welford (1997) presents a structure for monitoring immediate progress.

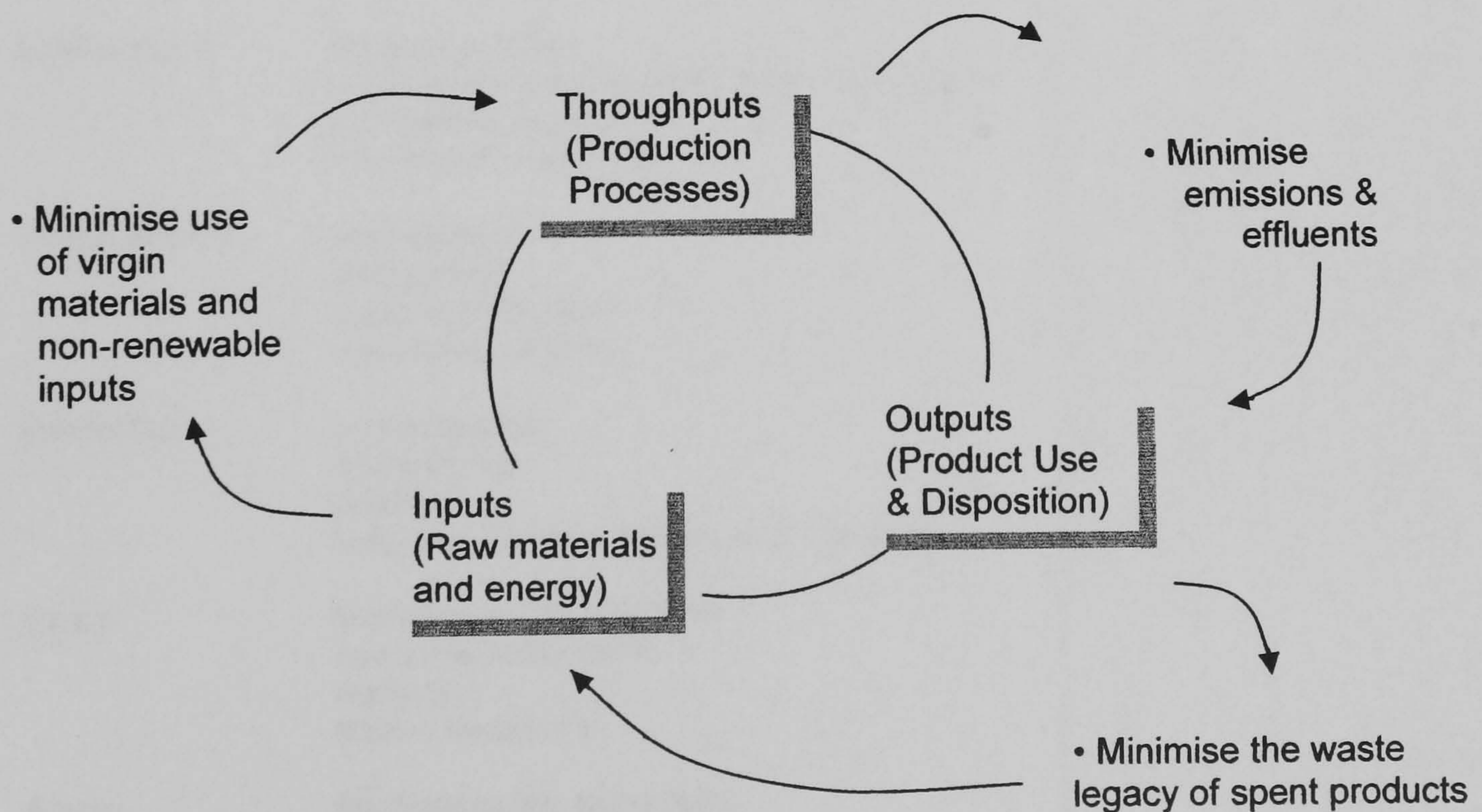
Lewis (1997) requires businesses to develop co-operative partnerships to bring about the system conditions necessary for sustainability (see Figure 2.3e). Lewis's model recognises that business

**Figure 2.3 Models of the 'environmentally sustainable business'**

**a) Characteristics of the 'ideal sustainable development corporation' (ISDC)**  
(van Someren, 1995)

1. Long-term view including:
  - Knowledge about environmental impacts and their duration
  - Strategy (time horizon longer than 5-20 years)
  - Investments
  - Use of production factors
  - Product lifetime
  - Resources lifetime
2. Minimisation of emissions and environmental impacts to acceptable level or even to zero if necessary
3. Minimisation of disposal and waste
4. Minimisation of inputs given output (de-materialize)
- 5a. Minimisation of primary inputs
- 5b. Maximisation of secondary inputs (recycling, re-use)
- 5c. Closed material cycles
6. Minimisation of risk
7. Creation of environmentally orientated innovations (product, process, organisation)

**b) Total environmental management for sustainable businesses**  
(Shrivastava and Hart, 1995)



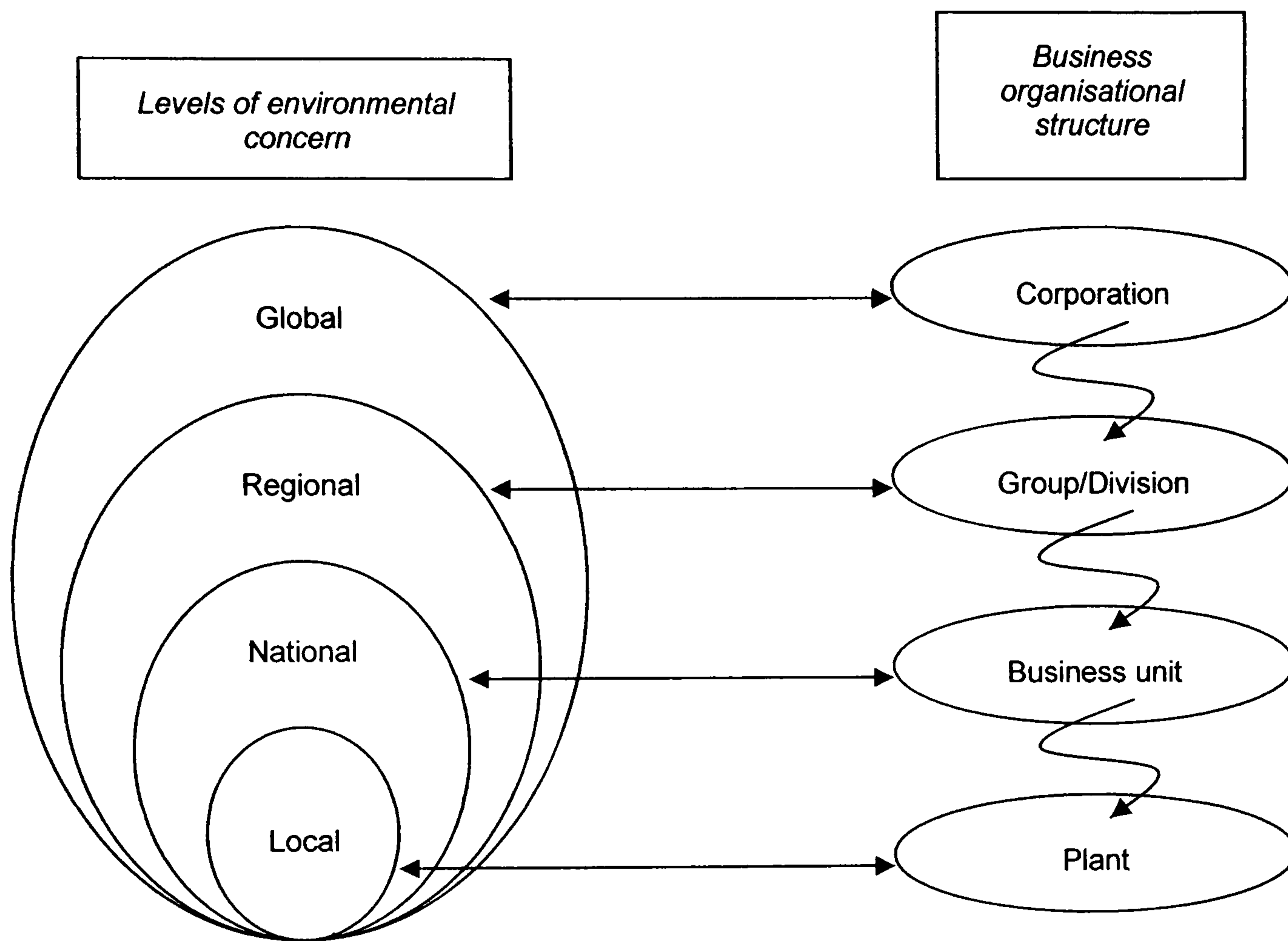
c) **Designing the sustainable corporation**  
(Shrivastava and Hart, 1995)

	<i>Band-Aid</i>	<i>More Serious</i>	<i>Deep Change</i>
<b>Mission</b>	Waste and emission reduction as goals	Environmental stewardship as core value	Sustainability as corporate purpose
<b>Strategy</b>	Clean-up or divest polluting businesses	Invest in 'green' businesses/products	Reduce material consumption in North; Develop markets in South
<b>Competency</b>	Deploy state-of-the-art 'green' production methods	Consortia or alliances to develop green technology	Reorientation of firm around sustainable competencies
<b>Structure/ Systems</b>	Environment as function	Rewards for environmental performance	Full cost accounting
<b>Processes/ Culture</b>	Pollution as prevention	Product stewardship; Design for environment	Stakeholder integration
<b>Performance</b>	Environmental audit	Public discourse of environmental performance	Sustainability as key performance indicator

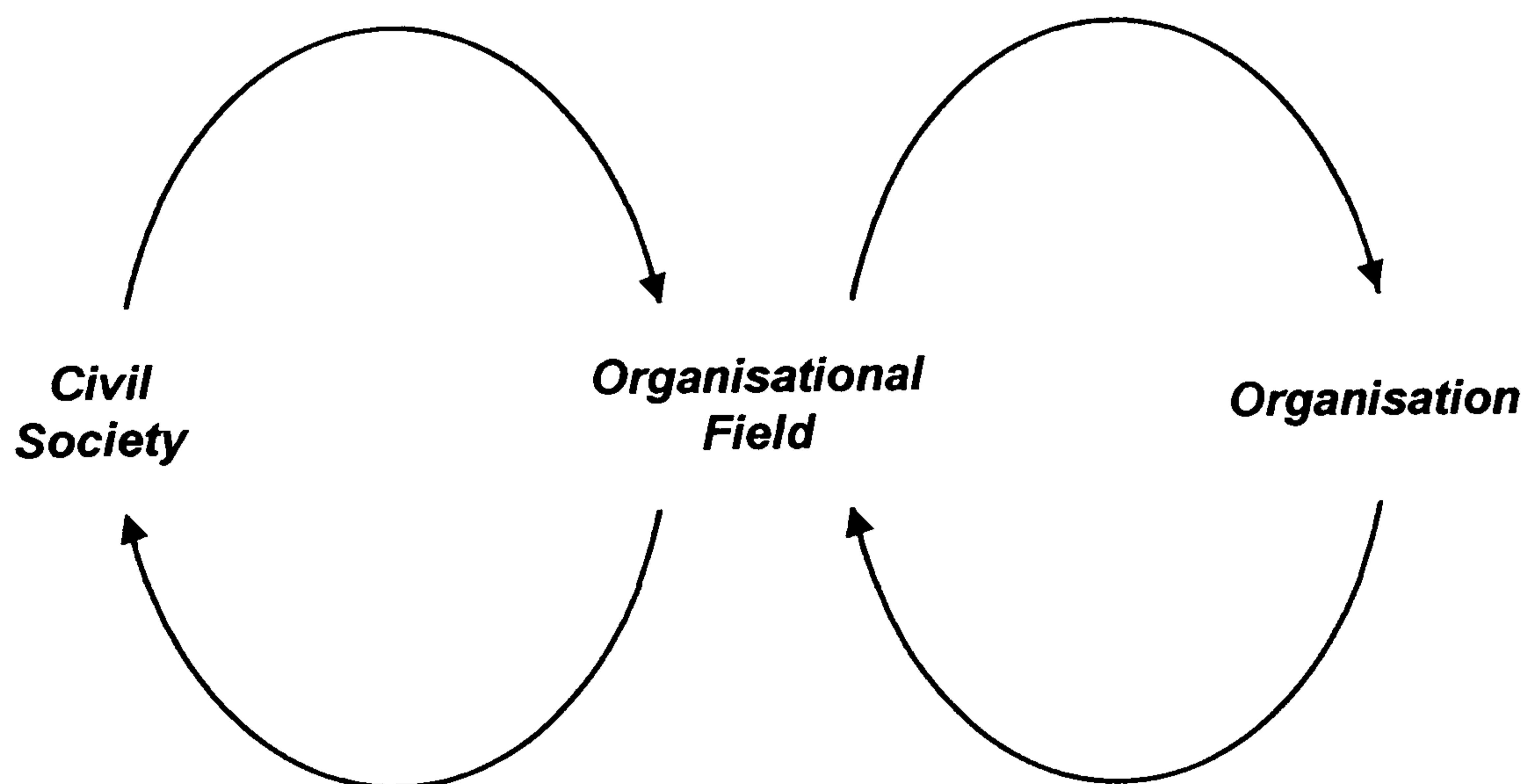
d) **Business policy areas and tools for sustainable development**  
(Welford, 1997)

<i>Policy area</i>	<i>Indicative tools</i>
<i>Environment</i>	lifecycle analysis environment management system and audits functionality assessment resource management
<i>Empowerment</i>	teambuilding participation equal opportunities declaration of rights
<i>Economics</i>	profits/surplus employment quality long-term financial stability and investment
<i>Ethics</i>	transparency of objectives openness to concerns honesty values statement
<i>Equity</i>	fair trade policy and activity end-price auditing development aid sponsorship
<i>Education</i>	training customer information community involvement campaigning

e) **Business legitimacy with a global commitment**  
(Lewis, 1997)



f) **Eco-transformation at multiple levels**  
(Bragd *et al.*, 1998)



activity has environmental and social impacts at multiple levels, from local to global, but that legitimacy is invariably only sought locally with representation from the immediate community (e.g. pollution protection measures). At higher levels (e.g. national and international), the channels of liaison either do not exist, or are inappropriate for use by the individual firm. As a consequence, Lewis requires a collective approach amongst business to seek legitimacy at higher levels. In a sustainable system, firms would be required to contribute to sustainability at all levels. Bragd *et al.* (1998) also stress the importance of multi-layered strategies to address a hierarchy of sustainability issues. Here, however, the focus is upon contextual integration, requiring dialogue between civil society, the organisational field (defined as an organisation's task environment, market and direct stakeholders) and the organisation (see Figure 2.3f). Their model emphasises that in the movement towards a sustainable society, it will not just be the business community that will be required to change. For the entire model to be sustainable, all elements must be subject to transformation.

Within these models, a number of common themes are evident. A distinction between conditions of sustainability and conditions of 'greening' is emphasised. At best, 'greening' is described as a "*necessary but not sufficient condition for sustainable development*" (Gladwin, 1993 p.56). Bragd *et al.* (1998) stress that a continued research focus on 'greening' to the exclusion of other elements of sustainability risks losing the utility of sustainability as an essential critical perspective. Each model suggests that a fundamental and radical change of management thinking, structure and modes of production will be necessary for businesses to play a full role within sustainability (Lewis, 1997; Gladwin, 1993; Simonis, 1989). The models are forward-looking and visionary, and openly acknowledge their lack of empirical basis. Few facts are known about what a sustainable organisation actually looks like and the opportunities to study such businesses are limited (van Someren, 1995; Shrivastava and Hart, 1995; Bragd *et al.*, 1998). As normative models of business behaviour, their stated claim to relevance is as conceptual frameworks to guide and evaluate the process of transformation (Shrivastava and Hart, 1995; Welford, *et al.*, 1998).

Whether business responses to environmental and sustainability issues are conceptualised as an iterative process of organisational learning (see Figure 2.1), as an expression of strategic choice (see Figure 2.2), or as a visionary transformation of operations (see Figure 2.3), the firm-level models discussed in this chapter are of illustrative rather than practical relevance to this study. A lack of empirical testing across industry sectors and firm sizes raises doubts about their use in new



contexts, such as tourism. Models, which presume a strategic response to environmental and sustainability issues are of questionable relevance within an industry that is dominated by very small businesses with limited management capacity and rudimentary business planning skills (Urry, 1990; Williams and Gilmor, 1995; Shaw and Williams, 1998; Margerison, 1998; Lee-Ross, 1999). Additionally, models that outline the progressive and changing nature of business responses to environmental and sustainability issues do not seek to explain current or past behaviour, which are of interest to this study, only to inform future actions. In this respect, there is a substantial gap in theory, particularly in relation to the smallest businesses (Schot and Fischer, 1993a; Gladwin, 1993). The extent to which past empirical studies of business behaviour towards environmental and sustainability issues might inform this study is discussed in the next section.

## **2.3 RELEVANCE OF PAST RESEARCH**

### **2.3.1 Research relating to micro-businesses**

Studies of the response of SMEs to environmental and sustainability issues have also included the response of micro-businesses, although rarely in sufficient depth or disaggregated from the wider population to highlight their particular perspective and behaviour. Additionally, most SME studies have been situated within manufacturing industries and have ignored responses within service industries such as tourism, which are assumed to have less direct environmental impacts and, therefore, to exhibit fewer responses (O'Laoire and Welford, 1995; Welford *et al.*, 1998). The omission of micro-businesses from the research agenda is surprising. Micro-businesses account for 95 per cent of enterprises in the UK and 30 per cent of private sector employment (Department of Trade and Industry, 2000). Within tourism, 96 per cent of the 1.3 million hotels and restaurants in the European Union are small firms with less than nine employees (Smeral, 1998), which are characteristics shared with other advanced industrial countries (Page *et al.*, 1999). Strategically, micro-businesses also represent a key population for local authorities wishing to implement the Local Agenda 21 process. The SME classification, whilst convenient for developing qualifying criteria for grant aid, is not necessarily the most appropriate for studying environmental management practices. Very different business strategies and attitudes might be expected from the smallest of micro-businesses, where the business is an extension of the owner-manager's personality and work ethic, compared to a 'large' SME (with up to 249 employees) with corporate values and goals (Vyakarnam *et al.*, 1997; Becker, Dunn and Middleton, 1999).

There are a variety of reasons for the neglect of micro-businesses in previous research. A number of studies have highlighted the practical problems of engaging with the smallest of businesses. Micro-businesses have often been labelled as difficult to contact and research (see for example Rowe and Enticott, 1998a; Petts *et al.*, 1999). There is also an implicit assumption in many studies that micro-businesses are simply scaled-down versions of larger SMEs and that their responses to environmental and sustainability issues can be inferred from an examination of the SME sector as a whole. The underlying hypothesis is that environmental impact and environmental management responses are proportionate to business size. Additionally, the research agenda has tended to reflect the changing emphasis of public and political interest in the environmental implications of business activities, which commenced with large corporations in heavily polluting industries and has yet to focus on micro-businesses. In the absence of specific micro-business research, previous studies of the response of large businesses and SMEs provide some clues as to the nature of responses to environmental and sustainability issues that might be expected amongst micro-businesses.

### **2.3.2 Implications of research into the 'greening' of large businesses**

Studies of large business 'greening' have tended to focus on the comparative adoption of various tools of environmental management and the key factors that have influenced the commencement and continuity of 'greening' programmes (Angel and Huber, 1996). Indeed, the adoption of such tools has been viewed as the main evidence of environmental commitment and performance. Past research suggests that a combination of internal and external factors influence the 'greening' process (see Table 2.2). Businesses are portrayed as primarily reactive to a range of external factors. The initial and predominant motive to adopt environmental management techniques has been to comply with regulations: non-compliance would represent a significant operational risk. Related pressures have come from shareholders, investors and financiers to protect their investment from the risk of non-compliance. Beyond operational concerns, it is also asserted that businesses are subject to increasing market pressures to adopt environmental management tools throughout the supply chain (Williams *et al.*, 1993; Steger, 1993). Neo-classical economic explanations of business behaviour are emphasised to rationalise business actions as commercial decisions driven by an opportunity for cost savings, efficiency gains and access to new markets (Elkington and Burke, 1989; Porter, 1996; Schmidheiny and the Business Council for Sustainable Development, 1992; Roberts, 1995). Market weaknesses are highlighted as barriers to potential

**Table 2.2 Relevant factors in the 'greening' of business**  
(after Angel & Huber, 1996)

<b>Factors</b>		<b>Author</b>
<b>External factors</b>	(i) Regulation/legislation	- Steger (1993), Williams <i>et al.</i> (1993), Ashford (1993), Cramer & Schot (1993), Den Hond & Groenewegen (1993), Dillon & Baram (1993), Ytterhus & Synnestvedt (1996), Viney & James (1996a)
	(ii) Cost reduction/market pressures	- Steger (1993), Dillon & Baram (1993), Hart & Ahuja (1996)
	(iii) Public image & social responsibility	- Steger (1993), Williams <i>et al.</i> (1993), Dillon & Baram (1993), Viney & James (1996a)
	(iv) Stakeholder inclusion	- Cebon (1993)
	(v) Investors	- Williams <i>et al.</i> (1993)
	(vi) Technology & available information	- Ashford (1993), Dieleman & de Hoo (1993), Kemp (1993), Cramer & Schot (1993)
	(vii) Market demand	- Kemp (1993), Cramer & Schot (1993), Dillon & Baram (1993), Ytterhus & Synnestvedt (1996)
	(viii) Risk & uncertainty	- Kemp (1993)
	(ix) Visibility of opportunities	- Cebon (1993)
<b>Internal factors</b>	(i) Personality/values of owner/CEO	- Everett <i>et al.</i> (1993), Steger (1993), Viney & James (1996a)
	(ii) Size & structure of business	- Ashford (1993), Ytterhus & Synnestvedt (1996)
	(iii) Employee recruitment & motivation	- Steger (1993), Williams <i>et al.</i> (1993), Ytterhus & Synnestvedt (1996)
	(iv) Resources & technological capabilities	- Cebon (1993)
	(v) Corporate culture	- Wehrmeyer & Parker (1995)
<b>Contextual factors</b>	(i) Nature of industry & industrial processes	- Ashford (1993), Viney & James (1996b)
	(i) Market position	- Den Hond & Groenewegen (1993)
	(ii) Value of product	- Den Hond & Groenewegen (1993)

action (e.g. awareness of innovations and access to technology) (Ashford, 1993; Dieleman and de Hoo, 1993).

Within this body of research, there is little evidence to suggest that businesses have adopted a moral or ethical response to environmental concerns. Concerns about wider social and environmental responsibilities are articulated as a function of public image, which assumes financial relevance and prompts a rational response (Steger, 1993; Williams *et al.*, 1993). However, a number of complicating factors are recognised, such as the attitudes and personalities of senior managers, corporate culture and employee motivation, which suggest that strategic responses may not be driven entirely by commercial imperatives (Bonsal, 1995). A number of such studies have also indicated the importance of contextual factors (e.g. nature of the product and the industry), which recognise that business responses may be market- or industry-specific and highlight the dangers of claiming universal relevance (Den Hond and Groenewegen, 1993; Ashford, 1993; Viney and James, 1996b).

Research of this nature is not readily transferable to a service industry dominated by small businesses, such as tourism. Large businesses have little in common with micro-businesses in terms of product, process or presence. However, both operate within the business world, are judged by common measures, and require the same disciplines and skills for continued survival and success. The research findings summarised in Table 2.2 cannot assume a wider relevance beyond the industry in which they were detected, but may be indicative of the type of issues that will be encountered within the context of tourism micro-businesses.

### **2.3.3 Implications of research into the 'greening' of SMEs**

Although conducted within a range of different industries, SME studies show strong elements of consistency in their conclusions (see Table 2.3). The underlying objective of each study has been to highlight differences between the response of SMEs and large businesses. Despite suggestions that formal tools of environmental management were applicable to all sizes of business (Welford and Gouldson, 1993; Hutchinson and Chaston, 1995), SMEs are revealed as low adopters of such tools. Notwithstanding differences between industries, the prognosis is almost always pessimistic, identifying additional barriers and problems that SMEs must overcome in order to emulate the environmental performance of larger enterprises. SMEs are portrayed as being less aware, less able and less motivated than larger businesses to develop progressive environmental strategies.

**Table 2.3 Common conclusions from SME 'greening' studies**

<b>SME owners/managers [tend to]:</b>	
(i) believe that they have a low impact on the environment because of their size	Barrow & Burnett (1990), Hendry (1992), Patton & Baron (1995), Gerrans & Hutchinson (2000)
(ii) have low levels of awareness of:	
- relevant legislation	Hutchinson & Chaston (1995), Hillary (1995), Gerrans & Hutchinson (2000), Merritt (1998), Petts <i>et al.</i> (1999), Baylis <i>et al.</i> (1998)
- the business opportunities of environmental management	Hillary (1995), Merritt (1998), Gerrans & Hutchinson (2000)
(iii) show limited adoption of formal tools of environmental management	Barrow & Burnett (1990), Hutchinson & Chaston (1995), Hillary (1995), Patton & Baron (1995), Patton <i>et al.</i> (1994), Merritt (1998), Rowe & Enticott (1998a)
(iv) believe that the environment and sustainability are of limited importance to their business	Barrow & Burnett (1990), Hutchinson & Chaston (1995), Hutchinson (1994), Hillary (1995)
(v) are reactive rather than proactive in responding to environmental issues	Holland & Gibbon (1997), Hutchinson & Chaston (1995), Andrews & Palmer (1997), Rowe & Enticott (1998a), Patton <i>et al.</i> (1994), Hillary (1995)
(vi) are motivated primarily by legislation and cost savings	Hendry (1992), Hillary (1995), Carter <i>et al.</i> (1995), Patton & Baron (1995), Holland & Gibbon (1997)
(vii) do not have the resources or expertise to implement environmental management strategies and tools	Barrow & Burnett (1990), Hendry (1992), Patton & Baron (1995), Holland & Gibbon (1997), Rowe & Enticott (1998a)
(viii) are reluctant to respond to interactions by change agents	Merritt (1998), Holland & Gibbon (1997)
(ix) are low users of environmental information and journals	Ross <i>et al.</i> (1997)
(x) have a low awareness of cost saving opportunities	Hillary (1995), Baylis <i>et al.</i> (1998)
(xi) be constrained by multiple demands on their time	Welford (1994), Holland & Gibbon (1997), Hillary (1995)

They are constrained by limited resources, expertise and knowledge, and have proportionately less time available to address environmental concerns. The measures that are adopted tend to be in reaction to circumstances rather than planned in advance, typically in response to legislation or cost-saving opportunities. Whilst regulation was also recognised as the main pressure for environmental improvement, SMEs are portrayed as being less aware of its implications, feel less public pressure to evidence compliance, and respond more to enforcement than to the regulations themselves (Patton and Barron, 1995; Baylis *et al.*, 1998). The inference is that the barriers and problems faced by micro-businesses are likely to be even more acute, and their ability to overcome them, further restricted by proportionately lower levels of resources, knowledge, expertise and a lack of critical mass.

The evidence, however, is not clear and some signs of a diversity of response among SMEs have been suggested. A number of authors have emphasised the complexity of the SME sector, characterised by wide variances in business size, structure and activity as a reason to expect diverse approaches to environmental management (Starkey, 2000; Gerstenfield and Roberts, 2000). The influence of industry sector has also been highlighted in the response of SMEs, requiring close attention to the local context within which businesses have responded to environmental issues (Patton *et al.*, 1994; Patton and Barron, 1995; Holland and Gibbon, 1997; Baylis *et al.*, 1998, Petts *et al.*, 1999). In a case-study analysis of 'environmentally innovative businesses', Palmer (2000) found only very limited use of formal environmental management tools and identified the personal commitment and values of the owner-manager to be a stronger motivator than financial motives. Consequently, Palmer questioned the adoption of formal environmental management tools as reliable indicators of SME environmental performance. Hendry (1992) detected a growing tendency among the smallest businesses to be motivated by a personal concern for the environment, but that action was constrained by commercial factors. In a number of respects, therefore, the behaviour of SMEs towards environmental issues has been very different from larger businesses, with the expectation that the behaviour of micro-businesses might be different again.

#### **2.3.4 Past research within the context of tourism**

The body of research within tourism, although limited, shares many of the characteristics and conclusions of studies within other industries. Within the context of the business 'greening' literature, therefore, many of the findings are not surprising. The main contribution of these studies

to a discussion of past research is in highlighting a number of issues and factors that are peculiar to the context of tourism and are worthy of further investigation within this study.

Tourism businesses are portrayed as largely reluctant adopters of sustainable practices, whose behaviour is explained through neo-classical economic theory as a rational response to limited environmental regulation of the industry and a lack of confidence in the market for sustainable tourism. In a survey of large and medium-sized hotel groups and independent hotels in the UK, Brown (1994) found that hotel managers felt under little competitive pressure to improve their environmental performance, and as a consequence, most sustainable practices were not well established. Where practices had been adopted, the main reason was for the cost savings that they offered. Environmental benefits ranked behind health and safety, quality, cost, customer care, and customer demand as a motive for action. Brown (1994) concluded that, although hotel managers recognised that their business activities had an impact on the environment, they felt constrained by financial targets and management controls exercised by business owners and head offices.

Knowles *et al.* (1999) in a similar study of London hotels found that, while hotel managers were well informed about environmental issues, such awareness was not translated into action to reduce their impacts on the environment. Significantly, the highest rates of adoption related to cost-saving activities. Managers were sceptical about the income opportunities arising from sustainable tourism and were unwilling to act in advance of firm market signals. This reticence had limited the range of sustainable practices that had become established in the sector. Forsyth (1995), in a limited study of primarily tourism-organising businesses, found a similar reluctance to pioneer sustainable tourism and concluded that business owners felt little moral responsibility towards the environment.

Hobson and Essex (2001), in a study of primarily small accommodation businesses in the city of Plymouth, noted strong awareness of the importance of the environmental resource base to the long-term viability of the industry, but widespread confusion about the meaning and relevance of environmental sustainability to the sector. Businesses attributed responsibility for damage to the environment through tourism to others outside the accommodation sector. A perceived lack of interest in the concept amongst customers, who usually only required a 'clean, comfortable bed' and 'a good breakfast', had reduced its commercial relevance beyond opportunities to reduce operating costs. The main practical barriers to the adoption of sustainable practices were noted as

shortages of time and money to invest in new practices, and a lack of information and support to implement them. Significantly, larger business units evidenced higher adoption rates of sustainable practices than small businesses.

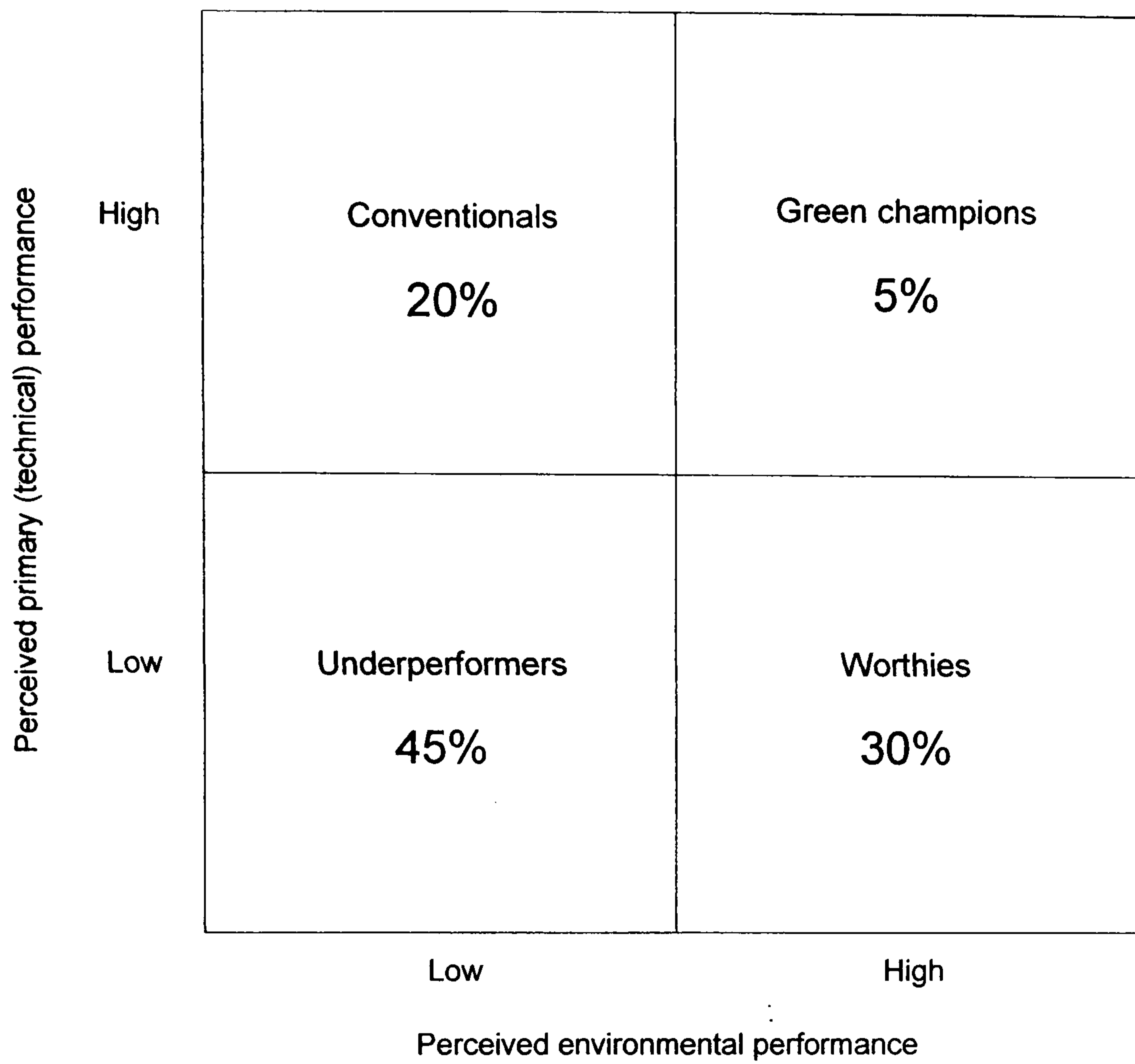
Hjalager (1998), through a case study analysis of the influence of environmental regulation on tourism business innovation on three European islands, highlighted other structural barriers to action. Hjalager suggested that relatively low levels of adoption of sustainable practices in the UK were attributable to an emphasis within public policy upon voluntary initiatives, rather than environmental regulations to raise the profile and relevance of environmental and sustainability issues. Additionally, Hjalager (1998) concluded that the adoption of environmental innovations had been constrained by the fragmented nature of the industry and the limited entrepreneurial skills of, what were predominantly, family-owned businesses. Pigram (1996) and Goodall (1992, 1994, 1995a) suggested that the same factors had constrained the adoption of 'best practice environmental management' and environmental auditing within the industry. Goodall (1995a) found that environmental auditing was confined primarily to large businesses that had the necessary resources, skills and capacity to conduct audits themselves or to employ consultants to do so, and concluded that business size was a significant factor in adoption decisions. Goodall (1994) described the main motive for adopting sustainable practices as a trade off between the costs and benefits of adoption.

Research conducted on a local scale, particularly in rural areas, has implicitly explored the views, perspectives and behaviour of predominantly small and micro-business. Such research, while confirming many of the findings of wider studies, has detected some signs of diversity in the response of small tourism businesses to sustainability and question the legitimacy of neo-classical economic explanations of business behaviour across the sector. Berry and Ladkin (1997), in a focus group study of tourism business perceptions of sustainable tourism, found that owners had little understanding of the concept or of the impacts of their operations on the environment. When prompted, however, businesses showed a strong interest and willingness to adopt sustainable practices. Berry and Ladkin concluded that it was through a lack of awareness of environmental and sustainability issues that small business decision-making rarely extended beyond an economic analysis of costs and benefits.



In a questionnaire survey of accommodation businesses in Guernsey, Stabler and Goodall (1997) noted similar constraints centred around awareness. Although the overall adoption of sustainable practices was found to be limited, very different types of behaviour were noted within the sample. A minority (less than five per cent) had adopted a formal approach to reviewing their environmental performance and had implemented a range of new practices as a consequence. Approximately 25 per cent of the sample, however, had undertaken informal reviews and had made some changes. The majority of the sample had paid little attention to environmental concerns. Where sustainable practices had been adopted, it was primarily for their financial benefits. Goodall has developed these findings in a separate paper (Goodall, 1995b), which applied Peattie's (1995) categorisation model of 'green' product marketing strategies to the same research population (see Figure 2.4). Four distinct categories are identified, distinguished by their perceived environmental performance in relation to their overall technical performance. Goodall, described almost half of the hospitality business in Guernsey as 'underperformers', with low technical and environmental ability and only surviving through the provision of a low cost service. Approximately 20 per cent were categorised as 'conventionals': businesses providing a traditional hospitality service and adopting few sustainable practices other than for economic reasons. About 30 per cent were described as 'worthies': businesses that had reviewed their environmental performance and had made changes as a consequence. Only five per cent were categorised as 'green champions': businesses that regularly reviewed their environmental and technical performance and continuously made improvements as a consequence. The results indicate that not all tourism businesses conform to popular perceptions of small business responses to sustainability.

Further evidence of diversity within the sector is suggested by Donovan and McElligott's (2000) survey of environmental management within Irish hotels, which revealed that a range of motives lay behind decisions to implement environmental management processes. Although only a minority of hotels (19 per cent) had adopted a formal environmental management programme, almost half (43.8 per cent) had done so as a measure to help protect the environment for the long-term survival of the industry. The influence of customer demand was the second most popular motive: financial reasons were only ranked third. The main barrier to adoption was identified as lack of information about environmental management programmes, rather than concerns about the costs of implementation. Halme and Fadeeva (2000, 2001) suggest that such diversity may also be expressed within local iterations of sustainability and the influence of local networks and partnerships. In their study of private/public sector development partnerships and networks in four



**Figure 2.4** Categorisation of environmental performance of hospitality businesses (Goodall, 1995b, after Peattrie, 1995)

European countries (including the Republic of Ireland), they found that each group or network interpreted and applied principles of sustainable tourism in distinct ways, and, as a consequence, developed very different agendas for sustainability. The main factors that had influenced group behaviour were identified as the awareness and motivation towards sustainability of individual group members, willingness to commit financial resources to sustainability action plans, members' expectations of the partnership, and power relations within the partnership. Networks and partnerships were shown to increase both the range and type of sustainable practices adopted by members through the dissemination of information about new practices and initiatives, and the encouragement of collective action to address issues outside the traditional boundaries of business responsibility.

Although a number of researchers have detected an underlying diversity in the response of small tourism businesses to sustainability, this aspect has not been explored in detail. Progress has been hampered by a lack of relevant theory to investigate the variety of business approaches to the concept. In the absence of such theories, research into the 'greening' of small tourism businesses has been largely confined to a descriptive role, which has evidenced diversity, but not explained the reasons for it. Goodall's segmentation analysis (see Figure 2.4) provides a useful basis for conceptualising the varied nature of business behaviour towards sustainability, but is based upon a model developed within other industries and is premised upon the central importance of an environmental review (whether formal or informal) as the main indicator of progress, which has not been proven within the small business sector. A general lack of theoretical foundation within studies of business 'greening' has prompted a number of authors to call for research within other more established frameworks, such as strategic management, organisational and innovation studies (Roome, 1992; Schot, 1992; Gladwin, 1993; Schot and Fischer, 1993b; Taylor, 1996). In particular, innovation diffusion theory, which is concerned with the dissemination of new ideas and practices, offered a number of distinct advantages to this research and is discussed in more detail in the next section.

## **2.4 STUDIES OF INNOVATION DIFFUSION**

Innovation diffusion theory describes and seeks to account for the adoption of new practices over time and space (Hägerstrand, 1967). In particular, the theory uses empirical evidence to suggest that the adoption of innovations within a social system tends to follow a similar pattern (Rogers and

Shoemaker, 1971; Metcalfe, 1988). Monitored over time, the rate of adoption typically follows an S-shaped, or sigmoid curve, which, when plotted as a time-line frequency curve, produces a bell-shaped normal distribution of adoption (see Figure 2.5). Rogers (1983, p.14) defines an innovation as any *“idea, practice or object that is perceived as new by an individual or other unit of adoption”*. The adoption of an innovation represents a decision to change what has gone before, which, as a dynamic process operating on a system-wide basis, is central to evolutionary theories of social change and economic growth (Rogers and Shoemaker, 1971; Lin and Zaltman, 1973; Allen, 1988; Freeman and Soete, 1997). Innovation diffusion theory has, therefore, attracted attention from a wide range of disciplines as a conceptual framework with which to analyse micro and macro dimensions of behavioural change.

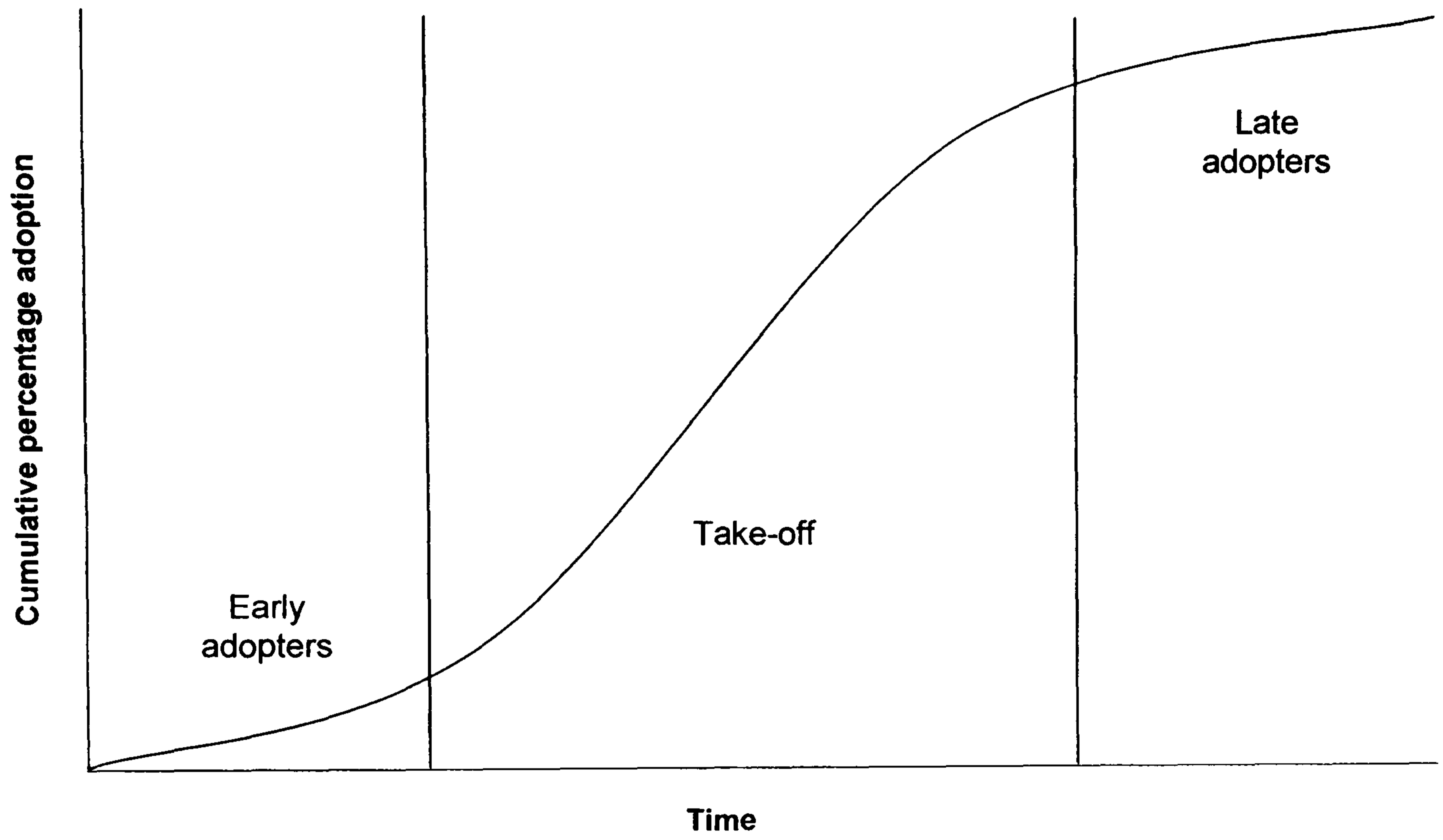
Innovation diffusion theory offers a number of benefits to this study. The theory focuses upon processes of change and innovation which are central to notions of sustainable development and sustainable tourism. The theory provides a proven methodology to assess individual responses to the range of sustainable practices that tourism businesses have been encouraged to adopt within strategies and initiatives for sustainable tourism. Unlike models of business ‘greening’ or, indeed, strategic management and organisational studies, innovation diffusion theory is not skewed towards the context of large businesses. In fact, the theory has precedence within the study of micro-businesses, although not within tourism, and the adoption of environmental innovations. It also has precedence of use within human geography (Hägerstrand, 1967; Ilbery, 1992) with the potential to provide a new perspective on an under-researched subject.

#### **2.4.1 Theoretical perspectives of innovation diffusion**

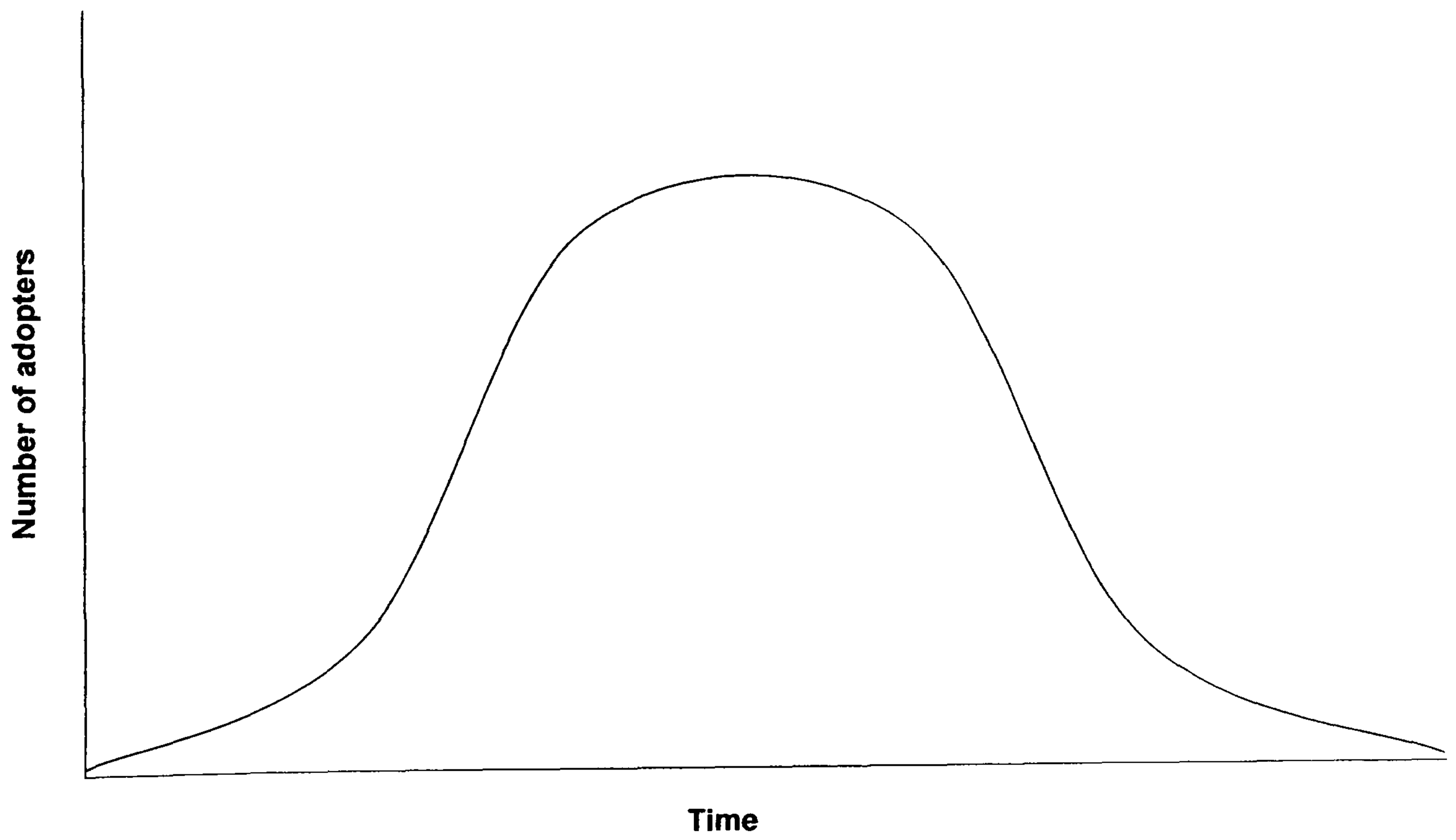
Ilbery (1992) distinguishes between ‘demand’ and ‘supply’ perspectives on the diffusion of innovations. The ‘demand’ perspective assumes a potential demand for innovations and focuses on the innovativeness of potential users as an explanation for differences in the rate of adoption reflected in the sigmoid adoption curve. This perspective is advocated in the works of Hägerstrand (1967) and Rogers (1983). The ‘supply’ perspective focuses on the role of the diffusion agency (the agency sponsoring the diffusion of an innovation) within the diffusion process. This perspective does not assume a ready or even demand for innovations and stresses the importance of earlier stages of research and development in the analysis of user needs and the design of new products and services. Adoption decisions are viewed as a function of product promotions and market segmentation strategies that reflect identified variations in potential demand. This perspective is

**Figure 2.5** Patterns of innovation diffusion

**a) Cumulative adoptions over time**



**b) Frequency of adoption over time**



outlined by authors such as Brown (1981) and Unwin (1988). Within the context of sustainability, both perspectives are of potential value. Demand theories can provide an analysis of behaviour and response of individuals to sustainability, and supply theories can examine the role and strategies of diffusion agencies. However, within the context of this thesis, where formal diffusion agency strategies have yet to be developed and the initial focus is upon tourism-related businesses as potential adopters of sustainability and sustainable practices, demand theories hold greater promise. A more detailed review of demand theories is considered below.

#### **2.4.2 Demand theories of innovation diffusion**

Hägerstrand (1967) and Rogers (1983) conceptualised innovations as cultural phenomena, which diffuse within a social system, primarily through social interaction. Decisions to adopt an innovation are a function of the relative awareness and innovativeness of individuals within a social context. Knowledge and awareness of an innovation are initially limited. However, as one person tells two others, and early adopters become active advocates, awareness, and hence, social influence escalates. Eventually a point is reached where it becomes increasingly difficult to find people who are still unaware of the innovation (Havelock, 1969; Rogers and Shoemaker, 1971; Rogers, 1983). Rogers (1983) terms the cumulative increasing degree of influence upon an individual, as the 'diffusion effect'. Patterns of adoption are attributed to variances in the propensity of the population to adopt (which, in line with many other human traits, is assumed to be normally distributed) and the nature of social interaction, which is assumed to be the primary method of information dissemination, and hence, innovation diffusion.

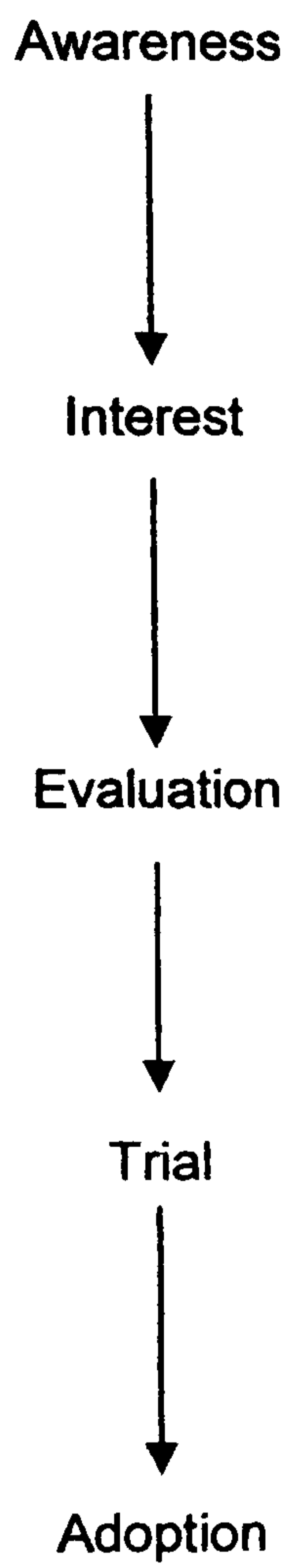
Hägerstrand's (1967) thesis was that information and the processes of social interaction, through which it is transferred, have essential spatial qualities and that, as a consequence, the adoption and effects of innovation can also be studied spatially. Concentrations of population are conceptualised as concentrations of social interactions and, therefore, increased propensity to adopt an innovation. Through mathematical modelling, based on population distribution maps, Hägerstrand proposed a neighbourhood effect whereby innovations diffused radially from local concentrations of initial adoptions. Over time, secondary points of agglomeration would occur, whilst the influence of initial centres would continue to grow. Eventually saturation would be reached and growth cease. Hägerstrand's explanation for the sigmoid curve relates to variances in the propensity to adopt an innovation as a consequence of the spatial nature of information diffusion. In order to isolate the spatial elements of innovation diffusion, Hägerstrand's (1967)

methodology required a very large eligible population of potential adopters, precise dating of adoption decisions, and innovations where there were few technical or economic barriers to adoption. A spatial perspective of diffusion was beyond the scope of this study, largely because of the small research population, imprecise data sets for the dates of adoption (see discussion in Chapter Four), and limited flexibility in the choice of practices to be studied.

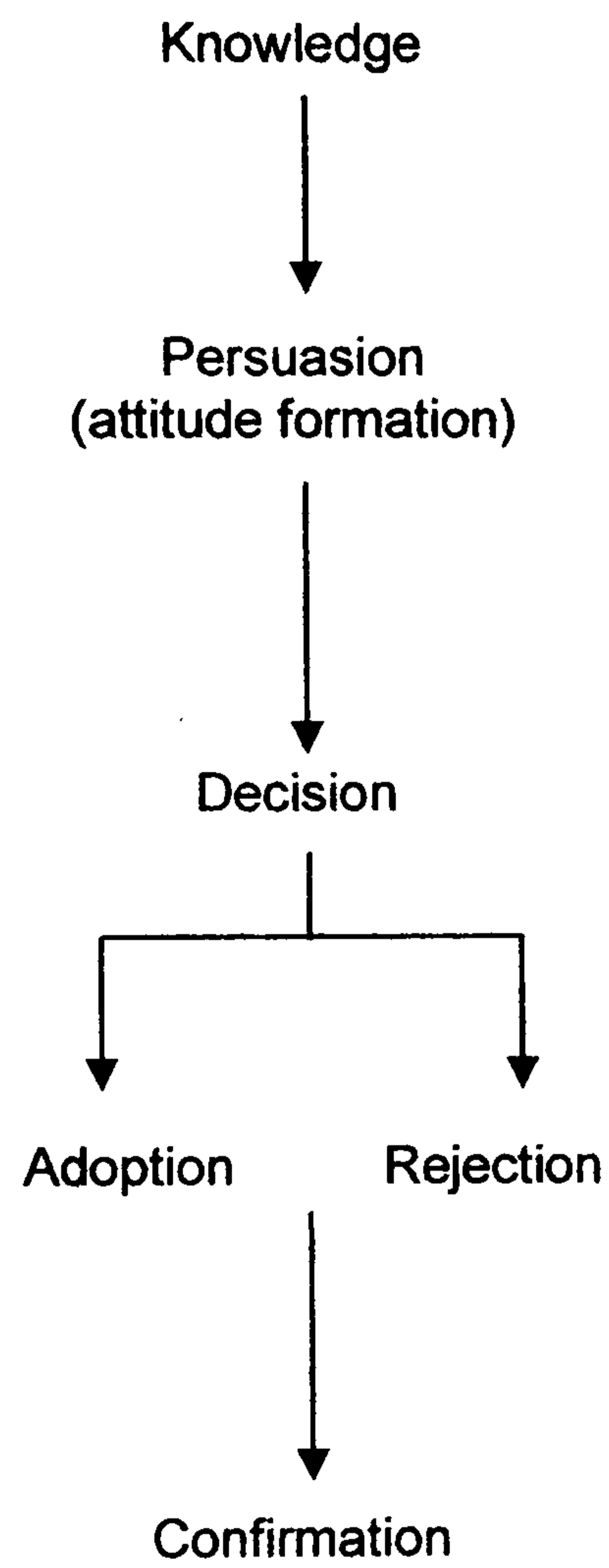
Rogers (1983) followed a different approach, which suggested that the innovativeness of the user population is reflected in the relative rate of adoption of a new innovation. Rogers (1983) defines innovativeness as *“the degree to which an individual or other unit of adoption is relatively earlier in adopting new ideas than other members of a social system”*. The decision to adopt or reject an innovation is conceptualised as the final stage of an adoption process (Rogers, 1962) (see Figure 2.6). From a position of initial awareness, a potential user requires confirmation that the innovation will satisfy a recognised need and provide additional benefits in comparison to alternatives before a final decision can be made. The provision of information is critical to each stage of the process and is required to be progressively more detailed in nature. Rogers describes the adoption decision as *“essentially an information seeking and information-processing activity about the advantages and disadvantages of the innovation”* (1983, p.13). Figure 2.6 also shows two further conceptualisations of the adoption process, which differ in the extent to which information is required post-adoption. Rogers and Shoemaker (1971) conceive a further confirmatory stage necessitating repeated flows of information to ensure continued adoption. Within Zaltman, Duncan and Holbek’s model (1973), a decision to adopt is never final and can be reversed at any time. Rather than presenting competing theories, together, the three models conceptualise adoption processes for progressively more complex innovations.

Rogers’ thesis is that adopters complete the adoption process at different rates, which reflects their innovativeness. At any one time, the population will be at different stages of the adoption process. As a consequence, adopters can be classified according to the date when they first adopted an innovation (see Figure 2.7) and, in lieu of direct measures of innovativeness, can be evidenced to display a number of common characteristics. The resultant categorisation appears arbitrary, based upon distance from the mean date of adoption, but is empirically based. Rogers (1983) draws upon extensive empirical research within a range of disciplines, including rural sociology, anthropology, marketing, education, health studies and geography to evidence significant differences between the characteristics and circumstances of different adopter categories. Through an analysis of the

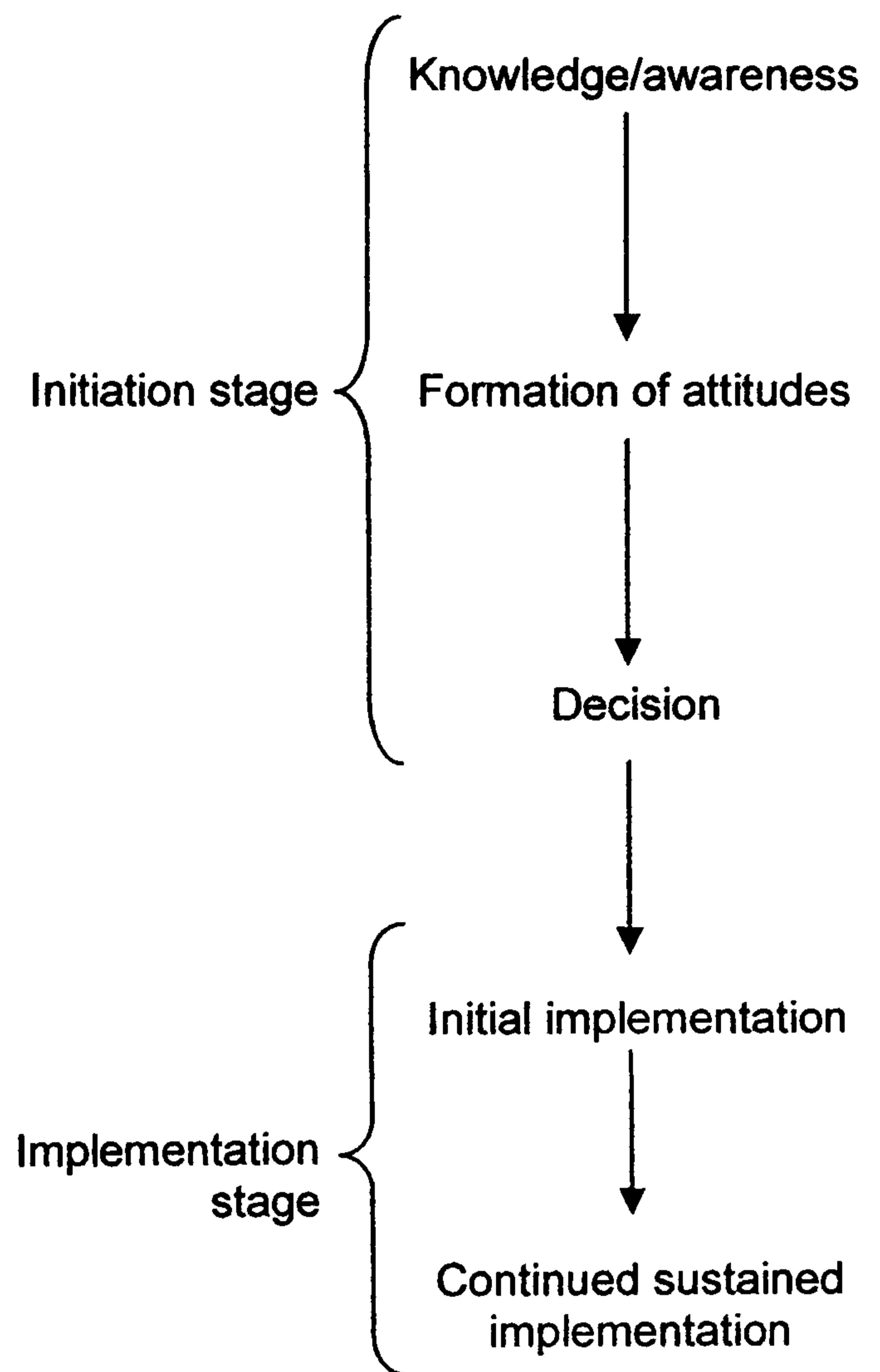
**Rogers (1962)**



**Rogers and Shoemaker (1971)**

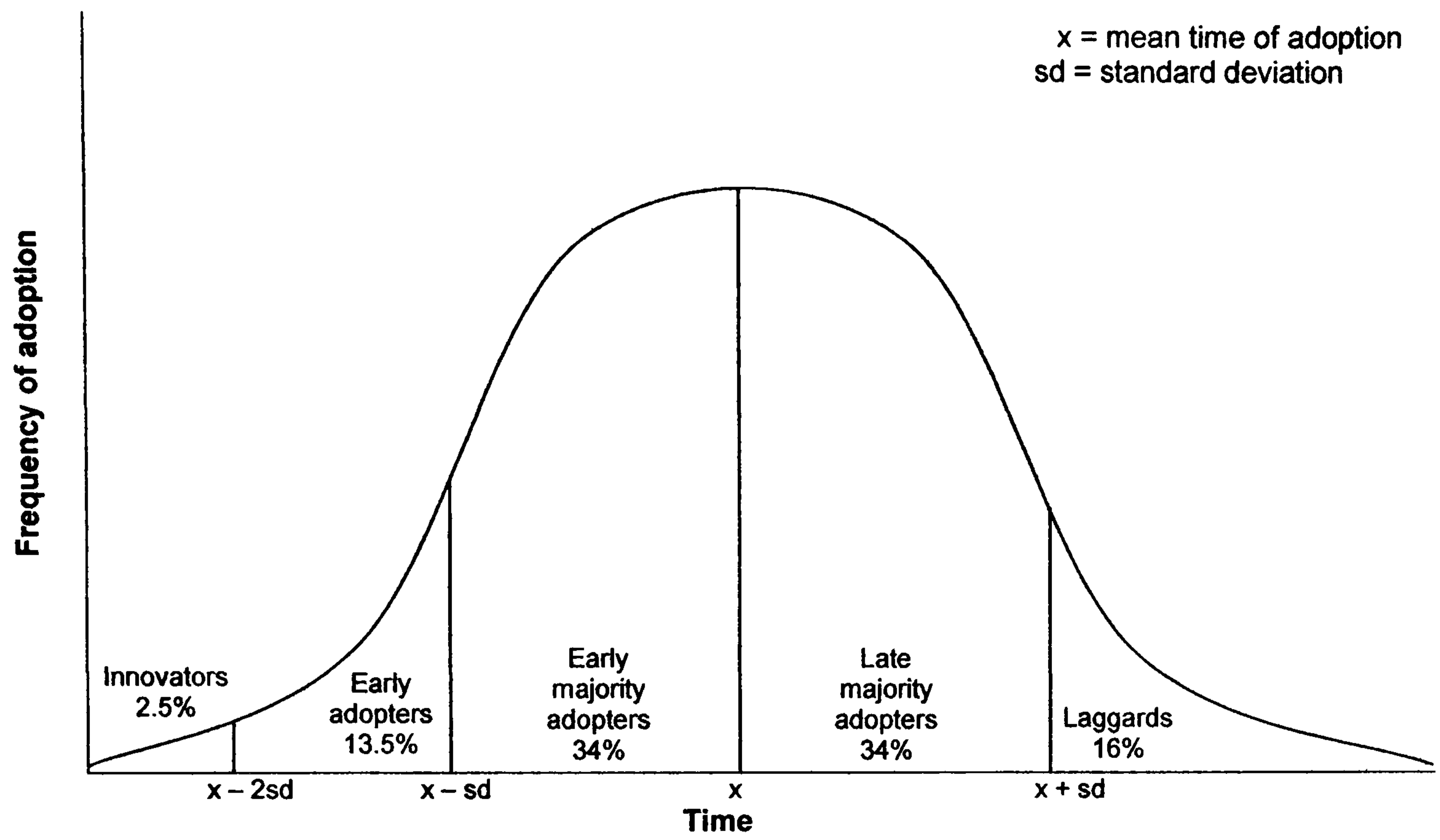


**Zaltman, Duncan and Holbek (1973)**



**Figure 2.6 The adoption decision process**





Source: Rogers (1983)

**Figure 2.7** Innovation adopter categories

characteristics and circumstances associated with adoption, causality is inferred to explain behaviour.

The methodology adopted within innovation diffusion research is almost always quantitative, with the aim of identifying significant relationships between the adoption of an innovation and a range of independent variables. Through a process of, what he terms 'meta-research', Rogers (1983) has attempted to synthesise the empirical findings of past diffusion studies into a more generalised theory of innovation diffusion. Through this process, Rogers has established 91 generalisations of the factors that account for a particular adoption profile. Generalisations relating to the characteristics of adopter innovativeness are shown in Table 2.4. Other generalisations relate to dimensions of the innovation itself, the method and timing of supporting communications, and the nature of the social system, which can all affect the shape of the diffusion curve. Generalisations of this nature need to be treated cautiously. The underlying data has not been collected in a standard format, requiring some reclassification of results for comparability. Through the synthesising process, research context is lost and a wider legitimacy of findings is suggested beyond their original scope. Additionally, a number of generalisations are based on small samples, which cannot claim universal significance. Nevertheless, the generalisations do reflect the needs of the research process, namely to seek legitimacy in the context of relevant past research, and provide a convenient starting point for any new study.

Conceptualised as an ideological innovation, sustainability presents a number of problems for the application of innovation diffusion theory for which there is no research precedent. It is a contested and multidimensional concept with no agreed basis for measurement and very few suggested examples of successful implementation by businesses. However, conceptualised as an aggregation of ideologically related activities (e.g. in the manner that sustainable tourism has been presented to the private sector within public policy) that can be analysed, both individually and collectively, to examine progress towards sustainability, innovation diffusion theory holds greater promise. The theory also offers research precedence in the analysis of the adoption of environmentally friendly technologies by businesses. Examples of past research can be found within economics, geography and the social sciences, which are discussed below.

**Table 2.4** Innovation diffusion research generalisations – characteristics of adopter innovativeness (*nature of influence on innovativeness in parentheses*)

<i>Socio-economic characteristics</i>	
-	Age (not related)
-	Education (positive)
-	Literacy (positive)
-	Higher social status (positive)
-	Upward social mobility (positive)
-	Larger-sized units (positive)
-	A commercial rather than a subsistence, economic orientation (positive)
-	A more favourable attitude toward credit (positive)
-	More specialised operations (positive)
<i>Personality variables</i>	
-	Empathy (positive)
-	Dogmatism (negative)
-	Ability to deal with abstractions (positive)
-	Rationality (positive)
-	Intelligence (positive)
-	A more favourable attitude toward change (positive)
-	Ability to cope with uncertainty (positive)
-	A more favourable attitude toward education (positive)
-	A more favourable attitude toward science (positive)
-	Fatalism (negative)
-	Achievement motivation (positive)
-	Higher aspirations for education, occupation, etc. (positive)
<i>Communication behaviour</i>	
-	Social participation (positive)
-	Interconnectedness with the social system (positive)
-	Cosmopolitanness (positive)
-	Change agent contact (positive)
-	Mass media exposure (positive)
-	Exposure to interpersonal communication channels (positive)
-	More active information seeking (positive)
-	Knowledge of innovations (positive)
-	Opinion leadership (positive)
-	Belonging to highly interconnected systems (positive)

Source: Adapted from Rogers (1983)

### **2.4.3 Research precedence within economics**

Within economic theories of innovation diffusion, a more restrictive definition of innovation is used that can be accommodated within economic theory, namely that innovations must incorporate value and utility and require some commitment of funds (Rothwell and Zegveld, 1982). Lissoni and Metcalfe (1994) identify three different interpretations of innovation diffusion within economics. Each plays down sociological influences and assumes that firms behave optimally (i.e. they seek to maximise profitability). The first interpretation views diffusion as an equilibrium process, whereby improvements in profitability through the adoption of an innovation, are imitated by competing firms seeking optimisation. Differences in adoption timings are attributed to variations in individual firm's cost-benefit threshold, which is assumed to be distributed normally. The role of information in diffusion is not acknowledged. Firm heterogeneity is assumed to be the only influence upon diffusion. The second interpretation reintroduces the centrality of information within the diffusion process. The main cause of delayed implementation is assumed to be a lack of information about the uncertain effects of adopting an innovation. The diffusion effect is accounted for by differences in business managers' attitudes and beliefs in assessing the probable outcome of implementation. The third interpretation views diffusion as a dis-equilibrium process arising from rapid technological change. The initial effect is to yield extra profits for early adopters that are subsequently reinvested to increase production. As a consequence, the innovation is supplied in ever increasing volumes, which drives down price and eventually leads to zero profits and a new equilibrium position.

A number of economic studies have examined the diffusion of environmental innovations amongst businesses. Jaffe and Stavins (1994) attempt to explain the 'paradox' of very gradual diffusion of energy conservation technologies within construction, in the face of growing evidence of climate change induced by fossil fuel consumption and emissions, and confirmation of the economic benefits of adoption. Through mathematical modelling, Jaffe and Stavins concluded that environmental technologies encounter additional barriers to adoption, compared to alternatives. A distinction is made between barriers related to the failure of the market system and those that relate to the essential nature of the innovation, and are, therefore, economically justified within the market. Market failures have been identified in three areas. The first area was where assumptions of full information were breached. Jaffe and Stavins found that businesses were not always aware of their impact on the environment or of the technologies that were available. The dissemination of information about an innovation's environmental attributes are under-provided by the market (Nijkamp *et al.*, 1999). A second area was that there was often a mis-match between the decision-

maker and the beneficiary of an innovation. Adoption decisions are not always made by the person who pays the energy bills, necessitating a focus upon intra-firm communication and decision-making processes. A third area was that environmental costs are not fully reflected in commodity and utility services pricing. Inadequate legislation has led to price distortions which have not been in the favour of environmental technologies.

Nijkamp *et al.* (1999) suggested other market failures, relating to the psychological perception of environmental technologies, which inhibit their adoption. Environmental innovations suffer from a problem of image. They were perceived to be less 'exciting' or 'interesting' than alternative profit opportunities. In their study of the adoption of energy efficient technologies within Dutch industries, Nijkamp *et al.* (1999) concluded that the main barriers to adoption related to the perception and priority attached to energy efficiency within businesses, rather than financial or risk-related objections. De Almeida (1998), in a study of the adoption of energy efficient technology in the electric motor market in France suggested that a lack of transparency within industry standards, restricted adoption. Additionally, a reluctance amongst decision-makers to consider innovations outside of their usual experience and routine is identified. De Almeida attributed this reluctance to a 'bounded rationality', whereby rational decisions were made within a social context and a limited capacity to process information. As a consequence, adoption was constrained by a preference for familiarity and routine.

Jaffe and Stavins (1994) also identified a range of market barriers, which discourage the adoption of environmental technologies on economic grounds. Energy-efficient innovations require additional time and effort to research the benefits of adoption. Such costs are borne by the adopter and are not always reflected within the purchase price. Cleaner technologies typically require more organisational and institutional change than other types of innovation (Nijkamp *et al.*, 1999). Additionally, the uncertainty associated with future energy prices and environmental quality encourages the use of high discount rates in cost-benefit analyses. Neo-classical theory requires that where the outcome is unknown, decision-makers will require higher rates of return to compensate for uncertainty (de Almeida, 1998). The qualitative attributes of a new environmental technology may also be less attractive than conventional alternatives (Nijkamp *et al.*, 1999).

#### 2.4.4 Research precedence within geography and the social sciences

Within geography and the social sciences, a large body of research has focused on the diffusion of agricultural innovations amongst farmers. The earliest and most referenced study related to the diffusion of hybrid seed corn varieties amongst farmers in Iowa (Ryan and Goss, 1943). More recently, innovation diffusion theory has successfully been used to analyse and account for the diffusion of conservation practices amongst farmers, where the main benefits of adoption were not necessarily financial, but represented intangible increases in environmental quality (for example, Ilbery and Bowler, 1993; Wilson, 1997a; Loblely and Potter, 1998). Such studies are of particular relevance to this study as they provide a research precedent for the use of innovation diffusion theory to study the adoption of environmental innovations amongst small businesses, albeit within a different industry.

Table 2.5 summarises the main findings of a number of studies of the diffusion of conservation practices amongst farmers. The results highlight a number of factors that seemed to account for adoption decisions and tend to support many of Rogers' meta-theories, but question others. For example, the age of a farmer is highlighted as an important factor, on the basis that younger farmers tend to be more favourably disposed towards conservation practices (Bowler, 1979; Bultena and Hoiberg, 1983; Ilbery and Bowler, 1993; Wilson, 1996). Size of business is also significant, in terms of available acreage to allocate for conservation use, and as a proxy measure of financial security to be able to afford to forgo alternative profitable uses of land (Earle *et al.*, 1979; Morris and Young, 1997; Wilson, 1997a). Similarly, level of education is significantly associated with adoption decisions (Korsching *et al.*, 1983; Wilson, 1992; Ilbery and Bowler, 1993; Wilson, 1996). However, beyond these factors, few additional farm and farmer characteristics could consistently be identified as being significantly associated with adoption. Morris and Potter (1995) concluded that more subtle influences seemed to modify conservation behaviour that could not be identified from an analysis of financial and physical data.

A number of authors have questioned the utility of Rogers' 'classical' model in analysing the adoption of conservation practices (Ervin and Ervin, 1982; Pampel and van Es, 1977). The innovation diffusion model has not been rejected by such authors, but modified to include variables that were more likely to provide an explanation of conservation behaviour, such as attitudes, values and motives, rather than characteristics of the farm (Hodge, 1986). The theory of reasoned action provides a theoretical basis for incorporating a range of intangible variables into innovation

**Table 2.5 Agri-environmental innovation diffusion studies**

Author	Innovation	Factors influencing innovativeness (nature of influence in parentheses)
Earle <i>et al.</i> (1979)	Predicted adoption of soil conservation practices	<ul style="list-style-type: none"> <li>- Farm size (positive)</li> <li>- Perception of soil erosion as a problem (positive)</li> <li>- Intensity of farming (positive)</li> <li>- Rising income (positive)</li> <li>- Education (positive)</li> </ul>
Bowler (1979)	Agricultural grant aid	<ul style="list-style-type: none"> <li>- Characteristics of the grant</li> <li>- Age (negative)</li> <li>- Education (positive)</li> <li>- Urban values (positive)</li> <li>- Farm tenure</li> </ul>
Ervin & Ervin (1982)	Range of soil conservation measures (Missouri, USA)	<ul style="list-style-type: none"> <li>- Perception of erosion problem (positive)</li> <li>- Education (positive)</li> <li>- Type of farm</li> <li>- Risk aversion (positive)</li> </ul>
Korsching <i>et al.</i> (1983)	Conservation practices (Iowa, USA)	<ul style="list-style-type: none"> <li>- Education (positive)</li> <li>- Income (positive)</li> <li>- Business orientation (positive)</li> <li>- Membership and participation in organisations (positive)</li> <li>- Change agent contact (positive)</li> </ul>
Bultena & Hoibery (1983)	Conservation tillage practices (Iowa, USA)	<ul style="list-style-type: none"> <li>- Age (negative)</li> <li>- Attitudes towards the land (positive)</li> </ul>
Ilbery & Bowler (1993)	Farm Diversification Grant Scheme (England & Wales)	<ul style="list-style-type: none"> <li>- Age (negative)</li> <li>- Education (positive)</li> <li>- Experience of vocational training (positive)</li> <li>- Planned succession within family (positive)</li> <li>- Level of debt (positive)</li> <li>- Involvement of spouse in decision-making (positive)</li> </ul>
Ward & Lowe (1994)	Pollution control equipment (Devon, UK)	<ul style="list-style-type: none"> <li>- Attitudes to pollution</li> </ul>
Morris & Potter (1995)	Agri-environmental schemes (UK)	<ul style="list-style-type: none"> <li>- Motivation behind adoption</li> </ul>
Wilson (1996)	Participation in ESA Scheme (Cambrian Mountains, Wales)	<ul style="list-style-type: none"> <li>- Age (negative)</li> <li>- Education (positive)</li> <li>- Length of residency (positive)</li> <li>- Conservation philosophy to farming (positive)</li> </ul>
Potter & Gasson (1988)	Participation in hypothetical voluntary land diversion schemes (Suffolk & South Downs, UK)	<ul style="list-style-type: none"> <li>- Farm size (positive)</li> <li>- Level of debt (negative)</li> <li>- Quality of land (positive)</li> <li>- Well-established ownership (positive)</li> </ul>
Lobley & Potter (1998)	Participation in ESA and Countryside Stewardship Scheme	<ul style="list-style-type: none"> <li>- Nature of motivation</li> </ul>
Morris & Young (1997)	Countryside Stewardship Scheme (Cheshire, UK)	<ul style="list-style-type: none"> <li>- Farming type</li> <li>- Farm tenure</li> <li>- Farm size (positive)</li> </ul>
Taylor & Miller (1978)	Pollution control innovations (Indiana, USA)	<ul style="list-style-type: none"> <li>- Commercial orientation (negative)</li> <li>- Attitude towards change (positive)</li> <li>- Perceived need (positive)</li> </ul>
Wilson (1997a)	Participation in ESA scheme	<ul style="list-style-type: none"> <li>- Size of farm (positive)</li> </ul>
Potter & Lobley (1992)	'Environmentally friendly' farming schemes	<ul style="list-style-type: none"> <li>- Business succession arrangements</li> </ul>
Brotherton (1991)	Participation in ESA scheme (England & Wales)	<ul style="list-style-type: none"> <li>- General attitude to the scheme</li> <li>- Financial advantage of joining the scheme (positive)</li> </ul>
Wilson (1992)	Attitude towards remnants of native forest on private land (New Zealand)	<ul style="list-style-type: none"> <li>- Age (negative)</li> <li>- Education (positive)</li> <li>- Length of time family farmed on the land (positive)</li> </ul>

diffusion studies. The theory suggests that an individual's attitudes reflect their behavioural intentions and, in the absence of other complicating factors, will lead to the intended behaviour (Ajzen and Fishbein, 1980; Ajzen, 1988). Pampel and van Es (1977), in their study of Illinois farmers, highlighted that a personal orientation towards farming, which reflected farm experience, was most relevant to the adoption of conservation practices, whilst variables relating to farm size, more appropriately explained commercial decisions. Morris and Potter (1995) analysed the response of farmers to actual and hypothetical conservation schemes and concluded that attitudes to conservation accounted for the main variances in adoption. Gasson (1973) suggested that such complicating factors were not necessarily inconsistent with economic explanations of adopter behaviour, but indicated that the analysis should also consider the socio-cultural influences that frame adoption decisions.

A number of agricultural studies have categorised adopter populations on criteria other than the relative date of adoption to examine other elements of diversity within research populations. Morris and Potter (1995) identified four different categories of farmers according to their attitude towards conservation; 'active adopters', 'passive adopters', 'conditional non-adopters' and 'resistant non-adopters'. Significant differences were noted between the characteristics of each category. 'Active adopters' undertook conservation practices primarily for altruistic reasons, were the most committed participants and had a history of countryside management activity. In contrast, 'passive adopters' were revealed as financially motivated and more likely to adopt conservation practices in a piecemeal fashion. 'Resistant non-adopters' were unlikely to participate under any circumstances. In a similar manner, Lobley and Potter (1998) differentiated between 'stewards', 'compliers', 'potential participants' and 'resistors' in their study of motivations behind participation in the Environmentally Sensitive Area (ESA) Programme and the Countryside Stewardship Scheme in south-east England. 'Stewards' were highlighted as being motivated by the conservation objectives of environmental land management schemes and were less dependent on agricultural income. In contrast, 'compliers' sought reasonable financial compensation for their conservation practices and preferred schemes that required minimum change to existing practices. Their main motives for adoption were commercial and financial. Through an analysis of underlying motives, Lobley and Potter (1998) were able to comment on the additional value of environmental land management schemes in encouraging behaviour that would not otherwise have occurred.



Significantly, innovation diffusion theory has also been used to study the adoption of multidimensional phenomena. Ervin and Ervin (1992) distinguished between different levels of adoption of conservation practices, by considering a range of complementary innovations and equating the number of practices adopted to an overall commitment to conservation. Through an analysis of adopter characteristics, based upon the number of practices adopted, they were able to examine features of behaviour towards the wider concept of conservation as well as towards individual practices. A number of authors have highlighted the limitations of innovation diffusion theory within rural sociology, suggesting that it oversimplifies the nature of behaviour and does not recognise external structural constraints on action (Marsden *et al.*, 1986; Bowler and Ilbery, 1987; Marsden, 1988). Wilson (1996) suggests that the utility of the theory is in providing a starting point for analysis. More complex explanations of behaviour might then be explored through qualitative techniques.

## **2.5 CONCLUSION**

At the level of the firm, there are no empirically tested theories to account for business behaviour towards the environment or sustainability. Schot (1992) describes the state of current knowledge and conceptual understanding of the way a business is run with regards to the environment as largely a 'black box'. In the absence of a robust theoretical framework, research into the behaviour of businesses is criticised for its narrow and positivist nature (Gladwin, 1993; Welford, 1998). What is known about the business response to sustainability is, therefore, to be inferred from the collective body of research into the environmental management practices of businesses. Even less is known about the response of small and micro-businesses, which, despite their economic significance, have not yet attracted the specific attention of researchers within tourism or other industries. As a consequence, popular perceptions of small business responses to sustainability are drawn primarily from studies of larger businesses, although signs of an underlying diversity of response within the sector have been detected, particularly within tourism.

A number of authors have suggested that organisation and management theories, which attempt to explain the behaviour of businesses *per se*, might provide a more appropriate theoretical frame from which to examine and interpret business responses to sustainability (Roome, 1992; Schot, 1992; Gladwin, 1993; Schot and Fischer, 1993b; Taylor, 1996). In this respect, innovation diffusion theory, which accounts for the response of individuals and organisations to new ideas and

practices *per se*, offers a number of advantages. Whilst the theory has not been used to study the adoption of sustainability, it does offer research precedence in examining the adoption of environmentally benign practices by micro-businesses, albeit within a different industry. The theory also offers flexibility to study the adoption of multidimensional phenomena, such as sustainability, by considering a range of complementary innovations, which can be analysed both individually and collectively. Additionally, it provides an opportunity to explore the diversity of responses to sustainability that have been hinted at within past research, but not examined in detail.

So far, this thesis has considered the theoretical, political and economic context of the study. Before discussing the research methods adopted and the results that they yielded, it is important to recognise the local influences upon this study, both in terms of the most immediate sustainability issues that have inevitably coloured business perceptions within the study area, and the political impetus behind the study, which is reflected within all elements of the research programme. These issues are discussed in the next chapter.

# Chapter Three

## The study area

### 3.1 INTRODUCTION

The previous chapters have outlined the policy context within which tourism businesses are expected to contribute to sustainable tourism in the UK, and the limited body of theory and research that has attempted to explain the industry's response to date. While a broad review of the literature is important to highlight the contribution of this study to the conceptual and practitioner debates within tourism, it is primarily at a local level that strategies and initiatives for sustainability engage directly with the industry. The adoption and diffusion of sustainable tourism practices amongst businesses will be determined by local circumstances. The purpose of this chapter is to outline the local context for the study.

The chapter is divided into three main parts. Section 3.2 introduces the study area in terms of the changing socio-economic character of the district. The discussion reveals a pattern of long-term decline in the indigenous industries of the district that has increased the economic dependence upon tourism. The nature of tourism demand in Caradon and the characteristics of the local industry are then discussed in Section 3.3. Consideration is given to the natural, cultural and built environments of the area, which form the fundamental resource base of the industry, together with the impact of tourism on these basic environmental resources. Section 3.4 considers the extent and manner in which strategies for the development of tourism in the region have responded to local environmental and sustainability issues and have sought to actively encourage more sustainable forms of tourism development. The chapter reveals some inherent long-established barriers to innovation and change within the sector, which apply equally to the local response to changing tourism markets in the county and district as well as to the adoption of sustainable tourism practices. These barriers include low levels of entrepreneurship and a lack of understanding of environmental issues within the businesses, plus the multiplicity of responsibility within tourism organisations creating confused messages over the meaning and importance of 'sustainability' to the industry.

## **3.2 THE DISTRICT OF CARADON**

Caradon is one of six Cornish districts and is located in the south east corner of the county (see Figure 3.1). The district occupies an area of 66,389 hectares of mainly rural land and was estimated to have a population of 81,600 in 1999 (Cornwall County Council, 2001a). The district is bounded by the River Tamar in the east and by the River Fowey in the west. The principal towns in the district are Looe, Callington, Saltash, Torpoint and Liskeard, which is also the administrative centre for the local authority, although Saltash, located in close proximity to the city of Plymouth, supports the largest population. This section outlines the changing economy of the area and the growing importance of tourism; the character of the tourism demand and supply in Cornwall and Caradon; the environmental implications of tourism in the region; and the progress made with the introduction of sustainable tourism.

### **3.2.1 The changing socio-economic context of Cornwall and Caradon**

Within the context of the UK, Cornwall as a whole is economically deprived (see Table 3.1). It has a geographically peripheral position within the national economy and experienced a dramatic decline of its indigenous industries (mining, fishing and agriculture) during the last century (Williams *et al.*, 1989; South West Economy Centre, 2001; South West Tourism, 2001a). The county has struggled to attract new industries, apart from tourism upon which it is now increasingly dependent.

More than three quarters of land in Caradon forms part of an agricultural holding, with livestock farming being dominant (Caradon District Council, 1997). The decline of agriculture in the county has been a long-term trend, reflecting changes in the agricultural subsidy regime, increasing globalisation of the industry and changing patterns of food consumption across the UK and Europe (Department of the Environment, Food and Rural Affairs [DEFRA], 2002). The outbreak of Foot and Mouth Disease during the Spring of 2001 has served only to deepen the recession within farming (South West Economy Centre, 2001).

Fishing has also been an important industry for Cornwall, in particular inshore fishing for pilchards, which developed during Elizabethan times (Hamilton-Jenkin, 1935). In 1827, more than ten thousand people were involved in the fishing industry in Cornwall, more than half of whom were employed in support roles of curing and packing (Halliday, 1975). Today the industry is still important to the Cornish economy, but much reduced, consisting of less than 1,000 full-time

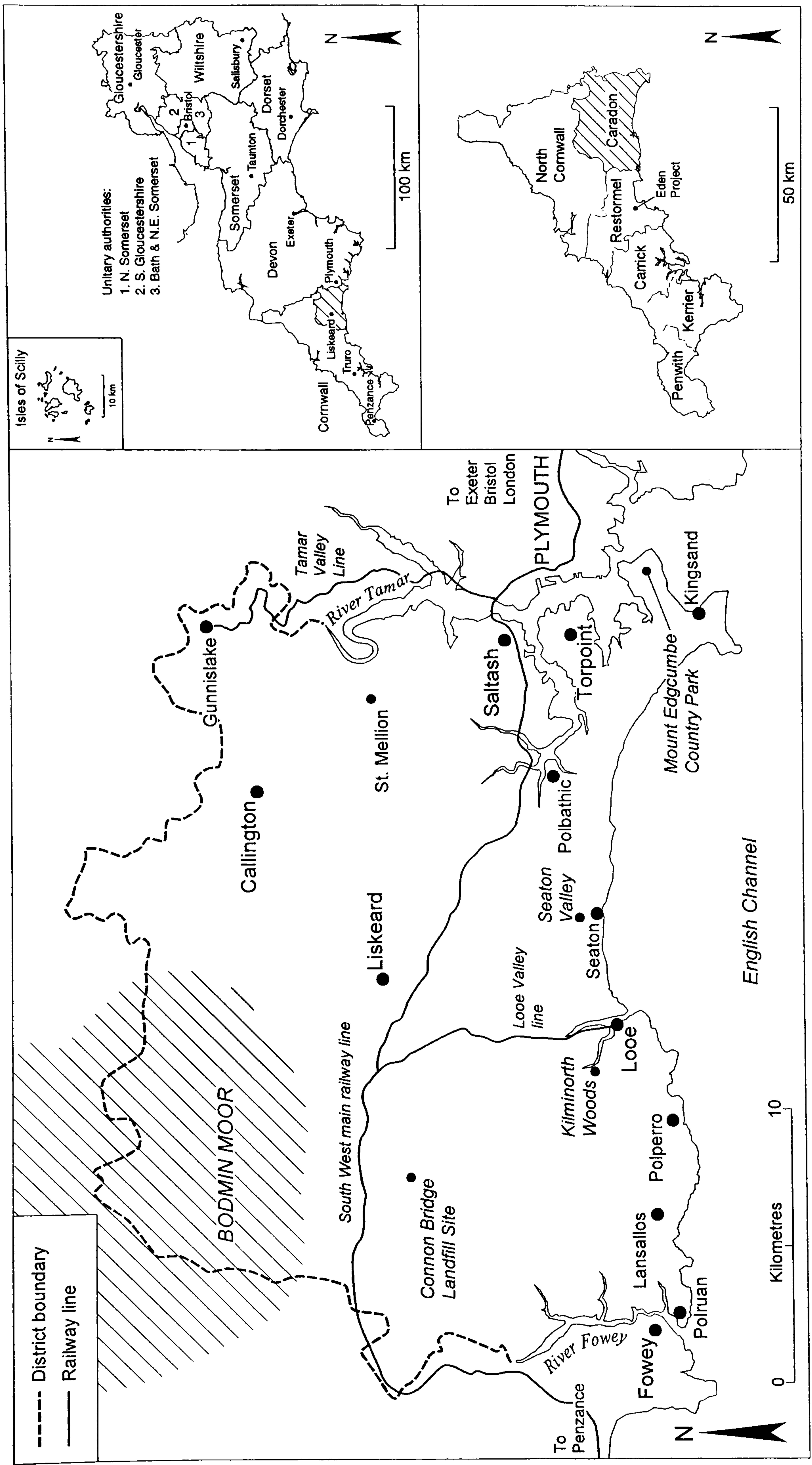


Figure 3.1 The District of Caradon

**Table 3.1 The Cornish economy**

Social and economic indicators	Cornwall	South West	UK	Cornwall ranking in SW <sup>1</sup>
Percentage change in population, 1991-1999	4.4	4.6	2.9	5
Percentage of pensioners, 1999	22.9	21	18.1	6 <sup>2</sup>
Percentage change in employees in employment, 1991-98	8.21	11.5	11.5	4
Self-employed workers as a percentage of the labour force, 1998/99	18.9	13.9	11.2	7 <sup>2</sup>
Part-time male employees as a percentage of all males in employment, 1998/99	11.7	10.2	8.7	6
Part-time female employees as a percentage of all females in employment, 1998/99	48.0	50.5	44.2	2 <sup>2</sup>
Female employees as a percentage of all employees	48.61	49.5	52.5	1
Economic activity rate, 1998/99	76.7	81.9	78.4	6
Unemployment rate, January 2001	4.8	2.5	3.7	7 <sup>2</sup>
GDP per head, 1998 (percentage, UK as base)	65	91	100	7
Percentage growth of VAT registered businesses, 1994-99	-8.1	-2.1	1.4	7
Participation rate of 16 year olds in further education, 1997-98	78	78	81	7
Average price £ of semi-detached house, 4 <sup>th</sup> qtr. 2000	76,650	99,491	85,591	7
<b>Overall ranking</b>				<b>6</b>

**Notes:**

<sup>1</sup> Ranking within the seven counties of the South West region: Cornwall, Devon, Dorset, Gloucestershire, Somerset, Wiltshire and the former county of Avon (comprising the unitary authorities of Bristol City, S. Gloucestershire, Bath & N.E. Somerset)

<sup>2</sup> Ranked lowest to highest

Source: South West Economy Centre (2001)

fishermen and a further 4,000 in related sectors (e.g. boat building, processing) (Objective One, 2000). The Cornish fleet, characterised by small, aging and privately owned vessels, faces increasing competition from larger foreign trawlers and the prospect of steadily reducing European Union (EU) fish quotas (Objective One, 2000). Within Caradon, Polperro has retained only a small fishing fleet, whilst Looe has enjoyed something of a revival, albeit within a greatly reduced industry, and is currently the third most important fishing port in Cornwall and home to one of only two remaining fish markets in the county (Touchstone Associates, 1990; Atlantic Living Coastlines, 2000; Objective One, 2000).

At its peak, Cornwall accounted for over 40 per cent of the world supply of copper (in the 1830s) and 50 per cent of the world supply of tin (in 1871) (Embrey and Symes, 1987). Within Caradon, the main workings have been for tin and copper in the northern part of the district, although lead, silver, wolfram and arsenic have also been mined in the south (Shambrook, 1982). Between 1830 and 1850, over 25 mines were established in the moorland area to the north of Liskeard. By the end of the century, all of these mines had closed (Barton, 1964).

The indigenous industries of mining, fishing and agriculture collectively accounted for only 7.2 per cent of employment in South East Cornwall<sup>1</sup> in 1998 (South East Cornwall Community and Economic Regeneration Project IAP [SECCERP], 2001). Although the growth of defence-related industries within Plymouth, at the Royal Naval Dockyards and along the Tamar estuary, has provided alternative employment for the district, this sector has also declined with the rationalisation of defence requirements since the late 1980s (SECCERP, 2001).

As a consequence of this economic restructuring, unemployment rates in Cornwall have regularly been amongst the highest in the country (see Table 3.1) (South West Economy Centre, 2001). The county has the lowest male and female earnings in England and has a particularly high percentage of the population receiving income support (South West Economy Centre, 2001; South West of England Regional Development Agency [SWERDA], 2000). Gross domestic product (GDP) per head was only 65 per cent of the UK figure and 71.5 per cent of the South West region as a whole in 1998. As a consequence, Cornwall has attracted regional development funding as a priority area, both from the UK government and Europe. Between 1994 and 1999, Cornwall, the Isles of

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<sup>1</sup> 'South East Cornwall' approximates geographically to the district of Caradon, and is defined within the South East Cornwall Community and Economic Regeneration Project Integrated Area Plan (IAP) as comprising 25 of the 30 parishes of Caradon and two parishes from North Cornwall. The remaining five parishes within Caradon fall within the Bodmin Moor and Camelford IAP.

Scilly and large portions of Devon and West Somerset received European Objective 5b funding of £154 million (Countryside Agency, 2000a). Since 1999, Cornwall has been awarded Objective 1 status, the highest priority of European Union (EU) Structural Fund support (targeted at areas where GDP per head is 75 per cent, or less, of the European Community [EC] average). This designation will make available over £300 million of matched funding investment between 2000 and 2006 to increase prosperity and social opportunity within the county (Objective One, 2000).

While the district of Caradon shares many of the social and economic problems of the county as a whole, it has fared better than most Cornish districts, recording the lowest level of unemployment in the county (3.2 per cent in October 2000) (SECCERP, 2001); the lowest percentage of the population on income support; and the highest rate of economic activity (percentage of the population that is economically active) (South West Economy Centre, 2001). Of the 20 most deprived electoral wards in Cornwall in 2000, none were located within Caradon (Objective One, 2000). Between 1961 and 1991, the resident population of Caradon grew by 49 per cent, making it the fifth-fastest growing district in the South West region (Caradon District Council, 1994). Such growth is attributed to the popularity of the district as a retirement destination (the rate of inward migration to the district is running at 25 per cent higher than for the county as a whole) and as a dormitory area for workers commuting to Plymouth (SECCERP, 2001). Indeed, between 1961 and 1991, the population of Saltash, the town closest to Plymouth, grew by 87 per cent (Caradon District Council, 1994).

### **3.2.2 The dominance of tourism in the economy of Cornwall and Caradon**

The importance of tourism in the local economy has grown steadily over this period of economic transition. By the start of the twenty-first century, tourism has become the main economic sector within both the county and the district. The emergence of tourism as a significant economic sector within Cornwall can be traced from the second half of the nineteenth century, triggered by increased access to the county through the completion of railway links to London (established in 1859, with branch line access to Looe in 1901) (Halliday, 1975; Jolliffe, 1992; Laws, 1992; Williams and Shaw, 1993). Tourism in the district has increased steadily since then. Between the censuses of 1881 and 1911, the population of Looe increased by 22.4 per cent (Walton, 1983); by 1951, it had grown by a further 41 per cent (Walton, 1997). The Cornwall Structure Plan (Cornwall County Council, 1997) identified two significant periods of tourism development in the county since the Second World War. The first was a period of rapid growth, from the early 1960s to the late 1970s,



when tourism across the UK was booming on the back of rising prosperity, increased leisure time and personal mobility. Between 1964 and 1978, the number of annual visitors to Cornwall rose from 2 million to 3.4 million (Cornwall County Council, 1997). The second was a period of consolidation and adjustment when the annual number of visitors fluctuated between 3.0 million and 3.5 million in the face of increasing competition from overseas destinations. Although the number of visitors to Cornwall was successfully maintained over this period and, indeed, has since been increased to over 4 million per annum (see Table 3.2), this trend disguises a shift from traditional summer holiday to increased short breaks.

### **3.3 CONTEMPORARY TOURISM TRENDS IN CORNWALL AND CARADON**

#### **3.3.1 Tourism demand**

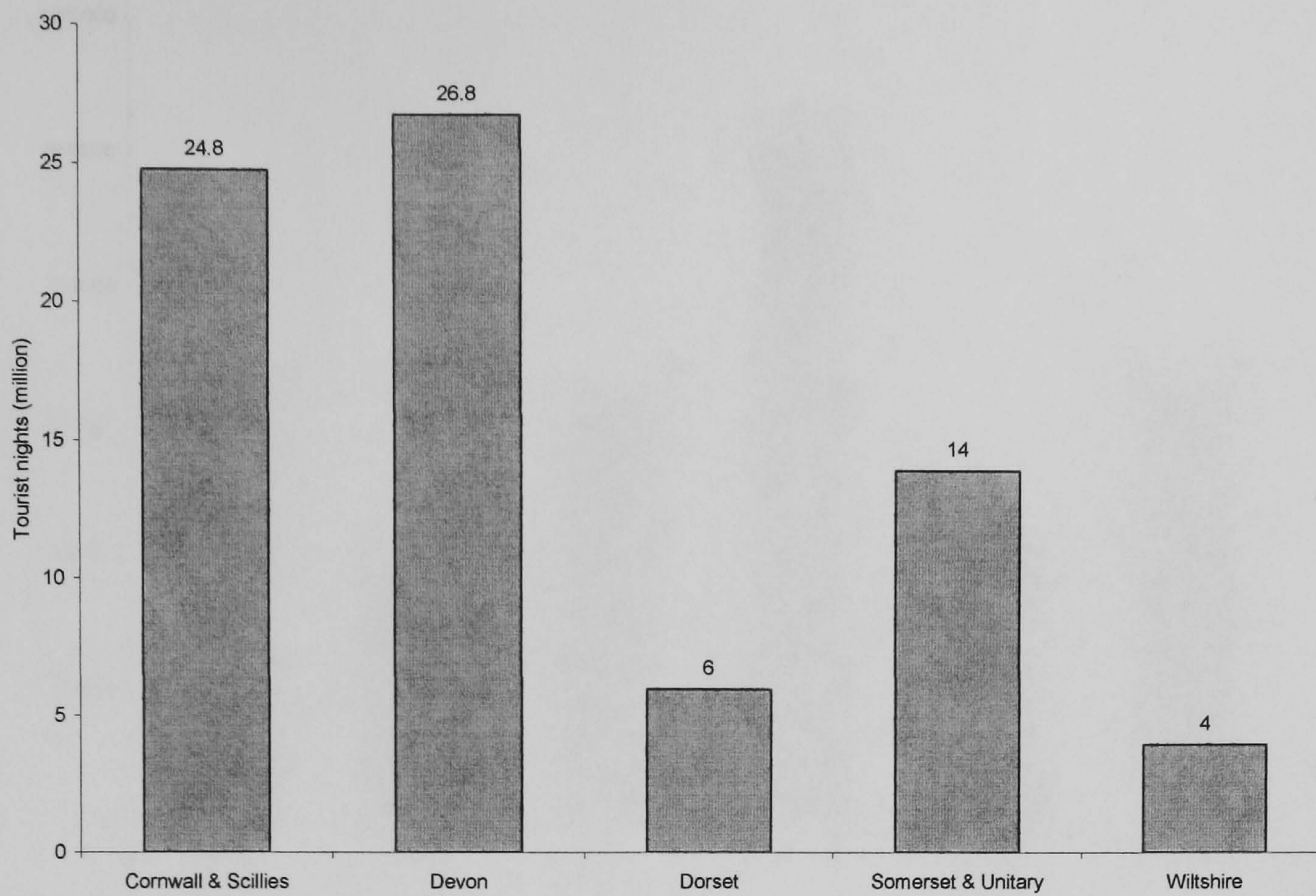
The South West has consistently been the most popular region in England for holidays of four or more nights, accounting for 31 per cent of all trips in 1996 (South West Tourism, 2001a). In terms of nights stayed and total expenditure, Cornwall is the second most popular destination county in the South West after Devon (see Figures 3.2 and 3.3) (South West Tourism, 2001b). In 1999, a total of 4.3 million UK residents and 0.25 million overseas tourist visited Cornwall and spent £880 million and £60 million respectively (Cornwall Tourist Board, 2001a). Over the period 1971 to 1994, growth in visitors to Caradon (38 per cent) out-performed the county as a whole (24 per cent) (Atlantic Consultants, 2001a). Nevertheless, in 1996, it was estimated that Caradon accounted for only 11.7 per cent of visits to the county, making it the second least popular destination area after Kerrier (10.2 per cent) (see Figure 3.4) (Cornwall County Council, 2001b). These low visitor volumes might partly be attributed to the fact that the district is often perceived as a 'transit' region on the boundary of Devon and Cornwall rather than a tourist destination in its own right. Tourists pass through the district en-route to other destinations in Cornwall or on their way home at the end of their holiday. Caradon has a reputation as 'Cornwall's forgotten corner' (Carne, 1985).

The tourism market in Caradon is dominated by the traditional family holiday. In a study by Atlantic Consultants (2001b), about 88 per cent of visits were by families, either with children or as couples. Two thirds of visits (67 per cent) were for seven nights or more. Self-catering was the most popular form of accommodation used (27.2 per cent), followed by serviced accommodation (hotels, guesthouses and B&Bs) (25.4 per cent). Over 88 per cent of tourists travelled to the district by

**Table 3.2 Growth in domestic tourism in Cornwall, 1991-1997**

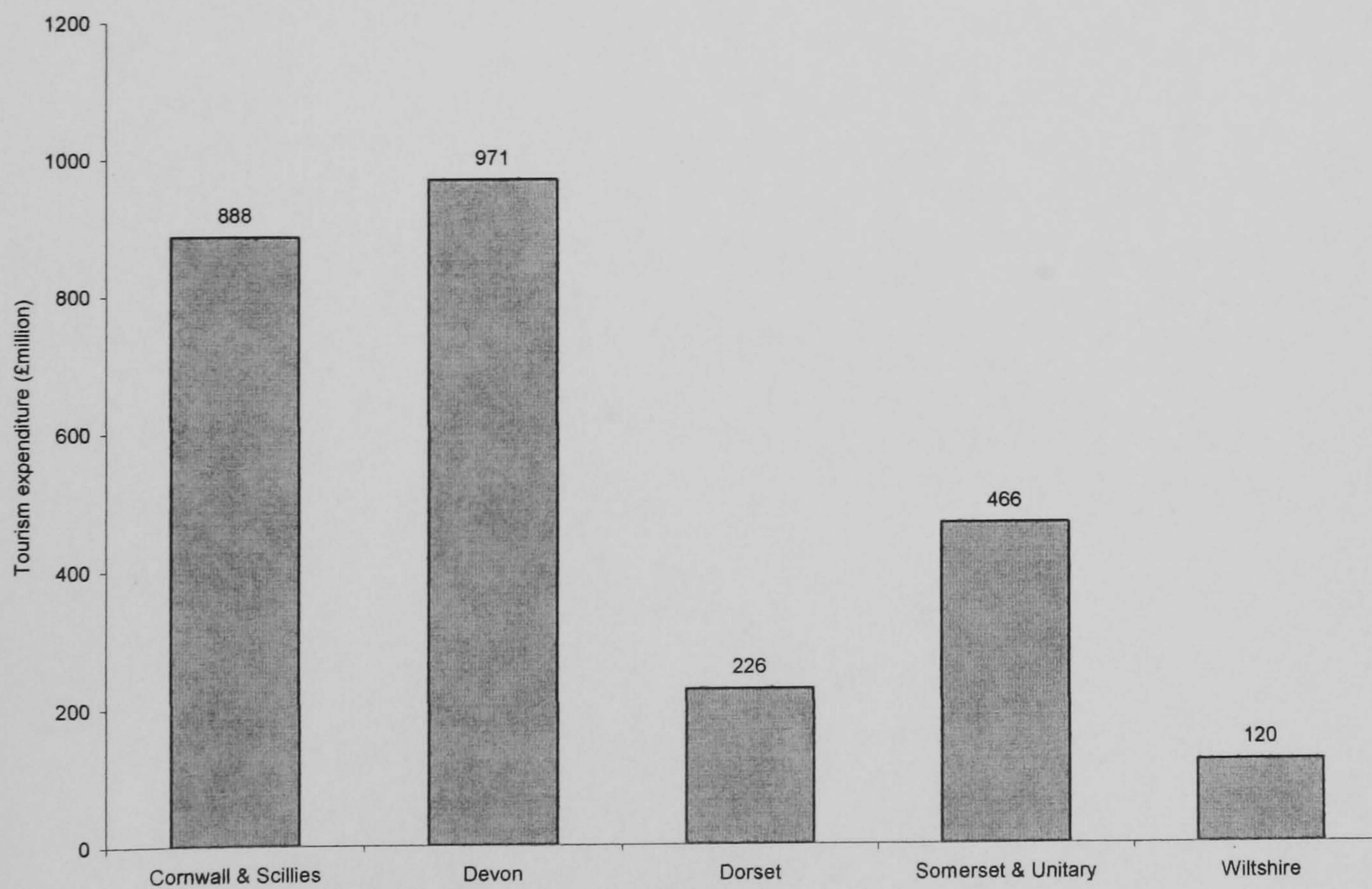
	<i>Cornwall</i>			<i>South West</i>			<i>UK</i>		
	1991	1997	% growth	1991	1997	% growth	1991	1997	% growth
Trips (million)	3.2	4.1	28.1	12.9	16.7	29.5	94.4	133.6	41.5
Nights (million)	21.8	25.4	16.5	68.5	80.9	18.1	395.6	473.6	19.7
Expenditure (£m)	568	846	48.9	1765	2755	56.0	10470	15075	44.0

Source: Cornwall Tourist Board (2001a)



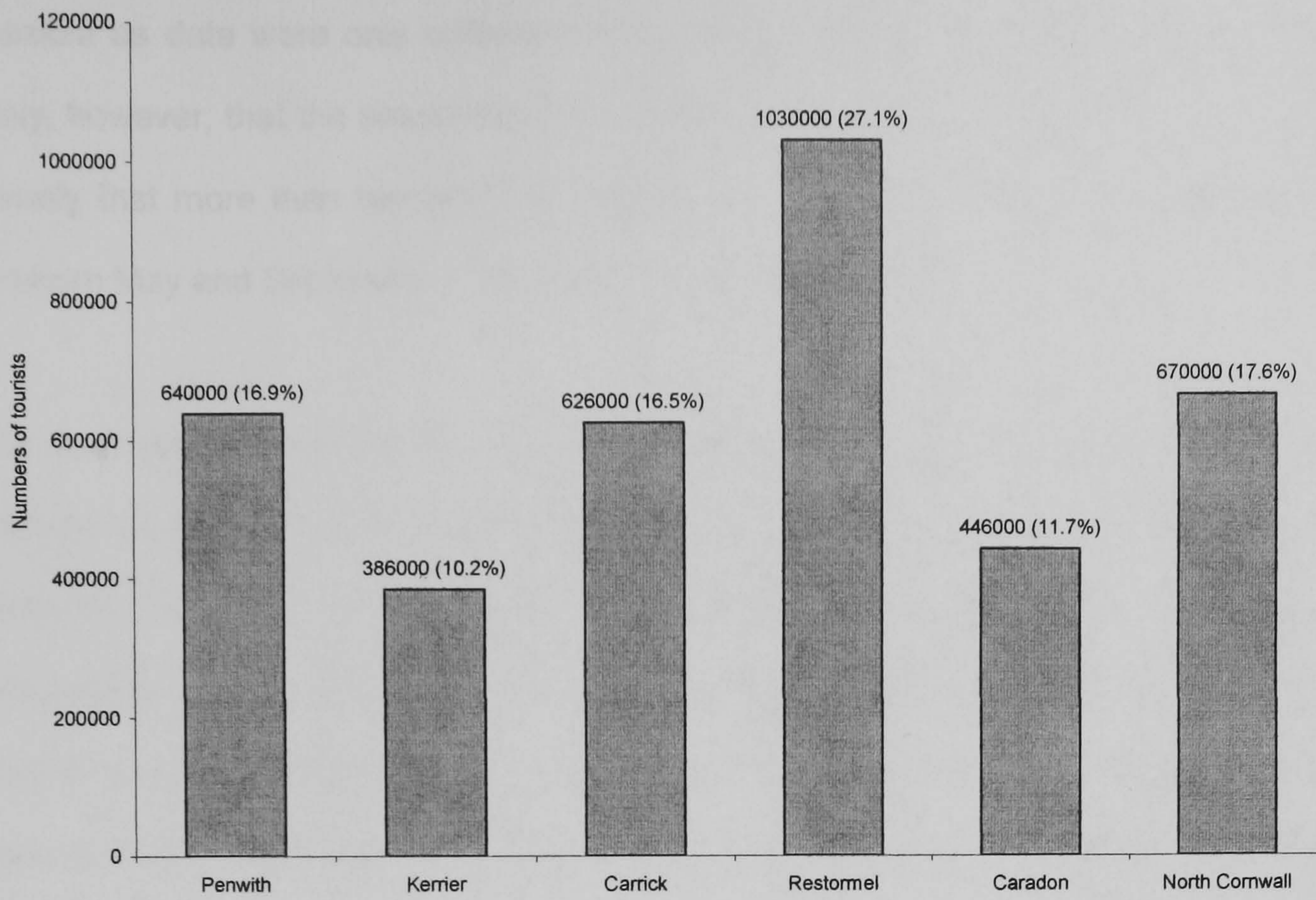
Source: South West Tourism (2001b)

**Figure 3.2** Tourist nights by UK residents in the South West 1998



Source: South West Tourism (2001b)

**Figure 3.3** Tourism expenditure by UK residents in the South West 1998



Source: Cornwall County Council (2001b)

**Figure 3.4** Numbers of tourists by district 1996

private car. A detailed analysis of the seasonality of tourism demand within Caradon was not possible as data were only collected during two months of the year (August and October). It is likely, however, that the seasonality of demand in the district reflects wider trends within Cornwall: namely that more than two-thirds of visits (69 per cent) are made over a period of five months between May and September (Cornwall Tourist Board, 2001a).

The main catchment areas for domestic visitors were the South East of England (24.0 per cent), followed by other parts of the South West (but not including Cornwall) (19.2 per cent) and the Midlands (16.4 per cent), reflecting issues of accessibility from other areas of the UK (Atlantic Consultants, 2001b). The main declared reason for visiting the district was for the quality of the natural environment, in particular the unique features of the area's coastline, countryside and general scenery. Most respondents (97.0 per cent) had visited the area previously, and as many as 41 per cent had visited more than seven times before. These proportions were high in comparison to the findings of visitor surveys for Cornwall as a whole, where almost a quarter (22.4 per cent) of respondents were first-time visitors to the county (Tourism Research Group, 2001). The district appears to have a very sizeable and loyal clientele, although there appears to be potential for growth if new products can be developed to tap new markets.

### **3.3.2 Tourism supply: the tourism-related sector in Caradon**

These market considerations are now of heightened significance to the economic and social well-being of the whole district given the centrality of tourism in the local economy. In 1996, tourism in Caradon supported about 4,510 jobs (77 per cent directly and 23 per cent indirectly), which equated to 12 per cent of the working population (West Country Tourist Board [WCTB], 1997). For the purposes of this research, a total of 451 tourism-related businesses<sup>2</sup> were identified as operating within Caradon in April, 2000 (see Table 3.3). Accommodation businesses (serviced and unserviced) represent 85.8 per cent (387/451) of all tourism-related businesses. Three quarters of such establishments (75.2 per cent i.e. 291/387) catered primarily for small groups and families (i.e. self-catering accommodation, guesthouses, farm B&Bs/self-catering), reflecting the nature of demand within Caradon. Only four hotels in the district offered more than 50 bed spaces (Caradon District Council, 1999). A total of 35 tourist attractions are located in the district, ranging from theme parks to retail factory outlets, country houses and gardens, zoos, and museums, although only one

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<sup>2</sup> The definition of tourism-related businesses does not equate to the Office of National Statistics specified range of sub-sectors (see Table 1.2), but reflects a local understanding of the tourism industry in Caradon (see discussion in Chapter Four).

**Table 3.3 Tourism-related businesses in Caradon, 2000**

	No.	%
Self-catering	142	31.5%
Guest house	96	21.3%
Farm B&B/Self-catering	53	11.8%
Hotel	40	8.9%
Attraction	35	7.8%
Campsite/Holiday park	29	6.4%
Inn	27	6.0%
Holiday company	1	0.2%
Unknown	28	6.2%
<b>Total</b>	<b>451</b>	<b>100.0%</b>

Source: Various listings of tourism business within Caradon (see Chapter Four for discussion)

(Mount Edgcumbe Country Park) featured in the list of top ten most popular attractions in Cornwall (Cornwall County Council, 2001a). In the absence of other major attractions in the district, great importance has been attached to the proximity of the recently completed Eden Project, which is within 15 miles of Caradon's eastern boundary (Atlantic Consultants, 2001a). Most tourism businesses are located within the Looe, Liskeard, Torpoint and Saltash postal districts (see Figure 3.5), reflecting the popularity of the coastal areas and of the resort towns of Looe and Polperro. Only a small minority of businesses (7.1 per cent i.e. 32/451) are located in Caradon's more isolated northern parts, within the Callington, Gunnislake and Launceston postal districts.

The predominance of small businesses within the local industry may, in some respects, represent a barrier to the implementation of sustainable tourism. The professionalism and quality of experience offered to visitors by small tourism businesses has been questioned in a number of research-based studies in the UK (Shaw *et al.*, 1987; Clegg and Essex, 2000). These studies have emphasised that many small tourism businesses are operated for lifestyle reasons rather than on strictly commercial lines, often without appropriate skills or formal business planning. Such attitudes introduce barriers to entrepreneurship, innovation and change. One such study was undertaken of the accommodation businesses in Looe (Hennessy *et al.*, 1986). The findings highlighted strong seasonal patterns in business behaviour, with more than half of the respondents closed during the winter months. As a consequence, almost one third of the sample had other business interests outside of tourism and were only partially committed to the industry. The study also found strong links between patterns of migration of entrepreneurs to the district and of tourists. Most business owners were in-migrants and more than one third originated from South East England, reflecting the main catchment area for visitors. Business owners had been attracted to the district through their experiences as a tourist and might, therefore, be reluctant to make changes to the tourism product. Such attitudes can act as a constraint on the ability of local authorities, tourist boards or trade organisations to implement schemes to encourage modernisation and innovation in the sector through marketing initiatives, revitalisation projects or general tourism management plans.

In other respects, the influence of such lifestyle-oriented businesses may have a positive influence upon, or different approach to, innovation and change within the industry. Ateljevic and Doorne (2000) in a study of adventure operations in New Zealand suggested that the conscious decisions of owners to limit business growth were closely aligned to the values, attitudes and priorities of visitors and were instrumental in the development of niche markets. A local demand for 'real' and

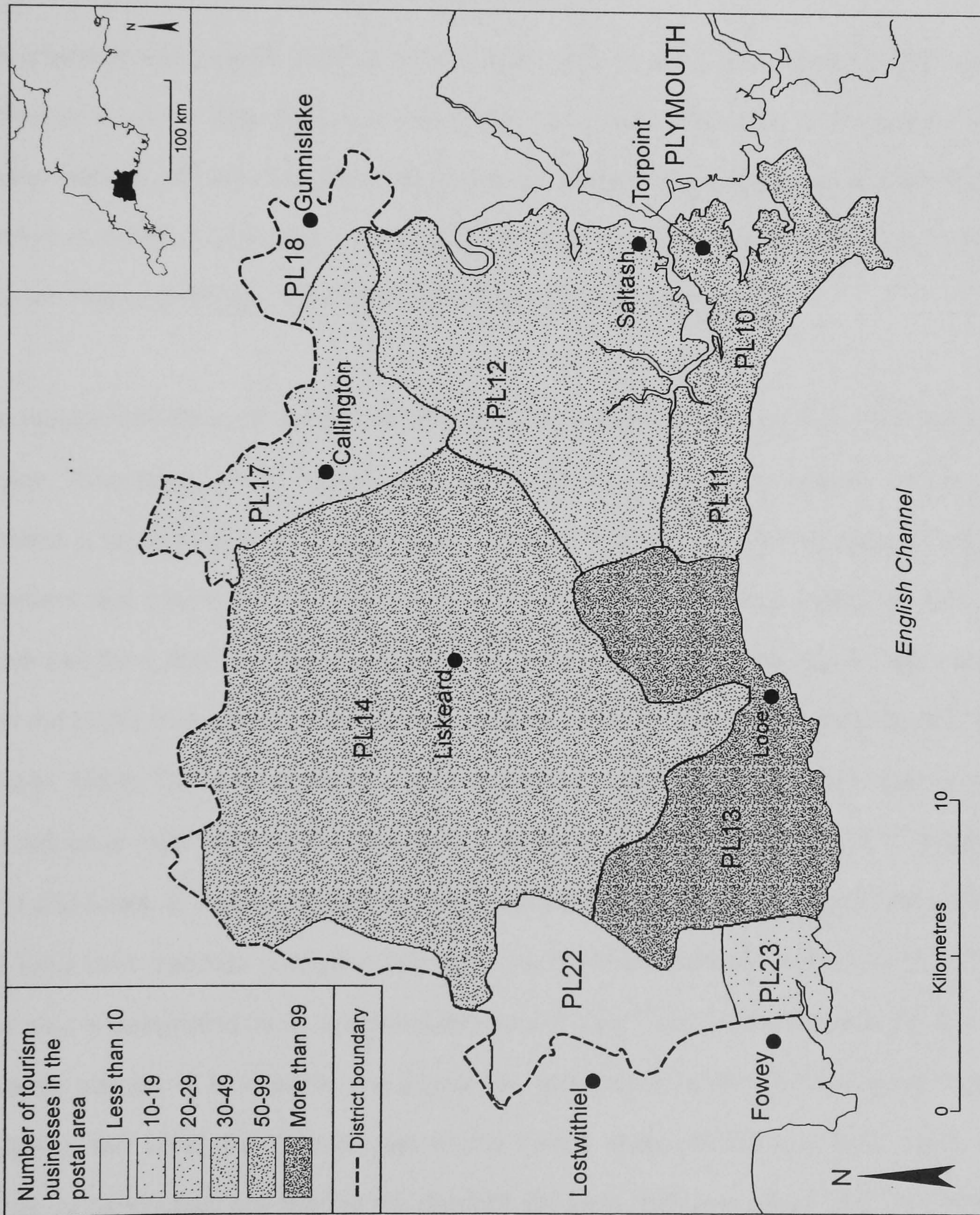


Figure 3.5 Spatial distribution of tourism businesses in the district of Caradon by postal area



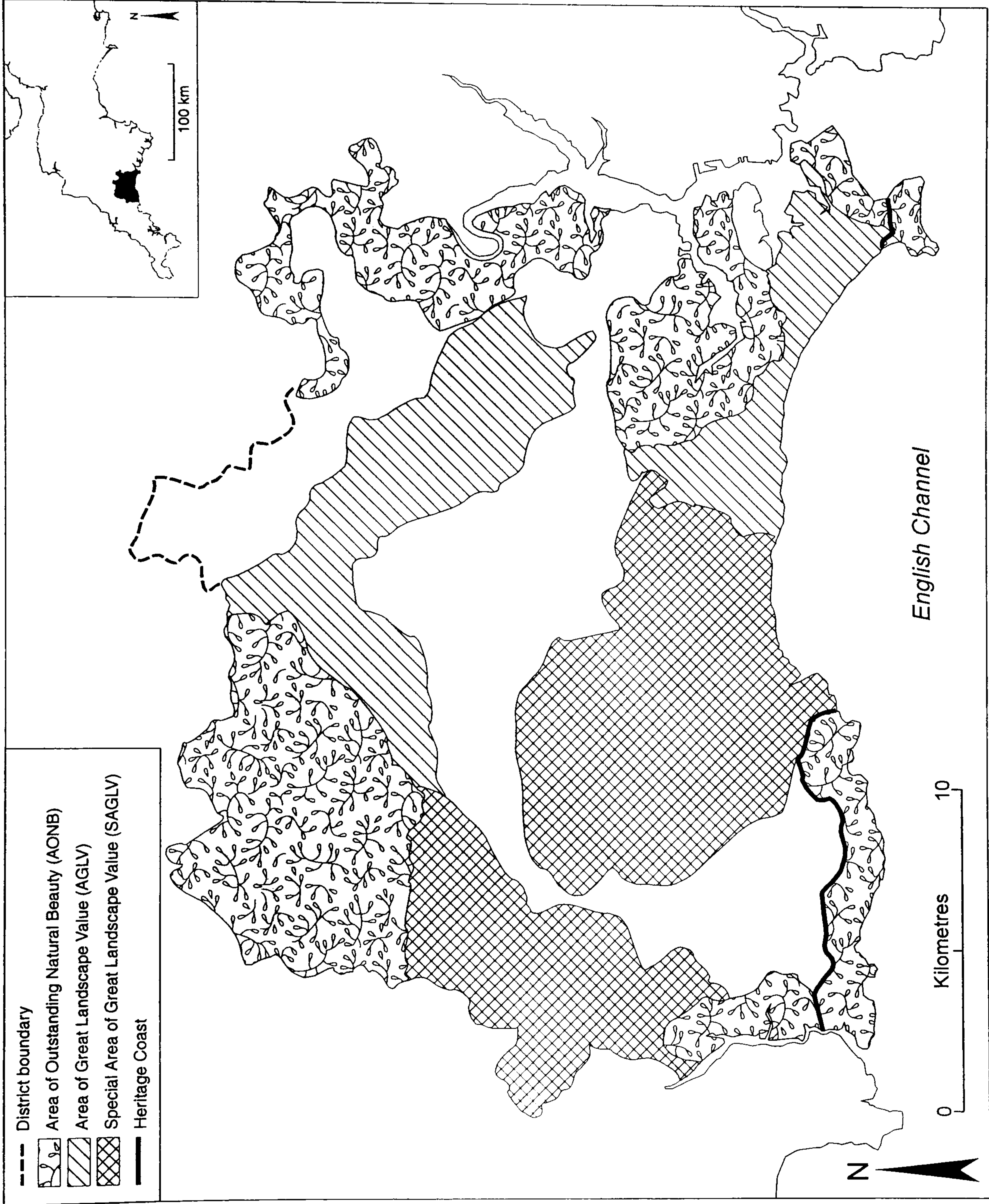
'authentic' experiences ensured that such businesses were economically viable and were subsequently imitated by more commercial operators. Significantly, Ateljevic and Doorne's study (2000) focussed primarily upon adventure tourism businesses, such as white water rafting and backpacker hostels, and concluded that cultural context was a significant influence on the dynamics of small business activity. While lifestyle-oriented businesses rooted within traditional holiday experiences may inhibit change, within the context of new and developing markets, such as for sustainable tourism experiences, it may provide a force for innovation within the district.

### **3.3.3 The resource base for tourism in Caradon**

The growth of the tourism industry in the county, and its continued popularity with visitors can be attributed, in part at least, to the overall quality of the local environment. The quality of Cornwall's natural scenery, its beaches and many places of interest are regularly rated within holiday visitor surveys as being amongst the main reasons for visiting the county (Caradon District Council, 1994; Tourism Research Group, 1997; WCTB, 1999a; Objective One, 2000).

The natural landscape of Caradon is of high conservation value and diverse in nature (Landscape Design Associates, 1996; Countryside Commission, 1997). The northern part of the district contains a large portion of Bodmin Moor, which is characterised by elevated areas of desolate moorland and granite tors (Caradon District Council, 1994). From a height of over 300 metres above sea level, the land falls away gradually to the coast. During the last ice age, rivers, draining from the north, incised deep valleys that today support broad-leaved woodlands (Caradon District Council, 1994). The lower portions of such valleys are tidal in nature, characterised by small creeks and estuarine mud flats of great ecological importance. The land between these valleys is typically open and rolling in nature, descending to a spectacular coastline of dramatic cliffs, secluded bays and expansive beaches (Caradon District Council, 1994). More than 70 per cent of the district's land area is designated for its special quality (see Figure 3.6) (Caradon District Council, 1997). Five separate parcels of land within the district are designated Areas of Outstanding Natural Beauty (AONBs): two within the Cornish part of the Tamar Valley AONB and three within the Cornish AONB. Approximately one third of the district's coastline has been designated as a Heritage Coast (Caradon District Council, 1997).

The district has a strong cultural heritage, defined by the District Council (1997, p.20) as "*all the aspects that identify the Cornish way of life*" and reflected by, amongst other things, its buildings



Source: Caradon District Council (1994)

Figure 3.6 Areas of conservation value within the District of Caradon

(e.g. churches, farmsteads, mine buildings), structures (e.g. hedgerows, stone monuments, bridges), folklore (e.g. connections with Arthurian legend), festivals (e.g. Callington's Honey Fair and Liskeard's St Matthew's Fair), language (e.g. Cornish place names), and local produce (e.g. Cornish pasties, clotted cream and seafood). Although comprising only 2.8 per cent of the South West region's land area, Caradon accounts for 10.8 per cent of the region's listed buildings, 4.3 per cent of its scheduled ancient monuments and 3.7 per cent of its entries in the Sites and Monuments Records (Caradon District Council, 1997). The earliest historic monuments in the district date from 4000 BC (e.g. stone circles, Cornish crosses and fortifications), many of which have been well preserved within upland areas (Chapman *et al.*, 1998; Landscape Design Associates, 1996; Countryside Commission, 1997). The area also possesses a strong industrial heritage. The remains of 16 traditional Cornish engine houses, characterised by tall tapering stone buildings with a juxtaposed circular chimney, are located within the district and betray its 300-year history of deep-shaft mining (Caradon District Council, 1997). The incursion of the railway into Cornwall in the mid-nineteenth century has provided a rich legacy of dramatic bridges and viaducts across the length of the district. The fishing ports of Polperro and Looe are of special importance to the area as examples of an archetypal Cornish fishing village and town, characterised by narrow streets between lime-washed and slate-roofed stone houses, focused around a central quay.

#### **3.3.4 Environmental and social impacts of tourism in Caradon**

While the economic benefits of tourism within the district have been widely reported, both in general and specific terms, the extent to which the negative environmental and social impacts attributable to tourism (see Table 1.5) have been felt within the district is more difficult to evaluate. The Environment Agency (EA) has produced two main reports which provide insights into the general state of the environment in Cornwall and Caradon. One review is a State of the Environment Report for the South West (EA, 2001), which highlights environmental issues in Cornwall *vis-à-vis* the rest of the region (see Table 3.4). The other consists of a series of Local Environment Agency Plans (LEAP) (EA, 1997, 1999a, 1999b), based on the main drainage catchment areas in Caradon, which outline the priorities for environmental improvement in the district (see Table 3.5). It is significant that none of the main environmental issues identified in these reports are attributed explicitly to tourist activity or tourism businesses *per se*. Of greater concern are the past and present activities of Cornwall's indigenous industries.

**Table 3.4 Environmental issues within Cornwall**

<i>Issue</i>	<i>Description</i>
Agricultural pollution	<ul style="list-style-type: none"> <li>- A major issue throughout Cornwall although causes differ in different parts of the county e.g. poaching by stock on moorland headwaters or diffuse pollution, particularly from agricultural land run-off.</li> </ul>
Air quality	<ul style="list-style-type: none"> <li>- A particular concern within Plymouth.</li> <li>- Ground-level ozone perceived to be high in the A30 corridor.</li> </ul>
Climate change	<ul style="list-style-type: none"> <li>- Impacts similar to the rest of the region.</li> </ul>
Contaminated land	<ul style="list-style-type: none"> <li>- Local concern over activities at various Ministry of Defence sites.</li> <li>- Contaminated land is one of the major public concerns within Cornwall.</li> </ul>
Diffuse pollution	<ul style="list-style-type: none"> <li>- Linked to land use (e.g. agriculture and mining) and related to rainfall.</li> <li>- A number of LEAP actions (e.g. investigating pollution or education campaigns) aim to prevent this type of pollution.</li> </ul>
Flooding	<ul style="list-style-type: none"> <li>- Cornwall is particularly vulnerable to flash floods because of its topography.</li> <li>- Sustainable drainage systems are mentioned in all Cornish LEAPs.</li> </ul>
Health and the environment	<ul style="list-style-type: none"> <li>- Radiation from places such as Devonport and its impact on public health has been raised as an issue.</li> </ul>
Marine issues	<ul style="list-style-type: none"> <li>- Oil spill contingency planning in estuaries has been identified as a priority in all Cornish LEAPs.</li> <li>- Four estuary partnerships have been developed in Cornwall and are the primary mechanism for these issues rather than LEAPs.</li> </ul>
Waste management	<ul style="list-style-type: none"> <li>- High priority issue in Cornwall.</li> </ul>

Source: Environment Agency (2001)

**Table 3.5 Environmental issues within Caradon**

<i>LEAP area</i>	<i>Priority environmental issues</i>
Seaton, Looe and Fowey	<ul style="list-style-type: none"> <li>- Protection of wildlife, habitats and historic features</li> <li>- Effects of effluent discharges</li> <li>- Meeting current and future water demand</li> <li>- Waste management</li> <li>- Effects of farming and forestry</li> <li>- Decline in fish stocks</li> </ul>
Upper Tamar catchment	<ul style="list-style-type: none"> <li>- Pollution prevention and contingency planning</li> <li>- Effects of effluent discharges</li> <li>- Looking after wildlife</li> <li>- Meeting current and future water demand</li> <li>- Decline in fish stocks</li> </ul>
Lower Tamar estuary and tributaries	<ul style="list-style-type: none"> <li>- Flood defence</li> <li>- Water resources</li> <li>- Pollution prevention and control</li> <li>- Navigation</li> <li>- Fisheries</li> <li>- Recreation</li> <li>- Conservation</li> </ul>

Source: Environment Agency (1997, 1999a, 1999b)

Instead, tourism is implicated implicitly within a range of environmental issues (e.g. localised air pollution through tourism-related traffic; contribution to climate change through energy and resource use; seasonal peaks in water demand and sewage treatment). Waste is a particularly high profile issue within Cornwall. Household and commercial waste in the county has grown at an average rate of three per cent per year, of which 93 per cent is disposed to landfill and only seven per cent recycled (the national rate of recycling was nine per cent in 2000) (Cornwall's Waste Working Group, 2000). There are only two operational landfill sites for municipal solid waste (i.e. 'household type' waste) in Cornwall, one of which is located in Caradon, at Connon Bridge. The County Council expects current landfill capacity to be exhausted by 2007 (Cornwall County Council, 2001c). Additionally, the EC Landfill Directive, which was implemented within the UK on 15 June 2002, will progressively reduce the range of materials that can be disposed to landfill (Department of Trade and Industry, 2002). A step change in waste management practices, which will require dramatic increases in recycling activity and new methods of disposal, is, therefore, being considered within Cornwall (Cornwall County Council, 2001c).

A range of local tourism impacts has also been recognised (e.g. noise pollution, litter, soil erosion, landscape degradation, disturbance of wildlife and loss of habitat) within an 'audit' of the county's biodiversity (Cornwall Wildlife Trust, 1997). Cornwall Wildlife Trust (1997) highlighted 119 species as being at particular risk and emphasised the activities of tourists as a significant threat to sensitive habitats. The Trust called upon the tourism industry to contribute to the upkeep of the environment. The Environment Agency stresses that tourism would be a beneficiary of any actions to improve environmental quality within the district, and would be disadvantaged by any failure to do so (EA, 2001). Although not directly implicated within the prominent environmental issues at a regional or district level, the tourism industry, in line with other major sectors in the region, assumes joint and collective responsibility for many of these issues, which have direct relevance to the industry's long-term viability.

The negative social impacts of tourism within Caradon have been stated more explicitly in the Integrated Area Plan for South East Cornwall (SECCERP, 2001), which provides a strategic framework to address socio-economic issues within the area through Objective 1 funding. This framework highlights a number of concerns about the social impacts of tourism development in the district. The low-paid, low-skilled and seasonal nature of employment within tourism has created instability within local employment markets. In some parts of the district that are particularly reliant

upon tourism (e.g. Looe and Lansallos), unemployment benefit claims can increase five-fold during the winter season (SECCERP, 2001). A further concern is the rising stock of second homes in the district that are often let as holiday accommodation, which has resulted in localised inflation of property prices and pressure for the construction of new housing for local needs (Caradon District Council, 1994). Properties that remain vacant for large portions of the year have also contributed to the erosion of community spirit and a decline in essential services. Polruan and Kingsand, in particular, have suffered greatly from the effects second-home ownership (SECCERP, 2001). A particular issue has been the withdrawal of banking services from rural communities. Apart from the five main towns, banks can now only be found in one other location in Caradon: the village of Gunnislake (SECCERP, 2001).

### **3.3.5 The importance of sustainable tourism in Caradon**

Given that the principal tourism assets in Caradon relate to features of its natural, cultural and built environment (Caradon District Council, 1997; Atlantic Consultants, 2001a), the conservation and protection of these resources are essential to ensuring the continued viability of its main industry. The official reports on the state of the local environment have recognised, perhaps not very strongly, the direct and indirect environmental implications of tourism. The principles of sustainable tourism, by instilling greater environmental responsibility throughout the industry, represent perhaps the main means by which environmental, social and cultural resources can be maintained and impact on the environment and society can be minimised. In this way, the future sustainability of the tourism industry can be ensured. The approach also has the potential to create niche markets that are viable throughout the year (e.g. nature-based tourism, such as bird watching and walking holidays), which would assist the district in reducing its dependence on peak season family holidays and removing the perception of the district as a transit region. In addition, the application of sustainable practices in tourism businesses will contribute towards the amelioration of emerging global environmental concerns. The extent to which these issues have been prioritised within strategies for the development of tourism in the district is discussed in the next section.

## **3.4 ENCOURAGING SUSTAINABLE TOURISM IN CARADON**

A number of strategies have sought to guide the development of tourism within the study area, either directly or indirectly, and fall into one of two types. The first group comprises general

economic strategies, which have been developed at different geographical scales, and within which environmental sustainability issues compete for attention with economic priorities (see Table 3.6a). The second type includes strategies that have been developed specifically for the purpose of encouraging sustainable tourism, usually as discrete projects and initiatives in isolation of more general economic strategies (see Table 3.6b).

### **3.4.1 General development strategies**

While general development strategies place great value on the quality of the local environment as being central to the prosperity of the region, each plan places a very different emphasis upon the achievement of sustainability. The economic strategies view the concept largely as a discretionary objective or as a niche marketing opportunity. For example, the Single Programming Document (SPD) for the Objective 1 scheme seeks to establish a more prosperous and sustainable economy through targeted investment. The Document outlines three core objectives: (1) to increase absolute prosperity within the assisted area, measured primarily by increases in GDP and the generation of employment; (2) to create sustainable communities, in particular, by encouraging more diversified local economies to reduce reliance upon traditional industries, such as tourism; and (3), to capitalise upon the economic opportunities arising from the distinctiveness of Cornwall and the Isles of Scilly. All funded projects are expected to contribute to sustainable development, as a 'cross-cutting theme' of the SPD, but this issue is secondary to the main objectives of the creation of wealth and employment.

While tourism might contribute to each of the core objectives, it receives little explicit mention within the SPD, but is positioned alongside Cornwall's indigenous industries as important economically but requiring investment to improve competitiveness and quality (Objective One, 2000). To address such issues within Objective 1, a Tourism Taskforce has been established, comprising representatives of the regional and county tourist boards, district councils, and industry associations within Cornwall, to develop a strategy for the industry (Objective One Tourism Taskforce, 2001). The main objective of the strategy is to contribute £1.25 billion to Cornish GDP and create 40,000 'quality' jobs by 2010 through four key initiatives: targeted destination and direct marketing; developing access to new technologies for enquiries and bookings; improving the quality of the tourism product and public facilities; and improving tourism support structures to facilitate strong public/private sector partnerships. The strategy makes little mention of



**Table 3.6 Strategies for the development of tourism in Cornwall and Caradon**

*a) General development strategies in Cornwall*

<b>Agency</b>	<b>Strategy</b>
Cornwall County Council	Cornwall Structure Plan (1997)
Caradon District Council	Caradon Local Plan (1994)
Objective One for Cornwall	EU Objective One strategy (2000)
South West Regional Development Agency	South West Regional Strategy (2000)
South West Tourism	Towards 2020 (1999)
Atlantic Consultants for Caradon District Council	Caradon Tourism Strategy, 2001-2006 (2002)
Caradon District Council	Caradon Local Agenda 21 Strategy (2000)

*b) Strategies and initiatives for sustainable tourism in Caradon*

<b>Agency</b>	<b>Strategy</b>
Caradon District Council, Cornwall County Council, English Tourist Board, Countryside Commission	Project Explore (1991-1996)
Caradon District Council	SUSTAIN (1996-1998)
Caradon District Council, University of Plymouth, Caradon Area LEADER II, Southwest Tourism	Barriers to SUSTAIN (1998-2001)

environmental sustainability and reflects the emphasis upon economic prosperity and job creation within the SPD.

While the tourism development strategies of the South West of England Regional Development Agency (SWERDA) and South West Tourism recognise the importance of protecting the environment for its tourism potential, the main focus is upon improving the competitiveness of the industry through the development of niche markets (e.g. for water sports) and the introduction of structural measures, such as quality assurance schemes and internet booking systems. *“The continuing growth of tourism will provide opportunities for the Region to generate additional benefits from tourism, but the potential will only be achieved if the South West can strengthen its competitive position against other destinations in the United Kingdom and elsewhere”* (WCTB, 1999a, p.1). The strategy includes measures to enhance the tourism resource (described as the natural and built environment) (see Table 3.7), although, significantly, the encouragement of businesses to adopt sustainable practices is presented as a tactical methodology that might provide a competitive edge for the region through recognition within ‘green’ certification schemes, rather than as a contribution towards the conservation of the tourism resource.

The most recent strategy for tourism in Caradon has been completed by Atlantic Consultants on behalf of the District Council (Atlantic Consultants, 2001a). The main emphasis is upon developing the economic strength of the sector through investment in technology, infrastructure, research, training and marketing (see Table 3.8). While social and environmental imperatives are stated (i.e. community involvement and sustainability), these priorities received much less detail than economic objectives in the final report and are focused towards creating additional value in the tourism product. A ‘high priority’ action within the strategy is to *“ensure the use of natural amenities for leisure and education purposes is recognised as a growth area for the development of sustainable tourism activities e.g. the development of circular walks, cycle paths, use of public transport and guides for days out without the car”* (Atlantic Consultants, 2001a, p.37).

Planning policies place responsibility for minimising the environmental impact of tourism upon the business owners and the town and country planners through the development control process. Both the Cornwall Structure Plan (Cornwall County Council, 1997) and the Caradon Local Plan (Caradon District Council, 1994) adopt a more protective stance towards the natural and built environments in the region. The Structure Plan outlines a vision for Cornwall as *“a special place –*

**Table 3.7 Towards 2020 – a tourism strategy for the South West**

The overall aim of the tourism strategy for the South West is to:

*“maximise the overall contribution of tourism to the wider economic, social and environmental well being of the Region”*

Action will be required to:

1. Develop our understanding of our market place and the needs of the visitor;
2. Attract and retain the visitor to the South West;
3. Maintain and enhance the resource and enable visitors to enjoy it;
4. Strengthen the competitiveness of the industry;
5. Develop the people and their skills working in tourism;
6. Ensure that the importance and benefits of tourism are recognised.

Source: West Country Tourist Board (1999a)

**Table 3.8 South East Cornwall tourism strategy**

**Vision:**

To transform the tourism industry in South East Cornwall so that it consistently offers a high quality, sustainable and economically viable product, valued by visitors and residents alike, based on the area's distinctiveness and stunning environment.

**Action points:**

1. *Project development:* to help all sectors of the tourism industry maximise their potential and provide services and products required by visitors of the highest possible standard.
2. *Research and market intelligence:* to ensure that all tourism businesses have access to current information to inform the development of new and improved tourism products.
3. *Marketing and public relations:* to ensure that the marketing of South East Cornwall is based on sound research, is targeted on sectors with significant potential and is promoted in a way that is consistent with a high quality tourism industry.
4. *Tourism information systems:* to ensure that tourism information systems allow easy access to information in an attractive form and enable visitors to convert their interest into visits using facilities in South East Cornwall.
5. *Quality standards and training:* to provide visitors with guaranteed high standards and quality of service throughout the tourism industry that they are demanding.
6. *Community involvement:* to ensure that outcomes of tourism are maximized to the benefit of local residents.
7. *Sustainability:* to develop a sustainable tourism industry that is compatible with the needs of the environment.
8. *Implementation:* to maximize the opportunities provided by the availability of external help and funding to achieve an internationally competitive tourism industry in South East Cornwall.

Source: Atlantic Consultants (2001a)

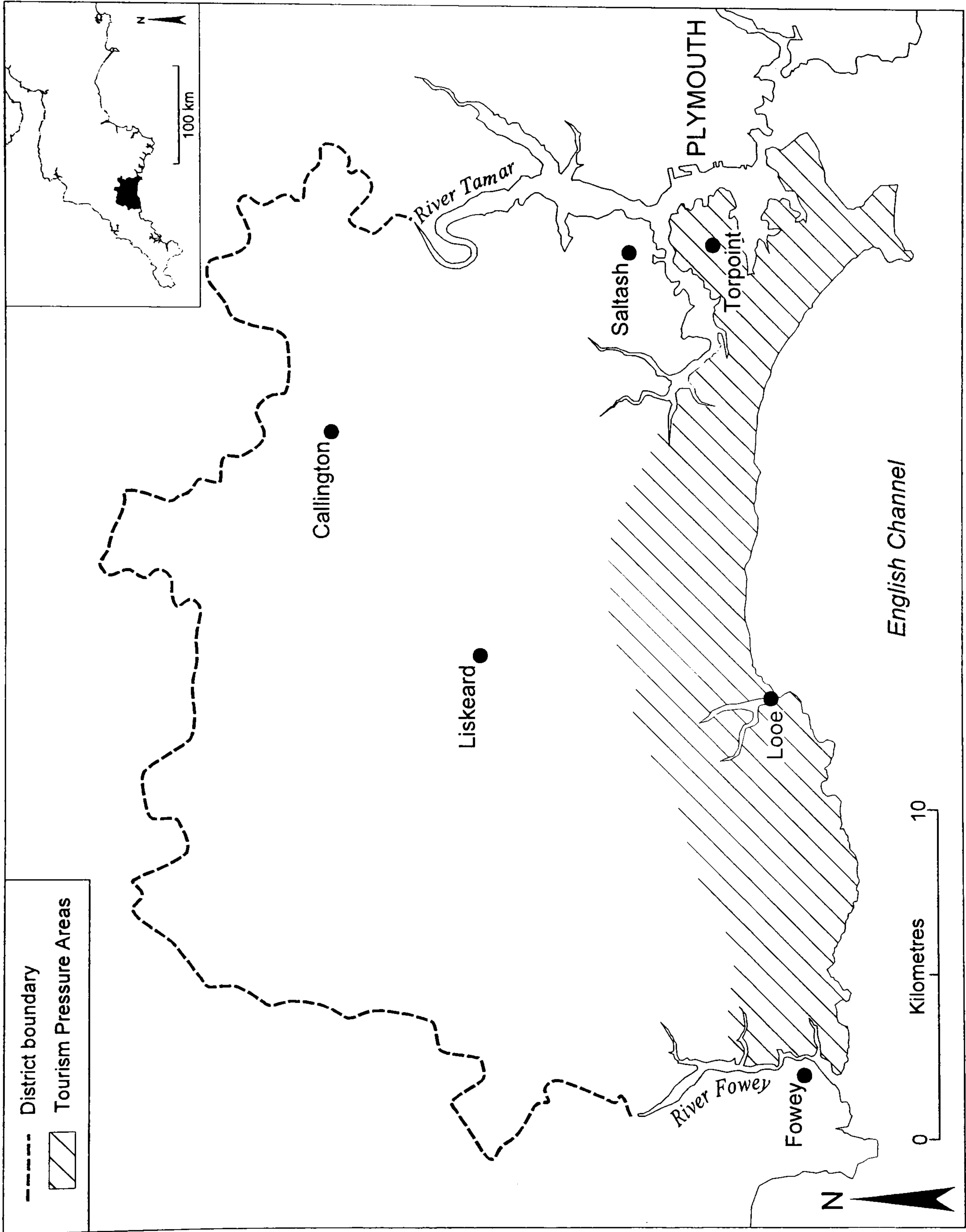
*its distinctive physical and cultural qualities protected and enhanced, recognised in the United Kingdom and Europe and providing the basis for a SUSTAINABLE QUALITY OF LIFE AND ENVIRONMENT [emphasis within original text] for its people...*" (Cornwall County Council, 1997).

In relation to tourism, a key objective of both the Structure and District Plans is to ensure that the annual influx of visitors to the county does not create a negative impact upon the environment or upon the quality of life for residents. The designation of Tourism Pressure Areas has been used to identify zones within which further tourism development is deemed unsuitable, either because of the quality of scenery or concerns about traffic congestion (see Figure 3.7). Emphasis is upon safeguarding and improving the tourism industry, rather than encouraging new developments. In particular, new attractions are unlikely to receive planning permission unless they *"are suitable in scale and form for the locality; are based on some local environmental heritage feature or rural activity; and do not have a significant adverse effect on the landscape"* (Cornwall County Council, 1997, p.6).

It is evident that the profile of the environmental sustainability of tourism as a policy objective is relatively low across the relevant regional and local statutory agencies. The differences of approach are particularly noticeable even within the contrasting policies of different departments of Caradon District Council. It is significant that the strategy for tourism developed by Atlantic Consultants was commissioned by the Leisure, Arts, Tourism and Economic Development Committee of the District Council, whereas this study was initiated by the Planning Services Department. This situation creates confused and contradictory positions towards tourism development in the district.

### **3.4.2 Strategies and initiatives for sustainable tourism**

The South West region has a long history of sustainable tourism initiatives. Indeed, nine of the 21 case study examples of sustainable tourism initiatives promoted by the Department of National Heritage, the Rural Development Commission, the English Tourist Board and the Countryside Commission in 1995 were located within the region (Department of National Heritage *et al.*, 1995). The 'Green Audit Kit' (see Section 1.5) was developed and pilot-tested by the South Devon Green Tourism Initiative (1993-1994), before being published as the national model by the Countryside Commission and Rural Development Commission (Department of National Heritage *et al.*, 1995). The Dartmoor Area Tourism Initiative (1992-1994) was highlighted as a successful example of stakeholder engagement to establish a consensus-driven management plan to relieve visitor



Source: Caradon District Council (1994)

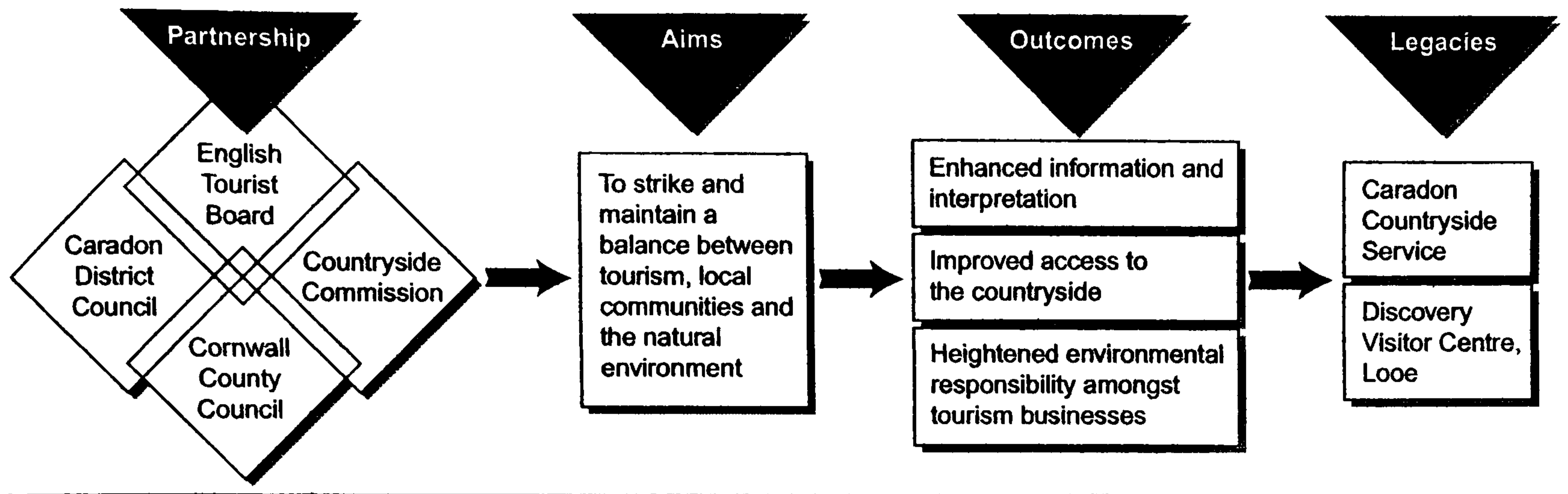
Figure 3.7 Tourism Pressure Areas

pressure in this National Park. Initiatives included marketing campaigns, new public transport services, interpretation schemes, and an information and advice service to local businesses to promote sustainable tourism practices. More recently, the South Hams Green Tourism Team, South Devon, have been pilot-testing a 'green' certification scheme for accommodation businesses that is expected to become the forerunner for a national programme.

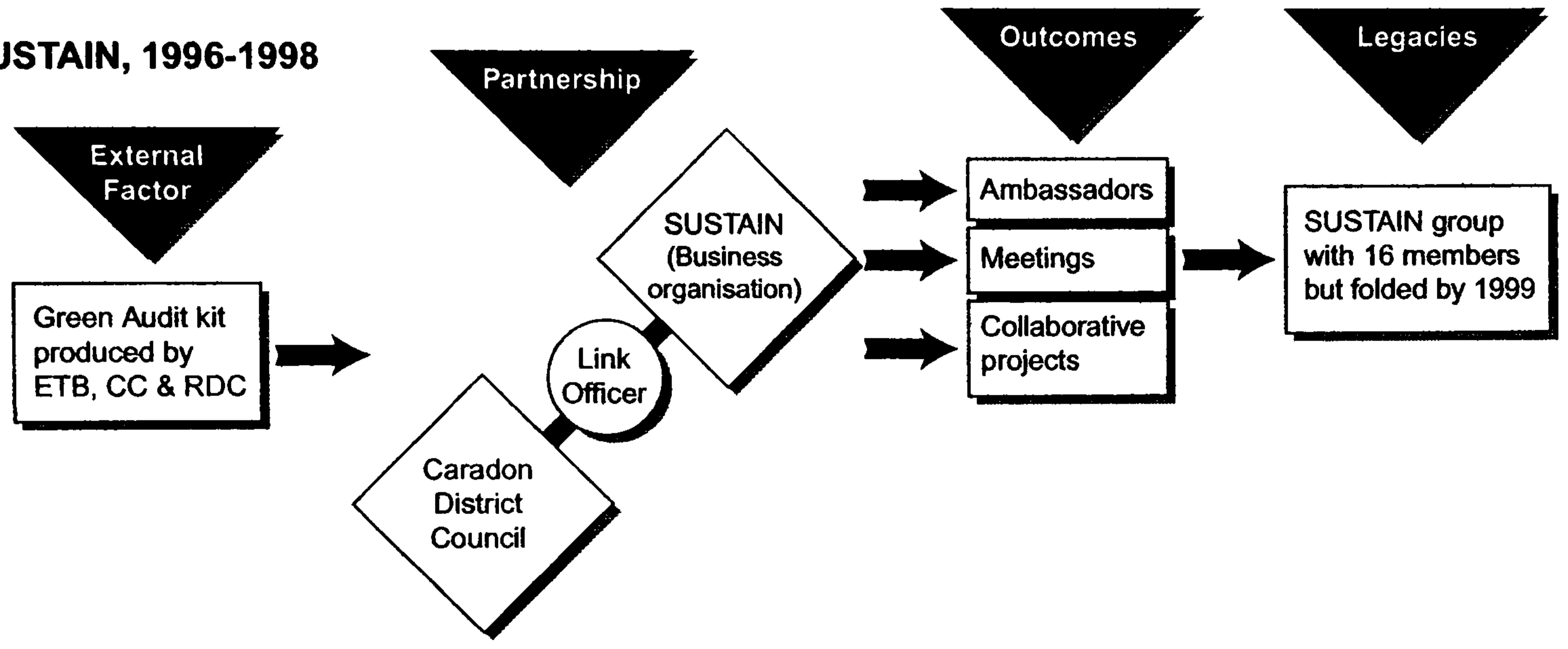
A number of sustainable tourism initiatives have also been situated within Caradon District (see Figure 3.8). Since 1991, the District Council has supported a series of projects to encourage sustainable tourism by engaging directly with stakeholders, and since 1993 these initiatives have been supported by a full-time project officer (Caradon District Council, 1997). In 1991, the District Council was instrumental in establishing Project Explore, "*to promote and develop tourism which is based on the character of the area, its beauty, culture and wildlife, and with emphasis upon developing tourism outside the peak holiday months*" (Department of National Heritage *et al.*, 1995). The project was established to develop and implement the findings of two earlier reports. The first, '*Looe: an Action Plan*' was produced by the Civic Trust Regeneration Unit in 1988 and sought to develop a tourism product that emphasised the quality of its surroundings. The second, '*An Encouragement to Explore*' (Touchstone Associates, 1990), was commissioned by the South Cornwall Heritage Coast Service to develop the ideas of the 'Looe Action Plan' across a wider area of coast from Looe to Fowey. The report outlined a strategy for 'green tourism', which focused on marketing, information and interpretation. A five-year action plan was presented to develop an increased but informed enjoyment of the area's natural and cultural environment amongst visitors, and sought to address issues such as public transport, access to the countryside and the involvement of local communities.

The main emphasis of Project Explore was upon changing the attitudes and behaviour of visitors to the district. The most visible long-term legacies of the project have been the establishment of the South East Cornwall Discovery Centre in the main car park in Looe, which encouraged visitors to explore the local countryside, heritage and culture (Department of National Heritage *et al.*, 1995). Other outputs of the project have included a programme of guided walks and events, including the 'Looe and Polperro Festival of the Sea', which has been established as an annual event; joint initiatives with the Devon and Cornwall Rail Partnership to encourage greater leisure use of public transport; and changing the district's destination marketing to emphasise the environmental distinctiveness of the area. The District Council has also developed, for countryside recreational

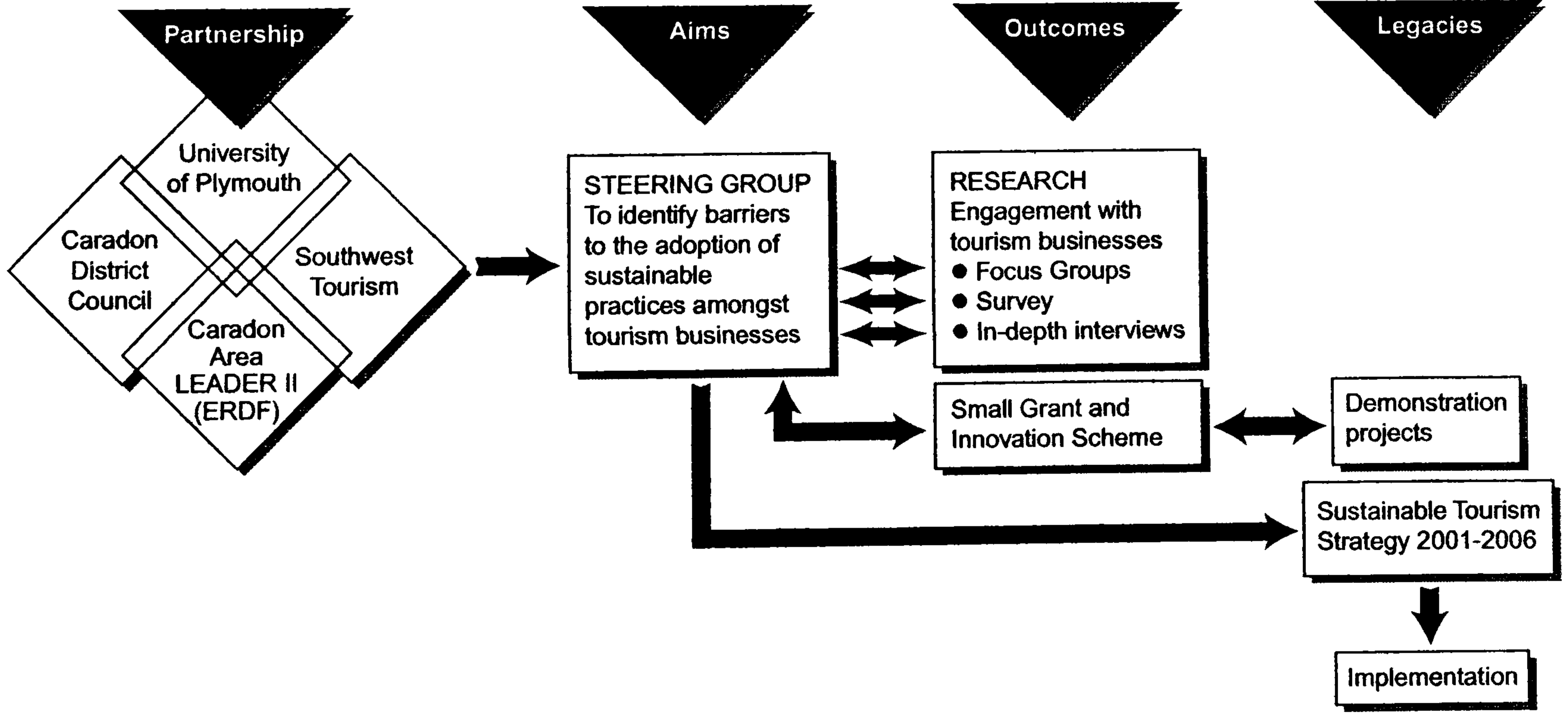
**a) PROJECT EXPLORE, 1991-1996**



**b) SUSTAIN, 1996-1998**



**c) BARRIERS TO SUSTAIN, 1998-2001**



**Figure 3.8 Sustainable tourism initiatives in Caradon**



use, a number of areas of land that it owns (e.g. Kilminorth Woods and the Seaton Valley) (Caradon District Council, 1997).

Within Project Explore, the activities of tourism-related businesses in the district were largely overlooked, other than being encouraged to provide new services for their guests, such as out-of-season education courses and information and interpretation facilities (Touchstone Associates, 1990). In 1996, however, the District Council established SUSTAIN (the SUSTainable Tourism, Audit and Implementation Network) as a local tourism business organisation with the objective of encouraging tourism operators in the district to adopt more sustainable business practices based upon guidance within the 'Green Audit Kit'. SUSTAIN represented the District Council's first formal attempt to engage directly with the local industry to encourage the adoption of sustainable business practices.

Intended to be self-supporting within a two-year period, SUSTAIN was funded initially by the West Country Tourist Board, the Rural Development Commission and the District Council. The network was supported by a dedicated project officer (funded for one year to recruit new members and encourage members to adopt sustainable practices), a team of four 'ambassadors' (unpaid local operators who were members of the network, were experienced in implementing measures from the 'Green Audit Kit', and trained to provide advice and guidance to other members), and access to a panel of 'specialist officers', who could be called upon to provide more detailed advice. The network was promoted to tourism businesses in the district as a means to "*reduce costs whilst improving the environmental sustainability of the industry*" (Caradon Countryside Services, 1997), and recorded a number of notable successes. SUSTAIN was instrumental in the development of several community projects (e.g. the introduction of a 'Hoppa Bus' service between Looe and tourism businesses in the surrounding area and the bulk purchasing of wormery composting bins for member businesses) as well as encouraging individual business to make environmental improvements (e.g. tree planting initiatives and consideration of a reed bed filtration system to recycle grey water) (Caradon Countryside Services, 1998a). The network had limited success, however, in expanding its membership. By 1998, only 16 businesses had become full members of SUSTAIN and had implemented measures from the 'Green Audit Kit' (Caradon Countryside Services, 1998b). The support of the dedicated project officer was withdrawn in 1998 and, by the end of the same year, the network was no longer operational.

Through its support for such initiatives, even if they are not always successful, Caradon District Council is recognised as a leading exponent of sustainable tourism within the UK (Atlantic Consultants, 2001a). It is perhaps surprising, therefore, that Caradon's Local Agenda 21 Strategy makes no mention of tourism as a key stakeholder in the district (Caradon District Council, 2000) and no attempts have been made to involve the industry in the Local Agenda 21 process (Caradon District Council, 2001a). However, this omission reflects the long-standing commitment of the District Council to sustainable tourism and the need to address other sustainability issues through the Local Agenda 21 process. It was the District Council's experiences of the SUSTAIN network that prompted this research project; initially, to understand the reasons behind the low membership of the network and its ultimate demise, and then, to ask more general questions regarding the understanding, perceptions and behaviour of the local industry towards environmental sustainability and the issues that constrained their adoption of sustainable business practices to inform future policy interventions.

### **3.5 CONCLUSION**

In many ways, the issues faced by Caradon in relation to the environmental sustainability of its tourism industry are endemic to other tourism destinations in the UK. Agarwal (1999) describes many British coastal resorts as experiencing difficulties as a consequence of changing holiday-habits, erosion of traditional markets and a lack of investment. Tourism in Caradon is highly dependent upon the quality of the natural, cultural and built environments to attract visitors to the area. It is expected, therefore, that private operators would have an inherent interest in the environmental sustainability of their industry and would respond positively to initiatives that would help to conserve the tourism resources of the area. This chapter has revealed, however, that a number of local issues seem to obscure or complicate business responses to such initiatives. First, the local industry is facing fundamental changes within its core markets and must respond to protect market share. Such issues may have assumed a higher immediate priority for the industry than questions of long-term environmental sustainability. Second, although it has been suggested that 'lifestyle entrepreneurs' may stimulate change and innovation in new and evolving markets (e.g. adventure tourism) (Ateljevic and Doorne, 2000), past research within the region and other parts of the UK indicates that individual small tourism entrepreneurs within established markets may be slow to respond to changes in demand and to new ideas in general, such as sustainable tourism, because of the sub-optimal commercial approach to running their businesses (Hennessy

*et al.*, 1986; Shaw *et al.*, 1987; Clegg and Essex, 2000). Based upon the limited response to the SUSTAIN initiative in the district, expectations of tourism business responses to sustainability were low. Third, there is a lack of consensus within the District Council as to the relevance and application of principles of sustainability to tourism activity within the district, such that contradictory signals have been given to the industry. Most strategies to inform tourism development in the district have focused upon the economic rather than environmental sustainability of the industry. Fourth, there are few connections between the environmental pressures within the district and initiatives to encourage sustainable tourism, which has potentially reduced the immediate relevance of the concept to help conserve the distinctive features of the local environment.

The response of tourism-related businesses to issues of environmental sustainability is inevitably contextualised within the changing socio-economic conditions of the region. Rather than attempt to isolate or make adjustments for such factors within the research process, it is important to recognise the range of influences upon business behaviour in order to inform the development of both theory and policy. Indeed, the range of potential influences upon business behaviour arising from the unique history, environment and social issues within the region makes the study area such an interesting focus for research. A key element of the approach taken within this study has been to preserve the contextual nature of the data at key stages of the research process to ensure that both the research problem and main findings have been grounded within the complexities of the 'real world'. Chapter Four now reviews how the research methods adopted within this study were deployed to investigate the research questions in this manner.

# Chapter Four

## Research methods

### 4.1 INTRODUCTION

In the absence of sector-specific theories of small tourism business behaviour, innovation diffusion theory was presented in Chapter 2 as a theoretical research frame. Rogers (1983) suggests that innovation diffusion theory can be used to examine the adoption of *any* new idea, product or service, whether or not it is financially viable. The theory provides a proven methodology that can be applied to a wide range of situations and has precedence in the study of the adoption of environmentally sustainable practices by small and micro-businesses, although not within tourism. Within the context of innovation diffusion theory, sustainable tourism can be conceptualised both as a single innovation and as a bundle of discrete innovations, which reflect the range of responsibilities attributed to tourism businesses within national, regional and local strategies for sustainable tourism. The main aim of this study, to understand and explain the response of small tourism-related businesses to the concept of environmental sustainability, can therefore be restated as a series of more focused research questions, which reflect the application of innovation diffusion theory: namely, to examine (1) levels of awareness of sustainable tourism as a practical business innovation; (2) the extent to which different sustainable practices have diffused throughout the district; (3) the way in which decisions to adopt new practices have been made; (4) the extent to which businesses varied in their commitment to sustainability, revealed by the number of sustainable practices they had adopted; and (5), the factors that have accounted for such variations, either as a positive influence or as a barrier to adoption.

The purpose of this chapter is to assess critically the research methods used to examine these research questions. The first part of the chapter discusses the overall research strategy and the theoretical and practical issues that have influenced the choice of research methods. A key feature of the study was the relationship between the researcher and project sponsors, who had an important influence upon the research design. The study was established and funded as a joint partnership between Caradon District Council and the University of Plymouth with support from South West Tourism and the European Regional Development Fund (ERDF) through Caradon Area LEADER II. To ensure that the project delivered the necessary practical as well as academic outputs, progress was overseen by a Project Steering Group, with membership drawn from

Caradon District Council (represented by the District Sustainable Tourism Development Officer; the Local Agenda 21 Officer; a District Councillor, who chaired the Countryside Committee; and the Forward Planning and Countryside Services Manager); South West Tourism (the regional tourist board); Caradon Area LEADER II; and the University (represented by the researcher and the two research supervisors, one of whom chaired the meetings). The group met on 13 occasions at key junctures over the course of the project for the purpose of approving research proposals, reviewing the results of each phase of research, discussing policy implications, and agreeing the final strategy action plan (see Figure 4.1). Additional meetings were arranged as necessary with relevant members of the group to advance specific aspects of the project (e.g. development of the strategy action plan). While the researcher and University staff assumed lead responsibility for methodological issues, all major decisions that affected the scope and direction of the project were agreed in advance with the Steering Group. A requirement to address a 'real world' problem was, therefore, a key influence upon the research programme.

Through this process, a mixed-method strategy was adopted, comprising three sequential phases:

- a. A series of focus groups to provide an initial qualitative and exploratory investigation of the research problem and to establish a research agenda for the later stages of research (June 1999);
- b. A postal survey of all tourism businesses in the district to establish the extent to which sustainable practices had been adopted, and to provide the quantitative data necessary for the application of innovation diffusion theory (April to June 2000).
- c. A programme of in-depth qualitative interviews to provide detailed explanations of the survey results and to explore business views of potential policy interventions (February to May 2001).

The remainder of the chapter describes and evaluates the efficacy of each of these methods to investigate the research questions.

## **4.2 RESEARCH STRATEGY**

### **4.2.1 Approach**

The choice of research strategy was guided by the objectives of the study and reflected a number of theoretical and practical issues. Most studies of innovation diffusion have relied upon quantitative methods of data collection and analysis to highlight significant differences in adopter

\* Main Steering Group meeting held

Dec 1998  
 Jan 1999\*  
 F  
 M\*  
 A  
 M\*  
 J  
 J  
 A  
 S\*  
 O  
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 Jan 2000\*  
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 O  
 N  
 D\*  
 Jan 2001\*  
 F\*  
 M\*  
 A  
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 J\*  
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 A  
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 O  
 N

Foot & Mouth outbreak

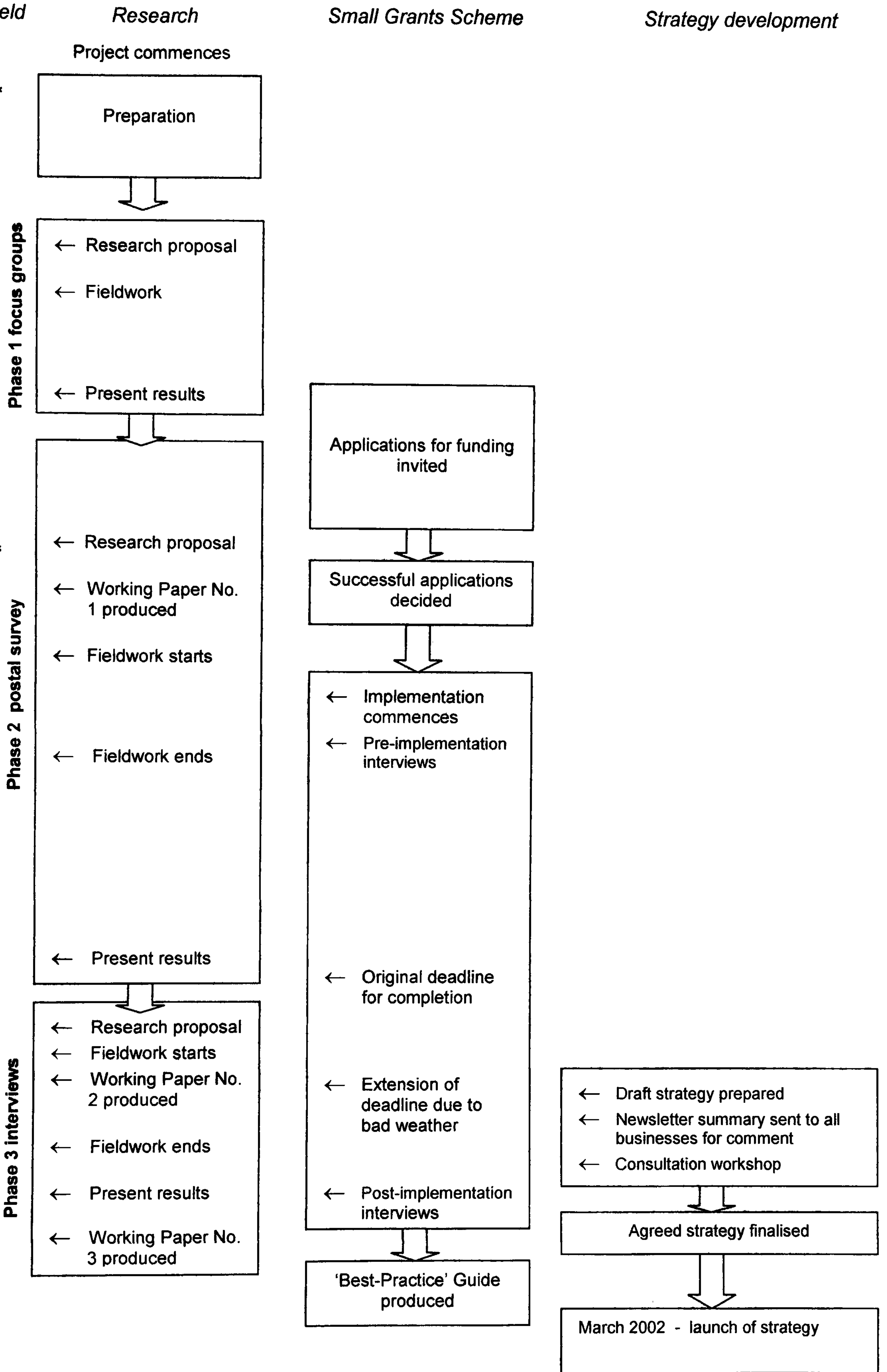


Figure 4.1 Key milestones of the project

characteristics, which might explain differences in the rate at which new ideas and practices have been adopted. Rogers (1983) states that 88 per cent of all innovation diffusion studies have relied upon data collected through a single survey for the purpose of testing correlations between adoption decisions and a range of independent factors. Such studies have been largely descriptive, and whilst they have highlighted a range of factors associated with the early adoption of new innovations, could only infer rather than explain causality. Rogers (1983) suggests that an over-reliance upon quantitative methods has inevitably restricted theoretical and methodological development. A more recent trend, particularly within studies of agricultural innovations, which provide the research precedence for this study, has been to combine quantitative survey methods with qualitative in-depth interviews to investigate the nature of any significant associations and extend the scope of the study from description to an explanation of causality (see for example Potter and Lobley, 1996a, 1996b; Morris and Potter, 1995; Wilson, 1992; Morris and Young, 1997).

A further consideration was the absence of theory-building studies within the context of tourism that might assist explanations of business behaviour towards sustainability. While past innovation diffusion studies have highlighted a wide range of generic factors that have tended to be associated positively with decisions to adopt different types of innovation (e.g. education of the adopter, awareness of a new innovation, exposure to 'change agents') (see Table 2.4), other significant factors have been specific to the industry within which the study was situated. For example, within studies of the adoption of land conservation practices by farmers, factors such as farm tenure, farmer succession arrangements and attitudes towards land conservation were associated positively with adoption decisions (Wilson, 1996, 1997a; Potter and Gasson, 1988; Ervin and Ervin, 1982; Morris and Potter, 1995). Within tourism, however, a similar body of research, which might inform the study, was not available. In order to apply innovation diffusion theory to the research problem, it was first necessary to understand better the nature of the problem and conceptualise the tourism-specific factors that might be associated with adoption decisions, either positively or negatively. Qualitative techniques, which emphasise the importance of context, are well suited to such exploratory investigations (Wolff *et al.*, 1993; Ryan, 1995; Robson, 1996; Saunders *et al.*, 2000).

The resultant research strategy, therefore, comprised a mix of quantitative and qualitative methods, which were linked together in a manner that provided a progressive examination of the research questions (see Table 4.1). Such multi-method strategies have become well established within the

**Table 4.1 The research strategy**

<i>Phase</i>	<i>Research method</i>	<i>Aims</i>	<i>Fieldwork</i>
Phase 1	A programme of five focus groups with a sample of 34 business owners	Exploratory: <ol style="list-style-type: none"> <li>1. To explore the nature and diversity of adoptive behaviour</li> <li>2. To highlight the factors that might constrain or be associated with adoption decisions</li> </ol>	June 1999
Phase 2	A postal survey to all identified tourism-related businesses in the district (n=197)	Descriptive: <ol style="list-style-type: none"> <li>1. To establish current rates of adoption of sustainable practices</li> <li>2. To identify the factors associated with adopted practices</li> <li>3. To provide a sampling frame for further investigation in Phase 3</li> </ol>	April to June 2000
Phase 3	A programme of in-depth interviews with a sample of 22 business owners, representing the range of responses to the Phase 2 survey	Explanatory: <ol style="list-style-type: none"> <li>1. To clarify and verify the results from Phases 1 and 2</li> <li>2. To explain why certain factors were associated positively with adoption decisions</li> <li>3. To explore in more detail diversity within the adoption decision-making process and the barriers that constrain action</li> <li>4. To test the utility of a range of possible policy measures</li> </ol>	February to May 2001



social sciences and provided a number of benefits to this study (Miles and Huberman, 1994; Guba and Lincoln, 1998; Tashakkori and Teddlie, 1998; Lincoln and Guba, 2000). First, the combination of quantitative and qualitative techniques in a manner which recognised their inherent strengths and limitations (see Bryman, 1988; Sarantakos, 1998, for discussion) extended both the scope and depth of the study beyond that which could be achieved through a single method, and helped to counter the inherent limitations and biases of individual methods. Second, the use of different methods provided the opportunity to study different aspects of the research problem and for the findings of each method to be corroborated and confirmed through triangulation (Denzin, 1978). A particular consideration within this study was the risk of subject bias, where businesses might feel pressured to respond to research questions in a manner that was socially desirable, rather than accurate reflections of their actions (see Moser and Kalton, 1971; Czaja and Blair, 1996; Hussey and Hussey, 1997). The opportunity to verify results through a range of methods was especially valuable to reduce such tendencies. Third, conducting the research, so that the results of one phase informed and facilitated the approach of the next, allowed the understanding of the research problem to evolve organically and for the directing role of the Steering Group to be factored into the research design. In this manner, the research agenda developed from an initial exploration and conceptualisation of the problem, through wider description of behaviour and hypothesis testing, to a detailed examination of specific aspects of behaviour. The flexibility provided by this phased approach was particularly important within a subject that was under-researched.

The combination of quantitative and qualitative methods within a single study cannot, however, be attempted lightly. The methodologies reflect alternative research paradigms, which differ fundamentally in axiology, epistemology and ontology. The combination of such methods has traditionally been discouraged on philosophical grounds (Lincoln and Guba, 1985; Bryman, 1988; Morgan, 1996). More recently, however, the choice and distinction between positivist and constructivist research philosophies and associated methodologies has become blurred (Miles and Huberman, 1994; Guba and Lincoln, 1998). Instead, a 'pragmatic' philosophy has emerged over the last 30 years, which views the quantitative/qualitative methodological divide as unhelpful (Brewer and Hunter, 1989; Silverman, 1993; Veal, 1997; Punch, 1998; Tashakkori and Teddlie, 1998; Hammersley, 1998). This view does not just accept, but encourages the linking of qualitative and quantitative methods as compatible techniques in the study of multidimensional social phenomena. Centrality is given to the nature of the research problem, which is considered independently of philosophical considerations and recognises the cyclical nature of the

inductive/deductive process (Ryan, 1995; Punch, 1998). Veal (1997) describes research design not as a choice between techniques that are intrinsically good or bad, but between techniques that are appropriate or inappropriate for the research problem. Despite such 'methodological eclecticism' (Hammersley, 1998), the manner in which data collected by different methods are combined and juxtaposed requires careful consideration to avoid an inappropriate use of such data (Silverman, 1993). Within this study, each method attempted some validation of earlier findings, which was important to counter the biases and weaknesses of individual methods, but the primary focus of investigation was redefined at each stage of the research process in the light of emerging results.

#### **4.2.2 Methodological assumptions and implications**

Associated with the choice of methodology and theoretical frame for this study are a number of important assumptions. The initial inductive approach and the application of innovation diffusion theory, which seeks to explain adoptive behaviour *per se* without reference to a specific business context, distances this research from previous studies, which have assumed that small businesses are simple scaled-down versions of larger enterprises and are constrained by a lack of critical mass. In the absence of any large tourism-related businesses in the district, such a hypothesis was not relevant to this thesis. Rather, this study was concerned with exploring the diversity of behaviour amongst the small businesses that characterise the tourism industry within the district of Caradon, and as such, is grounded within the local context, the understanding and meaning of sustainable tourism, and the range of practices with which it is associated.

A focus upon sustainable business practices, which do not question the nature of tourism, situates this research within reformist rather than radical interpretations of sustainability (see Section 1.2.3). This approach has effectively reduced a complex and multi-dimensional concept to a limited range of business practices that might be adopted without fundamental change to business priorities, values and motives. Nevertheless, the approach is consistent with the public, private and voluntary sector frameworks for encouraging sustainable tourism within the UK and reflects the basis upon which the efficacy of local policy interventions might be assessed. The study does not presume that full adoption of the range of sustainable practices advocated within practitioner guides and initiatives will signify a position of sustainability, only that the nature of tourism operations would become more sustainable.

Through the use of 'demand-side' theories of innovation diffusion (see Section 2.4.2), the focus of this study is upon the adoption behaviour of private operators. As a consequence, the role of various 'change agents', particularly the District Council, is played down and only incorporated into the study so far as it was referenced by the responses of individual businesses. The research was initiated by Caradon District Council to help address a perceived problem, which, by implication, was assumed to lie primarily with the private operators in the district. Although this study will give voice to the perspectives and views of private operators, the findings will be used to reinforce, what Cunningham-Burley *et al.* (1999) describe as, 'the managerial role of the public sector' rather than to empower the position of the private sector within the sustainable development of the industry.

#### **4.2.3 Practical considerations**

A number of practical considerations also influenced the research design. All data within the study were collected from commercial enterprises. A necessary constraint was the need to minimise disruption to business operations while gathering sufficient data to meet the objectives of the study. All phases of research were conducted outside of the main tourism season (July to September and the Easter period) and, where face-to-face contact was required, at times and locations convenient to business owners. The available 'research window' was further restricted by a tendency amongst some business owners to spend the winter abroad. Through necessity, therefore, a period of up to one year elapsed between successive phases of fieldwork (see Table 4.1). An additional constraint during the third phase of research was the outbreak of Foot and Mouth disease in the UK, which was confirmed on 21 February 2001. As a precaution, all fieldwork was suspended for a period of two months. The potential impact of the outbreak on the results is discussed in Section 4.5.

Ethical issues were relevant to all phases of the research process (see Kimmel, 1988; Hussey and Hussey, 1997; Saunders *et al.*, 2000). Confirmation of the steps taken to address ethical issues was important to negotiate access to business owners' views and perspectives on issues that would not normally be disclosed. At all stages, the purpose of the research and the identity of the project sponsors were openly disclosed. Business owners were assured of anonymity and confidentiality. In all cases, consent to proceed was obtained prior to data collection and business owners reminded of their right to withdraw from the research process. Questions which might lead to the disclosure of commercially sensitive information were excluded from each research method. All research was conducted in line with the University's Ethical Principles for Research Involving

Human Participants and each phase was approved by the University's Faculty of Science Human Ethics Committee.

Many businesses were interested in the practical outputs of the project, which was an important motivation to contribute to the research. An additional phase in the research programme was the requirement to disseminate the main findings of the study amongst the industry. To this end, all 451 tourism-related businesses in the district received a summary of the results and policy proposals in a newsletter (April 2001) (see Appendix 1), which provided the opportunity to give feedback and comments by post. The businesses were also invited to attend a consultation workshop at Liskeard Public Hall (2 May, 2001). In the event, only 21 businesses attended the workshop and a further 10 provided comments by post. Such problems are not uncommon in public participation over policy, and are perhaps attributable to commercial pressures related to the Foot and Mouth outbreak at the time. A subsequent conference to launch the strategy for 'greening the tourism industry' together with a more general strategy for tourism in the district (19 March, 2002) was attended by over 100 tourism businesses and provided a further opportunity for feedback. The consultation process represented an important element in the research design and provided an additional opportunity to test the validity of the findings.

#### **4.2.4 Relationship with the project sponsors**

As explained in the introduction, this research was sponsored by a number of tourism-related agencies who took an active part in the design and development of the research through a Steering Group. The collaborative nature of the project generated a number of benefits for the research programme, but also presented a number of problems. Perhaps the main benefit was that the partnership gave access to a 'real world' problem with the intention that the results would be used to inform policy measures. Indeed, a key output of the project was the delivery of an actionable strategy to help overcome the barriers that were identified by the research. The project sponsors were also able to facilitate access to the research population and to relevant practitioner research that was not in the public domain. The support of the sponsors added credibility to the project and helped to recruit participants, although some may have been discouraged by such endorsement. The contribution of the Steering Group was also valuable in helping to ensure that the research was relevant to the industry, although there was still a need to thoroughly pre-test the methods used.

The sequential nature of the research strategy enabled the Steering Group to review its research needs in the light of emerging results, which allowed a more detailed examination of business behaviour than might have been afforded by a fixed project brief (e.g. to explore in more detail the nature of business motivations for adopting sustainable practices which were found to vary in the focus groups). Such flexibility, however, had to be managed carefully. At one point, the sponsors suggested a dramatic deviation from the project brief to consider demand-side issues in terms of tourist demand for sustainable tourism. After discussion, it was agreed that this subject was sufficiently important to justify a separate study. Other issues related to the scope of the research. The study was limited to those aspects of interest to the project sponsors, namely the problems encountered by tourism businesses in the district. As a consequence, there was little appetite to consider the District Council's own response to the concept of sustainable tourism, its ability to act as 'change agent' to encourage the adoption of sustainable business practices within the district, or the comparative response of tourism businesses within other districts.

The project also required the researcher to move beyond the role of impartial observer to that of practitioner or consultant in the development of an actionable strategy. Although a logical extension of the research process, such a role risked compromising the impartiality of the researcher's position. As a consequence, the researcher's involvement in this process was not revealed to business owners in case it might colour responses. Additionally, development of the strategy action plan involved other University staff and only commenced once the main elements of fieldwork had been completed.

In addition to the communication of the results, a further phase of research was specified by the project sponsors: to oversee, monitor and evaluate the implementation of a series of case-study projects amongst tourism businesses in the district. Funded by a Small Grants Scheme that had been established by the sponsors, the projects were intended to demonstrate ways in which the barriers to adoption might be overcome. A total of 13 projects received grants of up to £500 to demonstrate a range of sustainable practices and innovations, from composting to solar heated showers and vermicomposting kitchen waste (see Table 4.2). Scheduling of the projects was constrained by conditions of ERDF funding. Grants were approved in January 2000 with the requirement that all work should be completed by the end of the year. Due to bad weather, which had delayed a number of the projects, Government Office South West (which oversaw the use of

**Table 4.2 Small Grants Scheme approved projects**

<i>Business (type)</i>	<i>Project description</i>	<i>Project benefits</i>	<i>Grant</i>
The Old Luggage Van (self-catering)	Research and produce a guide to days out by public transport for guests	<ul style="list-style-type: none"> <li>- Reduce impact of tourists</li> <li>- Encourage use of public transport</li> <li>- Raise profile of the area</li> </ul>	£100
The Monkey Sanctuary (attraction)	Research feasibility and implement a practical system for composting monkey waste	<ul style="list-style-type: none"> <li>- Sustainable waste management</li> <li>- Production of a valuable resource for possible sale</li> <li>- Reduce use of site incinerator</li> </ul>	£200
Tredethick Farm Cottages (self-catering)	Establish a farm shop for the sale of local produce to guests and establish badger watching facilities	<ul style="list-style-type: none"> <li>- Encourage local purchasing</li> <li>- Create added value for visitors</li> <li>- Raise appreciation of wildlife and the environment</li> </ul>	£500
Colliford Tavern (inn)	Establish on-site information and interpretation facilities about natural history/recreational features of the area	<ul style="list-style-type: none"> <li>- Improve visitor awareness</li> <li>- Community benefits as a collaborative project</li> </ul>	£300
Tresarran Cottages (self-catering)	Establish on-site recycling/composting facilities for guests	<ul style="list-style-type: none"> <li>- Reduction of waste disposed to landfill</li> <li>- Create value for guests</li> <li>- Produce compost for gardens</li> </ul>	£150
Keveral Farmers Ltd. (educational centre/campsite)	Installation of a solar heated shower system	<ul style="list-style-type: none"> <li>- Reduced energy use</li> <li>- Reduced running costs</li> <li>- Educational value for guests</li> </ul>	£500
Tamar Day Sail (attraction)	Research and produce an interpretative guide for guests describing the natural history of the River Tamar and an env'l code for boating	<ul style="list-style-type: none"> <li>- Raise awareness of the natural environment and heritage</li> <li>- Encourage benign sailing practices</li> </ul>	£500
The Halfway House Inn (inn)	Purchase a commercial vermicomposting (wormery) to digest kitchen waste on site	<ul style="list-style-type: none"> <li>- Reduction in waste</li> <li>- Production of a valuable resource (donated to local allotments in return for fresh produce used in kitchen)</li> </ul>	£500
Valleybrook Holidays (self-catering)	Installation of solar powered lighting to illuminate a remote directional sign to the business	<ul style="list-style-type: none"> <li>- Reduce energy use and costs</li> <li>- Better signposting to the site</li> <li>- Customer care</li> </ul>	£500
Colliford Lake Park (attraction)	Installation of a water wheel to pump spring water to flush public toilets and a range of non-consumption uses	<ul style="list-style-type: none"> <li>- Reduced water costs</li> <li>- Demonstration of a sustainable technology</li> <li>- Educational value</li> </ul>	£500
Haye Farm (farm B&B)	Construct a bird-watching hide on the premises for guests	<ul style="list-style-type: none"> <li>- Encourage environmental awareness</li> <li>- Create value for guests</li> <li>- Encourage day visitors</li> </ul>	£500
Wringford Down Hotel (hotel)	Establish a community public transport service in a remote area of the district	<ul style="list-style-type: none"> <li>- Reduce car usage</li> <li>- Encourage visitors</li> </ul>	£500
The TM Int'l School of Horsemanship (attraction)	Construct a reed bed filtration system to treat waste water from stables	<ul style="list-style-type: none"> <li>- Treat waste water in a sustainable manner</li> <li>- Create wildlife habitats</li> </ul>	£500

ERDF funds) extended this deadline by three months. In the event, three of the projects were not implemented. At the time that the grants were approved, only the initial exploratory phase of research had been completed. As a consequence, rather than being informed by the findings of the main research phases, the projects were approved and initiated largely in isolation of them, and were monitored as a separate element of fieldwork (see Figure 4.1). Although the case studies did not form an integral part of the main research programme, they provided additional insights into the manner in which sustainable practices are evaluated and implemented by tourism businesses, which are discussed in Chapter Seven. Based upon reports of each project, a 'best practice' guide was produced for dissemination to all tourism businesses in the district.

#### **4.2.5 Research area and population**

The research area was defined by the administrative boundary of the Caradon district (see Figure 3.1). The type of businesses that comprised the research population was agreed with the project sponsors (see Table 4.3). This definition was guided by perceptions of the sub-sectors that were prominent locally within tourism, and therefore, critical to the successful implementation of a subsequent strategy and action plan. The main differences from the Office of National Statistics (ONS) definition of tourism-related industries (see Table 1.2) were, first, the omission of dedicated restaurants in the district, which were not considered to be greatly reliant upon tourism, and, perhaps more significantly, were not represented within local tourism associations. Second, travel agencies were also excluded because of their focus upon outbound tourism. A further refinement was that only inns and public houses that relied upon tourism as a significant source of income, evidenced through their marketing material or membership of a tourism association, were included within the research population.

No single comprehensive database of tourism-related businesses operating in Caradon existed. As a consequence, a range of business listings was consulted to establish a sampling frame (see Table 4.4). The basis for inclusion within the sampling frame was the conduct of business activity in the district within one or more of the sectors specified in Table 4.3. This criterion included businesses that were owned by interests outside the district, but where day-to-day management and operations took place within the district (e.g. outlets of hotel chains and holiday parks). No distinction was made on the basis of business size, ownership, or seasonal duration of activity, as one of the objectives of the study was to examine whether such factors influenced the number and

**Table 4.3 Industry sub-sectors included in the research population**

<b>SIC (1992) code</b>	<b>ONS defined tourism-related sub-sector</b>	<b>Caradon research population</b>
551	Hotels	Hotels Guesthouses Bed and Breakfasts Farm Bed and Breakfasts
552	Campsites and other providers of short-stay accommodation	Campsites Caravan parks Holiday parks Self-catering accommodation Farm self-catering
553	Restaurants	<i>Not included</i>
554	Bars	Inns and public houses (tourism-related only)
633	Activities of travel agencies and tour operators; tourist assistance activities	<i>Not included</i>
925	Libraries, archives, museums and other cultural activities	Tourist attractions – including: - Museums - Country houses - Gardens - Theatres - Boat hire - Theme parks - Retail factory outlets - Zoos
926	Sporting activities	
927	Other recreational activities	



**Table 4.4 Business listings used to establish a sampling frame**

<i>Type of listing</i>	<i>Listing</i>
<b>Trade association membership lists</b>	<ul style="list-style-type: none"> <li>- British Holiday and Home Parks Association, list of members</li> <li>- Cornwall Association of Tourist Attractions, list of members</li> <li>- Rame Traders' Association, accommodation list</li> <li>- South East Cornwall Tourism Association, list of members</li> <li>- SUSTAIN Network, list of members</li> </ul>
<b>Marketing brochures and lists</b>	<ul style="list-style-type: none"> <li>- Cornish Farm Holidays (Cream of Cornwall) brochure 1999</li> <li>- South East Cornwall Accommodation Register 1998</li> <li>- South East Cornwall, Looe and Polperro, Holiday Guide 1999</li> <li>- South East Cornwall, Looe and Polperro, Holiday Map Guide</li> <li>- Yellow Pages, Plymouth and Cornwall 1999</li> <li>- Caradon Tourism Officer mailing list</li> </ul>

type of practices that had been adopted.

Each of the lists in Table 4.4 focused upon different, but not mutually exclusive, populations of tourism-related businesses. An exhaustive 'deduplication' exercise was required to construct a single database from these lists. The accuracy of the sampling frame was dependent upon businesses 'revealing' their existence through membership of a tourism association or advertising within the range of publications listed in Table 4.4. A valuable check for completeness and accuracy of the sampling frame was undertaken by the District Tourism Officer, who, through detailed local knowledge of the industry, was able to note additions and amendments to the list of businesses in the district. A total of 479 businesses were identified as tourism-related for the purposes of this research. Through completion of the postal survey, this figure was subsequently revised to 451 by notification of businesses that were no longer trading (advised by the former business owners themselves or by the return of unopened letters marked 'gone away').

### **4.3 PHASE 1 – EXPLORATORY INVESTIGATION**

#### **4.3.1 Overview**

The purpose of the initial exploratory investigation was to examine the nature and complexity of the research problem to inform the later phases of the research, for which the use of focus groups offered important advantages. As qualitative techniques, both focus groups and in-depth interviews are established procedures for exploring complex and diverse patterns of behaviour, generating hypotheses, and informing questionnaire development (Neuman, 1991; Oppenheim, 1992; Babbie, 1995; Pizam, 1987; Veal, 1997). The distinguishing feature of focus groups is the explicit aim of creating interaction between the group participants to generate data (Morgan, 1988; Albrecht *et al.*, 1993; Asbury, 1995; Johnson, 1996; Kitzinger and Barbour, 1999). The role of the interviewer or 'moderator' is not simply to seek answers to the questions posed, but to stimulate focused debate between the group which reveals or betrays the range of views and experiences that are held. The added value of using focus groups within this study was the 'broadening effect' of group interaction, which not only allows the diversity of opinions and attitudes to be explored through the direct comparison and probing of contrasting views and experiences, but is also instrumental in generating debate upon a subject that might otherwise receive little attention amongst businesses.

Previous studies have been constrained in the depth of investigation through limited business awareness of environmental sustainability (Forsyth, 1995; Berry and Ladkin, 1997; Stabler and Goodall, 1997). Holstein and Gubrium (1995) suggest that it is often necessary for researchers to take an 'active' role within focus groups to ensure that participants' views are 'fleshed out' rationally through exercises and discussion, rather than remain submerged or constrained by rhetoric and a lack of opportunity for expression. Holstein and Gubrium (1995) maintain that both the moderator and the participants are necessarily and unavoidably active within focus group discussions and that such dynamics should be readily acknowledged and incorporated into research design, rather than be played down in response to criticisms of artificiality (see for example Sussman *et al.*, 1991; Morgan, 1998a; Green and Hart, 1999). The aim of this approach is not to lead participants' views, but to facilitate their emergence through focused discussion. Arguably, the group situation is better suited to this purpose than interviews as it replicates the social processes through which knowledge is constructed and through which innovations, such as sustainability and sustainable business practices, are diffused (Kitzinger, 1994; Reed and Payton, 1997; Cunningham-Burley *et al.*, 1999; Green and Hart, 1999). Focus groups have been used successfully to explore perceptions of sustainability and environmental quality within a range of contexts (Burgess *et al.*, 1988a, 1988b, 1990, 1991; Macnaghten and Jacobs, 1997; Myers and Macnaghten, 1998). Significantly, focus groups have also been used within one of the few studies of the response of small tourism businesses to sustainability (see Berry and Ladkin, 1997).

#### **4.3.2 Design issues**

The main criticisms of focus groups relate to the process of generating and interpreting focused interactions. Any group situation is characterised by underlying group dynamics, unwritten rules and norms which are essential to the function of the group, but will vary according to the group's composition, its environment, social context and the level and nature of interaction with the group moderator (Janis, 1972). Each group is unique in the way these factors are combined to generate data. There is, therefore, a risk of potential bias within all elements of the research process which reflects the contextual nature of data generation, analysis and reporting (Webb, 1974; Stewart and Shamdasani, 1990; Sussman *et al.*, 1991; Albrecht *et al.*, 1993; Frey and Fontana, 1993; Morgan, 1998a).

Within qualitative research, reliability and validity, as methodological issues, are played down for their association with positivist assumptions that there is a single, consistent and measurable reality (Glaser and Strauss, 1967; Silverman, 1993; Kvale, 1996; Hussey and Hussey, 1997). The two concepts are not ignored, but are restated in terms that are meaningful and relevant to techniques that emphasise the richness and contextual nature of data (Lincoln and Guba, 1985; Hammersley, 1998; Arksey and Knight, 1999). 'Consistency' is preferred to reliability to ensure the systematic rather than standardised collection of data, and evidenced through explanation of the sampling strategy, the organisation and setting of the groups, question design, and the steps taken to ensure participants' understanding of the questions posed (Krueger, 1993; Silverman, 1993; Arksey and Knight, 1999). 'Neutrality' of the researcher and 'trustworthiness' of the results are preferred to validity, supported by explanation of the moderator's role in generating discussions and the measures taken to ensure that the data captured, analysed and presented are a fair representation of the participants' views (Silverman, 1993; Arksey and Knight, 1999). The steps taken to address such issues are described below.

#### **4.3.3 Sampling and composition of the groups**

There is no consensus in the literature as to how many focus groups are required within a single study. The aim is to collect sufficient data to explore adequately the research questions, but not so much that it becomes meaningless and the research programme becomes uneconomic (Stewart and Shamdasani, 1990; Greenbaum, 1998; Morgan, 1998b). Webb (1974) suggests that theoretical saturation will usually occur within the course of three or four groups. Morgan (1998b) suggests that three to five groups will be sufficient in most cases. A decision to conduct five groups reflected both the need to achieve theoretical saturation and a geographical requirement to locate group sessions in locations that would encourage contribution from all parts of the district (see Figure 4.2).

No consensus exists from previous research as to the optimum size of each focus group, only that there should be sufficient participants to generate lively discussion and not too many that some are unable to contribute freely to discussions (Tynan and Drayton, 1988; Morgan, 1998b). Morgan (1998b) maintains that groups of six to ten people are usually sufficient to generate the required discussion. In contrast, Greenbaum (1998) suggests that 'mini-groups' of four to six people can provide a greater depth of debate. A total of 128 businesses were invited to attend a group on the

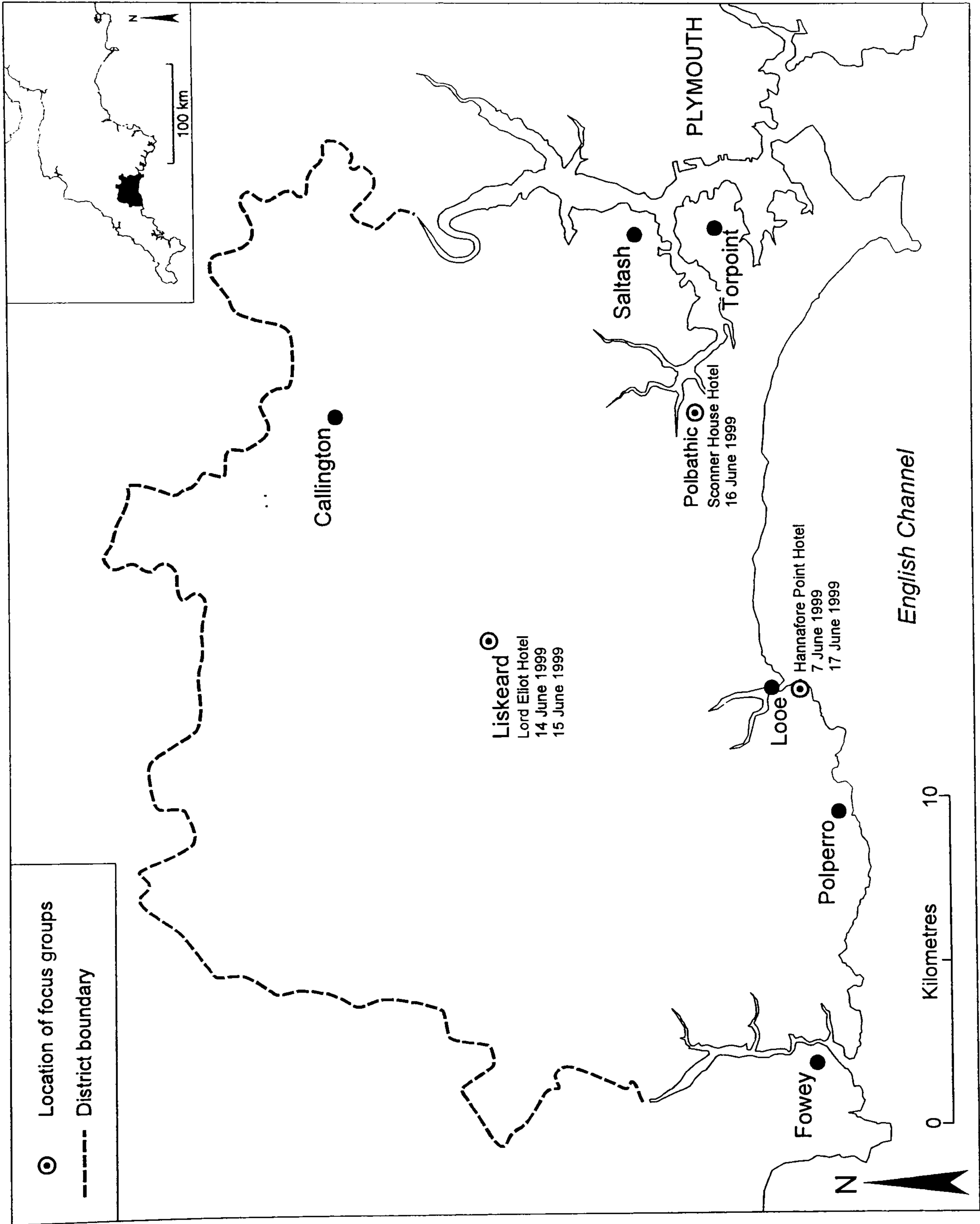


Figure 4.2 Location of the focus groups

basis that perhaps one-third might agree to participate (43), which, allowing for cancellations (20 per cent i.e. 8/43), would leave an average attendance of seven businesses per group.

As the aim of the focus groups was to explore the range of views and experiences within the local industry, a purposive sampling strategy was adopted (see Tynan and Drayton, 1988; Kitzinger, 1994) which selected potential participants on the basis of the range of perspectives they might hold rather than for their representativeness of businesses in the district. Participants were sampled on the basis of three criteria which were expected to have influenced business views. A first criterion was business type to identify possible cross-sector variations (see Table 4.5). Second, businesses were sampled from a range of locations to identify any local issues and perspectives (see Table 4.6). Business size was a third criterion to allow direct comparisons between the views of small and large businesses (see Table 4.7). Data relating to business location (post code) and industry sub-sector were available from the listings in Table 4.4. Reliable measures of business size, however, were more difficult to establish. Widely used indicators of business size, such as the number of employees or annual turnover, were not available. Proxy indicators, such as the number of bedrooms for hotels, were not transferable across sectors. In the event, because the intention was to explore the views of the largest tourism businesses in the district in direct comparison to small and micro-businesses, local knowledge was used to identify such businesses within each sub-sector.

A separate group was organised for members of the SUSTAIN Network, who, through their active participation in a business environmental organisation, were expected to hold significantly different views from other businesses. Exploring the perspective of this group separately allowed a more in-depth discussion of their experiences. The use of existing groups can create additional problems in the generation and interpretation of data because of established group dynamics, hierarchies and issues of confidentiality where members are known to each other (Stewart and Shamdasani, 1990; Holbrook, 1996; Reed and Payton, 1997). However, where the subject of research is the group itself, the use of existing groups is necessary and desirable (Frey and Fontana, 1993; Robson, 1996; Watts and Ebbutt, 1987). The SUSTAIN Network represented the main attempt by the District Council to engage directly with the industry to encourage more sustainable forms of tourism, and therefore, warranted specific attention. A separate group was also planned for larger businesses (more than 25 employees), but was cancelled because of the very small number of these businesses in Caradon.

**Table 4.5 Representation of the focus groups by industry sub-sector**

	Population	Invited to a group	Attended a group
Self-catering	142	22	8
Guest house	96	38	6
Farm B&B/Self-catering	53	13	6
Hotel	40	14	2
Attraction	35	15	4
Campsite/Holiday park	29	17	7
Inn	27	9	1
Holiday company	1	0	0
Unknown <sup>a</sup>	28	0	0
<b>Total</b>	<b>451</b>	<b>128</b>	<b>34</b>

<sup>a</sup>Businesses known to be trading in the area but precise nature of activity not known

**Table 4.6 Representation of the focus groups by location post code**

	Population	Invited to a group	Attended a group
Looe (PL13)	196	50	14
Liskeard (PL14)	79	27	8
Torpoint (PL10/11)	64	20	3
Saltash (PL12)	37	17	8
Callington (PL17)	22	4	0
Fowey (PL23) <sup>a</sup>	11	4	1
Gunnislake (PL18)	8	2	0
Lostwithiel (PL22) <sup>a</sup>	8	3	0
Launceston (PL15) <sup>a</sup>	2	1	0
Other (various) <sup>b</sup>	24	0	0
<b>Total</b>	<b>451</b>	<b>128</b>	<b>34</b>

<sup>a</sup>Post code areas which include parts of Caradon but where the postal town reference is outside the district

<sup>b</sup>Businesses with multiple outlets across the district are classified as 'other'

**Table 4.7 Representation of the focus groups by business size**

Number of employees	Estimated population <sup>1</sup>	Attended a group
0	208	7
1 to 5	161	23
6 to 10	47	2
11 to 25	34	1
> 25	1	1
<b>Total</b>	<b>451</b>	<b>34</b>

<sup>1</sup> Based upon composition of the wholesale, retail, hotels and restaurants sectors in the South West (Small Business Service, 2000)



All sampled businesses were invited by letter to attend a focus group (see Appendix 2). To encourage participation, businesses were offered a choice of which group to attend with the exception of the SUSTAIN Group, which was dedicated to members of the SUSTAIN Network. Prior to attending a group, participants were asked to disclose their membership of any environmental organisations, which might colour their views (although none were members), and the approximate number of employees as an indication of business size. From the 128 businesses that were invited, a total of 51 people agreed to attend a group. Cancellations, however, reduced the number who participated to 34. Where requested, the attendance of business partners was permitted as they might have a different perspective on the discussions. Of the 34 people who attended the groups, eight businesses were represented by two partners. A total of 26 businesses from the district were therefore represented in the groups. The size of each group varied between five and nine participants (see Table 4.8).

All tourism-related sectors were represented in one or more of the groups, although, in relative terms, the views of inns, public houses, and hotels were under-represented (see Table 4.5). Most participants were drawn from the Looe, Liskeard and Saltash postal districts which reflected the concentration of businesses in these areas and the location of the focus groups (see Table 4.6). Only one participant was drawn from the far western or northern parts of the district, which was disappointing and may have constrained analysis of the influence of location. Plans to locate a focus group session in Lostwithiel were switched to Liskeard due to a lack of interest. The under-representation of businesses in the Torpoint area is surprising, as one of the focus groups was located in the area (Polbathic) (see Figure 4.2). The majority of participants (94.1 per cent, i.e. 32/34) represented businesses with 10 or fewer employees (see Table 4.7) which reflected the predominance of micro-businesses in the industry. Only one 'large' business (more than 25 employees) agreed to participate in a group. As a consequence, it was not possible to form any conclusions about the significance of business size upon adoptive behaviour within this phase of research. Such sample distortions were to be corrected within the postal survey, which, unlike the focus groups, sought to be representative of the research population.

**Table 4.8 Composition of the focus groups**

Group	Participant*	Type of business	No. of employees	Postal area
<i>Group 1</i> Looe 7 June 1999	Duncan	Self-catering	1-5	Looe
	Ian	Self-catering	1-5	Looe
	Patricia	Partner of Ian	1-5	Looe
	Maria	Inn/campsite	1-5	Liskeard
	Samantha	Campsite	1-5	Looe
	Mark	Farm B&B	6-10	Fowey
<i>Group 2</i> Liskeard 14 June 1999	Peter	Guest house	0	Looe
	Sue	Partner of Peter	0	Looe
	Bill	Attraction	1-5	Looe
	Penny	Partner of Bill	1-5	Looe
	Emma	Campsite	0	Saltash
	Geoff	Partner of Emma	0	Saltash
	Judith	Self-catering	1-5	Liskeard
	Alison	Attraction	1-5	Liskeard
<i>Group 3</i> Liskeard 15 June 1999	Jack	Self-catering	6-10	Saltash
	Steven	Self-catering	1-5	Torpoint
	Bridget	Self-catering	1-5	Liskeard
	Tina	Farm self-catering	1-5	Looe
	Simon	Partner of Tina	1-5	Looe
	Ralph	Guest house	1-5	Torpoint
	Charles	Attraction	11-25	Saltash
	Mary	Farm B&B	0	Saltash
	Fran	Self-catering	1-5	Liskeard
<i>Group 4</i> Polbathic 16 June 1999	Chris	Hotel	1-5	Liskeard
	Paula	Partner of Chris	1-5	Liskeard
	Ivy	Guest house	0	Saltash
	Alex	Guest house	0	Torpoint
	George	Holiday park	25+	Looe
<i>Group 5</i> SUSTAIN Looe 17 June 1999	Tim	Campsite	1-5	Looe
	Diane	Partner of Tim	1-5	Looe
	Barbara	Self-catering	0	Looe
	Paul	Self-catering	1-5	Liskeard
	Jane	Partner of Paul	1-5	Liskeard
	Alan	Campsite	1-5	Looe

\* Names changed to protect the identities of participants

#### **4.3.4 Question design**

A wide range of research manuals is available to guide the design and conduct of focus groups (see, for example, Morgan, 1988, 1998a, 1998b; Stewart and Shamdasani, 1990; Krueger, 1998a). A list of draft discussion questions and exercises was developed to explore three main themes: first, the extent to which business owners were aware of the concept of 'environmentally sustainable tourism' and of sustainable tourism practices as relevant business innovations; second, the factors that prevented or constrained the adoption of sustainable business practices; and third, the policy measures that could help businesses to overcome the barriers to action. An explicit exploration of the factors that might be associated with adoption decisions was not attempted. Direct questioning on this subject might have reduced the discussion to a list of practical issues, such as available time and money, and played down the complexity of behaviour. Instead, associated factors were identified through a contextual analysis of discussion generated around the above themes.

All questions and exercises were tested in a pilot study of tourism businesses in the Torridge District, North Devon. The pilot study comprised in-depth interviews with four business owners, to test the understanding and efficacy of the questions to generate discussion, and the conduct of a full focus group with nine owners of tourism-related businesses which tested all aspects of the programme (29 April, 1999). As a consequence of this pilot, the number of questions was reduced to enable adequate time for discussion within a 60-90 minute period and questions relating to business understanding of 'sustainability' were reworded to emphasise 'environmental sustainability' to focus discussions away from general economic conditions within the industry. Additionally, the offer of a prize draw incentive to encourage participation was not found to be a significant attraction and was dropped from the main focus groups.

The resultant discussion questions (see Table 4.9) were organised to help group members become acquainted with each other and the nature of the group, and then to progressively explore the main research themes. Three types of questions were used within each group. The first type, direct questions, focused discussion on particular aspects of the research problem, such as business understanding of sustainable tourism and awareness of their impacts upon the environment (see questions 1, 2, 3 and 6). The second type, probing questions, followed-up the main direct questions to develop discussion in more depth, to confirm the researcher's understanding of what was said

**Table 4.9 Focus group questions**

No.	Question	Notes
Q1	Introductions	Each group member was asked to introduce himself or herself, describe the type of business that they managed, and to state what it was about the local area that was important to them. The aim was to help group members become used to each other and to sharing experiences with the group.
Q2	What do you understand by the term 'environmentally sustainable tourism'?	<p>This question was used to move discussion into the area of sustainable tourism and to prepare the groups for the research questions that followed. Other probing questions used to help generate discussion included:</p> <ul style="list-style-type: none"> <li>- Do you think that tourism in the area is environmentally sustainable at the moment?</li> <li>- Who do you think is responsible for making tourism in the area environmentally sustainable?</li> </ul> <p>Alternative questions asked of Group 5:</p> <ul style="list-style-type: none"> <li>- What first motivated you to take up the Green Audit Kit?</li> <li>- In what ways could the Green Audit Kit be improved?</li> </ul>
Q3	Thinking about tourism-related business collectively in this area, what kind of impacts do you think they have on the environment?	This question intentionally focused on the collective impacts of tourism-related businesses in the area, as previous research had concluded that, individually, small businesses felt that they had little impact on the environment. The aim of this question was to assess the unprompted awareness of the impact of tourism-related businesses across Caradon.
Q4	Exercise to prompt discussion of the environmental impacts of tourism-related businesses	<p>The purpose of this exercise was to prompt discussion of some of the other impacts which might not be raised by the groups in Q3. Each group member was given a set of twelve cards. Each card contained a different type of environmental impact caused by tourism-related businesses, namely:</p> <ul style="list-style-type: none"> <li>- Production of waste</li> <li>- Development of land</li> <li>- Use of energy</li> <li>- Business transport</li> <li>- Purchasing for the business</li> <li>- Impact on the local community</li> <li>- Impact on plant and wildlife</li> <li>- Impact on landscape and townscape</li> <li>- Water pollution</li> <li>- Air pollution</li> <li>- Noise</li> <li>- Impact of customers (tourists)</li> </ul> <p>Working individually, each group member was asked again to think about the collective impacts of tourism businesses in Caradon and to sort the cards into two piles: one pile for impacts which they thought were relevant in the Caradon area; and another for those which they thought were not relevant. The results were recorded on a flip chart and discussed within the group. As part of the exercise, group members were also given two blank cards upon which to record any other impacts which they thought relevant, but which were not covered by the other cards. To test this thought process, a card for the impact of the use of water was intentionally omitted from the cards given to the group members.</p>

<i>No.</i>	<i>Question</i>	<i>Notes</i>
Q5	Which impacts can tourism-related businesses influence?	Group members were asked which of the impacts, discussed in the previous exercise, they felt they could influence and which they thought were too difficult for businesses to influence.
Q6	What actions can tourism-related businesses take to reduce their impact on the environment?	Discussion was again prompted by the above list of impacts. Suggestions were collated on a flip chart and discussed within the group.
Q7	Exercise to explore the barriers to action	Each group member was asked to think of all the issues that get in the way of, or stop him or her from taking action to reduce the environmental impacts of their businesses. To understand the full range of barriers, group members were asked to work individually for two minutes. During this time, they were asked to write down as many barriers as possible. Answers were then collated on a flip chart and discussed within the group.
Q8	What measures would help overcome the barriers to action?	The output of Q7 was used as a basis for discussion. Suggested measures were collated on a flip chart and discussed within the group.
Q9	Summary and close	Each group member was asked in turn to summarise the points raised during the evening that were most relevant to the design of policy measures.

and to verify participant views by seeking examples and explanations for the comments made. Probing questions varied in response to the issues raised by individual participants and are not included in Table 4.9. The third type, exercises, was used to vary the tempo and direction of debate and to generate a depth of discussion that might not have otherwise occurred (see questions 4, 5, 7 and 8).

#### **4.3.5 Conduct of the groups**

Each group was held within a local hotel with conference room facilities. Groups were scheduled to last approximately 90 minutes and were arranged in the evening, which, from the pilot testing, was found to be a convenient time for most businesses. Refreshments and a light buffet meal were provided as an incentive for participation and as some recompense for business owners' time. All group members were offered the reimbursement of any reasonable out of pocket travel expenses, although none were claimed. Assurances of confidentiality and anonymity, which were emphasised within the letter of invitation, were reiterated at the commencement of each group. A statement of ethics was provided to all participants (see Appendix 3), which summarised the researcher's responsibilities towards the group and reminded participants of their right to withdraw at any stage. A business card was attached to the statement as a point of contact for any questions that might have arisen after the groups.

With permission, all discussions were tape-recorded. Each group was observed, again with permission, by a note-taker, who made written notes of the order in which participants contributed to the discussion, the main points that were raised, significant inflections of delivery, and observable body language. The resultant notes provided a back-up in the event of equipment failure and assisted greatly in the subsequent transcription and analysis of the recorded discussions. To ensure consistency between groups, a moderator guide (see Morgan, 1998a; Krueger, 1998b; Greenbaum, 1998, for description) was used as a prompt to allow the discussion questions and exercises to be introduced in a consistent manner. All questions were asked of each group in the same order with two exceptions. First, due to time constraints, questions 4 and 5 regarding the impacts of tourism businesses were omitted in Group 1. Second, to generate more detailed discussion about their experiences of the Green Audit Kit and of the SUSTAIN Network, alternative questions were posed to Group 5 in place of question 2 (see Table 4.9).

Within each of the groups, business owners appreciated the opportunity to come together and readily exchanged information and contacts. As members of small communities and business networks, it was inevitable that many of the group members were already known to each other. This familiarity seemed to help settle the groups and encourage participation, rather than suppress the disclosure of information. Perhaps because the questions were designed not to probe too deeply into what might be commercially sensitive areas, group members were willing to talk about their businesses in an open and honest way, which might not have been possible with groups of larger businesses where disclosure may have assumed greater commercial risk. To conclude each group, participants were asked in turn to summarise what they felt were the most significant points arising from the discussion which might inform the design of policy measures. These synopses provided a suitable conclusion to the evening and a useful link between the processes of data collection and analysis.

#### **4.3.6 Analysis of the data**

The process of analysis commenced with a debriefing meeting immediately after each group between the moderator and the note-taker where the main themes arising from the group were reviewed. All tape-recorded discussions were transcribed in full. Although a lengthy and laborious task, full transcription was considered important at such an early stage in the research programme to ensure that subsequent phases of research were grounded within a detailed understanding of the research problem, and that no data that might subsequently be revealed as relevant were overlooked. The transcribed discussions were input into qualitative data analysis software, QSR NUD\*IST (Non-numerical and Unstructured Data Indexing Sorting and Theorising) v4.0. The use of computer software has become increasingly popular within qualitative research (see Singh, 1996; Frankland and Bloor, 1999; Weitzman, 2000). The software does not undertake analysis on behalf of the researcher, but greatly assists with the logistical management of large volumes of data, and improves the speed and consistency of analysis. A range of software packages is available for such purposes. NUD\*IST was preferred because of its use by other researchers within the University, which was supported by informal user groups to exchange ideas and resolve common problems. During the transcription process, emergent themes were noted through the creation of memos, which might inform how the data were subsequently ordered and sorted.

Grounded theory (see Glaser and Strauss, 1967) was used as a theoretical frame for analysis in so

much as the approach sought to allow themes and concepts to emerge from the data without forming preconceptions about the nature of small business behaviour. However, a strict application of grounded theory, which extends beyond a simple description of a phenomenon, to a conceptual sorting and classification of behaviour, and rigorous theorising of causal relationships (see, for example, Strauss and Corbin, 1990), was considered beyond the scope of an initial exploratory phase of research. The analysis sought to describe the range of views and perspectives within the groups and to form hypotheses of business response and behaviour, but stopped short of rigorous theory testing. These objectives were to be addressed within later phases of the research programme. An 'analytical induction' approach (see Frankland and Bloor, 1999) was adopted which sought to derive, and continually revise in the light of exceptions, generalised descriptions of behaviour across the data sets.

The transcribed data from each group were summarised within a short two-page document, which outlined the main points raised within the group. A copy of the relevant summary was sent to each participant to thank them for their contribution and to invite comments about the accuracy of the summary to ensure that key points had not been omitted or misrepresented. These summaries, annotated by the debriefing notes and transcription memos, provided a 'discursive map' (see Burgess *et al.*, 1988a, 1988b), which acted as a preliminary conceptual frame for the detailed analysis that followed. The full transcripts of the group discussions were then coded line by line against the initial frame. Each section of data was examined for similarity and deviation from that which had gone before to reiterate, revise or create new data codes. Special attention was paid to the context within which discussion was generated to produce further refinements to conceptualisations of behaviour. Many sections of text were recoded in the light of new themes and concepts, a process which was greatly aided by the data retrieval functionality of the NUD\*IST software. The results of the focus groups, which are presented in Chapter Five, therefore represent a conceptually ordered distillation of the themes and issues that emerged during the group discussions.

#### **4.3.7 Evaluation of the method**

A number of limitations over the use of focus groups in this research were recognised. The results were drawn from small and selective samples, chosen for the diversity of views that they might hold rather than their representativeness of the population as a whole. The sampling strategy was



based upon the only business data available at the time (i.e. industry sub-sector, location and size). At such an early stage in the research, it was not known whether such factors were influential upon adoptive behaviour, and therefore, whether the resultant sample would generate the necessary diversity of response. Although specific businesses were targeted for invitation, those who agreed to attend were largely self-selected and were likely to have been the most interested in the subject. Additionally, it was not possible to sample businesses from all locations or business sizes, although a detailed analysis of the possible influence of such factors was not intended at this stage of the research.

Regardless of the steps taken to ensure contribution from all participants, it is inevitable that some relevant views will not have been heard and that opinions may have been conditioned by others in the group. Encouraged by an opportunity for their views to be heard by the District Council, it was also evident that a number of group members came prepared with a list of issues to raise which were not necessarily relevant to the research questions (e.g. concerns about the cost of advertising in the area, problems in obtaining permission for 'brown signs'). The method of analysis fell short of a full and strict application of grounded theory. The scope of analysis extended only to the description and conceptual ordering of data categories rather than full and rigorous theorising envisaged by Strauss and Corbin (1990). Despite such limitations, the focus groups provided an essential grounding within the research problem which helped to clarify the key issues and informed the approach and direction of the research that followed. As one of a number of research methods used, the limitations of focus groups were addressed, not just by the precautions taken to ensure the 'consistency' of data collection and analysis, and to evidence the 'trustworthiness' of the results, but through the manner in which complementary methods were combined within the research programme.

## **4.4 PHASE 2 – QUANTIFICATION AND THEORY-TESTING**

### **4.4.1 Overview**

The purpose of the second phase of research was threefold: first, to investigate the nature and extent of adoptive behaviour across the district; second, through the application of innovation diffusion theory, to identify the factors that were positively associated with adoption decisions, and conversely, those factors that were associated with non-adoption and acted as potential barriers;

and third, to inform a sampling strategy in Phase 3 to explain the range and strength of adoptive behaviour. A postal survey was preferred to other quantitative methods, such as telephone or face-to-face interview surveys, because it allowed the greatest coverage. A large and representative sample was important, not just for statistical analysis of the data, but also for the project sponsors to evidence consensus from a broad base of businesses. Postal surveys are often preferred to other quantitative methods within business research because of the practical problems of contacting and negotiating time with busy managers and owners (Zikmund, 1994; Cooper and Emory, 1995; Murphy, 1997b).

The limitations of postal surveys are well documented, particularly in terms of rigidity of approach and depth of discovery (see Moser and Kalton, 1971; Oppenheim, 1992; de Vaus, 1996, for a full description of the strengths and weaknesses of postal surveys). These limitations constrain the utility of postal questionnaires within studies of complex behaviour (de Vaus, 1996). The linking of quantitative and qualitative methods provided a basis to overcome such limitations. Where the focus groups provided a rich and detailed understanding of the nature of the problem, but which could not be generalised beyond the sample of participants, the questionnaire survey would allow the scope of the problem to be assessed across a representative sample of businesses. Additionally, the subsequent programme of in-depth interviews in Phase 3 provided an opportunity to seek detailed explanations for the behaviour described by the survey. An option of combining Phases 2 and 3 within a single, but extensive, face-to-face interview programme, which collected both quantitative and qualitative data, was rejected because of the practical problems of gaining access to businesses within a limited research window (fieldwork Phase 2 commenced in April 2000 and was planned to be completed before the onset of the main tourism season in July 2000). More was to be gained by first outlining the nature of behaviour across the district through postal survey then seeking in-depth explanations for such behaviour from an informed sample of businesses in Phase 3 that reflected the diversity of response to the survey.

#### **4.4.2 Questionnaire design**

A wide range of texts provide detailed guidance on the design and delivery of postal surveys (see Moser and Kalton, 1971; Oppenheim, 1992; Foddy, 1993; Czaja and Blair, 1996; de Vaus, 1996). Additionally, a number of questionnaires used in similar studies of business behaviour were reviewed to inform the design of the questionnaire (see, for example, Stabler and Goodall, 1997).

The resultant questionnaire comprised three main groups of questions (see Appendix 4). The first group examined the range and type of sustainable practices adopted by tourism-related businesses, which was central to the core aims of the project and to the application of innovation diffusion theory. The second group collected data about the factors that might be associated with adoption decisions, including a range of generic factors suggested by past innovation diffusion studies (see Table 2.4), and a number of contextual factors that were specific to tourism and had been highlighted within the focus groups. The third group sought to verify and obtain further details about the barriers to action and the range of possible measures that might help to overcome them. A number of design issues were associated with each of these groups of questions.

The questionnaire examined the adoption of 19 different business practices, which were associated with sustainable forms of tourism (see Table 4.10). This list was established through a review of practitioner guides (e.g. the Green Audit Kit, Green Tourism Business Award) and the sustainable tourism literature (see Chapter One), and was agreed by the Project Steering Group. The list of practices extended beyond traditional areas of environmental management (e.g. waste management, energy and water conservation) to include wider responsibilities towards the local environment and community that have subsequently been emphasised within the English Tourism Council's strategy for sustainable tourism, 'Time for Action' (ETC, 2001a). Each practice was required to have relevance to all tourism-related sectors in Caradon. It is not suggested that the list represented a complete application of the principles of sustainability to the practices of tourism-related businesses (such a list would be long and contentious), rather that the number of practices adopted may be indicative of the level of sustainable behaviour within individual businesses. By implication, the non-adoption of each of the practices in Table 4.10 represents potentially unsustainable forms of business activity. The aim was to apply innovation diffusion theory both to the adoption of individual practices and to the total number of practices adopted as a composite indication of progress towards the adoption of sustainable tourism. The aggregation of different innovations to indicate an overall measure of adoption has precedence within studies of agricultural conservation practices (see Ervin and Ervin, 1992).

A further design issue related to how the date of adoption of each relevant practice was collected. One of the main features of innovation diffusion theory is the importance placed upon the date of adoption as an indication of the relative innovativeness of individual adopters. The problems associated with respondent recall of the accuracy of past events have been well documented (see

**Table 4.10 Sustainable business practices used as a research focus**

<i>Area of responsibility</i>	<i>Sustainable practice</i>
Resource consumption	<ul style="list-style-type: none"> <li>- Fitted low energy light bulbs</li> <li>- Installed a condensing boiler</li> <li>- Installed an alternative energy supply</li> <li>- Reduced toilet flush capacity</li> </ul>
Reduction of waste	<ul style="list-style-type: none"> <li>- Composted garden and kitchen waste</li> <li>- Actively purchased goods with minimum packaging</li> <li>- Actively purchased environmentally friendly goods</li> <li>- Actively recycled paper</li> <li>- Actively recycled bottles</li> <li>- Actively recycled tins</li> </ul>
Improving the local environment	<ul style="list-style-type: none"> <li>- Created wildlife areas on property</li> <li>- Worked with the local community/other businesses on an environmental project</li> </ul>
Supporting the local community	<ul style="list-style-type: none"> <li>- Actively purchased products and services produced locally</li> <li>- Organised a tourism event with the local community</li> <li>- Provided details of local events to customers</li> </ul>
Encouraging environmentally friendly tourism	<ul style="list-style-type: none"> <li>- Encouraged customers to use public transport</li> <li>- Provided details of walking and cycling routes from property</li> <li>- Provided facilities for customers to recycle waste</li> <li>- Communicated environmental improvements to customers</li> </ul>

for example, Moser and Kalton, 1971; Foddy, 1993). Nevertheless, most innovation diffusion studies have collected such data through single-survey methods (Rogers, 1983). Within this study, where a range of practices was being investigated, the date of adoption was less important than the number and type of practices adopted. Although the year of adoption was requested for each practice, these data were used to rank the order in which practices had been adopted and to examine general patterns of behaviour rather than rely upon the absolute date of adoption.

A range of open and closed questions was used to collect data about the factors that might be associated with adoption decisions. There are problems associated with the use of open questions within surveys in relation to the ease of response and subsequent analysis (see Oppenheim, 1992; de Vaus, 1996; Czaja and Blair, 1996; Morris, 1996). Both Foddy (1993) and Parfitt (1997) suggest a judicious mix of both open and closed questions, which utilise their relative strengths. Open questions were preferred where the results of the focus groups had suggested complex patterns of behaviour and a limited number of response options would have over-simplified the nature of behaviour, or where the range of possible responses was open-ended (e.g. suggested measures to overcome the identified barriers to action). Closed questions were used to collect data on all other characteristics and aspects of business behaviour.

The influence of business owner attitudes was examined through responses to a series of attitude statements. Each statement was drawn from the results of the focus groups and highlighted positions or values that might be relevant to the adoption of one or more sustainable practice. Responses to each statement were measured against a five-point Likert scale and correlated individually against adoption decisions. No attempt was made to construct a single scaled measure of attitude towards sustainability through an aggregation of responses to individual statements. To do so would have required extensive preliminary work to establish the reliability of each statement to contribute to a single overall scaling (see for example Oppenheim, 1992; Foddy, 1993; Parfitt, 1997), which was outside the scope of this study. The value of correlating responses to individual statements against adoption decisions was in highlighting the potential nature of attitudinal influences upon behaviour, rather than attempting to establish a complex model of attitudinal influences (Moser and Kalton, 1971). The analysis of disaggregated attitudinal statements has been used widely within innovation diffusion studies (see for example Carr and Tait, 1991a, 1991b; Wilson, 1996).

A preliminary draft of the questionnaire was tested on seven owners of tourism-related businesses in the district of Torridge, North Devon (March 2000). In the light of comments received, a number of questions were reworded and restructured to avoid ambiguity (e.g. providing prompts on the types of condensing boilers that might have been installed and grouping related practices to aid completion). Additionally, a further section was added to the questionnaire relating to other sustainable practices that might have been adopted.

#### **4.4.3 Administration of the survey**

The questionnaire was sent to all identifiable tourism-related businesses in the district. The decision to attempt complete coverage was based upon the manageable size of the research population ( $n = 451$ ) and the opportunity to invite all businesses to contribute to research that would ultimately lead to the development of a strategy for sustainable tourism in the district. Questionnaires were posted on 6 April 2000 together with a covering letter explaining the purpose of the research, assuring the confidentiality of all data and indicating that the questionnaire should be completed by the main decision-maker in the business (see Appendix 5). A freepost envelope was enclosed for responses. Where possible, letters were addressed to named individuals within each business. Where names were not known, letters were addressed to 'The Owner'. Each questionnaire was marked with an individual reference number to ensure that respondents were not sent reminder letters if returned completed or uncompleted and to establish a sampling frame for the third phase of the research.

A number of steps were taken to encourage responses from businesses that were not especially interested in environmental or sustainability issues. All businesses responding by 19 May 2001 were included in a free prize draw. Prizes were donated by the District Council and the local Energy Efficiency Advice Centre, and included compost bins, packs of low energy light bulbs and water butts. Reminder letters were sent on 5 May 2000 (362 letters) and 9 June 2000 (281 letters) to all businesses that had not responded by these dates. The wording of each reminder letter did not assume previous knowledge of the research and included an additional copy of the questionnaire. Each letter emphasised the practical outputs of the research and that it was important to hear from all business owners, whether they were interested in environmental issues or not. Businesses which did not intend to complete the questionnaire were asked to return the survey uncompleted to avoid receiving further reminders. A further free prize draw was offered as

an incentive to businesses responding to the second reminder letter. Garden centre gift vouchers, which were likely to have wider appeal, were offered as prizes.

#### **4.4.4 Response to the survey**

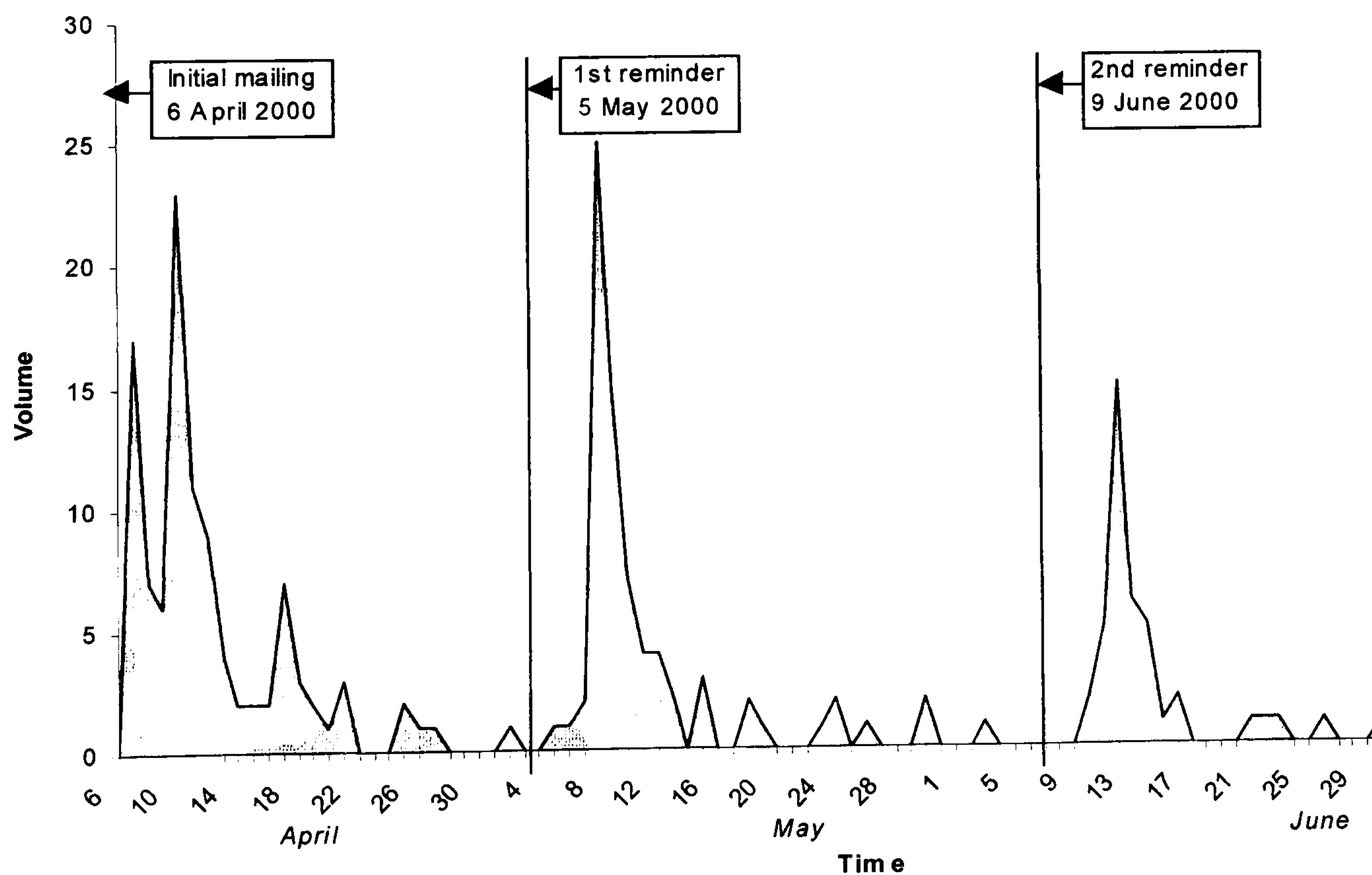
By the end of the extended survey period (30 June 2000), a total of 197 responses had been received, which represented a 43.7 per cent response rate (197/451) (see Table 4.11). A further 4.7 per cent (21/451) of businesses returned their questionnaire uncompleted. The initial mailing was the most successful, generating 101 responses, which represented a 22.4 per cent response rate. The subsequent reminder mailings had lower response rates (17.1 per cent and 13.1 per cent respectively), but together generated a further 96 responses, which represented 48.7 per cent (96/197) of all responses received. Figure 4.3 illustrates the positive effect that the reminder mailings had on response rates.

Reference to 'look-up' tables (Krejcie and Morgan, 1970) of the theoretical sample size necessary to be representative of a population of 451 businesses within plus or minus 5 per cent accuracy at 95 per cent confidence limits indicated that survey responses would be required from 208 businesses. Although in absolute terms, the response to the survey fell just short of this figure, a number of other factors must be considered within any assessment of the adequacy of the sample size. First, after three separate incentivised mailings, the responses received represented all the businesses in the district that were willing to participate in the survey. In view of the onset of the main tourist season, it was considered inappropriate to attempt further contact. The survey response rate was comparable to Stabler and Goodall's (1997) survey of accommodation businesses in Guernsey (45 per cent) and greatly exceeded most surveys of business responses to sustainability and environmental issues which have relied upon response rates of less than 30 per cent (see, for example, Rowe and Enticott, 1998a, 1998b; Petts *et al.*, 1999; Donovan and McElligott, 2000). Second, an analysis of stratification in comparison with the population, showed the sample to be representative in terms of business type, location and size (see Tables 4.12, 4.13 and 4.14). The sample reflected the large proportion of accommodation businesses within the industry (both serviced and un serviced) (76.1 per cent i.e. 150/197), the concentration of businesses in the Looe and Liskeard areas (55.3 per cent i.e. 109/197), and the predominance of micro-businesses in the sector (89.8 per cent i.e. 168/187). Although some variances were noted, for example, attractions (60.0 per cent response rate) and holiday parks (62.1 per cent) were

**Table 4.11 Responses to the postal survey**

		No.	%
<i>First mailing (6 April 2000)</i>	Letters posted	468	
	Businesses no longer trading <sup>a</sup>	11	2.4
	Questionnaires returned uncompleted	5	1.1
	Completed questionnaires	101	22.4
<i>Second mailing (5 May 2000)</i>	Letters posted	362	
	Businesses no longer trading <sup>a</sup>	11	3.0
	Questionnaires returned uncompleted	10	2.8
	Completed questionnaires	60	17.1
<i>Third mailing (9 June 2000)</i>	Letters posted	281	
	Businesses no longer trading <sup>a</sup>	6	2.1
	Questionnaires returned uncompleted	6	2.2
	Completed questionnaires	36	13.1
<i>Total of completed questionnaires</i>		<b>197</b>	<b>43.7</b>

Notes: <sup>a</sup> Calculated as a percentage of letters posted. All other figures calculated as a percentage of the available population (i.e. letters posted – businesses no longer trading).



**Figure 4.3 Survey responses received over time**



**Table 4.12 Comparison of sample with total population by business type**

	Population		Questionnaire sample		Sample as a % of the population %
	No.	%	No.	%	
Self-catering	142	31.5%	69	35.0%	48.5%
Guest house	96	21.3%	48	24.4%	50.0%
Farm B&B/Self-catering	53	11.8%	17	8.6%	32.1%
Hotel	40	8.9%	16	8.1%	40.0%
Attraction	35	7.8%	21	10.7%	60.0%
Campsite/Holiday park	29	6.4%	18	9.1%	62.1%
Inn	27	6.0%	7	3.6%	25.9%
Holiday company	1	0.2%	1	0.5%	100.0%
Unknown	28	6.2%	0	0%	-
<b>Total</b>	<b>451</b>	<b>100%</b>	<b>197</b>	<b>100%</b>	<b>-</b>

Variances inconclusive ( $\chi^2 = 8.9787$ ,  $df = 7$ )

**Table 4.13 Comparison of sample with total population by location post code**

	Population		Questionnaire sample		Sample as a % of the population %
	No.	%	No.	%	
Looe (PL13)	196	43.5%	76	38.6%	38.8%
Liskeard (PL14)	79	17.5%	33	16.8%	41.8%
Torpoint (PL10/11)	64	14.2%	25	12.7%	39.1%
Saltash (PL12)	37	8.2%	18	9.1%	48.6%
Callington (PL17)	22	4.9%	12	6.1%	54.5%
Fowey (PL23)	11	2.4%	7	3.6%	63.6%
Gunnislake (PL18)	8	1.8%	3	1.5%	37.5%
Lostwithiel (PL22)	8	1.8%	6	3.0%	75.0%
Launceston (PL15)	2	0.4%	1	0.5%	50.0%
Other (various)	24	5.3%	10	8.1%	41.7%
<b>Total</b>	<b>451</b>	<b>100%</b>	<b>197</b>	<b>100%</b>	<b>-</b>

Variances inconclusive ( $\chi^2 = 6.6602$ ,  $df = 5$ )

- a. businesses with multiple outlets are classified under 'other'
- b. a number of postcode areas applicable to the district of Caradon have a postal town reference outside the district

**Table 4.14 Comparison of sample with total population by business size**

	Wholesale, retail, hotels & restaurants – SouthWest England <sup>a</sup>	Questionnaire sample	
	%	No.	%
0 – 0.9	46.0%	85	45.5%
1 – 4	35.7%	64	34.2%
5 – 9	10.4%	19	10.2%
10 – 99	7.5%	18	9.7%
100 – 249	0.3%	1	0.5%
250 and over	-	0	0.0%
<b>Total</b>	<b>100%</b>	<b>187</b>	<b>100%</b>

Not answered = 10

Variances inconclusive ( $\chi^2 = 1.5468$ , df = 4)

<sup>a</sup> Source - Small Business Service (2000)

proportionately more responsive than inns and public houses (25.9 per cent) and farm-based businesses (32.1 per cent), the differences were inconclusive (chi-square test) (see Table 4.12). In particular, business from the northern and western postal districts (e.g. Launceston, Callington, Lostwithiel, Fowey), which were largely absent from the focus groups, were well represented within the survey (see Table 4.13). Third, the main statistical test used to analyse associations between adoption decisions and various independent factors was the chi-square test of independence, which was only valid if a number of sample size and stratification criteria were met (the chi-square test is discussed further below). In terms of the analysis that took place, therefore, there was an implicit check that the sample size was adequate each time the test was calculated.

A comparison of the characteristics of early and late respondents to the survey highlighted significant differences. Where 20.8 per cent of respondents to the first mailing had adopted 74% or more of the specified practices (i.e. 14/19), only 2.8 per cent of respondents to the third mailing had done so (see Table 4.15). These findings reiterated the importance of repeat mailings and incentivisation to extend the sample beyond those businesses most interested in environmental issues, but also indicated possible non-response bias within the results of the survey. It is likely that non-respondents were more closely aligned in nature and adoptive behaviour to late respondents. Although techniques are available for estimating non-response bias to enable survey results to be 'corrected' through the application of a weighting system, they are confined to those aspects where there is comparable data between the research population and the respondent sample (see Moser and Kalton, 1971; Oppenheim, 1992; Fowler, 1993; de Vaus, 1996). Such comparisons had already been undertaken and had confirmed the sample to be representative in terms of business type, location and size. Whether the sample was representative against other criteria, which might be more relevant to the research problem, could not be readily assessed. Another technique would be to contact a sample of non-respondents to ascertain reasons for non-response and to collect comparative data that would allow an assessment of bias to be calculated (Moser and Kalton, 1971). In view of the onset of the main tourism season, such contact had already been ruled out. Instead, a survey of non-respondents was to be incorporated within the follow-up in-depth interviews. In the event, interviews with non-respondents could not be undertaken as the interview programme was interrupted and subsequently curtailed as a consequence of the outbreak of Foot and Mouth Disease in February 2001. Oppenheim (1992) suggests that where non-response bias cannot be measured accurately, it is preferable simply to report the findings and stress the direction of likely bias. Within this study, and others of its type, it is likely that any bias caused by non-

**Table 4.15** Number of sustainable practices adopted by mailing

		Number of sustainable practices adopted				
		0-5	6-9	10-13	14-21	Total
First mailing	No.	12	29	39	21	101
	%	11.9%	28.7%	38.6%	20.8%	100%
Second mailing	No.	7	23	19	11	60
	%	11.7%	38.3%	31.7%	18.3%	100%
Third mailing	No.	15	9	11	1	36
	%	41.7%	25.0%	30.6%	2.8%	100%
<b>Total</b>		<b>34</b>	<b>61</b>	<b>69</b>	<b>33</b>	<b>197</b>

Significant variances at 99.9% ( $\chi^2 = 22.878$ ,  $df = 6$ )

response over-emphasised the positive response of tourism-related businesses to sustainability in the district.

#### **4.4.5 Analysis of the data**

All questionnaire responses were coded and input into SPSS (Statistical Package for the Social Sciences) v9.0, a software package for the statistical analysis of quantitative data. An overlay template was used to translate the responses to closed questions into pre-established codes. Coding of the responses to open questions emerged from the data, and through an iterative process, initial categories were subsequently combined and recoded to present a more manageable range of responses. Data were first tabulated as a series of frequency distributions to identify general patterns of behaviour and obviously miscoded entries.

The survey produced a mix of nominal and ordinal data which were analysed through a series of non-parametric tests. The potential influence of various business characteristics, attitudes and experiences upon the adoption of different practices and upon the total number of practices adopted (categorised within four adopter classifications) was analysed using the chi-square ( $\chi^2$ ) test of independence (a detailed discussion of the calculation and use of the chi-square test can be found within Hinton, 1995). The test compares the frequency profiles of two or more groups to establish whether the difference between them is significant. The results relating to the factors associated with adoption decisions are presented as a series of tables which note the chi-square ( $\chi^2$ ) test value, the degrees of freedom (df) and, where appropriate, the level of confidence at which significance is stated (95 per cent confidence limits or more). The chi-square test is not accurate where more than 20 per cent of the 'expected' frequencies (based upon the null hypothesis that one independent variable has no effect on another) have values of less than five or where any expected frequency is less than one (Hinton, 1995). Where the frequency distributions failed to meet these criteria, classifications were amalgamated, where appropriate, and recoded to investigate any broader patterns of significance.

The Wilcoxon signed-ranks matched-pairs test was used to examine the significance of the rank order in which sustainable practices were adopted (see Hinton, 1995, for a full description of the test). The Wilcoxon test is a two-tailed test, which examines the null hypothesis that there is no significant difference in ranking of observations between two related samples. The test reveals both

significant differences in ranking and the direction of difference. Within this study, the null hypothesis was that there was no difference in the order in which different pairs of practices had been adopted. A limitation of the Wilcoxon test is that it can only be applied to pairs of related observations which required the test to be repeated for each possible combination of practices. An alternative test, the Friedman Test, which investigates ranking differences between three or more matched groups, like the Wilcoxon test, can only be applied to complete data sets. As a consequence, the Friedman test was restricted to a combination of only the most widely adopted practices. Although more laborious, the Wilcoxon test could be applied to almost all paired combinations of practices and was, therefore, more useful and revealing than the Friedman Test.

The standard error of the binomial frequency distribution was used to calculate the sample error attached to results expressed as proportions (e.g. adoption rates of individual practices) (see Moser and Kalton, 1971, for a full description of the calculation). The results are expressed as 95 per cent confidence limits within which the rate of adoption across the population was estimated to lie and were adjusted by a 'finite population correction factor' to reflect that the sample was drawn from a finite population of tourism businesses in the district (see Moser and Kalton, 1971). The accuracy of the calculation relies upon the representativeness of the respondent sample. It is likely, therefore, that such figures also reflected a non-response bias and over-estimated rates of adoption among the research population.

#### **4.4.6 Evaluation of the method**

The postal survey provided the necessary quantitative data for the application of the descriptive elements of innovation diffusion theory and a baseline measure of adoption behaviour across the district. The validity of the method was improved greatly by the preliminary focus groups, which informed the design and content of the questionnaire and situated the research within the 'real world'. The main weaknesses of the method relate to the manner in which data were collected, i.e. at a distance from the researcher. The researcher could not ultimately control which businesses responded to the survey, who within each business completed the questionnaire and the accuracy of completion (Moser and Kalton, 1971; Czaja and Blair, 1996; Hussey and Hussey, 1997). Of the methods used within this study, the postal survey, without the ability to probe the validity of responses or to control the final sample of respondents, was most prone to subject and non-response bias. Nevertheless, the survey achieved a particularly high response rate for research of

this nature; provided good geographical coverage, which had not been possible within the focus groups; and generated a sample that was statistically valid. Additionally, the subsequent in-depth interviews provided an opportunity, not only to seek explanations for the significant associations revealed by the survey results, but also to confirm the validity of the results through triangulation.

## **4.5 PHASE 3 – EXPLANATORY INVESTIGATION**

### **4.5.1 Overview**

The purpose of the explanatory phase of research was threefold: first, to seek clarification and verification of the results from the earlier phases of research using a different methodology; second, to provide an additional level of detail of business adoption behaviour, in particular to explore further the barriers and constraints to adoption and to explain why certain factors were associated with adoption decisions; and third, to test business owner responses to a range of potential policy measures that had been suggested by the results of the earlier phases of research. Semi-structured interviews were preferred to undertaking further focus groups as the objective was to probe deeper into the contextual nature of adoption behaviour which could not be undertaken to the same degree within a group situation. While focus groups offer advantages in exploring the nature and scope of a research problem, they cannot provide the same depth of data as interviews (Moser and Kalton, 1971; Fern, 1982; Watts and Ebbutt, 1987; Morgan, 1996). Many of the philosophical, ethical and practical design issues that applied to focus groups in the first phase of research also applied to the interview programme and required the adoption of similar precautions to evidence the ‘consistency’ of the methods, the ‘neutrality’ of the researcher and the ‘trustworthiness’ of the findings.

### **4.5.2 Interview questions**

A draft list of interview questions was drawn up and agreed with the Steering Group (see Table 4.16). The questions revisited subjects investigated within the earlier phases of research, but in greater detail, and introduced a number of new subjects that had not previously been examined, such as underlying triggers for adopting sustainable practices and business owners’ adoption experiences. After a number of preliminary questions, designed to ‘break the ice’ and accustom the business owner to talking about their business, the questions covered four main themes. The first related to business owner values and attitudes to sustainability, which had been highlighted as

**Table 4.16 Interview questions**

<i>Main questions</i>	<i>Probing questions</i>
<p><i>Background</i></p> <ul style="list-style-type: none"> <li>- How did you come to be the owner of this business?</li> <li>- Are you the sole decision-maker in your business?</li> </ul>	<ul style="list-style-type: none"> <li>- How long have you owned this business?</li> <li>- How much work have you done to the premises?</li> <li>- What sort of decisions do you make?</li> </ul>
<p><i>Sustainability as a priority</i></p> <ul style="list-style-type: none"> <li>- How important are environmental considerations to you personally?</li> <li>- How important are environmental considerations to your business?</li> </ul>	<ul style="list-style-type: none"> <li>- Where does that interest in the environment originate from?</li> <li>- What environmental issues are you most concerned about (local, global)?</li> </ul>
<p><i>Awareness</i></p> <ul style="list-style-type: none"> <li>- How aware are you of the things you could do to reduce the impact of your business on the environment?</li> <li>- How do you hear about the measures you could take?</li> </ul>	<ul style="list-style-type: none"> <li>- What things could you do?</li> <li>- What measures have you implemented?</li> <li>- Influence of organisations?</li> <li>- Influence of other businesses?</li> <li>- Influence council/trade press?</li> <li>- Influence of key individuals?</li> </ul>
<p><i>Adoption decisions</i></p> <ul style="list-style-type: none"> <li>- What was it that first caused/triggered you to start implementing 'green' practices?</li> <li>- What factors have been important in your decisions to adopt 'green' practices?</li> <li>- What information or advice did you seek/receive?</li> </ul>	<ul style="list-style-type: none"> <li>- What did you implement first?</li> <li>- When did you implement it?</li> <li>- Why did you implement it?</li> <li>- What did you implement next? Why?</li> <li>- How did your reasons for adoption vary?</li> <li>- What benefits did you expect/experience?</li> <li>- Did your decisions form part of an overall strategy?</li> </ul>
<p><i>Adoption experiences</i></p> <ul style="list-style-type: none"> <li>- Which was the most difficult measure to implement? Why?</li> <li>- Which was the most time-consuming measure to implement?</li> <li>- What has been the reaction of customers to your improvements?</li> </ul>	<ul style="list-style-type: none"> <li>- What problems did you encounter?</li> <li>- How did you overcome them?</li> </ul>
<p><i>Barriers to action</i></p> <ul style="list-style-type: none"> <li>- What currently stops you implementing more 'green' measures?</li> <li>- In what circumstances would you do more?</li> <li>- What measures and support would help you?</li> </ul>	<ul style="list-style-type: none"> <li>- Which practices are you constrained from implementing?</li> <li>- Why?</li> <li>- Why would these measures help?</li> </ul>
<p><i>Measures to help (show examples)</i></p> <ul style="list-style-type: none"> <li>- Which of the following measures would help you to adopt further 'green' practices?</li> </ul>	<ul style="list-style-type: none"> <li>- Why would they help?</li> <li>- Why would they not help?</li> <li>- Which would be most helpful? Why?</li> </ul>



important within decisions to adopt sustainable practices, but the nature of their influence had not been examined in detail. The second theme explored experiences of the adoption process, from initial awareness, through decision-making and implementation, to provide an additional level of detail that earlier phases had been unable to examine. The third theme re-examined the stated barriers to further adoption, but sought to explore how they varied between different practices and different businesses. The final theme related to the possible measures that might encourage further adoption. To help generate detailed responses on this subject, lists of possible measures were shown as prompts (see Figure 4.4). With the exception of a 'guide to responsible visitor behaviour', which was included to prompt discussion of an area not covered by the questionnaire survey, each of the measures shown to business owners were drawn from the results of earlier phases. Business owners had either previously suggested the measures themselves, or highlighted needs where support of this type might be required.

A semi-structured approach was undertaken, where the same main questions were asked of each business owner. However, the level of questioning was varied according to the business owners' experience, and improvised follow-up questions were used to explore meaning and elicit verification (see Kvale, 1996; Arksey and Knight, 1999). A tangible difference from the focus groups was that the line of questioning was more direct and sought to uncover underlying reasons for behaviour described previously by the postal survey. In particular, the questions aimed to probe for evidence of actual behaviour to corroborate previous data and to counter possible subject bias (see Moser and Kalton, 1971; Ackroyd and Hughes, 1981; Hoineville, 1982; Harrison, 1994).

### **4.5.3 Sampling**

The results of the postal survey provided a detailed sampling frame for the in-depth interviews, albeit perhaps biased towards businesses that were most interested in environmental issues. A key finding of the postal survey was that the range of responses to sustainability was defined not just by the number of practices that had been adopted (i.e. whether they were high, medium or low adopters), but also by the business characteristics associated with adoption. In particular, the survey highlighted seven 'indicator features' (e.g. business owner motives, conduct of an environmental review, and membership of a trade association) that were associated with the highest level of adoption. The number, rather than the particular mix of 'high adopter indicator features', was found to provide a basis for distinguishing between businesses within different

## **INFORMATION**

- Fact-sheet information about the type of measures you can implement and how to implement them
- Directories of local recycling facilities, suppliers of local produce, and suppliers of 'green' goods and services in the district
- Examples of environmental 'best practice' from similar businesses in the district
- 'Benchmark' information about how your own energy costs etc. compare to similar businesses
- Training on how to implement 'green' business practices

## **ADVICE**

- A self-help guide to help assess your own business practices and make 'green' improvements
- Advice and support from other businesses in the area
- Advice as part of an accommodation rating inspection scheme
- Guidance and support from an environmental adviser

## **CHANGING VISITOR BEHAVIOUR**

- A guide to 'responsible' behaviour
- Information about public transport
- Local food festivals
- Environmental events

## **OTHER SUPPORT**

- Support for recycling
- A collective bulk-buying scheme
- Grants
- 'Low interest' loans
- A 'green' business organisation to obtain advice and exchange ideas

**Figure 4.4** Interview discussion prompts

adopter categories (see Table 4.17). On the basis of evidenced commitment to sustainability at the time of the survey (indicated by adopter category) and propensity to adopt further practices in the future (indicated by the number of key features that businesses shared with the highest adopters), nine relevant sample cells could be identified which represented the range of responses to the survey (see Tables 4.18 and 4.19). Together, these cells accounted for 99.0 per cent (195/197) of the available population of businesses. A total of 22 businesses across the range of cells were selected at random for interview (see Table 4.20). Although only a small sample in absolute terms, the aim was to achieve theoretical saturation rather than statistical representativeness, which had already been achieved by the postal survey.

#### **4.5.4 Conduct of the interviews**

The interviews were conducted between February and May 2001. Each selected business was contacted initially by telephone to explain the nature of the research and to seek agreement to be interviewed. All businesses that had responded to the postal survey were eligible for selection, with the exception of those that had participated in the focus groups. One of the purposes of the interview programme was to triangulate the results of earlier phases which required discussion with a different sample of businesses. All businesses that were contacted were familiar with the research to some extent, as they had completed a postal questionnaire during the previous summer. Where business owners declined to be interviewed, a replacement business was drawn at random from the same sample cell.

A letter was sent to all business owners who had agreed to be interviewed, confirming the nature of the research, the time and date of the agreed interview and a contact number in case there was a need to cancel or rearrange the interview. All interviews were conducted at business owners' premises and lasted approximately 45 minutes. The nature and purpose of the research was explained at the start of each interview, and, with permission, all discussions were tape-recorded. Business owners were assured of anonymity and confidentiality.

All interviews were scheduled to be conducted during February and March 2001. An outbreak of Foot and Mouth disease in the UK was confirmed on 21 February 2001 and, as a precaution, the University suspended all research fieldwork. By this point, the majority of interviews (14/22) had been completed. With permission from Caradon District Council and the University of Plymouth,

**Table 4.17** Survey respondents exhibiting 'high adopter' indicator features

		Number of features exhibited								
		0	1	2	3	4	5	6	7	Total
High adopters	No.	0	0	0	5	12	6	6	4	33
	%	0%	0%	0%	15.2%	36.4%	18.2%	18.2%	12.1%	100%
High majority	No.	4	7	18	16	13	7	3	1	69
	%	5.8%	10.1%	26.1%	23.2%	18.8%	10.1%	4.3%	1.4%	100%
Low majority	No.	4	13	18	16	9	0	1	0	61
	%	6.6%	21.3%	29.5%	26.2%	14.8%	0%	1.6%	0%	100%
Low adopters	No.	7	8	9	3	6	0	1	0	34
	%	20.6%	23.5%	26.5%	8.8%	17.6%	0%	2.9%	0%	100%
<b>Total</b>		<b>15</b>	<b>28</b>	<b>45</b>	<b>40</b>	<b>40</b>	<b>13</b>	<b>11</b>	<b>5</b>	<b>197</b>

**Table 4.18 Interview sample cells**

		Number of indicator features			
		0 - 2	3 - 4	5 - 7	Total
High adopters	No.	0	<b>B</b> 17	<b>A</b> 16	33
	%	0%	51.6%	48.5%	100%
High majority	No.	<b>E</b> 29	<b>D</b> 29	<b>C</b> 11	69
	%	42.0%	42.0%	15.9%	100%
Low majority	No.	<b>G</b> 35	<b>F</b> 25	1	61
	%	57.4%	41.0%	1.6%	100%
Low adopters	No.	<b>I</b> 24	<b>H</b> 9	1	34
	%	70.6%	26.5%	2.9%	100%
<b>Total</b>		<b>88</b>	<b>80</b>	<b>29</b>	<b>197</b>

**Table 4.19 Description of sample cells**

<i>Sample</i>	<i>Description</i>
<b>A</b>	High adopters of sustainable practices displaying <i>many</i> (5-7) of the indicator features associated with high levels of adoption
<b>B</b>	High adopters of sustainable practices displaying <i>some</i> (3-4) of the indicator features associated with high levels of adoption
<b>C</b>	High majority adopters of sustainable practices displaying <i>many</i> (5-7) of the indicator features associated with high levels of adoption
<b>D</b>	High majority adopters of sustainable practices displaying <i>some</i> (3-4) of the indicator features associated with high levels of adoption
<b>E</b>	High majority adopters of sustainable practices displaying <i>few</i> (0-2) of the indicator features associated with high levels of adoption
<b>F</b>	Low majority adopters of sustainable practices displaying <i>some</i> (3-4) of the indicator features associated with high levels of adoption
<b>G</b>	Low majority adopters of sustainable practices displaying <i>few</i> (0-2) of the indicator features associated with high levels of adoption
<b>H</b>	Low adopters of sustainable practices displaying <i>some</i> (3-4) of the indicator features associated with high levels of adoption
<b>I</b>	Low adopters of sustainable practices displaying <i>few</i> (0-2) of the indicator features associated with high levels of adoption

**Table 4.20 Businesses interviewed within sample cells**

		Number of indicator features			
		0 - 2	3 - 4	5 - 7	Total
High adopters	No.	0	<b>B</b> <sup>3</sup>	<b>A</b> <sup>3</sup>	6
High majority	No.	<b>E</b> <sup>2</sup>	<b>D</b> <sup>2</sup>	<b>C</b> <sup>2</sup>	6
Low majority	No.	<b>G</b> <sup>2</sup>	<b>F</b> <sup>2</sup>	0	4
Low adopters	No.	<b>I</b> <sup>3</sup>	<b>H</b> <sup>3</sup>	0	6
<b>Total</b>		7	10	5	22

interviews were recommenced in April 2001, but were confined to urban areas of the district outside of the designated 'infected area', which extended into northern and central parts of Caradon. Additionally, all farm-related tourism businesses or businesses where contact with livestock was possible were excluded from the remaining part of the research. As a consequence of these precautions, interviews with three of the eight remaining businesses could not proceed. In their place, other businesses were selected at random from the same sample cells. The resultant sample was, therefore, necessarily skewed in terms of business location and type. It is not likely, however, that such biases materially affected the findings, as the results of Phase 2 confirmed that neither location nor business type had a significant influence on the number of sustainable practices adopted and neither factor had formed part of the original sampling strategy. Where the consequences of the Foot and Mouth outbreak may have had a material influence on the results was in contextualising the remarks of the eight tourism businesses interviewed after the outbreak of the disease. Within these interviews, greater emphasis may have been placed on the financial implications and barriers to adoption, reflecting the dire commercial implications of the outbreak on the tourism industry. Although the outbreak was mentioned by interviewees as being damaging commercially, its influence upon their perceptions of sustainable practices could not be detected. If these interviews had been undertaken with businesses located within the infected area or in rural locations, the influence of the outbreak upon business perceptions of sustainability may have been greater.

#### **4.5.5 Analysis of the data**

A full transcription of the tape recordings was not considered necessary as the conceptual and theoretical frame had already been established from results of the earlier phases. The aim was to provide an additional level of detail to verify and 'flesh-out' the nature of adoption behaviour, rather than to identify and explore new areas of interest. A further consideration was a requirement to incorporate the findings within the District Council's strategy action plan, which, as a condition of ERDF funding, had to be completed by 31 July, 2001. The delays to the interview schedule arising from the Foot and Mouth disease outbreak required prompt and focused data analysis to meet this deadline.

Interview data were analysed by listening to the tape recordings of each interview and noting relevant concepts and issues. Emergent themes were reviewed against data from each of the

sample cells to assess the degree of consensus and diversity (see Patton, 1990). Passages of the interviews were transcribed in full where they illustrated the attributes and dimensions of relevant concepts. All tape recordings were replayed on a tape recorder with a digital counter. Notes and key quotations from the interview data were coded to indicate their origin and position on the tape to allow easy retrieval and reanalysis in the light of new findings. Word processing software was used to collate and conceptually sort coded data. While the NUD\*IST software package offers significant benefits for micro-coding large amounts of qualitative data, such functionality was not necessary for this analysis. Again, grounded theory informed the analysis approach in that the results were allowed to emerge from the data, but within the context of a conceptual and theoretical frame that had been established within the earlier phases of research and through the application of innovation diffusion theory.

#### **4.5.6 Evaluation of the method**

As a qualitative research method, the programme of in-depth interviews was subject to the same issues of validity and reliability as the earlier focus groups, but, by virtue of its position at the end of a sequence of linked research phases, it enjoyed a number of advantages. The interview programme benefited from being grounded within the results and conceptual frame established within earlier phases. As a consequence, the research questions were able to be more focused and direct which enabled a greater depth of inquiry. The results of earlier phases also provided a basis for theoretical and purposive sampling, which was not possible at the commencement of the programme. Although drawn from a small and selective sample, the results reflected the views and experiences of the full range of businesses highlighted by the survey.

The results of the interviews provided both confirmation of, and elaboration upon, the findings of earlier phases. In particular, the additional detail that was provided by the interviews assisted greatly with the interpretation of the results of the postal survey to provide explanations of behaviour that could not be confirmed through quantitative methods. While the results of the interviews could not be generalised beyond the sample from which they were drawn, when linked with the results of earlier phases, they provided a more powerful investigation of adoption behaviour.



## 4.6 CONCLUSION

The purpose of this chapter was to present and critically evaluate the research methods adopted within this study. Through a series of focus groups, an initial exploration of the research problem was undertaken with a small, but diverse, sample of businesses which informed subsequent stages of research. A postal survey to all tourism-related businesses in the district then provided the main data necessary for the application of innovation diffusion theory. The respondent sample was shown to be representative of the research population so far as could be established, and was sufficient for the reliability of the statistical tests that were used to analyse the data. To avoid the limitations of many studies of innovation diffusion, which have produced detailed descriptions, but not explanations of adoption behaviour, a series of in-depth interviews was conducted with a sample of businesses. These interviews were representative of the levels of adoption by businesses and were designed to examine in more detail the factors that were associated significantly with adoption decisions and the potential barriers to adoption. Through the linking of quantitative and qualitative methods in a way that recognised their respective strengths and limitations, the scope of this study was extended both in breadth and depth.

The manner in which the different methods were combined was not, of course, the only way of approaching the research problem. An alternative approach would have been to conduct the quantitative survey as an initial assessment of adoption behaviour and as a basis for a more extensive phase of qualitative investigation. Indeed, interviews could have been used to collect both the necessary quantitative and qualitative data, but would have lost the opportunity to reflect upon the results of one research phase before commencing the next. Another approach would have been to focus on theory-building through qualitative techniques alone. While such an approach would help to address the lack of theory on the subject, it would not have met the needs of the project sponsors, who required evidence of business behaviour across the district as a basis for strategy development.

The alternation of qualitative and quantitative methods within this study was central to its success and revealed new and unexpected insights throughout the research programme. With the benefit of hindsight, the position of the two qualitative methods could have been switched. An initial phase of interviews which probed business views on an individual basis might have provided a greater depth of understanding to inform the questionnaire survey, but would have required more time than was

available before the commencement of the main holiday season. The use of focus groups within the final phase might have generated interesting discussions regarding the relative merits of alternative policy measures and provided a more participatory link between the research and strategy development phases of the project. Additionally, perhaps more could have been done to counter non-response bias within the data. Wider publicity for the project within the context of the strategy development process together with hand-delivery and collection of the questionnaires may have encouraged a wider response. The scope for variation in the methods used in future studies is a positive point. The subject can only benefit from more extensive research to provide a robust basis for strategy and theory development.

The results of the research are presented and discussed in Chapters Five and Six. Chapter Five analyses the results of the focus groups, which, in view of the lack of previous research into this subject, are given greater coverage than a preliminary investigation would normally be afforded. Chapter Six then evaluates the results of the postal survey and the interview programme to present both a description and an explanation of adoption behaviour in the district.

# Chapter Five

## Results of the focus groups

### 5.1 INTRODUCTION

A mixed-method research strategy was adopted in this study to examine the response of tourism-related businesses to a range of sustainable business practices (see Chapter Four). As little research had previously been conducted into this subject, the first stage was to undertake a detailed preliminary exploratory investigation of the topic using focus groups based on a small and selective sample of businesses. This more open-ended and qualitative approach was considered appropriate to establish key issues for the subsequent stages of research. The purpose of this chapter is to present and discuss the main findings of the focus group sessions. The chapter is divided into four main sections. Section 5.2 explains the level of understanding displayed by businesses of the concept of sustainable tourism, of their own potential impacts on the environment, and of the various sustainable practices that might reduce such impacts. Section 5.3 then discusses a range of factors that appeared to act as drivers or barriers to the adoption of sustainable practices. Such factors are central to understanding the variation in the response to sustainability to inform future policy interventions. Businesses' own views on the policy measures that might be required to overcome the barriers to action are then discussed in Section 5.4. The chapter concludes with a review of the main issues that emerged from the results to establish an agenda for the subsequent stages of research.

The results supported a number of the conclusions of previous studies of SMEs within other sectors. Most notably, small private operators were generally reluctant to participate in initiatives for environmental sustainability through confusion about the meaning and relevance of the concept and the constraints of limited available resources, knowledge and expertise. In other respects, however, the results revealed new insights into the influences upon business behaviour. In particular, there appears to be evidence of an underlying diversity in the response of businesses to sustainable practices arising from a market demand and an interest in environmental issues amongst visitors, especially away from the popular resort towns. The emergence of altruistic motives within decisions to adopt sustainable practices was also apparent. Additionally, the barriers to adoption appeared complex and operated on a number of levels. Some barriers were specific to individual enterprises, while others were common across the district and region. These findings

suggest that policy interventions might need to be broad-based and focus upon all tourism stakeholders. Any conclusions at this stage, however, were preliminary and subject to verification within the subsequent stages of research.

## **5.2 AWARENESS OF SUSTAINABILITY AND SUSTAINABLE BUSINESS PRACTICES**

Business awareness of the concept of environmentally sustainable tourism, of their own impacts upon the environment and the various practices that might mitigate those impacts provided an indication of progress within the industry, and were probed during the focus group sessions.

### **5.2.1 Awareness of 'environmentally sustainable tourism'**

All group members were acutely aware of their reliance upon the environment (natural, built and cultural) as the main attraction for visitors to the district. Indeed, many participants had chosen to set up business in Caradon because of the quality of the environment and therefore had a strong interest, both professional and personal, in conserving the district's main tourism asset. However, only a minority of businesses were aware of the term 'environmentally sustainable tourism' and fewer still were confident about offering an explanation of its meaning. For most, the concept was complex and confusing. Many perceived the term to have originated from outside the industry, with the result that it was considered irrelevant to individual operators:

*MARK: "We seem to know what we're talking about, as far as tourism is concerned. What the concerning thing is that we do not seem to understand what 'environmentally sustainable tourism' is, and this is very worrying. Is there some trendy lefty trying to invent an expression we, Joe Public, are meant to understand, or is this academic jargon? ...It is nonsense. It ought to be so that the likes of us, Joe Public, can actually understand what people are talking about" (Looe, 7 June 1999).*

Where explanations were offered, they often revealed misunderstandings. Despite an emphasis in the questioning upon *environmental* sustainability, participants frequently confused the concept with the general economic health of the industry or couched their interpretation in terms of market opportunities and threats to the viability of the industry, as demonstrated by the following quotes from the focus groups:

*FRAN: "If we did more environmental stuff... a lot of people will come out of season. I really do push to try and get out of season trade" (Liskeard, 15 June 1999).*

*ALEX: "These are all beautiful things we have. It is our environment, and in a sense it is the environment we should be promoting" (Polbathic, 16 June 1999).*

*TIM: "We cannot afford to reduce the number of people coming into the area. The number of people who are coming into the area is less than it was twenty years ago, and they need people. It is no good talking about environmental issues if you haven't got the people coming*

*down, because the area would just... Caradon just wouldn't exist, because it relies so much on tourism" (Looe, 17 June 1999).*

Only two group members offered more informed explanations that implied a trade-off between ecological and economic imperatives:

MODERATOR: *"How about anybody else? 'Environmentally sustainable tourism', what does it mean to you?"*

MARIA: *I tend to think that trying to conduct your business in a way that is going to have as little effect on the environment as you possibly can... [but] you do not know what is the best thing to do and how you can go about even making a start at it" (Looe, 7 June 1999).*

JUDITH: *"... we want more and more people to come to us [sounds of agreement], and yet we don't want to spoil these lovely fishing villages, the tree lanes, and everything else, you know. I guess what we are getting at here is that there is a basic dichotomy, you know, a basic problem there" (Liskeard, 14 June 1999).*

There was a recognition that achieving a sustainable balance would not be achieved unilaterally, but required system-wide co-operation across a range of sectors and stakeholders (e.g. agriculture, other polluting industries, transport and essential services, such as banks, post offices and chemists) to improve the general sustainability of local communities. Any action plan for sustainable tourism will, therefore, need to complement and integrate within wider strategies for sustainable development in the district.

The findings of the focus groups reiterated the results of earlier studies (see Berry and Ladkin, 1997; Stabler and Goodall, 1997) that the debate about the nature and relevance of sustainability to tourism had not permeated to the majority of small operators. Interpretations of sustainability as market opportunities and potential limits on tourism development are, of course, elements of the concept that align most closely with the interests of businesses as commercial enterprises and sources of livelihood. They are at some distance from the resource conservation implications of the concept. The importance of establishing common interpretations of the concept is nevertheless a necessary pre-requisite for effective action (Halme, 2001). Problems in achieving this common ground were also evident in responses to other questions, such as the environmental impacts of tourism.

### **5.2.2 Awareness of the environmental impacts of tourism businesses**

Group members were asked about the impacts that tourism businesses might have on the environment, firstly as an open question and secondly through card prompts (see Table 4.9). Unprompted, group members showed very limited awareness of the state of the environment in South-East Cornwall, the relative contribution of tourism businesses to that condition, and the

different ways in which individual businesses might have an impact on it. Only seven possible impacts were identified in all groups (see Table 5.1). Business owners were not used to thinking about the negative implications of their businesses. Many responded defensively by emphasising the positive benefits of tourism to the area or suggesting that any negative impacts were negligible because of the small size of businesses and in comparison to other industries. Significantly, most suggestions attributed the detrimental environmental impacts of the industry to the activities of tourists rather than tourism businesses (e.g. congestion, crowds). Linking impacts to tourist activity reinforced the view that the environmental costs were acceptable given that the environment had the rest of the year to recover. Two statements from the focus groups illustrate this perspective:

**BRIDGET:** *"It is always going to be that six weeks isn't it? Because whatever the weather, they expect it to be good and there'll always be people tied to that and everything comes under pressure"* (Liskeard, 15 June 1999).

**GEOFF** *"It has got nine months of the year to recover, hasn't it, basically"* (Liskeard, 14 June 1999).

Only a minority of participants showed a more informed and sophisticated awareness of the environmental impacts of tourism. Such businesses recognised that collectively the environmental impacts of even small tourism businesses were substantial, and that the industry shared a responsibility for environmental problems in the district, illustrated by the following quote:

**JACK:** *"They [the impacts of tourism] ought to be entirely detrimental. If you want to look at it in its purest terms, bringing people into an area cannot possibly have a positive effect on it. There might be positive spin-offs, but the first impact has got to be detrimental. As they drive their car down the road it has got to be detrimental. The road has got to be bigger than it would be for the normal inhabitants, and there's cars going up and down that don't belong to people who live locally"* (Liskeard, 15 June 1999).

When prompted, however, group members recognised that their businesses had a wide range of environmental impacts (see Table 5.2). The most widely recognised impacts reflected issues that were the most visible in the county or most immediately experienced. The impact of tourism businesses on town and landscape and the issue of waste generated the strongest views. Most participants had firm opinions about the appearance and character of the main tourist areas and were particularly sensitive to property developments that were visually intrusive. Group members showed particularly high awareness of waste-related issues, including knowledge of the 'national waste hierarchy', the shortage of landfill sites in Cornwall, and the relative merits of Caradon's waste management policies *vis-à-vis* those of other local authorities in Cornwall and further afield. Business owners also had direct experience of waste as a significant cost to their business. Strong consensus about the direct impact of tourists reiterated the perception that the activities of visitors

**Table 5.1 Unprompted awareness of the environmental impacts of tourism businesses**

<i>Responsibility</i>	<i>Impacts</i>
Business-related	<ul style="list-style-type: none"> <li>- Creation of business waste</li> <li>- Road congestion (as a consequence of local business traffic)</li> </ul>
Visitor-related	<ul style="list-style-type: none"> <li>- Volume of visitors</li> <li>- Road congestion (as a consequence of tourist traffic)</li> <li>- Sewage disposal (during the peak holiday season)</li> <li>- Visual impact of crowds</li> </ul>
Other agencies	<ul style="list-style-type: none"> <li>- Production and disposal of marketing leaflets</li> </ul>

**Table 5.2 Prompted awareness of tourism-related business impacts in Caradon (number of group members)**

<i>Impact</i>	<i>Relevant</i>	<i>Not relevant</i>
Production of waste	23	5
Impact of customers (tourists)	23	5
Impact on landscape and townscape	22	6
Water pollution	20	8
Air pollution	19	9
Noise	19	9
Use of energy	19	9
Development of land	18	10
Impact on the local community	18	10
Impact on plant and wildlife	16	12
Business transport	15	13
Purchasing for the business	12	16
Other impacts raised: use of water (twice), litter, planning.		

Results do not include the Looe Group, which due to time constraints, followed a slightly different format



were more damaging than those of businesses, illustrated by the following comments:

MARIA: *“With our business, the biggest effect it has is the rubbish. With all these people coming, they leave all this rubbish, and some of them leave all sorts of things behind. It seems that they have a good time out and bring all their rubbish with them. We get buggies that are chucked out and a table and chairs, which are chucked out, and you never know quite what you’re going to find in the shed... and you think ‘thank you very much for bringing all this junk to Cornwall, we really wanted that as well’. We’ve got enough trouble”* (Looe, 7 June 1999).

Other impacts were considered to be more local in their effect (e.g. noise, water pollution, impact on plant and wildlife), which, although important to individual businesses, were not recognised as district-wide problems. Indeed, participants inferred that impacts varied spatially as a consequence of perceived variations in business activity within the district:

DUNCAN: *“Each business you’ve got represented around this table, I would hazard a guess that our visitors are environmentally conscious, by and large, because we’re all in the country. Each of us is in the country. None of us offers lots of facilities. We haven’t got ‘go-fast’ theme rides and so on”* (Looe, 7 June 1999).

It was clear, however, that beyond their immediate area, business owner awareness of the state of the environment was limited. As one participant stated:

FRAN: *“I think a lot of these... things like production of waste, water pollution, I guess are very important. We just don’t have the ability necessary... of what the impacts are... I guess the sea, all the water becomes polluted in the summer, oil polluted or whatever, I don’t know. You sort of instinctively feel that it can’t be good for the environment, but I just don’t know. I don’t have the evidence”* (Liskeard, 15 June 1999).

These results suggest there are serious problems in the earliest stages of the adoption process. Without awareness of the environmental problems in the district or of the relative contribution of the industry, there appears to be little impetus to adopt sustainable practices to reduce the local impacts of tourism. Nevertheless, it was encouraging that, when prompted, participants were open to suggestion about the nature and range of impacts of their businesses, particularly the collective impact of the local industry. Additionally, businesses showed strong awareness of a small number of high profile issues in the district, such as waste and the impact on landscape, which may provide opportunities to develop a wider understanding of the objectives of sustainable tourism and environmental sustainability in general.

### **5.2.3 Awareness of sustainable business practices**

Collectively, group members felt that they could reduce most of the environmental impacts attributable to tourism businesses (see Table 5.3) and were aware of a range of practices that they could adopt to do so (see Table 5.4), although opinions varied between groups. The highest levels

**Table 5.3 Impacts that tourism-related businesses could influence (consensus of groups)**

<i>Impact</i>	<i>Liskeard 1</i>	<i>Liskeard 2</i>	<i>Polbathic</i>	<i>SUSTAIN</i>
Production of waste	Yes	Yes	Yes	Yes
Development of land	-	Yes	No	Yes
Use of energy	Yes	Yes	Yes	Yes
Business transport	Yes	Yes	-	Yes
Purchasing for the business	-	-	-	Yes
Impact on the local community	Yes	No	Yes	Yes
Impact on plant and wildlife	Yes	Yes	No	Yes
Impact on landscape and townscape	Yes	No	Yes/No	Yes
Water pollution	No	No	No	Yes
Air pollution	Yes/No	Yes/No	-	Yes
Noise	No	No	No	Yes
Impact of customers (tourists)	Maybe	Maybe	Maybe	Yes
Use of water		Yes	Yes	
Litter			Maybe	

**Notes:**

'-' indicates impacts which the groups did not prioritise as being particularly easy or hard to influence. Does not include the Looe group, which, due to time constraints, followed a slightly different format.

**Table 5.4 Actions to reduce environmental impacts (actual and proposed)**

<i>Impact</i>	<i>Business actions</i>
Production of waste	<ul style="list-style-type: none"> <li>- Minimising what is thrown away</li> <li>- Providing a waste segregation system for guests</li> <li>- Giving newspapers to a local school</li> <li>- Recycling bottles, newspapers, plastic, aluminium cans</li> <li>- Using kitchen waste as animal feed</li> <li>- Shredding and composting green waste</li> <li>- Using a 'mulching lawnmower'</li> <li>- Crushing waste to reduce its volume</li> <li>- Burning combustible waste on site</li> </ul>
Development of land	<ul style="list-style-type: none"> <li>- Not making planning applications</li> <li>- Objecting to inappropriate applications</li> </ul>
Use of energy	<ul style="list-style-type: none"> <li>- Energy conservation</li> <li>- Purchasing a more efficient washing machine</li> <li>- Installing a heat/energy efficient boiler</li> <li>- Constructing a home-made solar heating system for £100</li> <li>- Fitting low energy light bulbs</li> </ul>
Use of water	<ul style="list-style-type: none"> <li>- Fitting dual flush toilets</li> <li>- Putting a 'Hippo' bag in toilet cisterns</li> <li>- Water metering</li> </ul>
Business transport	<ul style="list-style-type: none"> <li>- Establishing the Hoppa bus scheme in Looe to reduce the number of tourist cars on the road</li> <li>- Making fewer business trips</li> </ul>
Purchasing for the business	<ul style="list-style-type: none"> <li>- SECTA bulk buying scheme</li> <li>- Preferring local suppliers</li> </ul>
Impact on the local community	<ul style="list-style-type: none"> <li>- Influence through local committees and trade associations</li> <li>- Communicating better with the local community</li> </ul>
Impact on plant and wildlife	<ul style="list-style-type: none"> <li>- Managing gardens and grounds to encourage wildlife</li> <li>- Taking up the Countryside Stewardship Scheme</li> </ul>
Impact on landscape and townscape	<ul style="list-style-type: none"> <li>- Making improvements to own premises e.g. planting trees</li> <li>- Lobbying the local authority for improvements to the area</li> <li>- Improvements to public areas e.g. SECTA have arranged for a flower bed to be planted and a beach to be cleaned</li> </ul>
Water pollution	<i>No actions suggested</i>
Air pollution	<ul style="list-style-type: none"> <li>- Encouraging guests to use their car less</li> </ul>
Noise	<i>No actions suggested</i>
Impact of customers (tourists)	<ul style="list-style-type: none"> <li>- Providing details of local walks</li> <li>- Providing details of public transport</li> <li>- Supplying a bag for picnic rubbish</li> </ul>

of awareness were evidenced in the traditional areas of environmental management: the reduction of waste, energy conservation and water conservation. Most businesses seemed to have adopted some measures in these areas, which presented opportunities to reduce operating costs. The processes of dissemination appeared to be well developed for such practices, although not all suggested activities represented sustainable options (e.g. burning waste on site to reduce the volume sent for disposal).

The SUSTAIN group, which comprised former members of the SUSTAIN Network<sup>1</sup>, stood apart in feeling able to reduce all impacts and had adopted a wide range of sustainable practices beyond those with obvious financial benefits. These results were not surprising, given the focus and collective resolve of the Network. Beyond the core areas of environmental management, however, there was less consensus amongst the other groups about the impacts that could be influenced by tourism businesses. Apart from a small number of businesses who had implemented genuinely innovative measures (e.g. solar-assisted heating), noticeably fewer practices seemed to have been undertaken within these groups. Variations in the extent to which businesses felt able to adopt sustainable practices were central to the focus of this study. These differences of opinion were, therefore, probed in some detail and compared to the views of the SUSTAIN group to identify the factors that appeared to have encouraged or constrained the adoption of sustainable practices. These factors are discussed in the next section.

### **5.3 DRIVERS AND BARRIERS TO ADOPTION**

Although group members were drawn from a wide range of business types and locations, a number of common themes emerged from the discussions which appeared to have influenced decisions to adopt sustainable practices, either as a driving factor or a constraint.

#### **5.3.1 Factors driving adoption decisions**

##### ***a. Motivation to adopt sustainable practices***

Participants claimed that a range of motives lay behind their adoption decisions. The most common motive was for financial gain, primarily through a reduction in costs. For most participants, efforts to

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<sup>1</sup> The SUSTAIN Network was established by Caradon District Council in 1996 to encourage tourism businesses to adopt sustainable practices based upon the Green Audit Kit. The network was dissolved in 1998 (see Chapter Three for further discussion).

minimise their use of resources and production of waste were motivated by cost savings; any environmental benefits were a bonus. As one participant stated:

**STEVEN:** *"But I have to confess to be financially motivated to do that because it saves money... But I think it does benefit the environment, definitely. But that's a by-product unfortunately"* (Liskeard, 15 June 1999).

Only a minority were motivated to adopt sustainable practices for altruistic reasons, although such motives were stronger than financial motives. To a certain extent, altruism was able to overcome economic rationality, leading to a broader range of adopted practices beyond those which were financially justified. Altruistically motivated participants spoke of an additional responsibility towards the environment, which was reflected in the manner they chose to operate their business:

**ALAN:** *"I came down here because I wanted to live in the countryside and I'm now mindful not to change the environment. It is very important my caravan park fits into the environment, that we don't create an eyesore, that we create something that is acceptable to the countryside, fits in and will be there later on when I'm no longer alive, rather than something that stands out"* (Looe, 17 June 1999).

In particular, the influence of children was highlighted as a factor that had raised awareness and helped to develop personal environmental values. Perhaps not surprisingly, members of the SUSTAIN group were more altruistically motivated than members of the other groups which had been a key influence upon their decisions to adopt sustainable practices.

However, financial and altruistic motives were not mutually exclusive. So-called 'win-win' actions, which satisfied both motives, created additional value for some business owners and had wide appeal. As the discussions developed, it was evident that business owners were subject to a mix of motivations, which varied for different actions and at different times. Some practices, which were initially offered as altruistically motivated were, through the course of discussion, discovered to be financially motivated. Conversely, participants who professed to be predominantly financially motivated also undertook certain actions for altruistic reasons. Thus, a simple classification of businesses between financially motivated and altruistically motivated does not seem possible: the mix of motivations appears to be more complex. However, despite this blurring of the boundaries, there appeared to be a limit to the extent that business owners were prepared to act altruistically. For some, even a few pence extra for products made from recycled materials were too much, as demonstrated by the following quote:

**DUNCAN:** *"I mean we do look at recycled paper toilet rolls. I actually compared them a while ago. The recycled ones were a hell of a lot more expensive, like half as expensive again as ordinary toilet rolls, which doesn't seem to make any sense at all. In the end that sort of bloody things, if they're going to be a lot more expensive, is it sound?"* (Looe, 7 June 1999).

**b. Business clientele, location and type of business**

In the absence of direct environmental regulation of the industry, customer demand was perceived to be the greatest external pressure upon businesses to adopt sustainable practices, although the nature of demand varied across the district. On a general level, group members suggested that visitors attracted to inland areas tended to be more interested in the natural environment and so had stronger environmental values and exerted greater pressure on businesses to make environmental improvements. European visitors were highlighted as being particularly environmentally conscious. As a consequence, businesses in inland areas tended to target visitors with stronger environmental values through their marketing activity and felt more able to integrate their own environmental values within their core business strategy:

*ALEX: "I am finding that the way I am marketing... I basically don't want to do any advertising in papers any more, I don't want signs outside, and I simply am going into specialist books. People, who actually, sort of, are interested in about where they're staying. And I'm finding that when a Bank Holiday comes along, it probably tends to be one of my quieter periods. Because the sort of people who want to come for peace and quiet and, you know, are prepared to pay that much more, actually don't want to get involved in the queues. So they're our people" (Polbathic, 16 June 1999).*

In contrast, it was felt that visitors attracted to the main coastal resort areas tended to have mass-market tastes and limited budgets, and did not exhibit strong environmental values. Price was a particularly important factor in their holiday decisions:

*JACK: "But there are people that do want... they just want somewhere cheap to put the tent, they can do a day into Newquay, and then visits the clubs. I'm sure the visitors, as I say, they come to our area to enjoy the countryside. And they don't want to think that what they're doing is creating a rubbish problem, it is spoiling what they've probably come to see"*

*BRIDGET: "I think we all have something to offer and everybody is different"*

*JACK: "Yeah"*

*(Liskeard, 15 June 1999).*

Businesses in coastal resort areas felt, therefore, that they had to suppress their environmental values somewhat in deference to economic priorities. In fact, many group members dismissed initiatives that might jeopardise customer satisfaction and enjoyment. There was little evidence to suggest that the environmental values of business owners in inland areas were stronger than in resort towns; it was the extent to which they felt that their values could be expressed and implemented that varied. This point is illustrated by the following discussion in one of the focus groups:

*GEOFF: "I never want to say a wrong word to them because I want them back again"*

*PETER: "The problem is that you can have so many signs up, 'You can't do that'..."*

*SUE: "So you're prostituting yourself really, which we all do"*

*PETER: "Well, we all do"*

*SUE: "We sacrifice our beliefs really"*

*(Liskeard, 14 June 1999).*

These findings suggest both market-related opportunities and constraints. With the support of an environmentally aware clientele, inland businesses may be able to establish a competitive advantage through cost savings (e.g. as a consequence of measures such as resource conservation and waste minimisation), and the development and niche-marketing of nature-based and sustainable tourism experiences. In contrast, tourism resort businesses, who believed that they face market resistance to environmental improvements, may require broader policy interventions to provide other reasons for adopting sustainable practices (e.g. financial incentives). In both instances, there is a need for further research into the nature of customer demand across the district in order to quantify the potential opportunities and constraints.

**c. Influence of 'change agents' and tools of environmental management**

Except for the SUSTAIN group, the use of formal tools of environmental management amongst group members was very low. Despite their willingness to participate in the research, none of the businesses had conducted an environmental review, adopted any formal environmental standards, implemented an environmental management system or produced an environmental policy. The only group member who had any experience of an environmental audit was from one of the larger businesses. Membership of the SUSTAIN Network, therefore, appeared to have had a number of positive influences upon decisions to adopt sustainable practices.

Amongst the SUSTAIN group, the common tool of environmental management was, of course, the Green Audit Kit. Group members stated that use of the Kit had prompted a planned and systematic approach to adoption, which was not apparent amongst non-members:

*PAUL: "We entered into the SUSTAIN events last year and took it on board with our general running of self-catering cottages, and tried to sort of, do certain things out of the Green Audit Kit that we could take on board simply in the first year. Partly to do with energy conservation, low energy lightbulbs, we replaced a fossil fuel boiler which is not very friendly... the degree of pollutant, it has emitted. Replaced it with an oil-fired boiler that runs domestic hot water and central heating to three of the cottages. Other issues that we've taken on board are the recycling of plastic containers, newspapers, aluminium cans, things like that" (Looe, 17 June 1999).*

Outside the SUSTAIN group, the Green Audit Kit had little appeal. Only two group members had purchased a copy of the Kit and only one had actually used it. The main barrier to take-up was the cover price (£10). To those who did not have strong environmental values, the perceived added value of the Kit was limited. Most felt that it presented a catalogue of business initiatives which were not considered to be especially new or innovative:

*TIM: "If you look at the Green Audit Kit...It [the Kit] was put across to SECTA [South East*

*Cornwall Tourism Association] members and a lot of people just laughed. They said 'well, you know you're just... you're asking us to buy something for £15', or whatever it was, £10 at the time, 'on things which we know', about energy like, low energy light bulbs, and recycling, and so on" (Looe, 17 June 1999).*

Public sector led initiatives for sustainable development that attempt to engage directly with the industry will need to be grounded within the practical realities of business operations if they are to appeal to a population of businesses that is largely sceptical of the benefits of adopting new and untested practices, such as sustainable tourism.

The SUSTAIN Network had also been supported by a dedicated project officer, funded by the District Council for 12 months. The group stressed that this support was critical to the success of the Network and had facilitated activities that would otherwise not have been undertaken. In addition to encouraging individual members to adopt new practices, a number of collective projects were initiated to improve the sustainability of the area (e.g. a tree-planting scheme, commencement of a 'Hoppa Bus' service in the Looe area). At the end of the 12 months, when the project officer was withdrawn, regular meetings ceased and within a year the network had folded. Even the most environmentally motivated members of the group showed a high dependence on the public sector for leadership and direction. As one respondent stated:

*PAUL: "It's like joining a club really, I mean, we started with a few members and the local authority should have carried it through, so that in the second year, more and more enthusiasm is generated and more members come along and, you know, it grows and grows until a lot of the business... a large number of businesses have joined it and taken on board everything it stands for. And then ...and then they should start on the population, you know, the public sector" (Looe, 17 June 1999).*

Group members felt that the Network had lacked the critical mass necessary to become self-supporting and that the withdrawal of Council support after 12 months had been premature:

*TIM: "She [the project officer] was the driving force... Because we're running businesses we find it... we don't mind going to the meetings, and we don't mind doing part of the work, but we didn't want to get involved in having to go and see people and get them to spon... pledge money and all these, because we just haven't got the time. And [she] used to do all that running about, and doing this and this, and putting 120% in really, and it just died a death when she left. It is as simple as that" (Looe, 17 June 1999).*

Although District Council interventions to date have had a positive effect upon adoption decisions, it has been within a relatively small group of already committed businesses. The local industry appears to lack the capability to implement sustainable tourism unaided. These results indicate that, in the absence of direct regulation and strong fiscal incentives, a new approach to policy intervention is required. Single solutions, such as the Green Audit Kit, lack the flexibility to have mass appeal. Instead a range of policy measures will be necessary to interest the full range of



businesses in the district (e.g. information about the environmental and financial benefits of adopting sustainable practices). The dissemination of information alone, however, may be insufficient to trigger adoption. Even the most environmentally motivated operators require practical help and encouragement to make environmental improvements, for which face-to-face advice might be necessary.

### **5.3.2 Barriers to adoption**

Group members highlighted a range of issues that had constrained or obstructed the adoption of sustainable practices. Barriers were of two different types (see Table 5.5). First, there were *direct barriers to action*, which were immediate to individual businesses and, on a day-to-day basis, made it difficult to take practical steps. Such barriers were often specific to business type, circumstances or location. As they were felt directly, many were potentially within the ability of business owners to overcome, working either individually or collectively, although they would typically need some help to overcome them. Second, there were *indirect barriers to action*, which were felt by all tourism-related businesses in the area, and constrained action through restrictions on choice or the financial capability of businesses to spend time considering environmental issues. Such barriers typically related to contextual issues, such as the area's infrastructure, and were considered to be largely outside the ability of local tourism businesses to overcome.

#### **a. Direct barriers**

##### *i. Time and effort*

The main direct barriers related to the practical problems of undertaking environmental management activities. Time and effort were considered to be always at a premium, with the main priority being to ensure continued economic survival. Available time was a function of the resources available to businesses and, in this respect, group members felt constrained in comparison to larger businesses. To a certain extent, these constraints also relate to the low level of environmental awareness demonstrated by most businesses. A range of comments illustrate the immediate priorities of businesses:

MARIA *"We tend to be so busy trying to actually, you know, making beds and cleaning toilets and doing your VAT return, and everything else"* (Looe, 7 June 1999).

TIM: *"Because I'm running a business, I'm too busy to do anything else"* (Looe, 17 June 1999).

MARIA: *"On your own it is no good thinking, 'oh well I'd like to do this', because you haven't got the resources. It is all stacked against you as a small business. If you're a big business*

**Table 5.5 Barriers to the adoption of sustainable practices**

<i>Direct barriers</i>	<i>Indirect barriers</i>
<ul style="list-style-type: none"> <li>- Time required to implement</li> <li>- Effort required to implement</li> <li>- Knowledge and expertise required to implement</li> <li>- Cost</li> <li>- Return on investment</li> <li>- Functionality (quality, efficiency, image)</li> <li>- Customer interest in environmental and sustainable issues</li> <li>- Type of clientele</li> <li>- Availability of environmental innovations</li> <li>- Practices and preferences of suppliers</li> <li>- 'Distanced' responsibility for the impacts of the business</li> <li>- Business owner experience</li> <li>- Business owner awareness of sustainability</li> <li>- Available resources (time, money, knowledge, expertise)</li> <li>- Competing priorities</li> <li>- Frustration</li> </ul>	<p><i>Infrastructure barriers:</i></p> <ul style="list-style-type: none"> <li>- Lack of support for recycling (segregation system, collection)</li> <li>- Waste regulations (preventing the use of public recycling banks)</li> <li>- Lack of information and advice about sustainable practices</li> <li>- Weaknesses in the public transport system</li> <li>- The availability of footpaths and cycle trails</li> <li>- The road system</li> <li>- Services and amenities in the area</li> <li>- Mix of tourism businesses in the area</li> </ul> <p><i>Economic barriers:</i></p> <ul style="list-style-type: none"> <li>- Business rating system</li> <li>- Differential support to other sectors (second home owners, farm tourism)</li> <li>- Quality standards in the industry</li> <li>- The availability of finance</li> <li>- Seasonality</li> </ul> <p><i>Political barriers:</i></p> <ul style="list-style-type: none"> <li>- Lack of strategy for sustainable tourism</li> <li>- Lack of consultation with the industry</li> <li>- Lack of empathy for the industry amongst councillors</li> <li>- Lack of investment in tourism</li> <li>- Quality and implementation of planning policy</li> <li>- Fragmented town associations (in Looe)</li> <li>- Public awareness of environmental policies</li> <li>- The effect of administrative boundaries on regional strategy</li> <li>- The geographical level at which sustainability strategies are developed</li> </ul>

*you've got the funds, you've got the knowledge, you've got the contacts and everything" (Looe, 7 June 1999).*

*ii. Perceptions of sustainable practices*

In general terms, environmental management activities were considered to be 'messy', 'complicated' and 'time consuming', accentuated by a 'lack of adequate supporting infrastructure', 'limited business resources' and the 'low availability of environmentally sustainable goods and services'. Participants also expressed concerns about the image and functionality of environmental innovations which might impact on customer service (e.g. brightness of low-energy light bulbs, quality of recycled note paper). If environmental improvements are to become established as good practice within the industry, either business perceptions of them need to be managed more effectively (e.g. through marketing and communications) or the genuine concerns of business owners should be addressed within product and service improvements.

*iii. Financial barriers*

Closely related to the issues of time and effort were concerns over the cost of environmental improvements. Environmental innovations were perceived to be expensive and offering comparatively low, if any, returns on investment. Such issues were particularly important where projects required a substantial capital outlay. Even when the financial benefits of adoption were proven (e.g. the installation of low energy light bulbs), the higher initial purchase costs were often considered prohibitive. A further consideration for businesses that serviced the low-value/high-volume market was the risk of theft, which deterred investment in expensive, but energy efficient fixtures and fittings. The following comments were typical of cost-related barriers:

*RALPH: "I wrote down initially 'the immediate commercial imperative'... This may be cruel, but you do focus on that immediate one. These other ideas of environmental are more longer-term, more abstract... they're not the immediate issue that you're thinking of" (Liskeard, 15 June 1999).*

*JACK: "But if you look at the payback time on this sort of thing ... you'd be well dead first. You know, it is well down the priority list, for me anyway. There's far more pressing things to be done ... than fitting solar panels to the roofs" (Liskeard, 15 June 1999).*

*iv. Constraints of premises and location*

A further practical issue was the physical limitations of businesses premises and location, which precluded the adoption of certain practices. In particular, businesses in town centre locations often did not have adequate space to segregate and recycle their waste. Additionally, planning policy

and building regulations restricted the adoption of certain practices (e.g. the installation of external solar panels in conservation areas). Conversely, certain business types and locations were particularly suited to certain practices, indicating that there may be cross-sector and spatial dimensions to adoption behaviour which might be reflected within policy interventions. The following comments illustrate this point:

BRIDGET: *"The plant and wildlife... we try to do a lot with that, you know. But that is a personal thing"*

MODERATOR: *"How do you mean, personal?"*

BRIDGET: *"Well we have got that kind of habitat. It is our land, so it is something we can help with within our acreage... It depends if you have got the land you can do that with"*  
(Liskeard, 15 June 1999).

#### v. *Distanced responsibility*

In a number of areas, group members had distanced themselves from the impact that their business had on the environment and consequently saw no need to take remedial action. Where central agencies or utility companies have been established to monitor and treat the effects of an impact, group members attributed full responsibility to the agency or company concerned. In the case of water pollution, group members saw South West Water as assuming full responsibility for both the cause of pollution and the necessary clean up. Similarly, some group members distanced themselves from any responsibility for impacts on plant and wildlife. Responsibility was attributed to regional agencies, charities and non-governmental organisations. As some respondents stated:

BRIDGET: *"Water pollution, I don't think it is any more problem there. The system should be able to handle it, and South West Water are doing that"* (Liskeard, 15 June 1999).

ALEX: *"I think plant and wildlife is probably outside the scope of business. I think that's something that has to be done on a more central authority basis"* (Polbathic, 16 June 1999).

A further example of 'distancing' was in relation to the impact on landscape and townscape. Whilst businesses can directly impact on these aspects of the environment, the groups attributed responsibility for any adverse effects to the District town and country planners, who they saw as the guardians of development design and control. Exploiting the planning rules by businesses was considered to be acceptable commercial practice. It was the responsibility of the planners, rather than the businesses, to protect the environment by upholding and implementing planning regulations. The following discussion illustrates this perspective:

GEORGE: *"Well planning, I mean I think that's one of the major impacts... if you compare sort of say Padstow with places like Tintagel or Looe"*

PAULA: *"Mmmm"*

GEORGE: *"It's a visual environmental impact on the customers. They see places like that and they're not impressed"*

ALEX: *"[named] Hotel being a prime example"*

GEORGE: *“Well that is just one of many...”*

ALEX: *“Yes, it’s how the planners have managed to foul up a town centre for a hell of a long time”*

(Polbathic, 16 June 1999).

**b. Indirect barriers to action**

*i. Economic barriers*

Financial considerations were also relevant as indirect barriers to adoption in terms of the general economic context within which businesses operated. Where business owners felt that their financial security was at risk, environmental issues were considered a low priority, as illustrated by the following quote:

*ALAN: “At the end of the day you have to make a profit. So you have to get some of this right. When you’re making profits you can start looking at the nice things, which is the environmental bit. Unfortunately it is that way round. It would be nice if it was the other way round, where you looked at the green issues and from that you got your profit” (Looe, 17 June 1999).*

Economic stability within the industry was argued as a necessary precondition for a more positive and planned approach to environmental activities, to the extent that issues such as the limited length of the tourism season, increased competition (e.g. through farm diversification), and uncertainty within the sector were perceived as indirect barriers to the adoption of environmental management practices. These results highlighted that it is not possible, nor desirable, to isolate environmental sustainability from the economic concerns of the industry. Such concerns provide the context within which adoption decisions are made. However, while the national strategy for tourism has stressed that the sustainable tourism is no longer an optional extra, but a necessary prerequisite for tourism development (Department for Culture, Media and Sport, 1999), this mission statement is not yet recognised at a local level.

*ii. Infrastructural barriers*

A wide range of infrastructural barriers were highlighted as constraining the choices available to businesses in the district. A particular frustration amongst participants was the absence of a support structure to enable small businesses to recycle their waste. At the time of research, there was no kerbside collection system for household waste in Caradon, only ‘bring banks’ for selected materials within main towns and villages:

*TIM: “I mean we try to be environmentally friendly. We recycle. But we find it difficult once we have recycled to dispose. We don’t find it easy without going to any expense. And then you think to yourself... you’ve got to drive somewhere to get rid of it, then you’re just defeating the object. So when we are recycling, we tend to wait until we are going to do the shopping, or when we are passing the recycling places. But it is not easy, because you have got the stuff*

*piling up. It would be nice if someone would collect it” (Looe, 17 June 1999).*

Under waste regulations, businesses are required to employ private waste management contractors for the collection and disposal of their waste, including any segregated material for recycling. Participants who had attempted to recycle their commercial waste ‘legally’ had found that waste management contractors had little interest in collecting what they considered to be small amounts of segregated material on a regular basis. The following comments illustrate this point:

*MARIA: “I collected paper last season. We religiously separated... all the boxes and things, we folded up and crushed it and kept it. And then they came and collected once we all had a conservatory full, and they wouldn't come again. And so the next conservatory full went up in smoke. It wasn't viable for them to come in and collect it, but it was a reasonably substantial amount and we'd put a lot of time in to actually sorting it. So it is very frustrating. The enthusiasm is there, but it will only last for a certain amount of time before you think, 'oh well, fair enough, we'll carry on as we were'” (Looe, 7 June 1999).*

Participants who had attempted to find out about the range of relevant sustainable practices were also frustrated by a lack of accessible information and advice within the district. Outside of the SUSTAIN Network, there were no district-wide mechanisms to disseminate information and advice. As a consequence, business owners felt that they were largely pursuing environmental improvements in isolation, as the following comments illustrate:

*JUDITH: “There is a sense here of reinventing the wheel, you know, thinking about it on our own and you know, wading through the information... It is like everything else” (Liskeard, 14 June 1999).*

Where businesses had managed to identify relevant environmental innovations, they often encountered difficulties in sourcing them locally. As one group member stated:

*ALAN: “I tried to set a policy of buying locally produced and we ended up going to a wholesaler at St Agnes who then this year refused to continue the account with us. They said 'oh, we can't be bothered to deliver up to Looe', so we had... we nearly went back to a wholesaler that is based in Kent” (Looe, 17 June 1999).*

Committed business owners were willing to take extraordinary steps in researching and implementing environmental improvements. However, where they faced continued barriers to action, the frustration experienced often became a barrier to action in other areas. The issues are not just in the processes of disseminating information, but within all stages of the supply chain.

The availability and quality of public transport, both into and within the region, was heavily criticised as being insufficient to provide a realistic alternative to car usage, whether by visitors or businesses:

*FRAN: “Because there is no way that they [the tourists] can reach anything [by public transport], they've got to bring a car. There's no other way out of it. Ah, we don't even have a bus service that runs through to St Austell on that main road, which is ridiculous” (Liskeard, 15 June 1999).*

In lieu of an adequate public transport system, some participants argued for improved road links which, although contrary to conventional environmental wisdom, would provide localised improvements in environmental quality (e.g. by-passing villages). Such views highlighted that it may not be possible to achieve a sustainable balance of tourism activity across all areas of the district. 'Honeypot' strategies, which favour certain areas at the cost of others, may be required to protect the most environmentally sensitive locations. Indeed, the absence of a unifying strategy for sustainability in the district may lead to the adoption of fragmented initiatives and perspectives which are damaging to the environmental sustainability of the region as a whole.

### *iii. Political barriers*

Political indirect barriers operated on a number of levels. Locally, individuals and groups, especially those who had attempted to make environmental improvements in and around Looe, had become frustrated by the number of town associations with differing responsibilities and geographical coverages. Initiatives requiring co-operation or approval from one or more associations were likely to be too difficult to progress. As one respondent noted:

*TIM: "With Looe you've got East Looe Town Trust who own part of the town. West Looe Town Trust own another part and the Harbour Commissioners own another part, and you know, they've all got responsibilities for looking after their little bit... So you haven't got one body you can go to and say 'right, Looe Town Council, it is your problem, why haven't you dealt with it?'...that's why you have a lot of rubbish problems in Looe" (Looe, 17 June 1999).*

On a more general level, group members viewed the District Council as an important catalyst to action for both environmental and economic sustainability through the development and implementation of strategy. However, the Council was also viewed as a significant barrier to action through deficiencies in the quality of its strategies and their day-to-day implementation. It was evident that participants often did not have a clear understanding of Caradon's environmental and sustainability policies: consequently they equated their own lack of awareness with a lack of Council policy. Two quotes illustrate these issues:

*ALAN: "Their strategy for tourism and the way it is communicated. Whether its strategy that is created through close communication with the industry, or is sort of grabbed out of the sky because it suits them, I think that they are erring now to actually talking to the industry. They are saying 'right from that we will develop a strategy that meets industry's demand and we will work together'. I think in the past, I haven't really been here long enough to be really be sure, but it sounds as if they did their thing and the industry did something else" (Looe, 17 June 1999).*

*DUNCAN: "Does the Council have a policy on recycling? I mean, is it really... should we be, sort of, bothering to sort through... should I be bothering to sort through my guests' waste?" (Looe, 7 June 1999).*

Moreover, those who were aware of Council policies displayed considerable variations in their depth of understanding. Policies that were lauded for their environmental credentials by one group were criticised for their lack of environmental concern by another.

While the focus of this research is the district of Caradon, it was suggested that many of the issues required examination and resolution at different geographical scales, national, regional or local (e.g. waste, transport, biodiversity). Indeed, existing administrative boundaries were not necessarily the most appropriate for delivery and implementation of sustainable policies. On a number of issues, it might be necessary to work closely with neighbouring districts and to contribute to regional and national strategies. For example, the operation of public bus transport worked to county and district areas, with the consequence that an administrative boundary became a physical barrier to more tourist-oriented routes. The following comments illustrate this point:

*FRAN: "We don't have a network. We have buses that come through and all turn round at [the border] and come back. They don't go through to the next town, and the next town. So when you're looking at all this environmental situation you've got to really work in conjunction with your neighbours" (Liskeard, 15 June 1999).*

It was to be expected that within a research project sponsored by the District Council that the Council's own performance would come under scrutiny. Not surprisingly, group members were both critical and demanding of their Council, which they saw as providing the direction and encouragement for the sustainable development of the district. In the absence of a recognised strategy for tourism, the manner in which Council policy was interpreted related to local perceptions of how public sector responsibilities had been fulfilled, which varied greatly between businesses. These results provide cause for concern in that the District Council itself is implicated within many of the issues that have constrained the adoption of sustainable practices within the district. Conversely, the results also provide reassurance in that the majority of such issues are within the Council's ability to overcome, even though a significant departure from current policy may be required to address them. Participants' own suggestions of appropriate policy interventions are discussed in the next section.



## 5.4 MEASURES TO OVERCOME THE BARRIERS TO ADOPTION

Group members suggested a range of measures to overcome the identified barriers to adoption (see Table 5.6). As the suggested measures related to the previously discussed barriers, it was possible to categorise them in a similar way: namely, between measures that might overcome the direct and the indirect barriers to adoption.

### 5.4.1 Measures to overcome the direct barriers

A recurring suggestion was a call for more information and advice to address business confusion about the nature, relevance and application of sustainable practices. In particular, information about the relative financial and environmental merits of adoption was required. Such information would help to overcome two of the main direct barriers - time and effort in researching and implementing sustainable practices:

*DUNCAN: "I think some really proper advice to us, as an industry, to me certainly, would be very welcome. I don't expect you can give it to us now? [laughter]. But not the sort of usual patronising advice which is 'yes, it's a good thing'. Is it a good thing? Is it really a good thing? Is it a good thing to use low energy light bulbs? Is it economic? The evidence I have, is questionable, is that maybe it isn't a good idea. Because they are three or four quid each, as against what 25p for an ordinary light bulb or something. I'm looking at you because you probably know. But I can't remember how much a light bulb is. But they last forever. They use less energy. But are they actually, are they economic?" (Looe, 7 June 1999).*

The method of communication was also considered to be important. Information had to be readily accessible and in a format that could be easily understood by businesses. Suggestions varied from information on the internet to business seminars and workshops to share and demonstrate good practice. Case studies were thought to be useful by some, but had to be chosen carefully so that they were transferable within the region and between businesses. Exemplar case studies from outside the region or from large businesses were viewed sceptically as being unrealistic and felt to marginalise rather than encourage adoption. It was clear that a range of communication media might be required to encourage the adoption of sustainable practices within the industry.

A related suggestion was the creation of an 'environmental champion' to provide a dedicated focus in the district for environmental improvements and to help drive through and manage the necessary changes. This suggestion was popular amongst members of the SUSTAIN group who had experienced the support of a project officer and of 'ambassadors' from amongst themselves (see discussion in Chapter 3). Participants felt that written guidelines and instructions were not sufficient to encourage changes in behaviour: they needed personal support and direction to answer queries and overcome specific problems. The inference was that environmental messages need to be

**Table 5.6 Measures to help overcome the barriers to adoption**

<i>Overcoming the direct barriers</i>	<i>Overcoming the indirect barriers</i>
<p><i>Information and advice:</i></p> <ul style="list-style-type: none"> <li>- Financial benefits of adoption</li> <li>- Environmental benefits of adoption</li> <li>- Easily accessible, available through the internet, workshops, seminars</li> <li>- Environmental audits</li> <li>- Case studies of good environmental practice</li> <li>- An 'environmental champion' in the district</li> </ul> <p><i>Financial incentives:</i></p> <ul style="list-style-type: none"> <li>- Grants</li> <li>- Discounts</li> <li>- Subsidies</li> <li>- Relief on Business rates</li> </ul> <p><i>Co-operative measures:</i></p> <ul style="list-style-type: none"> <li>- Pooling of business resources to create critical mass</li> <li>- Demonstration centres</li> <li>- Business notice boards of good practice</li> <li>- Shared facilities</li> <li>- Appointing an environmental champion</li> </ul> <p><i>Education for tourists</i></p> <ul style="list-style-type: none"> <li>- District-wide programme of education</li> </ul>	<p><i>A district-wide strategy for sustainable tourism in the area</i></p> <p><i>Spreading the pressure of tourism:</i></p> <ul style="list-style-type: none"> <li>- Extending the season</li> <li>- Improved marketing of the area</li> <li>- Countryside festivals</li> <li>- Targeting new markets</li> <li>- Extending the season of local attractions</li> <li>- Reposition the county as an up-market destination</li> <li>- Developing more diversified attractions in the district (e.g. cycle trails, landmark projects)</li> <li>- Appointing an industry spokesperson to galvanise the industry</li> </ul> <p><i>Integrated transportation links:</i></p> <ul style="list-style-type: none"> <li>- Public transport</li> <li>- Car parks</li> <li>- Footpaths</li> <li>- Cycle ways</li> </ul> <p><i>Stronger planning of the built environment:</i></p> <ul style="list-style-type: none"> <li>- Developing themes and character guidelines for the look and feel of the region</li> <li>- Tighter control of inappropriate developments</li> </ul> <p><i>Improved support for business recycling:</i></p> <ul style="list-style-type: none"> <li>- Provide waste segregation bins</li> <li>- A free pick-up service for recycling</li> <li>- The periodic provision of skips to local areas to discourage fly-tipping</li> </ul> <p><i>Direct regulation of tourism businesses to enforce adoption of sustainable practices</i></p>

'sold' rather than 'bought', and consequently required an adept communicator to develop the necessary understanding and commitment.

A number of financial incentives were suggested to overcome the barrier of cost, ranging from relief on business rates, as compensation for the time and effort in adopting more environmentally sound practices, to grants, discounts, and subsidies, to assist with the capital costs of implementation and to improve the return on investment. Such measures would reduce the financial barriers to act by making sustainable practices more attractive. Any environmental innovation would still need to compete with alternative uses of business capital.

Participants suggested that it was possible to overcome the limited resources available to individual businesses through co-operation. By pooling resources, small businesses might create the critical mass necessary to devote more attention to environmental matters. The District Council was considered to be best placed to facilitate such co-operation by providing the necessary advice, communication processes, and facilities (e.g. demonstration centres, information boards, bulk-buying schemes). Indeed, such a function might not be restricted to environmental issues, but could support other core aspects of business activity which might have wider appeal (e.g. providing pooled marketing and printing support).

Notwithstanding the general reluctance of participants to influence the behaviour of their own customers, it was suggested that there was scope to educate and advise visitors about the environmental impacts of their behaviour. Group members were not specific about the measures that could be taken, but inferred that any initiative should be on a general district-wide basis rather than become the responsibility of individual businesses. Participants felt that the District Council was in the best position to assume such a role.

#### **5.4.2 Measures to overcome the indirect barriers**

Suggested measures to overcome the indirect barriers to adoption were of two types. The first related to the long-term strategic direction and scope of tourism in the district which, by managing changes in tourism demand, might deliver more environmentally sustainable forms of tourism. Popular suggestions included measures to reduce the industry's dependence historically upon the main tourism season (e.g. through out-of-season festivals and marketing); to develop new

landmark attractions in the district that might retain visitors in the area; and the development of an integrated transport system to address the issues of visitor access and movement. More radical suggestions sought to substitute the district's core market of family holidays with smaller numbers of higher spending, but more environmentally aware visitors. Perhaps not surprisingly, businesses from the coastal resort towns, who relied upon the low-value/high-volume market, were opposed to suggestions that might exclude their traditional customer base, as the following comments illustrate:

ALEX: *"I'm trying to tell that the answer is to go more up-market, so you don't get more people coming in, but you get more money coming in"* (Polbathic, 16 June 1999).

GEORGE: *"There's no point in having empty beds. You've got to work on filling them all of the time... We rely on volume, because without volume we're not viable"* (Polbathic, 16 June 1999).

Arguably, such suggestions were driven more by economic rather than social or environmental concerns, but were rationalised on the basis that they would lead to social benefits through increased employment and improved public facilities; and environmental benefits, by spreading the pressure of visitors. These results reiterate that although the local industry represents an obvious and important target for policy intervention, strategies for sustainability should not overlook other variables within the 'tourism system', such as the nature of tourism demand and the activities of the local authority, arguably the largest tourism-related organisation in the district.

The second type of suggested measures were more tactical and related to specific elements of Council policy, which, if removed or altered, might lead to immediate changes in business behaviour. Most such suggestions related to planning policy and support for recycling business waste, both of which had generated strong opinion during earlier discussions. A tightening of town and country planning policy was viewed as an opportunity to implement strategy and control over the character and nature of the built environment. The main concern here seemed to be aesthetic appearance rather than environmental sustainability, illustrated by the following comments:

IVY: *"I'd like to see someone in the Planning Office taking control, or being responsible for the degree of tackiness, especially like places in Looe"* (Polbathic, 16 June 1999).

Nevertheless, there seemed to be genuine opportunities to integrate further environmental criteria within the planning process.

A number of measures were suggested to improve support for business recycling (e.g. the provision of separate bins to segregate waste, a free collection service for recyclable materials). It

was felt that only through process improvements, which addressed the time and effort associated with the activity, would recycling become a practical option of choice for all businesses, as the following discussion illustrates:

JACK: *"I think, for what it is worth, if Caradon went round and gave everybody a bin for tins and a bin for bottles, I think the vast majority would probably use them..."*

CHARLES: *"Mmmmm"*

RALPH: *"Undoubtedly"*

JACK: *"If there wasn't a financial incentive. If it was put there..."*

RALPH: *"To segregate..."*

JACK: *"Yeah, 'there's your bin', you know, you just tend to do it don't you?"*

CHARLES: *"It is just that people like to be tidy..."*

(Liskeard, 15 June 1999).

Some participants went further and suggested that in the absence of financial incentives, only an increase in direct regulation would encourage the increased adoption of sustainable practices. Such a measure would not address the practical barriers to adoption, but would raise the importance of environmental issues on the business agenda and, where punitive damages and charges might be incurred, would create financial relevance. Yet, regulations already exist in relation to the disposal and recycling of business waste, but were obviously ignored by a substantial proportion of the group members. The effectiveness of regulation as a policy intervention will depend upon the extent to which it reinforces sustainable businesses practices, the manner in which it is enforced and the penalties of non-compliance.

Together, the measures in Table 5.6 suggest a range of possible policy interventions, from tactical measures that might generate immediate changes in business behaviour, to strategies to realign the long-term development of tourism in the district. At this stage in the research programme, however, the results highlighted policy options rather than probable solutions, but nevertheless, provided a useful starting point from which to seek wider opinion within the subsequent stages of research.

## **5.5 CONCLUSION**

The results of the focus groups reaffirmed many of the assumptions of small business responses to environmental sustainability. On a general level, tourism businesses have a very limited awareness of the state of the local environment, the negative impacts of tourism, and manner in which their own their activities might contribute to environmental problems in the district. Indeed, many businesses believe that local impacts are attributable to tourists rather than the tourism

industry. Consequently, the concept of sustainable tourism is not recognised as a necessary basis for tourism development and is confused with the economic viability of the industry. The importance of establishing common interpretations of the concept is, nevertheless, a necessary pre-requisite for effective action and remains a strategic objective for policy interventions (Halme, 2001). On an operational level, tourism businesses have resisted formal tools of environmental management and feel constrained in their ability to adopt environmental improvements by limitations in the market, a lack of resources, knowledge and expertise. While a range of sustainable practices appear to have been adopted in the district, few were truly innovative: most had been adopted as measures to reduce operating costs.

While such conclusions were largely expected, the results also provided new insights into the adoption of sustainable practices by tourism businesses. Decisions to adopt sustainable practices are often complex, influenced by a range of contextual issues, which modified behaviour in a variety of ways. The main factors that had driven adoption decisions related to the nature and circumstances of individual businesses, the character and personal commitment of the owner, and their exposure to change agents. In particular, businesses appear to have adopted sustainable practices for both altruistic and financial reasons, although altruism was usually tempered by economic rationality. The results suggest spatial patterns of market demand for environmental improvements which, in inland areas, present opportunities for operational improvements and niche developments based upon the principles of sustainable tourism. Linkages between market forces and environmental improvements can provide a compelling force for change (Welford *et al.*, 1999), but also a significant obstacle where improvements are sought in the absence of supporting demand. Tourism businesses catering for the mass market in coastal resorts and locations felt less able to invest in sustainable practices because of small profit margins and a lack of customer demand.

The barriers to adoption are widespread, and relate not only to the limited resources of small businesses (e.g. constraints of available time, money, knowledge of sustainable practices), but also to the characteristics and supply of environmental innovations, the nature of tourism demand in the district, the political and economic context within which adoption decisions are made, and, in particular, the supporting infrastructure for sustainable practices. Indeed, the local industry represents just one of a number of tourism stakeholders in the district. Any strategies for sustainable tourism will need to be broad-based to target issues, such as deficiencies in public

transport, recycling facilities, and weaknesses in the supply chain for environmental innovations, which are outside the direct control of businesses. Perhaps most importantly, the attitude of many businesses was that the responsibility for sustainable development lay with others, especially statutory authorities such as the District Council and the Environment Agency. These views are understandable given that many small businesses believe that they are operating on the margins of economic viability and have little spare capacity to innovate. But they would also suggest that, unless compulsion is envisaged, the form of public sector intervention must be as supportive as possible and recognise the 'immediate commercial imperative' of most small businesses.

The results also suggest a diversity of response within the industry to sustainable tourism arising from differences in business exposure to the main factors that had driven and constrained adoption decisions. The heterogeneity of the sector, which has been stressed within socio-economic studies of tourism (Urry, 1990; Wild, 1995; Smith, 1998; Baum, 1999), appears also to be evidenced within the industry's response to sustainability. Such diversity is also reflected by the wide range of measures suggested by the focus groups to overcome the identified barriers to action.

Both national and local policy measures have failed to stimulate the widespread adoption of sustainable practices in the district as they have not responded to the main barriers to adoption, the diversity of behaviour within the sector, and have underestimated the level of support required to encourage changes in business behaviour. For example, use of the Green Audit Kit was limited. Membership of the SUSTAIN Network was self-selecting and not maintained once the support from the District Council had been withdrawn. Public sector led initiatives that attempt to educate businesses about sustainable development without relating to the practical reality of these operations, or without providing an opportunity for feedback, often fail to achieve results across the whole sector (Halme, 2001). Such a didactic and passive approach is only likely to engage businesses with an existing interest in sustainability issues, and fails to interest those who have not yet considered the approach. In the absence of direct regulation of the industry and a mass market demand for sustainable tourism experiences, it appears that local authorities must prepare for the 'long haul' to encourage iterative changes in business behaviour amongst a largely sceptical majority.

Although the results of the focus groups have greatly improved understanding of the research problem, they must be treated with caution. The findings are drawn from a small and self-selecting sample of businesses and are at best indicative of the issues that might be encountered within a more representative survey of the industry. In particular, four key issues merit further investigation and verification as a basis from which to develop appropriate policy interventions. First, quantification of the extent of adoption of sustainable practices across the district would confirm, or otherwise, the diversity of adoption behaviour which was suggested by the focus groups, and provide a benchmark measure of progress against which future policy measures could be evaluated. Second, verification and explanation of the business factors that appeared to influence decisions to adopt sustainable practices would provide a model of business behaviour to inform policy formulation. Third, further examination of the range of contextual barriers to adoption, which were not peculiar to individual businesses and could not be verified through tests of correlation, will be required to address issues of general support and infrastructure for sustainable practices which appear to have been some of the most serious constraints upon adoption. Fourth, businesses' own views of the relative attraction and utility of different policy measures will give valuable insights into how the barriers to adoption might be overcome. The results of the subsequent stages of research, which investigated these questions, are discussed in the next chapter.



# Chapter Six

## Results of the survey and in-depth interviews

### 6.1 INTRODUCTION

The focus groups allowed the responses of tourism-related businesses to sustainability to be explored in detail based on a small and selective sample. The results indicated that tourism businesses had responded to sustainability in a similar manner to SMEs in other industries, typified by low levels of awareness of the concept and environmental issues, a reluctance to use formal tools of environmental management, and the dominance of commercial motives in decision-making. The results also provided new insights into the manner in which businesses had adopted sustainable practices, which suggested an underlying diversity of behaviour arising from the influence of various contextual factors, the character and commitment of the owner, and a range of direct and indirect barriers to adoption. Such findings have potentially important implications for the targeting and delivery of policy interventions, but required further investigation and verification within a more representative cross-section of businesses. To this end, two further phases of research were undertaken. All 451 tourism-related businesses in the district were invited to participate in a questionnaire survey, of which almost half (43.7 per cent) responded. The survey provided the necessary quantitative data to test the conclusions of the focus groups, to highlight significant patterns of business behaviour, and to prioritise the main issues that might be targeted within policy interventions. A programme of in-depth interviews was then undertaken with a sample that represented the range of responses to the survey to verify the results of the survey and the nature of any significant correlations, as well as the reaction of businesses to potential policy measures. The purpose of this chapter is to present and discuss the results of both the quantitative survey and the in-depth interviews.

The structure of the chapter reflects the research priorities highlighted in Chapter Five. Section 6.2 outlines the character of the survey sample as the context for the analysis and interpretation of the results. Section 6.3 then examines the extent and type of sustainable practices that had been adopted by businesses until April 2000 to establish a 'benchmark' measure of performance in the district. The results reveal wide variations, both in the adoption of different practices and the overall commitment of businesses to sustainability, indicating a need for targeted rather than generalised policy interventions. Section 6.4 seeks explanations for such diversity within the framework of

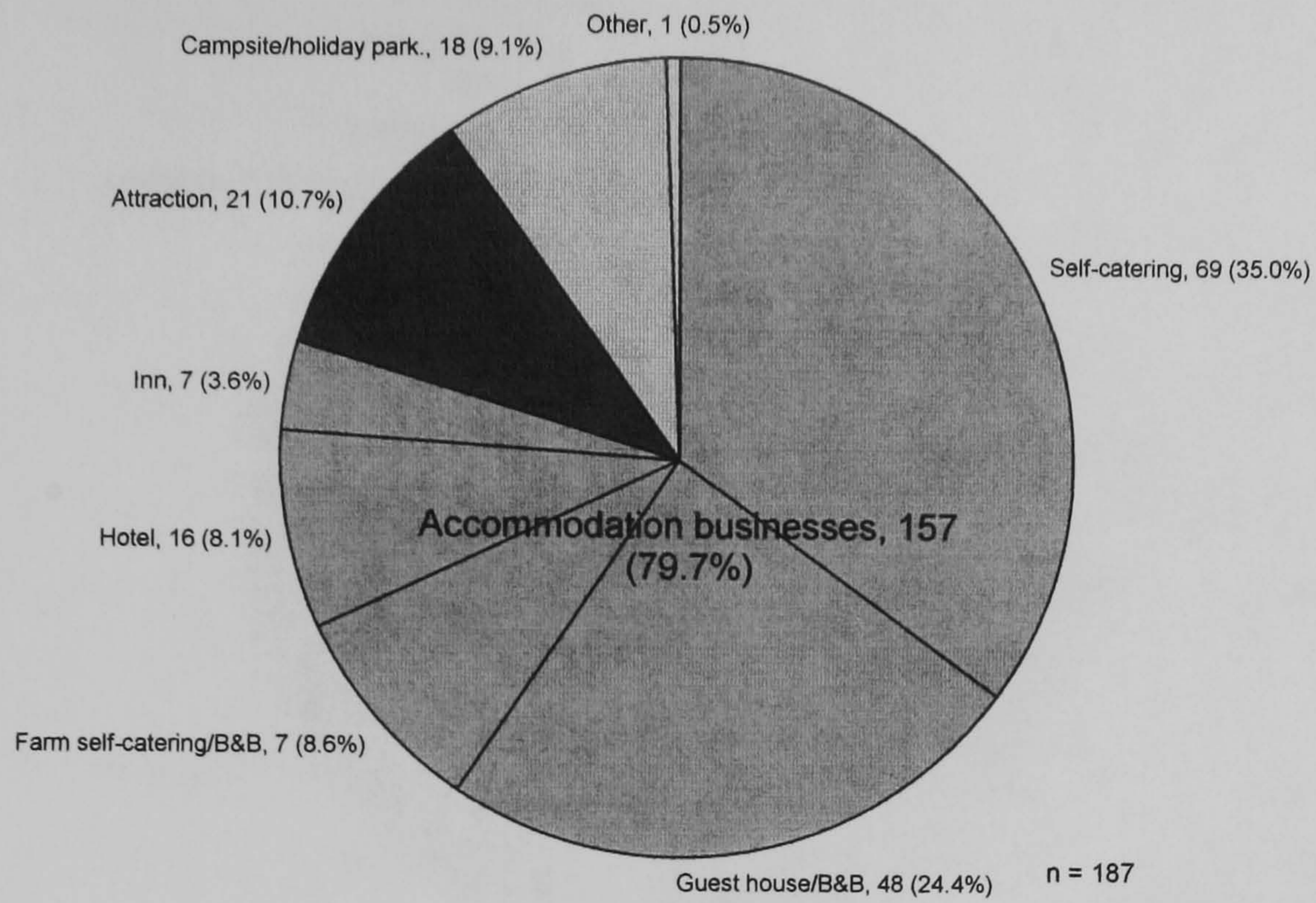
innovation diffusion theory. The findings indicate that adoption decisions were driven by the personal priorities, values and motives of owners rather the characteristics and circumstances of their businesses, which is not currently recognised within national or local policy interventions. The range of issues that had constrained adoption decisions and present potential targets for intervention are then examined in Section 6.5. The most pressing issues relate to the practical constraints of available time, money and awareness of sustainable practices, but also infrastructural weaknesses in the provision of information and advice and support for business recycling activity. Additionally, intrinsic weaknesses in the nature of the industry and tourism demand in the district have obstructed the diffusion of sustainable practices. Business views on the policy measures that might have greater success in reducing the practical barriers to adoption are then evaluated in Section 6.6. Most businesses require outside direction to progress sustainability issues. However, the level and nature of necessary support varies greatly depending upon business commitment to sustainability, their stage in the business lifecycle, and the personal preferences of individual owners. Consequently, there is a mismatch between the single policy solutions that have so far characterised public sector responses to sustainability and the diverse needs and preferences of the industry. The chapter concludes with a review of the various strategy options that are available to the District Council based upon the findings of this study.

## **6.2 CHARACTER OF THE SAMPLE**

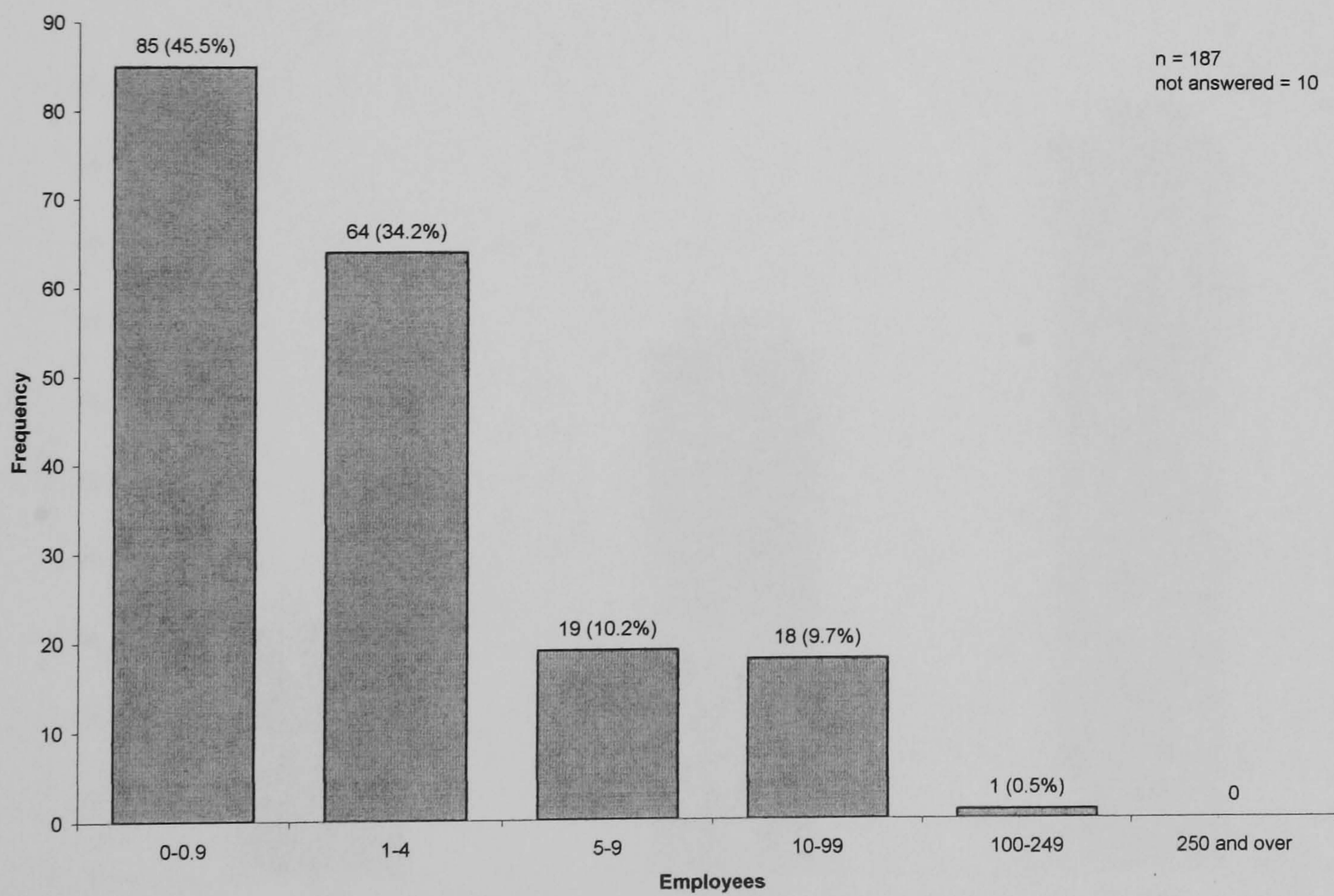
### **6.2.1 Business characteristics**

The survey sample was shown to be representative of the research population in terms of business type, size and location (see Section 4.4). The sample comprised mostly accommodation businesses (79.7 per cent), particularly self-catering and bed and breakfast accommodation, with a small number of attractions (10.7 per cent), and campsites and holiday parks (9.1 per cent) (see Figure 6.1). Most (89.9 per cent) were micro-businesses (with less than 10 employees) (see Figure 6.2) and were located in the Looe and Liskeard areas (55.4 per cent), with a second concentration around Torpoint and Saltash (21.8 per cent) (see Figure 3.5). Over three-quarters (86.2 per cent) were sole traders or partnerships (see Figure 6.3).

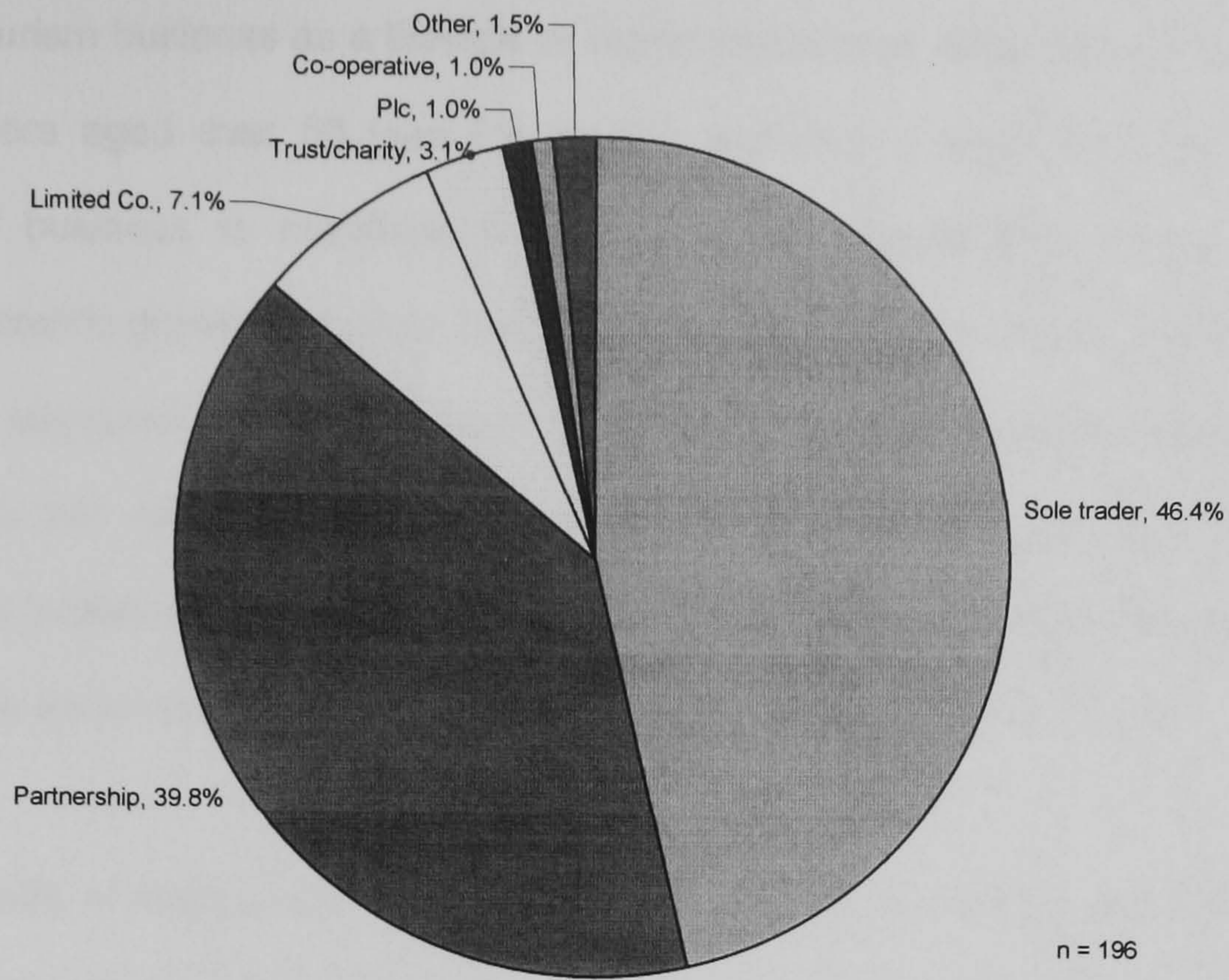
Tourism is often associated with high rates of business failure, yet almost half of respondents (48.7 per cent) had over ten years' industry experience (see Figure 6.4) and 38.5 per cent had run their



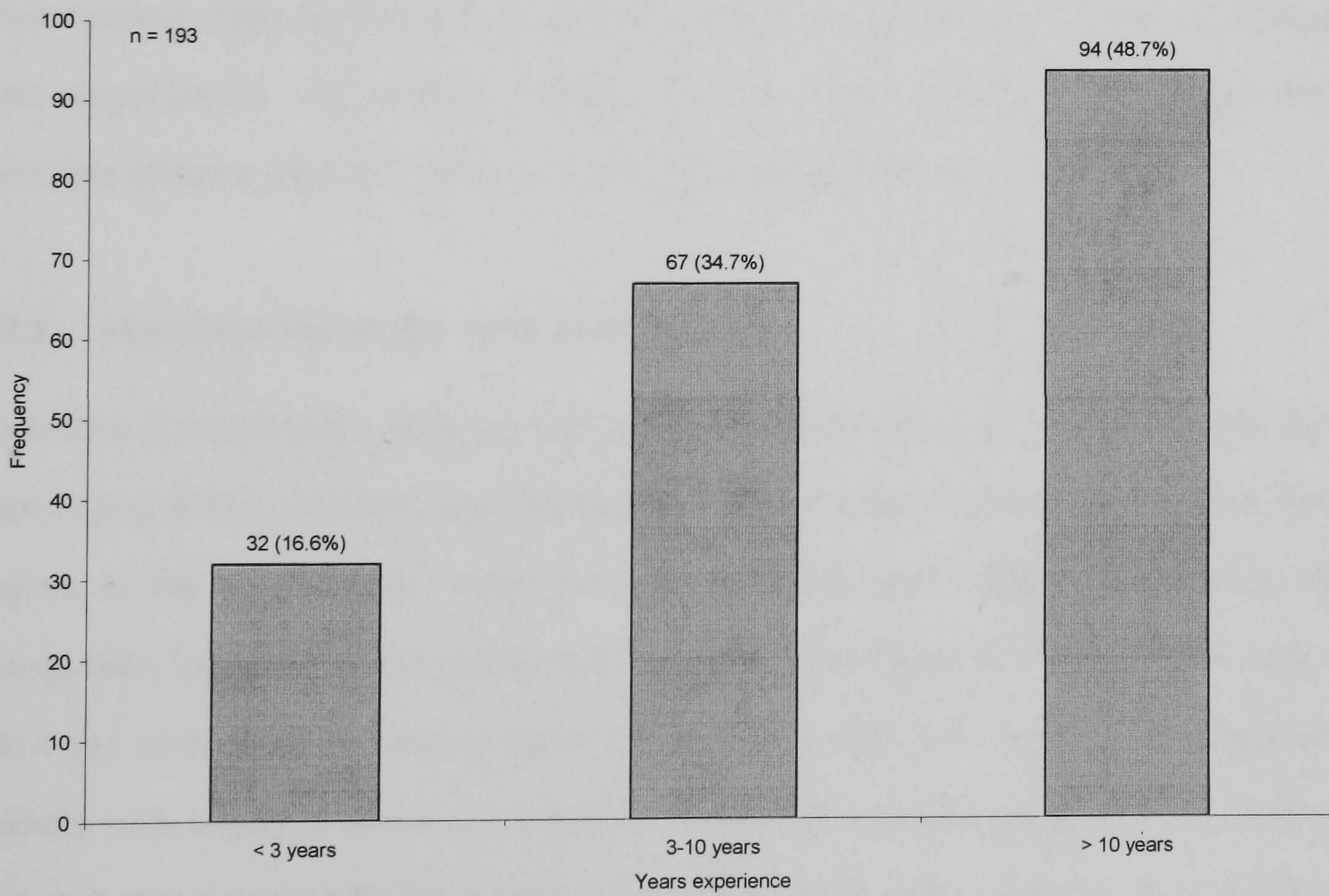
**Figure 6.1 Business type**



**Figure 6.2 Business size (no. of employees)**



**Figure 6.3** Legal status of business



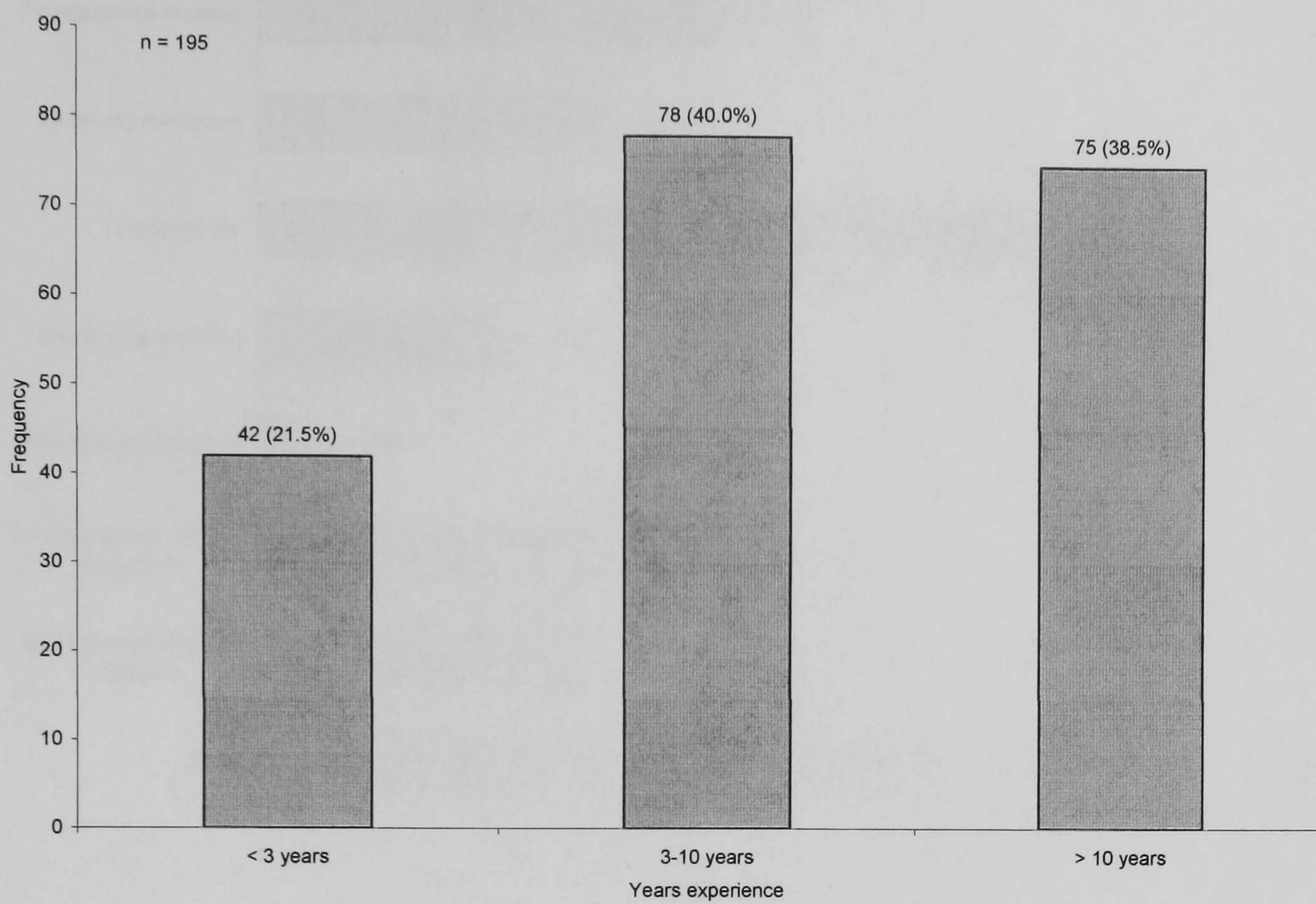
**Figure 6.4** Business owner experience of the tourism industry

own businesses during that time (see Figure 6.5). The sample also reflected the attraction of running a tourism business as a lifestyle or retirement choice. More than half of respondents (55.1 per cent) were aged over 50 (see Figure 6.6) and only a small minority (13.3 per cent) had commenced business to maximise their income (see Figure 6.7). Fewer still (9.7 per cent) expected dramatic growth from their business (see Figure 6.8). For most, the aim was to maintain a comfortable standard of living (35.1 per cent) or to establish a viable business, with or without growth (50.3 per cent). In terms of entrepreneurship, most businesses, therefore, could be described as 'satisfiers' rather than 'maximisers', which was consistent with the results of previous studies of the sector (see Brown and Hankinson, 1986; Williams *et al.*, 1989).

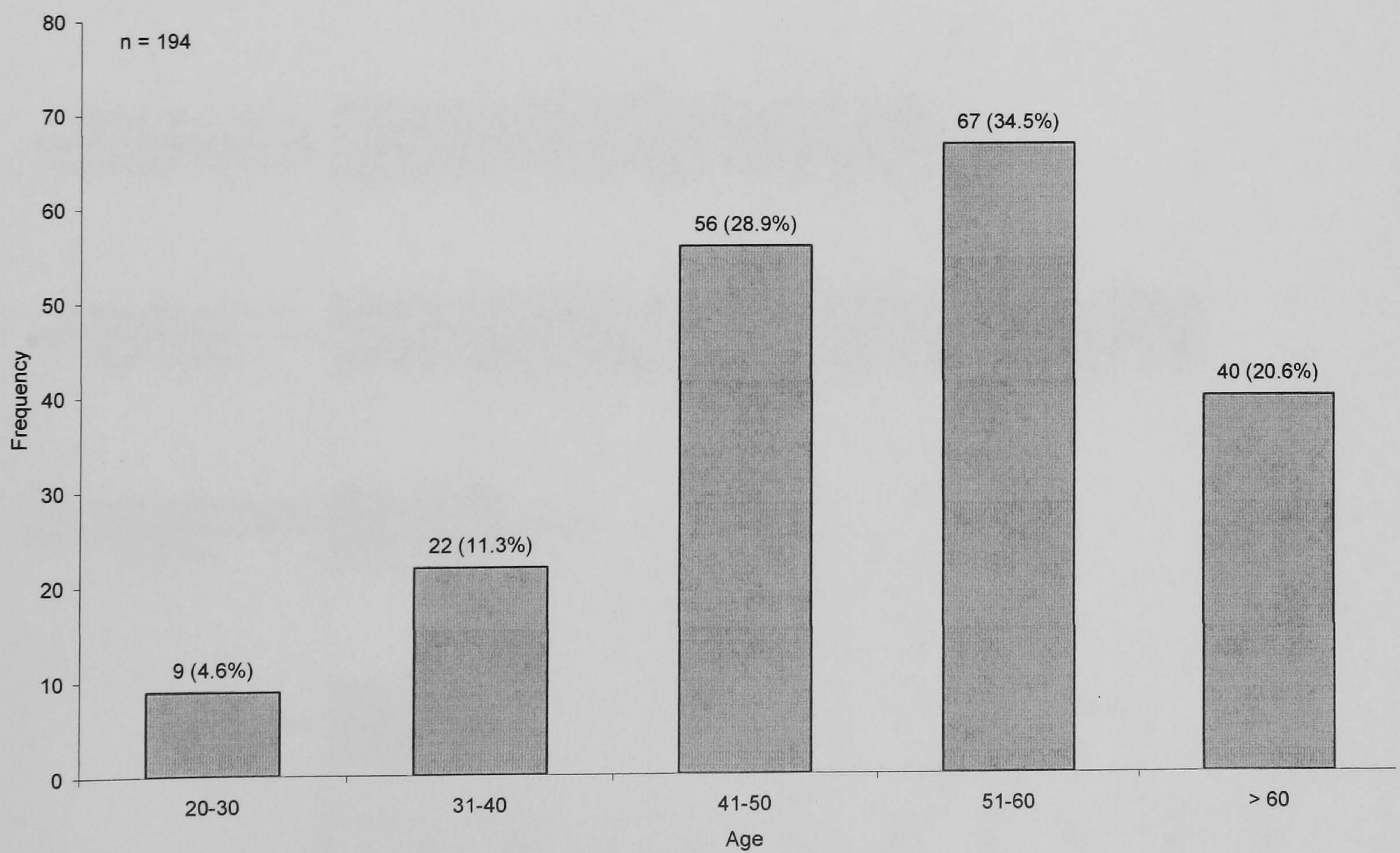
For over a third of respondents (36.8 per cent), particularly campsites and holiday parks (77.8 per cent), tourism was a seasonal activity (see Figure 6.9 and Table 6.1). Almost two-thirds of the sample (63.0 per cent), however, remained open all year and a similar proportion (66.8 per cent) had additional sources of income (see Figure 6.10). Most respondents (63.5 per cent) were members of local networks (see Figure 6.11), particularly tourism-related (43.7 per cent) and general business associations (23.4 per cent). A total of 11.7 per cent actively supported environmental organisations. Over one-third (36.5 per cent), however, were not affiliated to any such organisations. An inclusive strategy for sustainable tourism in the district will need to formulate effective ways to engage with this significant population.

### **6.2.2 Attitudes towards the environment**

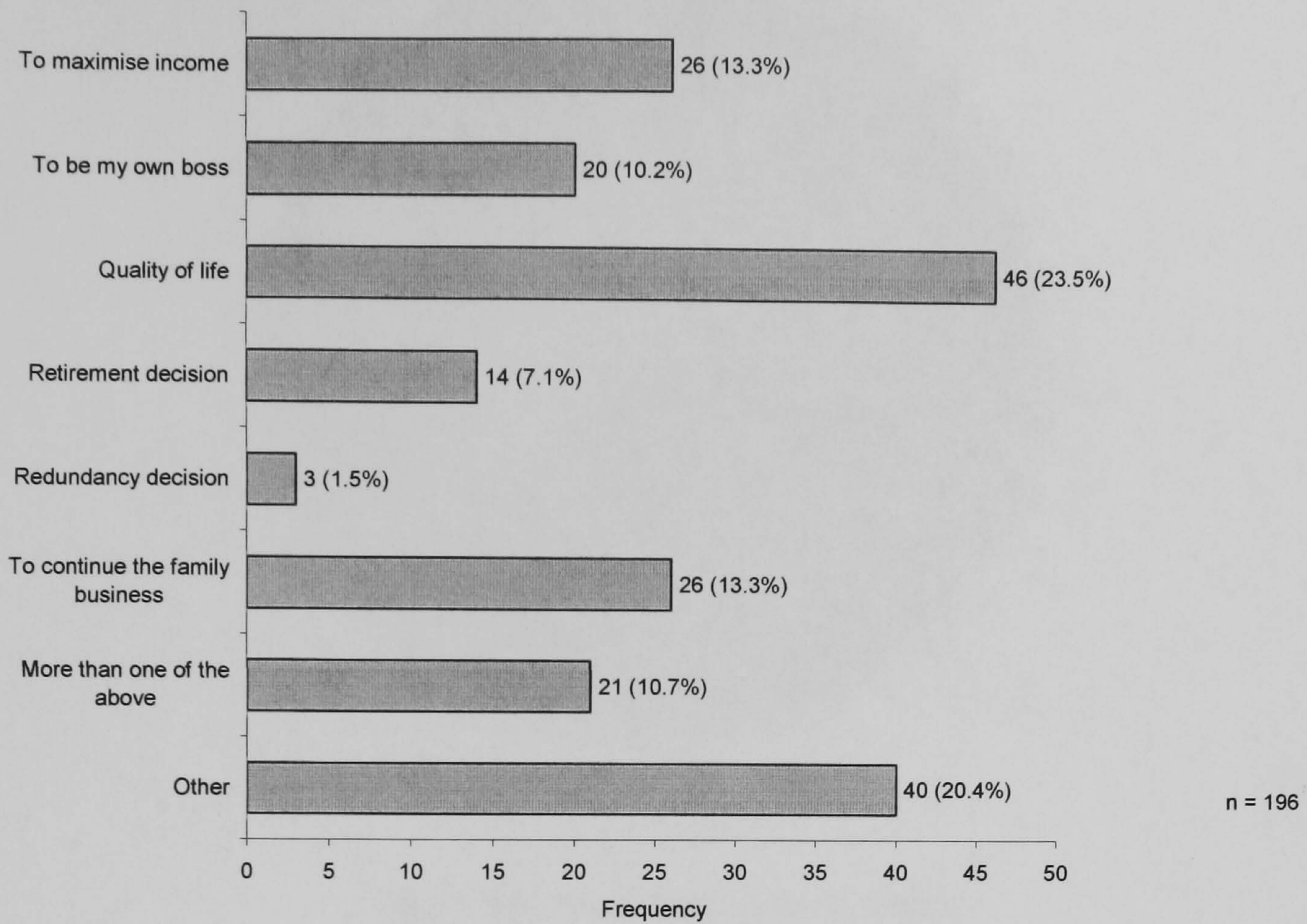
Four-fifths of respondents (80.8 per cent) were concerned about the state of the local environment (see Figure 6.12), reflecting their dependence upon the environment as the main attraction for visitors to the area. Indeed, more than half (59.7 per cent) agreed that tourism contributed substantially to environmental problems in the district (see Figure 6.13). In contrast, only a minority (29.4 per cent) were concerned about the impact of their own businesses (see Figure 6.14). Owners were largely unaware of the ways in which their activities impacted upon the environment and attributed responsibility for tourism-induced impacts to visitors. Clearly, most respondents had not responded to sustainability through a feeling of responsibility for environmental problems in the district. Other motives dominate the decision-making process over investment strategies (e.g. for the financial benefits). The extent to which the characteristics of the local industry and the attitudes



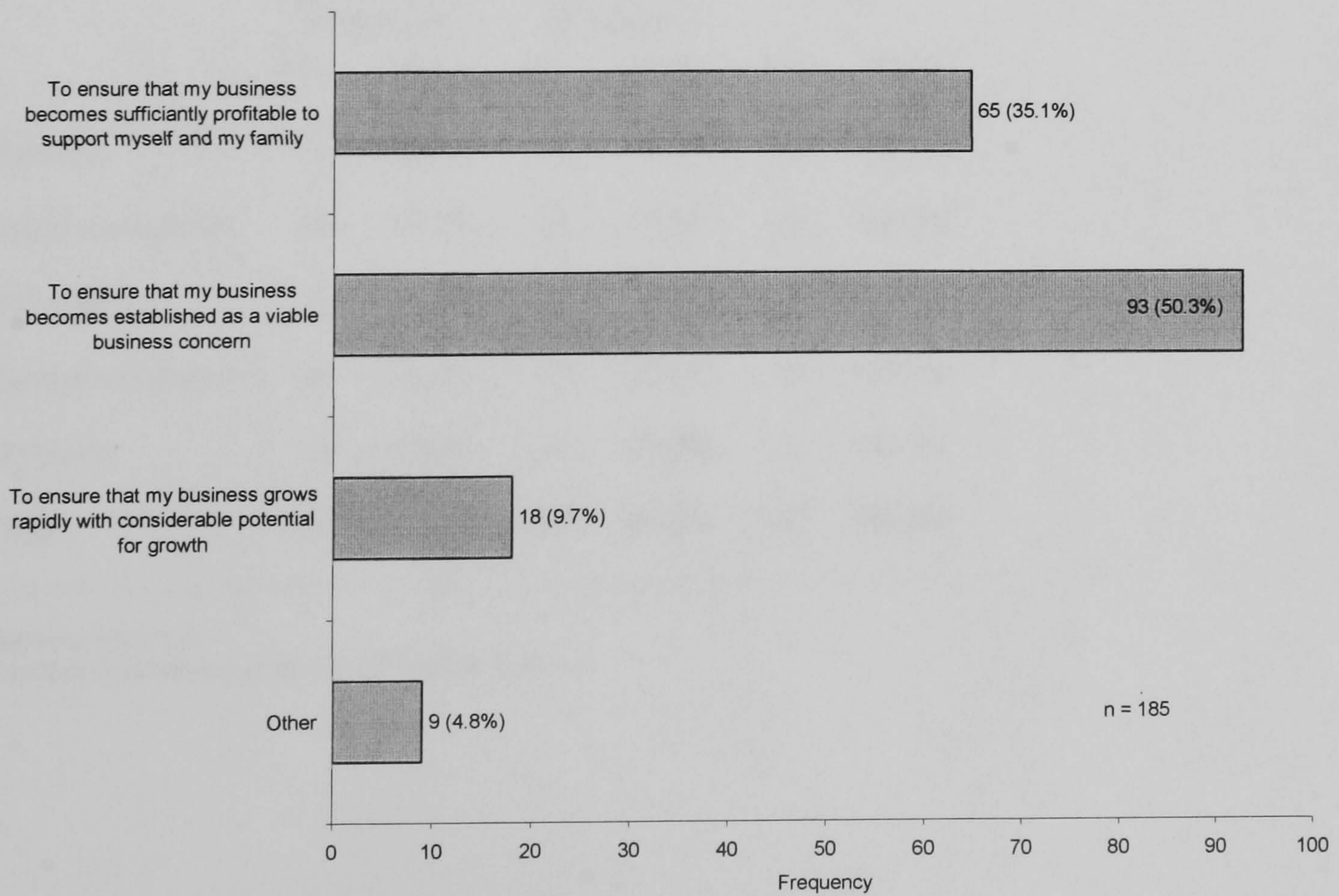
**Figure 6.5 Business owner experience of running current business**



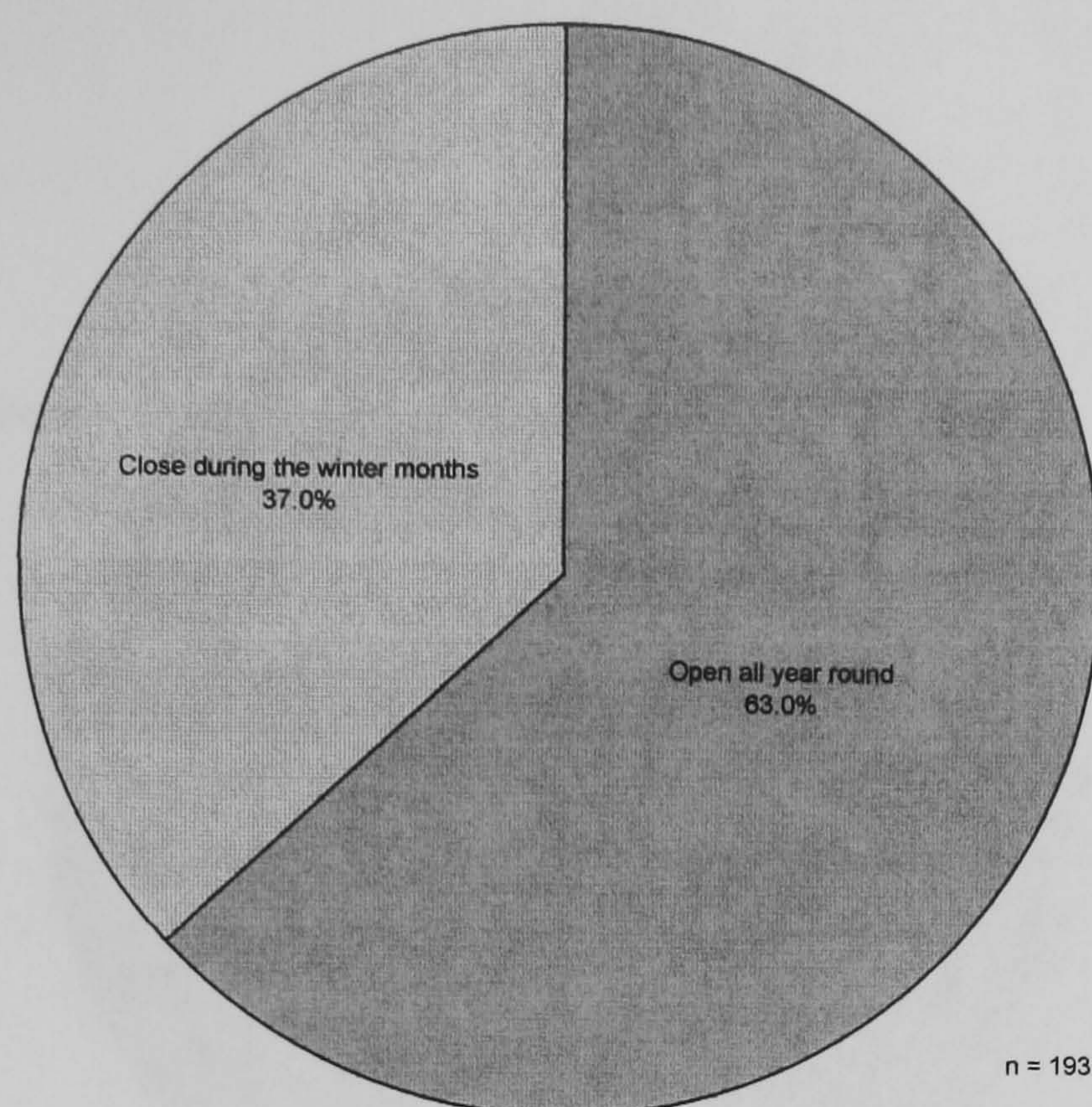
**Figure 6.6 Age of business owner**



**Figure 6.7 Reason for setting up business**



**Figure 6.8 Personal expectations for the business**



**Figure 6.9 Business opening policy**

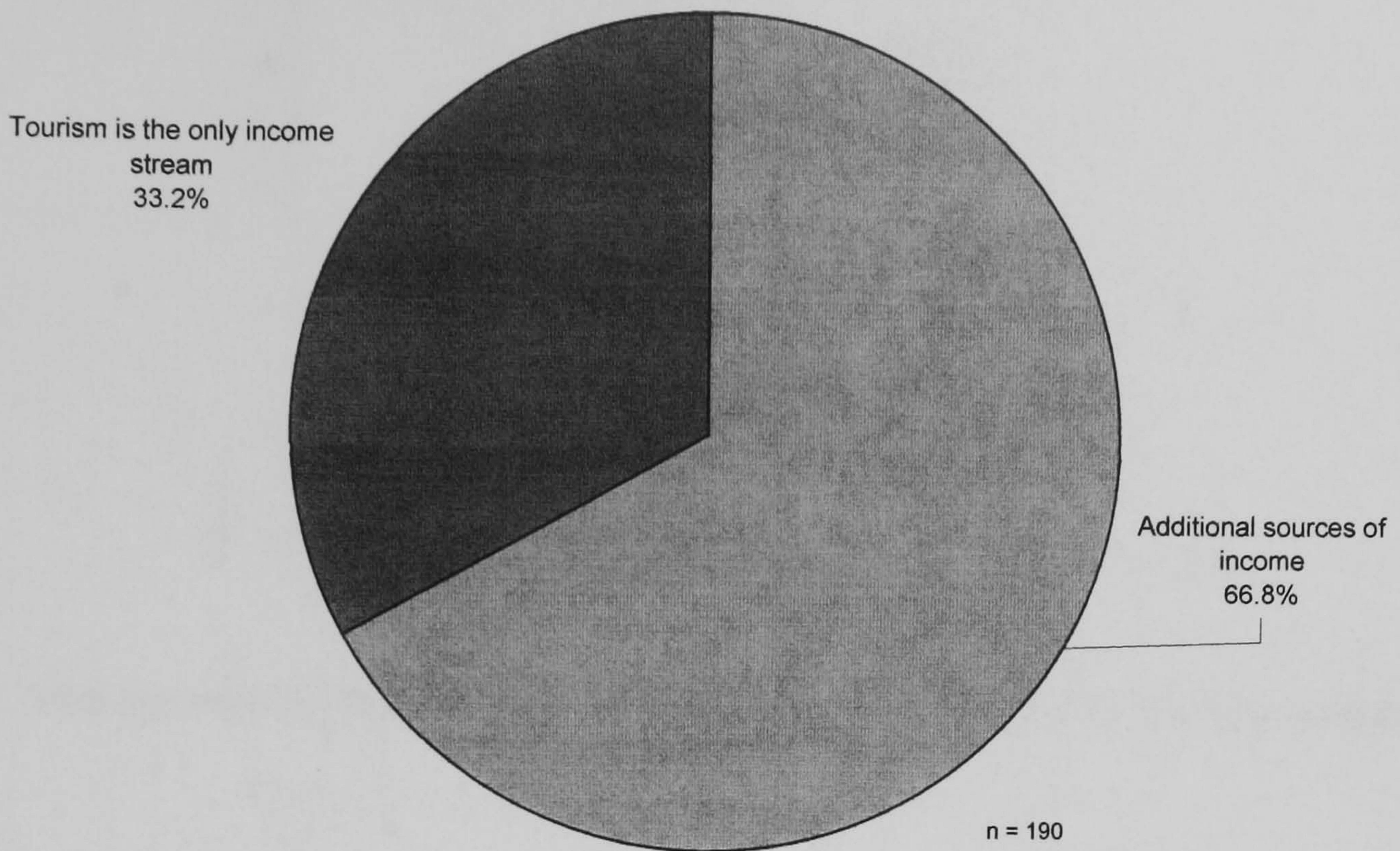
**Table 6.1 Closure policy during off-season by business type**

	Closed during off-season		Open during off-season		Total	
	No.	% of type	No.	% of type	No.	% of type
Hotel/Inn	5	22.7%	17	77.3%	22	100.0%
Guest house/B&B	26	44.8%	32	55.2%	58	100.0%
Self-catering	16	21.9%	57	78.1%	73	100.0%
Campsite/hol. park	14	77.8%	4	22.2%	18	100.0%
Attraction	10	47.6%	11	52.4%	21	100.0%
<b>Total</b>	<b>71</b>	<b>37.0%</b>	<b>121</b>	<b>63.0%</b>	<b>192</b>	<b>100.0%</b>

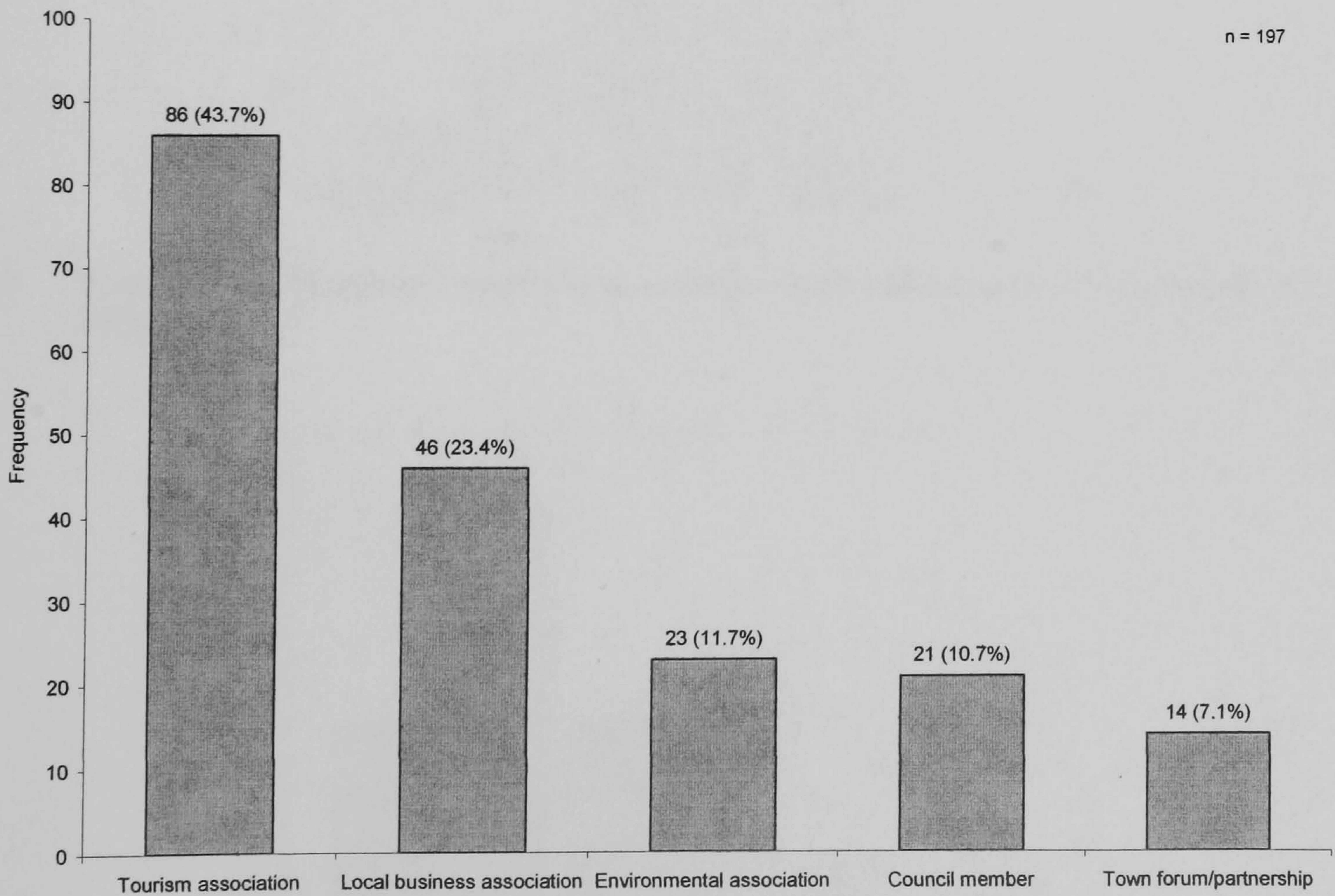
Not answered = 5

Significant variances at 99.5% ( $\chi^2 = 24.433$ ,  $df = 4$ )

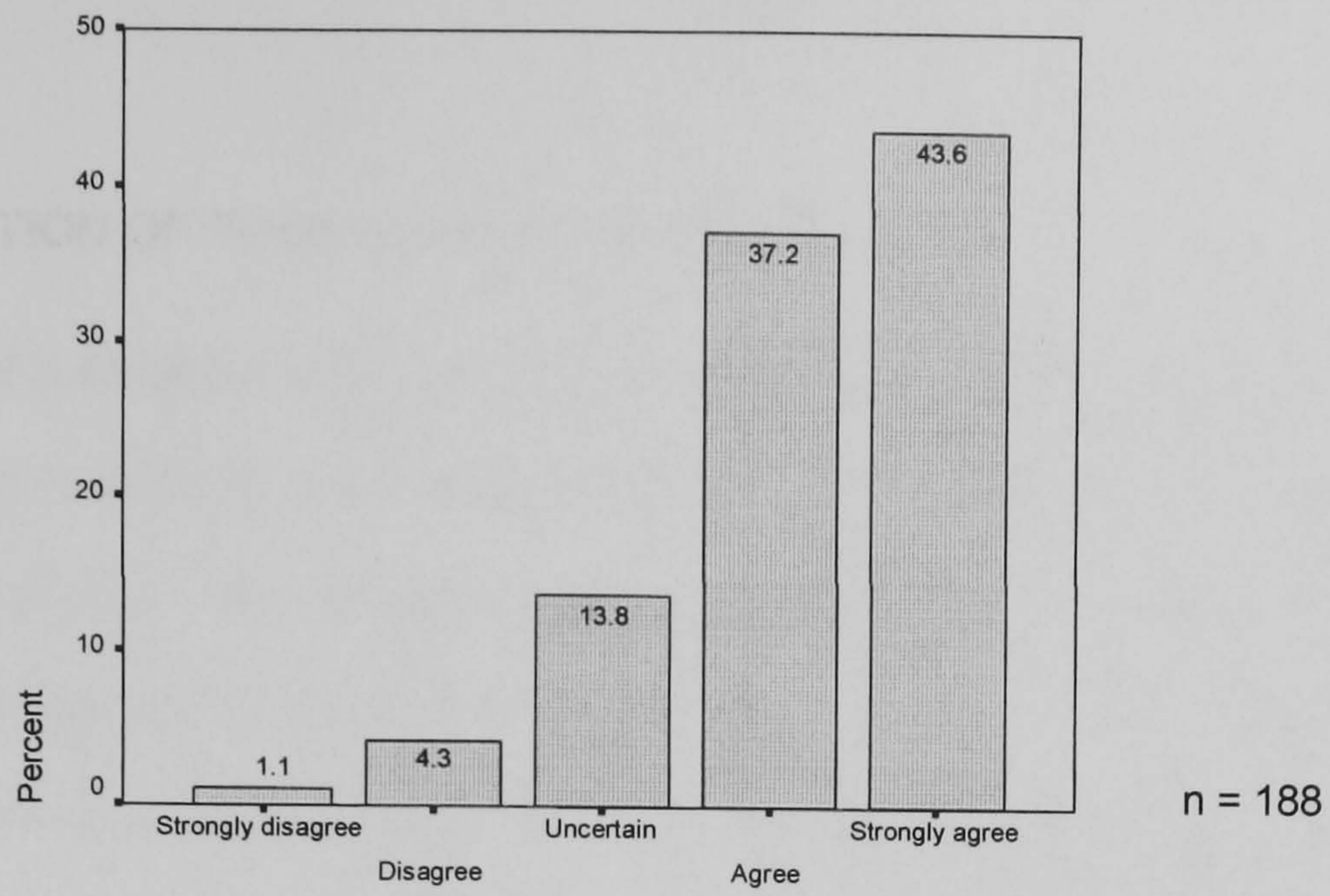




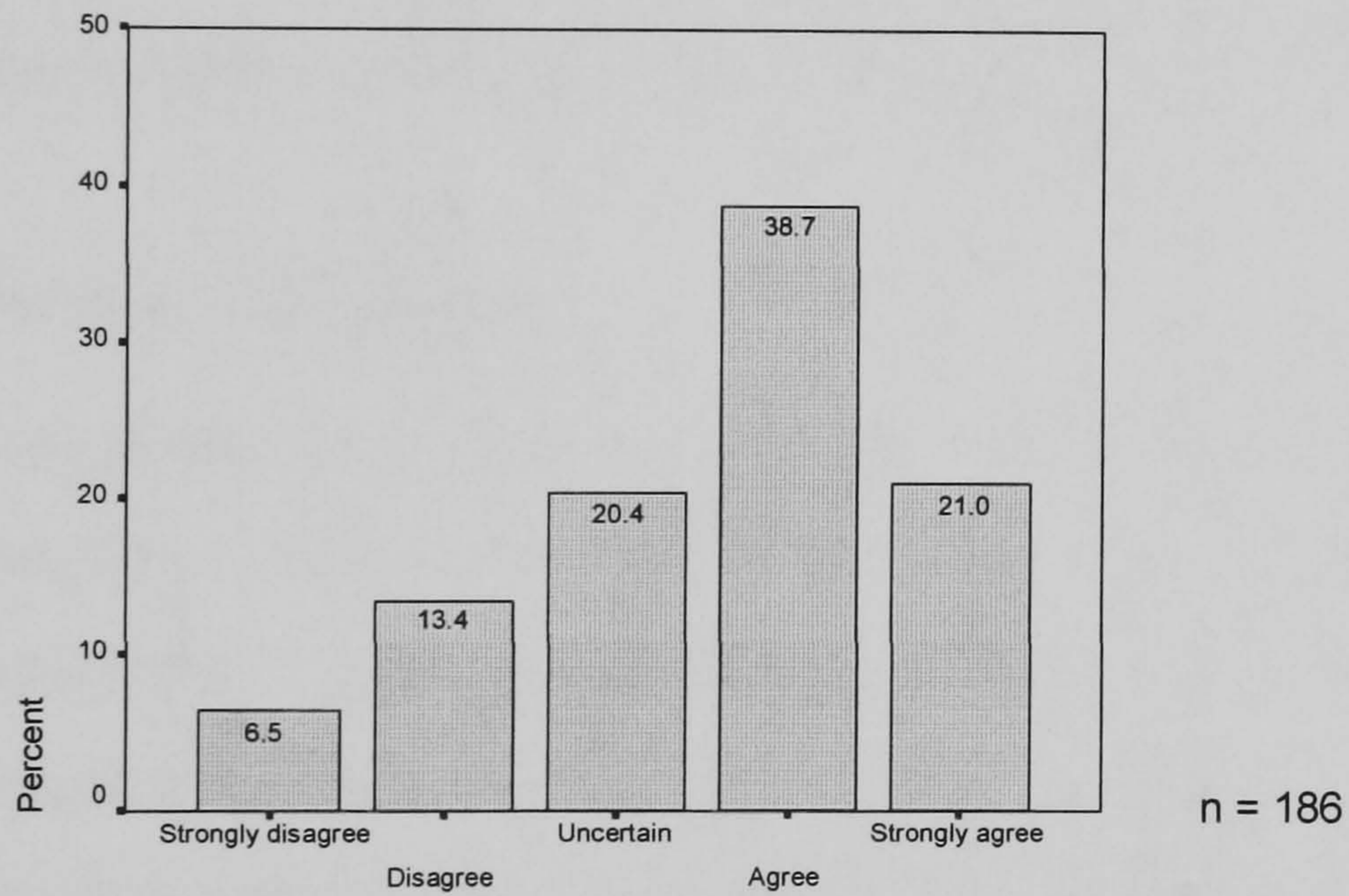
**Figure 6.10 Sources of income in addition to tourism**



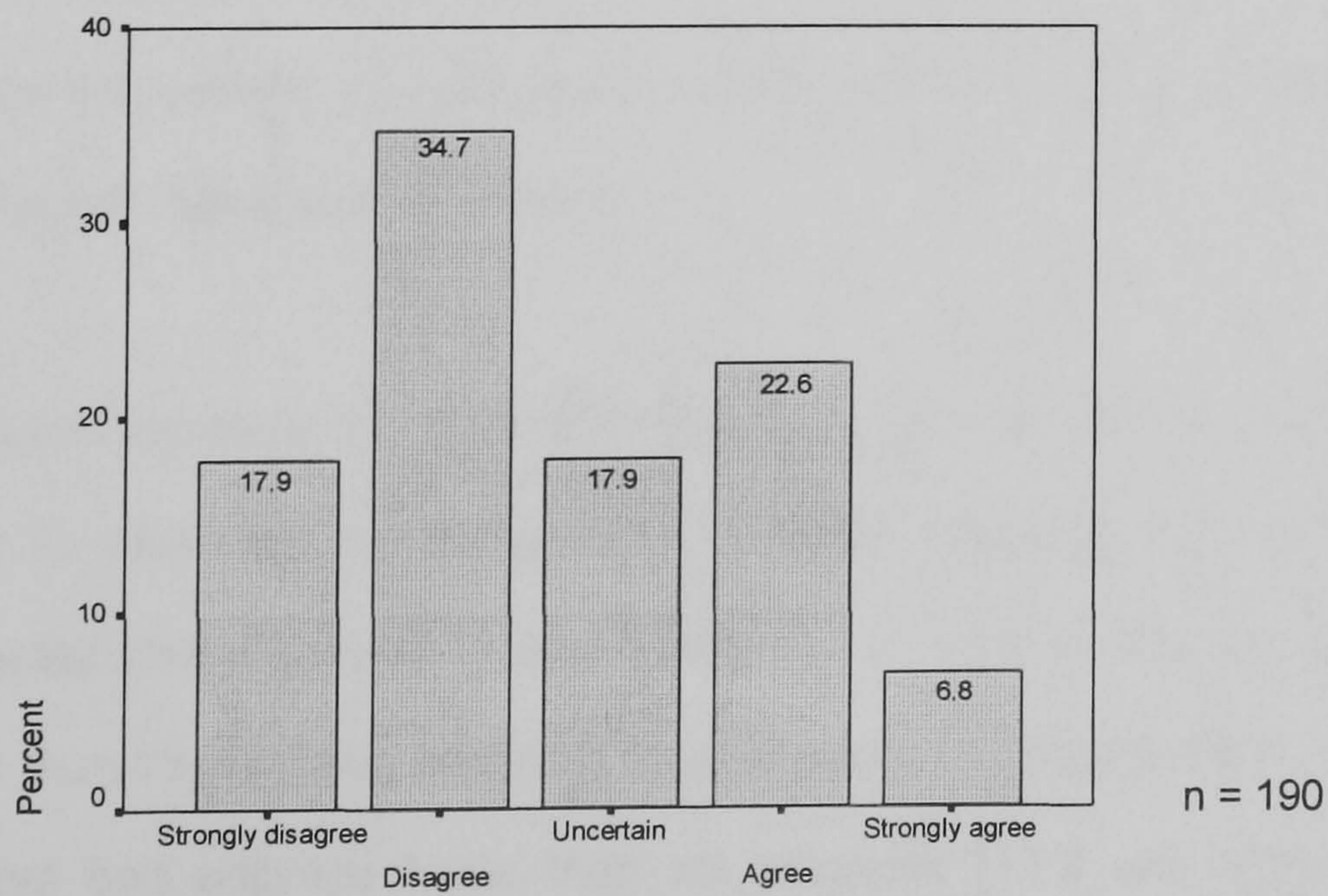
**Figure 6.11 Membership of networks and organisations**



**Figure 6.12** 'I am concerned about the state of the environment in S.E. Cornwall' (% agreement)



**Figure 6.13** 'Tourism contributes substantially to environmental problems in S.E. Cornwall' (% agreement)



**Figure 6.14** 'I am concerned about the impact of my business on the environment' (% agreement)

of business owners had influenced the adoption of sustainable practices is discussed in the following sections.

### **6.3 ADOPTION OF SUSTAINABLE PRACTICES**

The diffusion of sustainable practices at the time of the survey provides a 'benchmark' measure of performance against which future policy interventions might be evaluated. Diffusion was analysed in two ways; first, from the perspective of individual businesses, where the number of practices adopted was indicative of operational commitment to sustainability; and second, by examining differences in the rate and manner in which individual practices had diffused. An understanding of business behaviour from both perspectives should inform policy interventions to target either businesses or practices. A spatial perspective of diffusion across the district of Caradon (see Hägerstrand, 1967) was beyond the scope of this study (see discussion in Section 2.4.2).

#### **6.3.1 Number of practices adopted**

Businesses varied greatly in the number of sustainable practices adopted, indicating very different levels of commitment to sustainability (see Figure 6.15). All businesses had adopted at least one practice; the highest was 21 (including 'other' practices recorded within the survey, see Table 6.9). The resultant frequency distribution reveals an almost normal distribution centred about an average of 9.7 and median of 9.2 practices. Half of the sample accounted for more than two-thirds (69.2 per cent) of the practices that had been adopted. The depiction of small tourism businesses as low environmental performers clearly misrepresents the diversity of behaviour within the sector. While some were low performers, just as many had overcome the barriers upon small businesses to adopt a wide range of sustainable practices.

Applying the same proportions used within Rogers' (1983) 'standard' model of innovation diffusion (see Figure 2.7), revealed four categories of adopter innovativeness defined by the number of practices adopted (see Figure 6.15 and Table 6.2). A total of 16.8 per cent of businesses had adopted more than 13 practices and, on a relative basis, could be termed 'high adopters'. Similarly, businesses that had adopted fewer than six practices (17.2 per cent) could be termed 'low adopters'. Most of the sample (66.0 per cent) lay within the centre portion of the chart (between 6 and 13 practices), where a distinction can be made between 'high majority' (35.0 per cent) and 'low

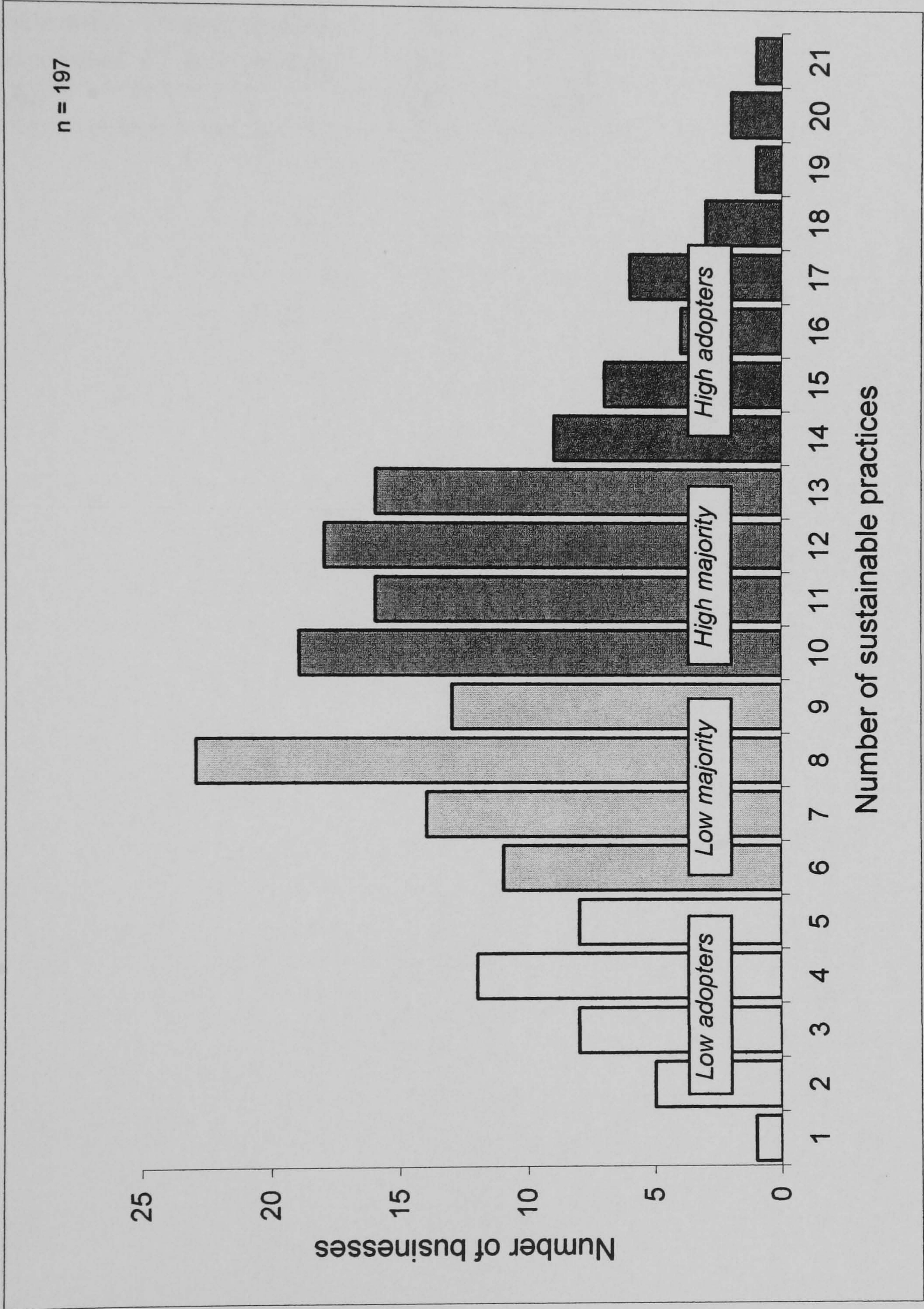


Figure 6.15 Number of sustainable practices adopted

**Table 6.2** Number of sustainable practices adopted by adopter category

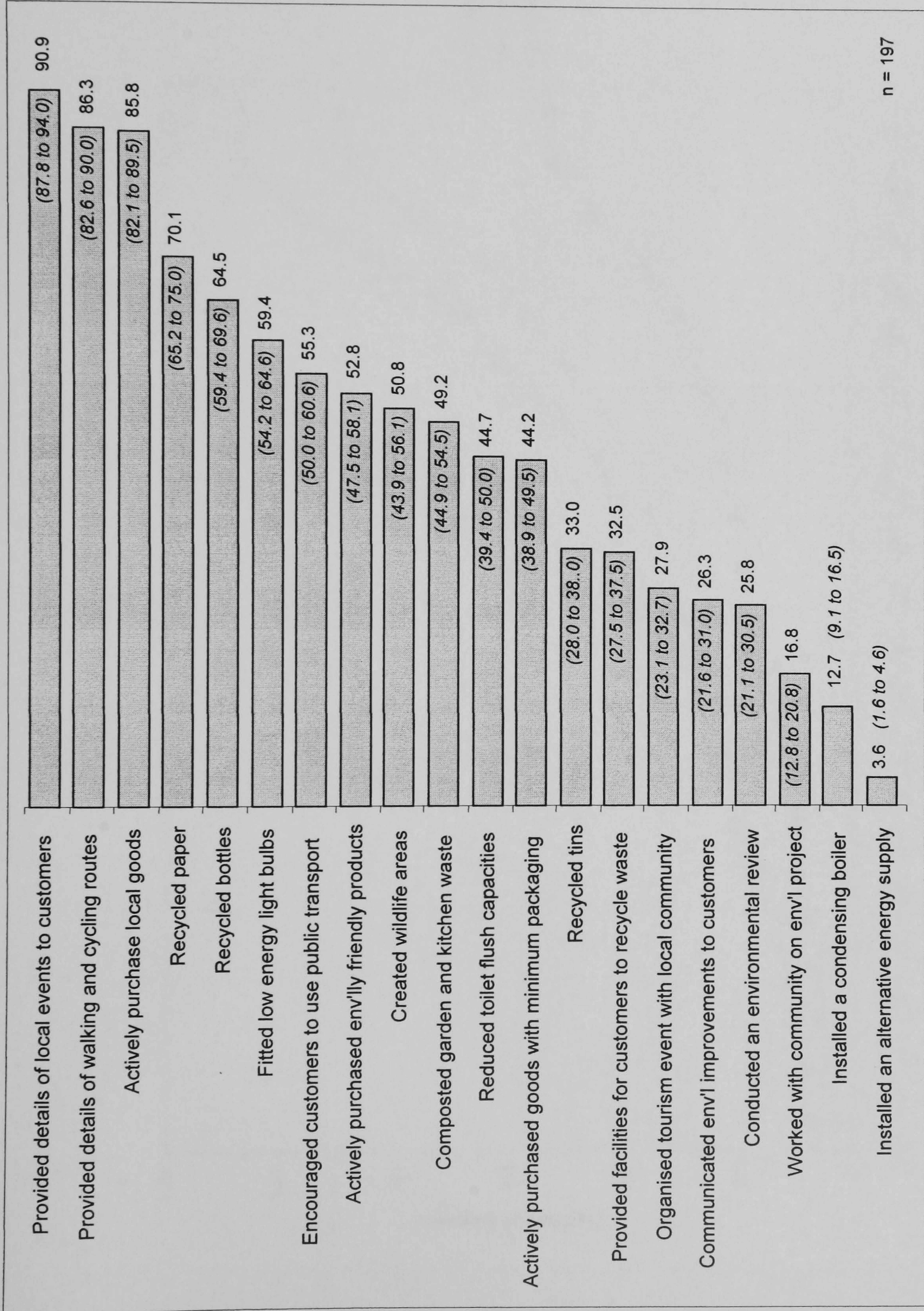
	No.	%
High adopters (14 to 21 practices)	33	16.8%
High majority (10 to 13 practices)	69	35.0%
Low majority (6 to 9 practices)	61	31.0%
Low adopters (1 to 5 practices)	34	17.2%
<b>Total</b>	<b>197</b>	<b>100.0%</b>

majority' (31.0 per cent) adopters. Rogers identified a further sub-category, 'innovators', representing the top 2.5 per cent of adopters. The size of the sample ( $n = 197$ ) precluded such a distinction as only four businesses fell within the category which was insufficient for examining cross-tabulation variances through the chi-square test. Differences in the number of practices adopted by businesses suggest that one or more independent factors had either encouraged or constrained adoption. The four-fold categorisation provided a basis for seeking such explanations.

### **6.3.2 Adoption of individual practices**

There were wide variations in the adoption of different practices within the sample (see Figure 6.16) and in the rates at which they had diffused over time (see Figures 6.17 to 6.23). Diffusion curves that rely solely upon the accurate recall of adopters, however, should be treated with caution (see discussion in Section 4.4). Two-thirds (64.5 per cent) of the sample were able to remember the date that they had adopted different practices. Additionally, such data were bounded by the limited life of each business. The resultant diffusion curves, therefore, tend to accentuate recent adoption decisions. Notwithstanding such drawbacks, the value of the curves is in comparing the diffusion patterns of different practices (because of small sample sizes, only cumulative diffusion curves have been plotted with the exception of Figure 6.21).

The most widely adopted practices, the provision of details of local events (90.9 per cent) and walking and cycling routes (86.3 per cent) to customers, required little commitment or effort to implement. Publicity material for local attractions was usually supplied by marketing agencies. These practices had diffused gradually over time to become core elements of normal business practice, revealed by mature s-shaped diffusion curves (see Figure 6.17). Less established, but perhaps more relevant to environmental sustainability, was the provision of information about public transport to customers (55.3 per cent). The lower rate of adoption reflected poor transport links in Caradon, which are described as 'the worst in Cornwall' (South East Cornwall Community and Economic Regeneration Project, 2001), and an absence of information support networks. Adoption was significantly higher amongst members of tourism associations (see Table 6.3), such as the South East Cornwall Tourism Association, which disseminated details of local train services from the Devon and Cornwall Rail Partnership. It appears that businesses have to be directed and supported in even the most basic practices which might be interpreted as sustainable.



**Figure 6.16 Adoption of sustainable practices by sample and population (estimated, 95% confidence limits) (%)**

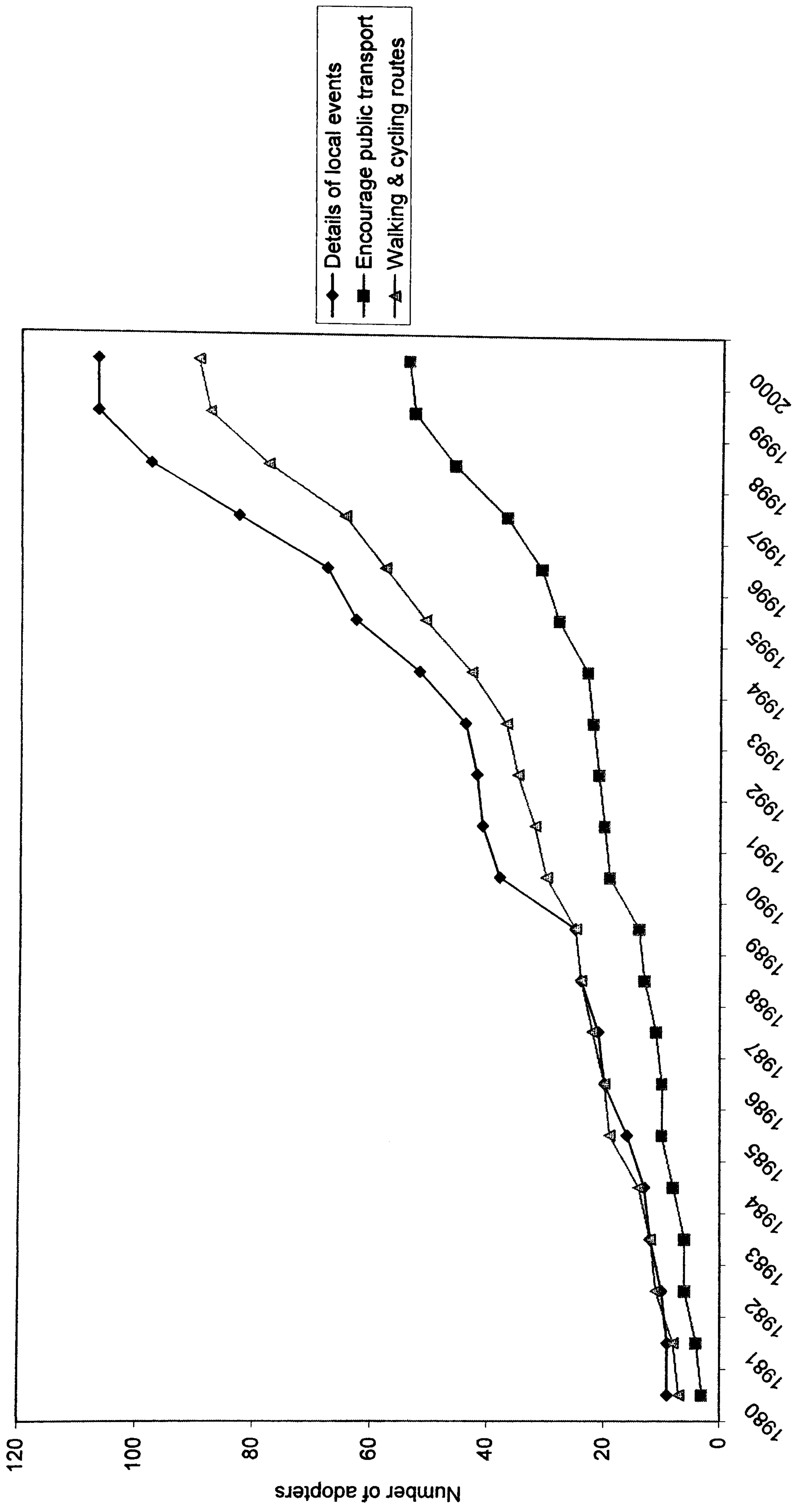


Figure 6.17 Diffusion curves - customer information



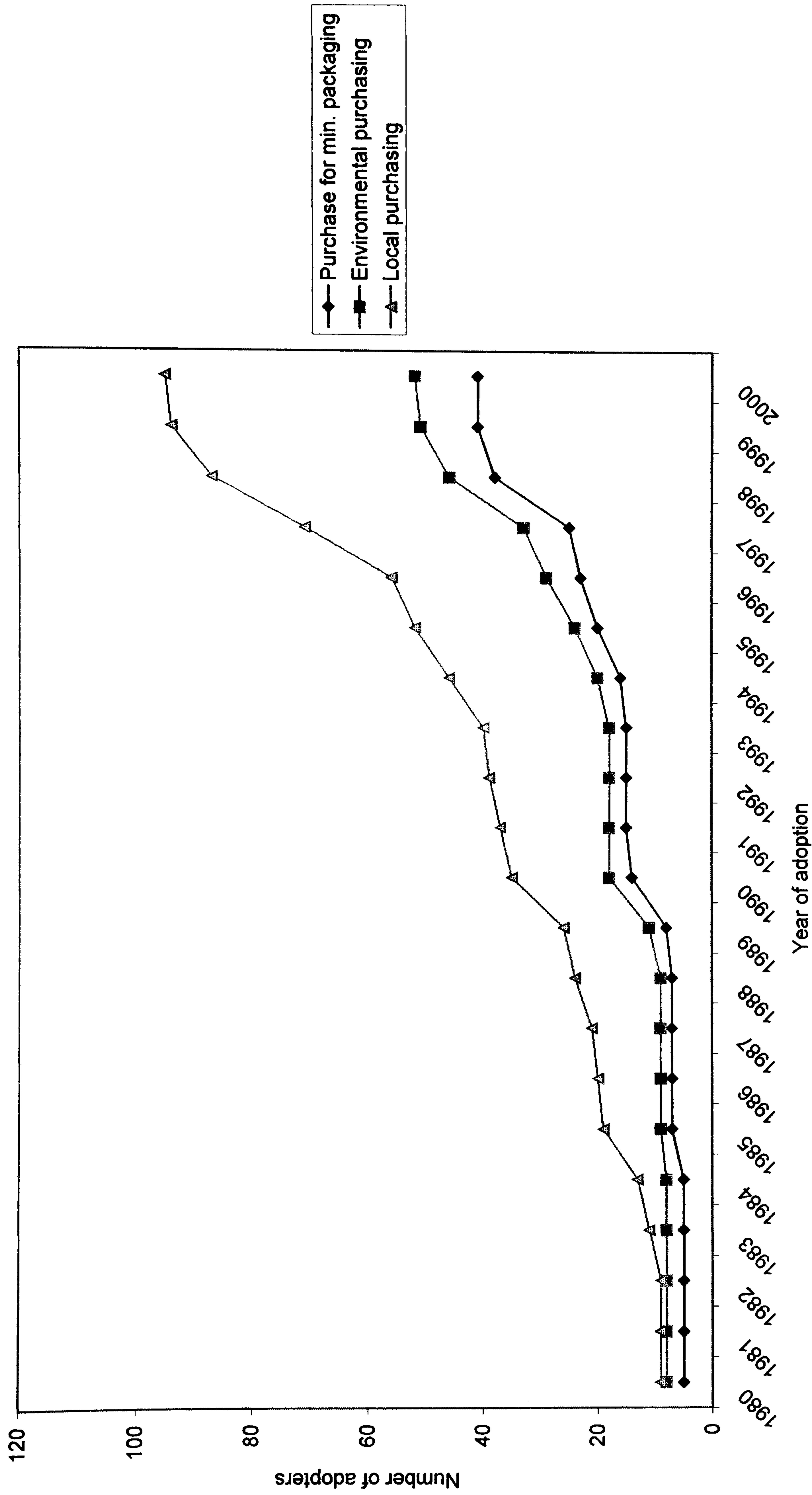


Figure 6.18 Diffusion curves - principled purchasing policies

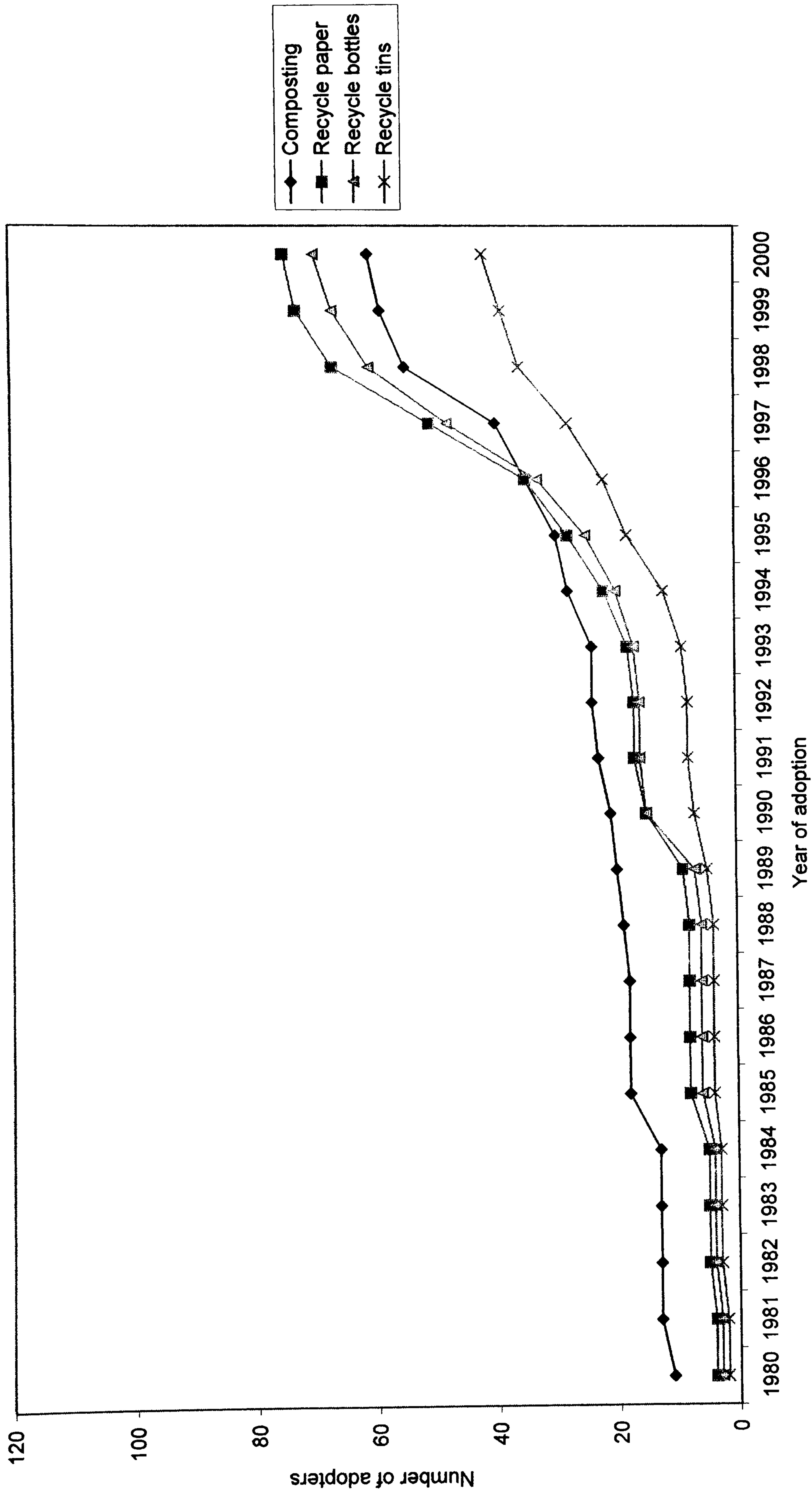


Figure 6.19 Diffusion curves - waste-related practices

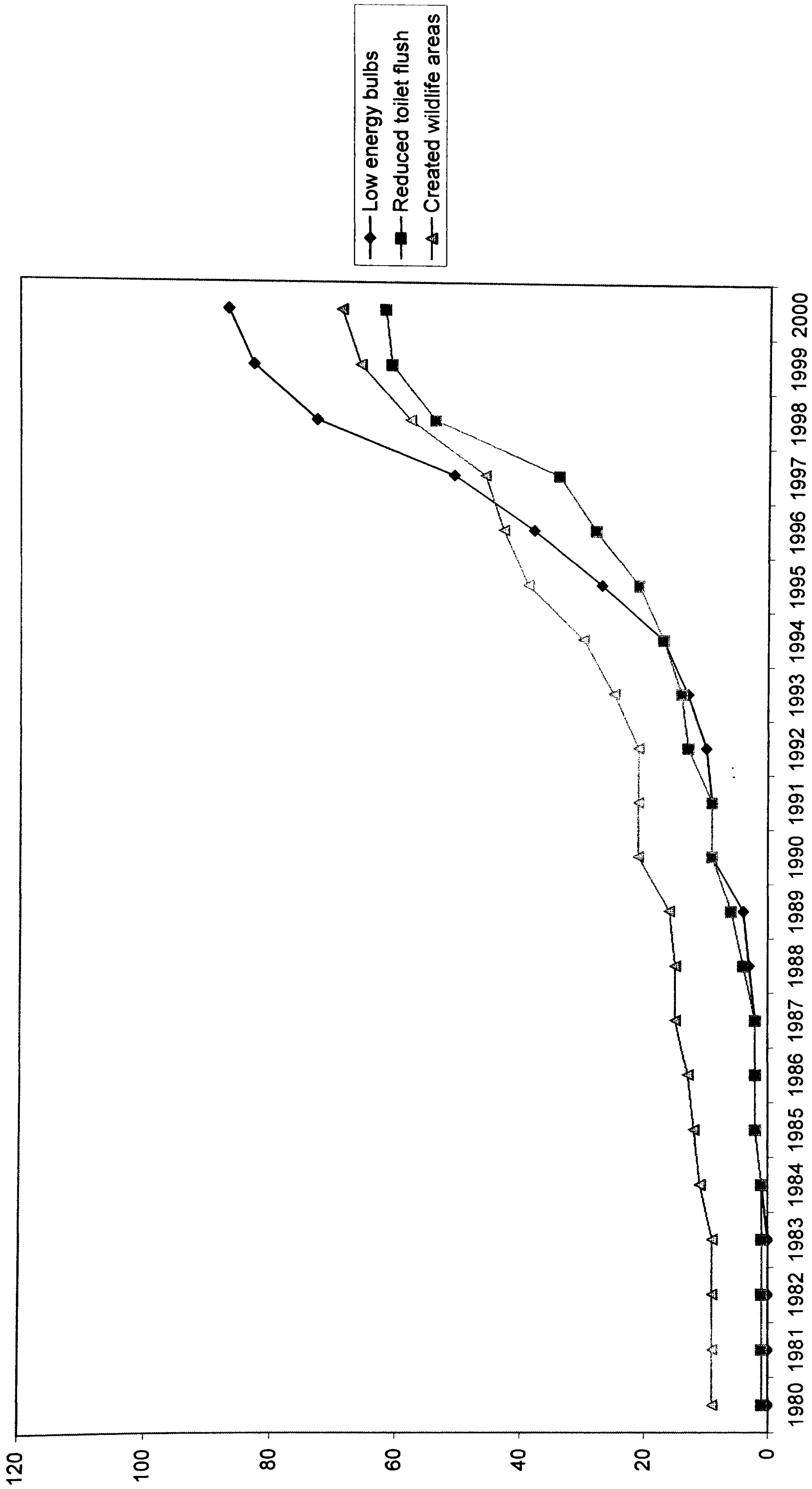
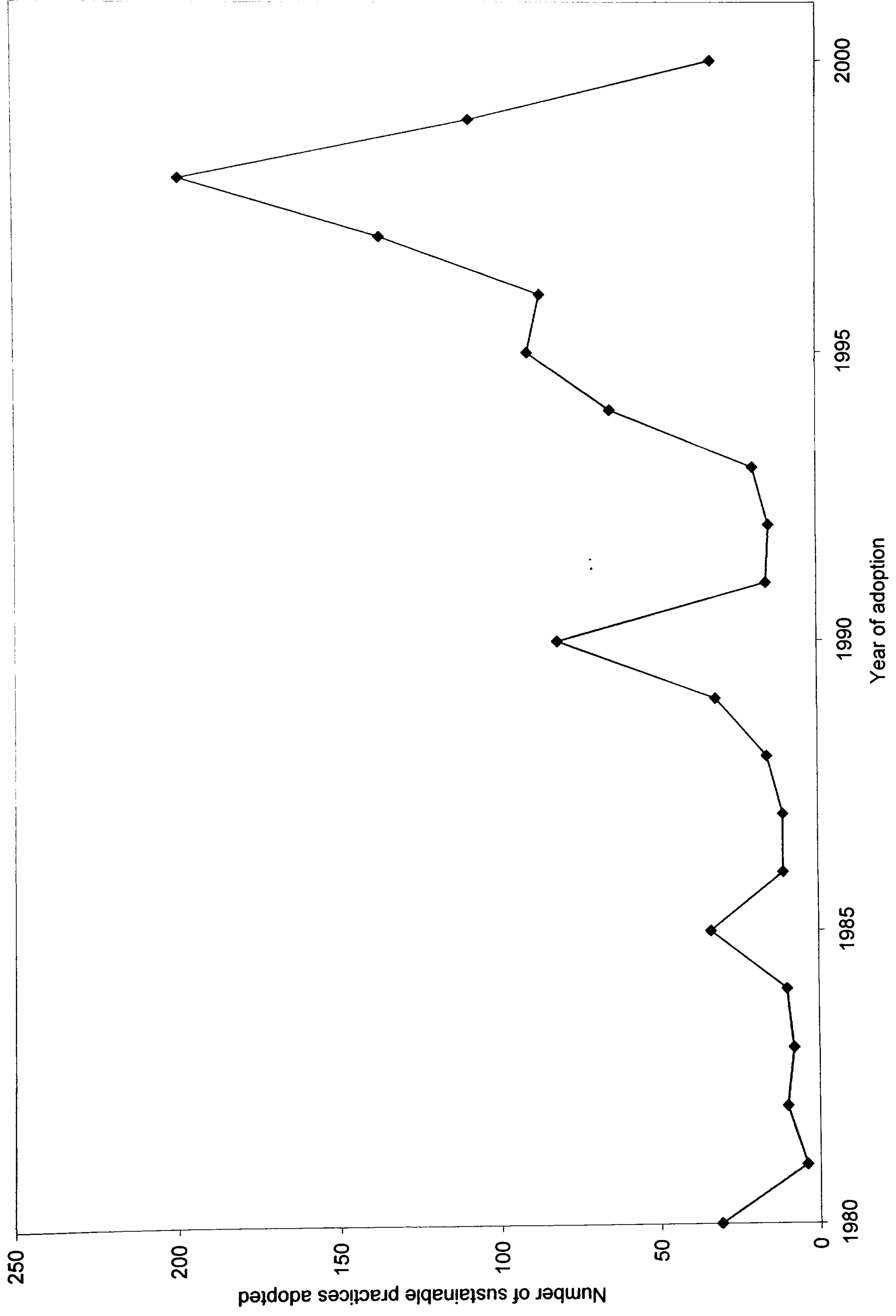


Figure 6.20 Diffusion curves - other environmental management practices



**Figure 6.21** Aggregate adoption of sustainable practices over time

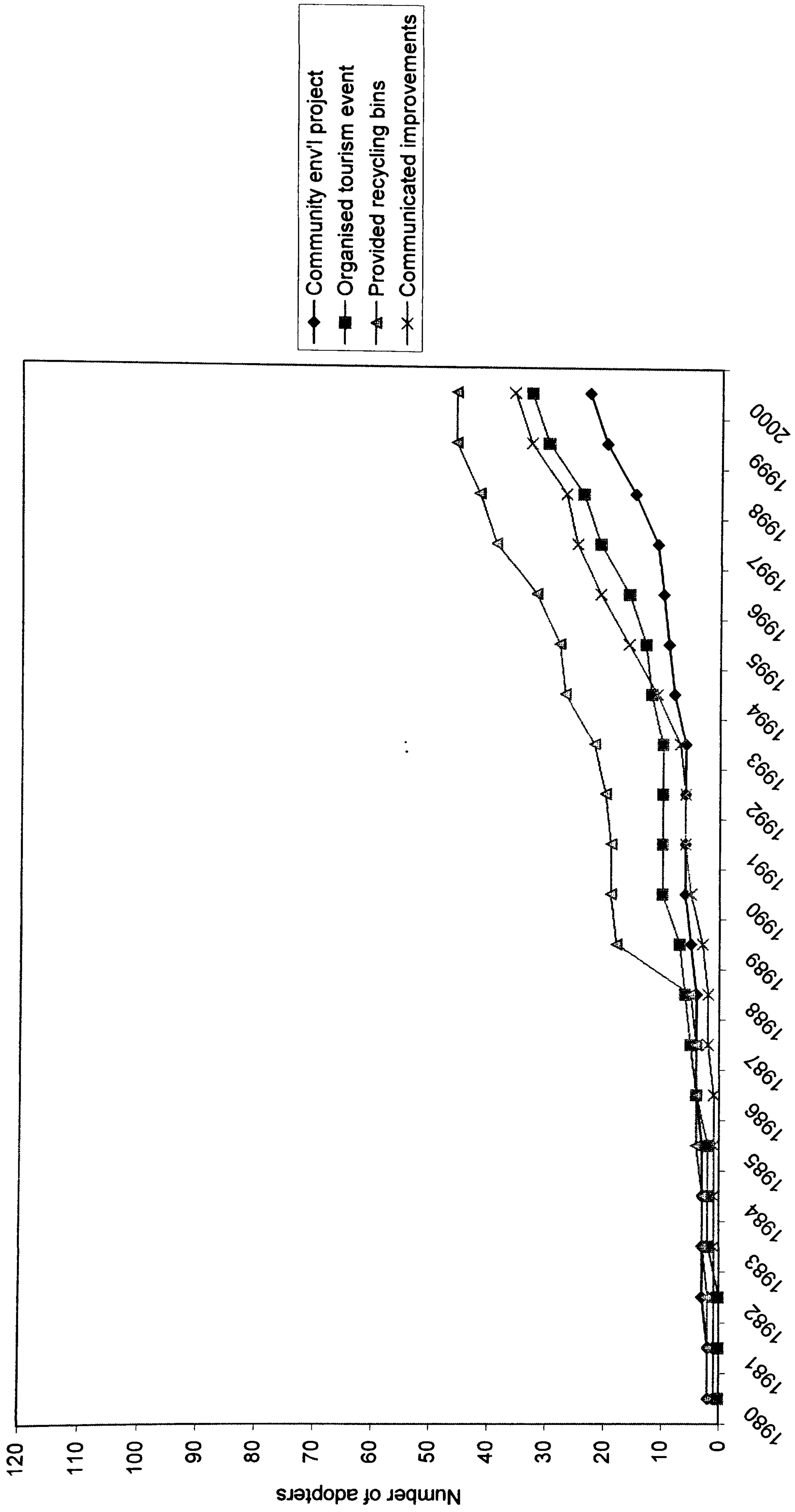


Figure 6.22 Diffusion curves - customer and community-related practices

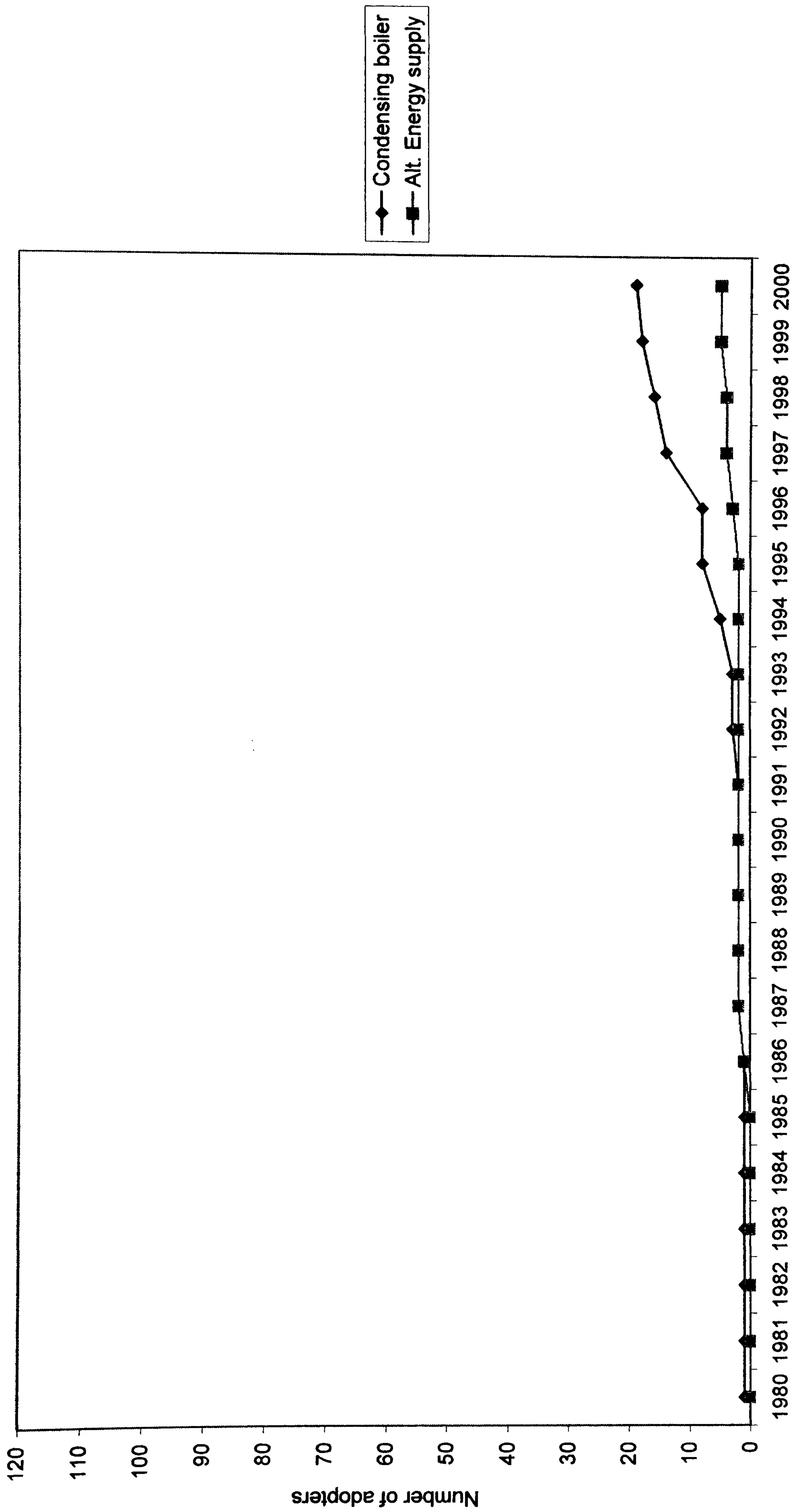


Figure 6.23 Diffusion curves - capital projects

**Table 6.3 Adoption of individual practices by membership of a tourism association**

		Non-member		Member		Total	
		No.	% of non-members	No.	% of members	No.	% of all
Low energy light bulbs <sup>a</sup>	Adopted	54	48.6%	63	73.3%	117	59.4%
	Not adopted	57	51.4%	23	26.7%	80	40.6%
Organised tourism event <sup>b</sup>	Adopted	24	21.6%	31	36.0%	55	27.9%
	Not adopted	87	78.6%	55	64.0%	142	72.1%
Encourage use of public transport <sup>c</sup>	Adopted	44	39.6%	65	75.6%	109	55.3%
	Not adopted	67	60.4%	21	24.4%	88	44.7%
Provide walking & cycling routes <sup>d</sup>	Adopted	88	79.3%	82	95.3%	170	86.3%
	Not adopted	23	20.7%	4	4.7%	27	13.7%
Recycling facilities for customers <sup>e</sup>	Adopted	29	26.1%	35	40.7%	64	32.5%
	Not adopted	82	73.9%	51	59.3%	133	67.5%
Communicate env'l improvements <sup>f</sup>	Adopted	23	20.7%	29	33.7%	52	26.4%
	Not adopted	88	79.3%	87	66.3%	145	73.6%
<b>Total numbers</b>		<b>111</b>	<b>-</b>	<b>86</b>	<b>-</b>	<b>197</b>	<b>-</b>

Only statistically significant relationships are reported

a Significant variances at 99.5% ( $\chi^2 = 12.166$ , df = 1)

b Significant variances at 97.5% ( $\chi^2 = 5.010$ , df = 1)

c Significant variances at 99.5% ( $\chi^2 = 25.327$ , df = 1)

d Significant variances at 99.5% ( $\chi^2 = 10.580$ , df = 1)

e Significant variances at 95% ( $\chi^2 = 4.691$ , df = 1)

f Significant variances at 95% ( $\chi^2 = 4.215$ , df = 1)

Practices that are accepted areas of environmental management were also well-established in the district. The majority of respondents had adopted some form of discriminatory purchasing policy (85.8 per cent), had undertaken some form of recycling (70.1 per cent), and had taken steps to conserve energy and water (59.4 per cent), although no data was collected with regard to the frequency or extent of adoption. Notwithstanding such omissions within the data, core changes appeared to have taken place in the routine behaviour of most businesses, which provides a strong basis to encourage the adoption of other practices. The associated diffusion curves revealed two distinct patterns of adoption (see Figures 6.18 to 6.20). Practices such as composting and the creation of wildlife areas had long histories of adoption and had diffused steadily over time. Others were more recent innovations (e.g. all forms of recycling, low energy light bulbs) and had spread more rapidly, evidenced by steeper diffusion curves. Adoption of these practices began to rise in the early 1990s, corresponding with key events such as publication of the Brundtland Report (1987) and the first Earth Summit (1992), and quickly reached 'take off'. As one owner stated in the in-depth interviews:

*"It [the adoption of sustainable practices] is something that has evolved. In 1987, although global warming and holes in the ozone layer and things were sort of commonplace, I think that it was after that date that the Government started trying to promote green practices... I would say that it is a fairly new thing" (High majority adopter).*

These temporal patterns of adoption are more clearly illustrated in Figure 6.21, although little confidence can be placed in the position of individual peaks and troughs of activity because of recall error. In each case, adoption has since tailed-off, suggesting that some form of intervention might be required to stimulate further adoption (see Figures 6.18 to 6.20).

The oldest and most prevalent form of discriminatory purchasing was a preference for locally produced goods and services (85.8 per cent). Adoption reflected a number of priorities, such as convenience, quality of produce, and a desire to support local businesses, although locally sourced goods were not necessarily produced locally or benefited the community economically. Other forms of discriminatory purchasing were more recent (see Figure 6.18). Just over half (52.8 per cent) of the sample actively purchased 'environmentally friendly' products and 44.2 per cent purchased goods with minimum packaging. Female business owners were significantly more likely to adopt such policies than males (see Table 6.4). Initiatives to encourage sustainable purchasing should target female decision-makers within businesses.



**Table 6.4 Adoption of individual practices by business owner gender**

		Male		Female		Total	
		No.	% males	No.	% females	No.	% of all
Purchase minimally packaged goods <sup>a</sup>	Adopted	34	32.7%	52	57.8%	86	44.3%
	Not adopted	70	67.3%	38	42.2%	108	55.7%
Purchase env'ly friendly products <sup>b</sup>	Adopted	45	43.3%	57	63.3%	102	52.6%
	Not adopted	59	56.7%	33	36.7%	92	47.4%
<b>Total numbers</b>		<b>104</b>	<b>-</b>	<b>90</b>	<b>-</b>	<b>194</b>	<b>-</b>

Not answered = 3

a Significant variances at 99.5% ( $\chi^2 = 12.303$ , df = 1)

b Significant variances at 99.5% ( $\chi^2 = 7.790$ , df = 1)

The 'recycling habit' was firmly ingrained within existing business practice. Almost three-quarters (70.1 per cent) of respondents recycled paper and 64.5 per cent recycled bottles. Only one-third (33.0 per cent) recycled tins, reflecting the more recent introduction of bring-banks in the district. The highest recyclers of paper and bottles were guesthouses (see Table 6.5), which dealt with more manageable amounts and types of waste than other businesses, and were more able to use household recycling facilities. More than half of the sample (59.4 per cent) had fitted low energy light bulbs, especially within serviced accommodation and holiday parks (77.8 per cent), where the energy costs were incurred by the business and contributed to a more price-competitive service (see Table 6.5). Amongst self-catering businesses, where energy costs were often paid by customers as an additional charge, adoption rates were significantly lower (50.0 per cent). Almost half of the sample (49.2 per cent) composted kitchen and garden waste and had reduced toilet flush capacities to conserve water (44.7 per cent). Half of the sample (50.8 per cent) had created wildlife areas on their property, although this type of action might have been for aesthetic reasons. Not surprisingly, adoption was highest amongst campsites, holiday parks, attractions, and businesses in countryside locations with the space to make landscape and habitat improvements, and where such features were an integral part of the infrastructure of the business (see Tables 6.5 and 6.6).

Initiatives that raised sustainability issues directly with customers were less popular. In fact, only a quarter of respondents (26.3 per cent) informed visitors of their environmental improvements, suggesting that attempts to gain competitive advantage or to raise customer awareness were not significant motives for adoption. Less than a third (32.5 per cent) had provided facilities for customers to segregate waste, although amongst businesses in countryside locations with fewer restrictions on space, adoption was significantly higher (48.1 per cent) (see Table 6.6). Practices that related to community aspects of sustainability, such as involvement in collaborative environmental projects (16.8 per cent) and the organisation of a tourism event (27.9 per cent), were also confined to a minority. Adoption rates were significantly higher amongst larger businesses (5-9 employees) (36.8 per cent in both cases) (see Table 6.7), with more time and resources to commit. The corresponding diffusion curves for these practices indicated a very slow rate of diffusion within the district, suggesting some resistance to adoption (see Figure 6.22). Unless the commercial relevance of these activities can be affirmed, diffusion within the district may already be approaching relative saturation.

**Table 6.5 Adoption of individual practices by business type**

	Hotel/Inn		Guesthouse B&B		Self-catering		Campsite holiday park		Attraction		Total	
	No.	% of type	No.	% of type	No.	% of type	No.	% of type	No.	% of type	No.	% of all
Low energy light bulbs <sup>a</sup>	18	78.3%	38	65.5%	38	50.0%	14	77.8%	9	42.9%	117	59.7%
Recycle paper <sup>b</sup>	5	21.7%	20	34.5%	38	50.0%	4	22.2%	12	57.1%	79	40.3%
Recycle bottles <sup>c</sup>	13	56.5%	51	87.9%	52	68.4%	9	50.0%	13	61.9%	138	70.4%
Created wildlife areas <sup>d</sup>	10	43.5%	7	12.1%	24	31.6%	9	50.0%	8	38.1%	58	29.6%
Work on community environmental project <sup>e</sup>	15	65.2%	47	81.0%	48	63.2%	7	38.9%	10	47.6%	127	64.8%
Give details of local events to customers <sup>f</sup>	8	34.8%	11	19.0%	28	36.8%	11	61.1%	11	52.4%	69	35.2%
	8	34.8%	23	39.7%	42	55.3%	12	66.7%	15	71.4%	100	51.0%
	15	65.2%	35	60.3%	34	44.7%	6	33.3%	6	28.6%	96	49.0%
	5	21.7%	7	12.1%	6	7.9%	4	22.2%	11	52.4%	33	16.8%
	18	78.3%	51	87.9%	70	92.1%	14	77.8%	10	47.6%	163	83.2%
	21	91.3%	52	89.7%	69	90.8%	17	94.4%	19	90.5%	178	90.8%
	2	8.7%	6	10.3%	7	9.2%	1	5.6%	2	9.5%	18	9.2%
<b>Total numbers</b>	<b>23</b>	<b>-</b>	<b>58</b>	<b>-</b>	<b>76</b>	<b>-</b>	<b>18</b>	<b>-</b>	<b>21</b>	<b>-</b>	<b>196</b>	<b>-</b>

1 holiday company not included in the above analysis

\* analysis

Only statistically significant relationships are reported

a. Significant variance at 97.5% ( $\chi^2 = 12.002$ ,  $df = 4$ )

b. Significant variance at 99.5% ( $\chi^2 = 15.147$ ,  $df = 4$ )

c. Significant variance at 99.5% ( $\chi^2 = 14.808$ ,  $df = 4$ )

d. Significant variance at 97.5% ( $\chi^2 = 11.235$ ,  $df = 4$ )

e. Significant variance at 99.5% ( $\chi^2 = 24.997$ ,  $df = 4$ )

f. Significantly similar at 97.5% ( $\chi^2 = 0.387$ ,  $df = 4$ )

**Table 6.6 Adoption of individual practices by location type**

		Countryside		Village		Town		Total	
		No.	% of type	No.	% of type	No.	% of type	No.	% of all types
Recycle paper <sup>a</sup>	Adopted	39	72.2%	37	61.7%	36	85.7%	112	71.8%
	Not adopted	15	27.8%	23	38.3%	6	14.3%	44	28.2%
Created wildlife areas <sup>b</sup>	Adopted	41	75.9%	28	46.7%	10	23.8%	79	50.6%
	Not adopted	13	24.1%	32	53.3%	32	76.2%	77	49.4%
Recycling facilities for customers <sup>c</sup>	Adopted	26	48.1%	13	21.7%	14	33.3%	53	34.0%
	Not adopted	28	51.9%	47	78.3%	28	66.7%	103	66.0%
Communicate env'l improvements <sup>d</sup>	Adopted	21	38.9%	9	15.0%	11	26.2%	41	26.3%
	Not adopted	33	61.1%	51	85.0%	31	73.8%	115	73.7%
<b>Total numbers</b>		<b>54</b>	<b>-</b>	<b>60</b>	<b>-</b>	<b>42</b>	<b>-</b>	<b>156</b>	<b>-</b>

Table excludes attractions and businesses with multiple localities

Only statistically significant relationships are reported

a Significant variances at 95% ( $\chi^2 = 7.063$ , df = 2)

b Significant variances at 99.5% ( $\chi^2 = 26.288$ , df = 2)

c Significant variances at 97.5% ( $\chi^2 = 8.896$ , df = 2)

d Significant variances at 97.5% ( $\chi^2 = 8.372$ , df = 2)

**Table 6.7 Adoption of individual practices by business size (no. of employees)**

		No. of employees								Total	
		0		1 - 4		5 - 9		10 and over		No.	% all classes
		No.	% class	No.	% class	No.	% class	No.	% class		
Low energy light bulbs <sup>a</sup>	Adopted	37	48.1%	44	61.1%	16	84.2%	13	68.4%	110	58.8%
	Not adopted	40	51.9%	28	38.9%	3	15.8%	6	31.6%	77	41.2%
Worked on an env'l project <sup>b</sup>	Adopted	4	5.2%	15	20.8%	7	36.8%	6	31.6%	32	17.1%
	Not adopted	73	94.8%	57	79.2%	12	63.2%	13	68.4%	155	82.9%
Organised a tourism event <sup>c</sup>	Adopted	13	16.9%	24	33.3%	7	36.8%	8	42.1%	52	27.8%
	Not adopted	64	83.1%	48	66.7%	12	63.2%	11	57.9%	135	72.2%
Encourage use of public transport <sup>d</sup>	Adopted	43	55.8%	41	56.9%	11	57.9%	10	52.6%	105	56.1%
	Not adopted	34	44.2%	31	43.1%	8	42.1%	9	47.4%	182	43.9%
Recycling facilities for customers <sup>e</sup>	Adopted	22	28.6%	30	41.7%	*	*	7	18.4%	59	31.6%
	Not adopted	55	71.4%	42	58.3%			31	81.6%	128	68.4%
Communicate env'l improvements <sup>f</sup>	Adopted	14	18.2%	26	36.1%	*	*	10	26.3%	50	26.7%
	Not adopted	63	81.8%	46	63.9%			28	73.7%	137	73.3%
<b>Total numbers</b>		<b>77</b>	<b>-</b>	<b>72</b>	<b>-</b>	<b>19</b>	<b>-</b>	<b>19</b>	<b>-</b>	<b>187</b>	<b>-</b>

Not answered = 10

Only statistically significant relationships are reported

Percentages add up to more than 100 as respondents could select more than one option

\* Figures amalgamated with '10 and over' category

a Significant variances at 97.5% ( $\chi^2 = 9.622$ , df = 3)

b Significantly similar at 99.5% ( $\chi^2 = 16.431$ , df = 3)

c Significant variances at 95% ( $\chi^2 = 8.380$ , df = 3)

d Significantly similar at 97.5% ( $\chi^2 = 0.140$ , df = 3)

e Significant variances at 95% ( $\chi^2 = 6.761$ , df = 2)

f Significant variances at 95% ( $\chi^2 = 6.110$ , df = 2)

Few businesses had implemented improvements that required substantial capital investment, such as a condensing boiler (12.7 per cent) or an alternative energy supply (3.6 per cent). These practices were not specific to any type of business and were in very early stages of diffusion (see Figure 6.23). In the short-term, there appears to be an insufficient critical mass of adopters for diffusion to grow significantly without outside intervention.

Tourism businesses were revealed as low adopters of formal tools of environmental management. Only a quarter of respondents (25.8 per cent) had reviewed their environmental performance, of which only a quarter (27.5 per cent) had used formal methods of review (see Figure 6.24). A higher proportion of businesses concerned about their impact on the environment had conducted an environmental review (see Table 6.8). Reviews had been used as a tool to address personal concerns rather than to increase profit margins. The Green Audit Kit was the most popular framework for a formal review, but had been used by only six respondents (see Figure 6.25). District Council initiatives to encourage sustainable practices through use of the Kit and by targeting commercial motives for adoption seem to have had little effect.

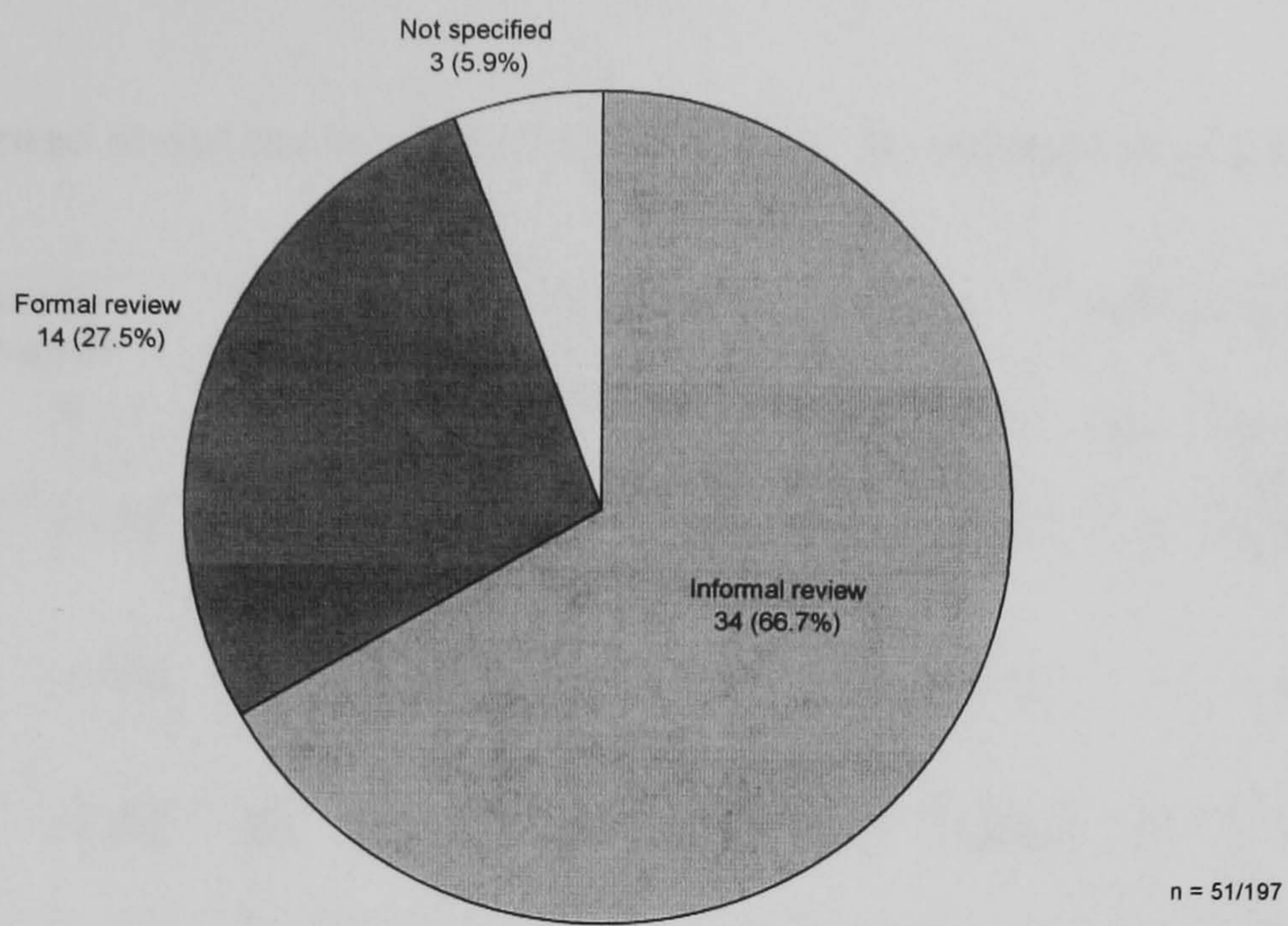
A small proportion of respondents (11.7 per cent) had adopted other related practices, including a number of genuinely innovative improvements (e.g. composting toilets, rainwater flushed toilets, reed bed water filtration systems) (see Table 6.9). Most additional practices, however, required far less commitment or were of questionable relevance to sustainability (e.g. denying property access to fox hunts, boycotting French goods). The claim that such practices were sustainable reiterated the point that many businesses lacked understanding of the nature and scope of sustainability.

### **6.3.3 Patterns of adoption**

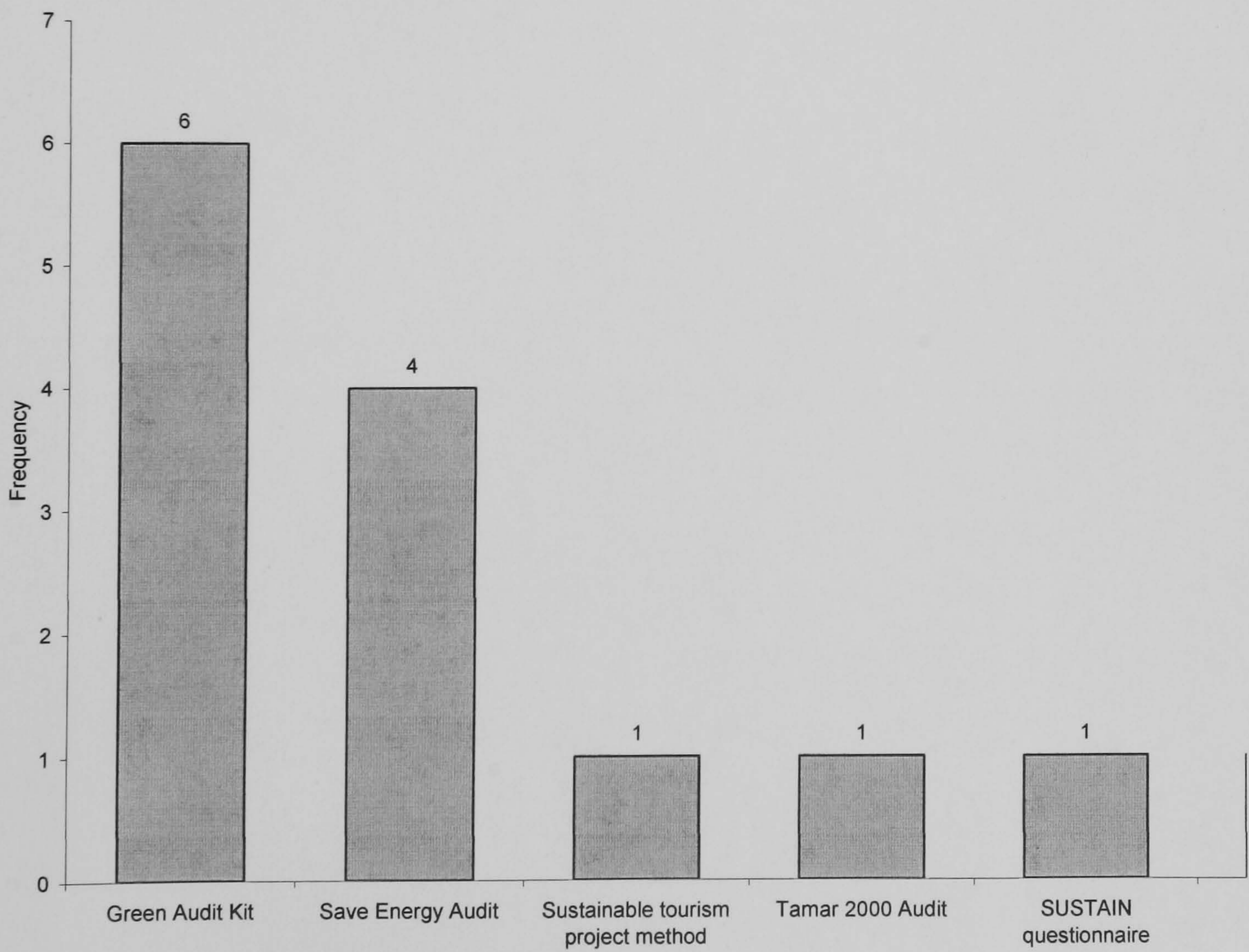
The combination and sequence in which businesses had adopted sustainable practices provided an additional insight into the decision-making process, and indicated the key practices where adoption was instrumental in developing a longer-term commitment to sustainability and which might be targeted within policy interventions.

#### **a. Clustering**

Significant associations were identified between different combinations of adopted practices, indicating that many were implemented as groups or clusters of innovations (see Figure 6.26). The



**Figure 6.24** Formality of environmental review



**Figure 6.25** Method of formal review

**Table 6.8 'Concerned about the impact of my business' by conduct of an environmental review**

	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree		Total	
	No.	% of row	No.	% of row	No.	% of row	No.	% of row	No.	% of row	No.	% of row
Conducted a review	12	24.0%	13	26.0%	3	6.0%	14	28.0%	8	16.0%	50	100.0%
Not conducted a review	20	15.0%	52	39.1%	29	21.8%	27	20.3%	5	3.8%	133	100.0%
<b>Total</b>	<b>32</b>	<b>17.5%</b>	<b>65</b>	<b>35.5%</b>	<b>32</b>	<b>17.5%</b>	<b>41</b>	<b>22.4%</b>	<b>13</b>	<b>7.1%</b>	<b>183</b>	<b>100.0%</b>

Not answered = 14

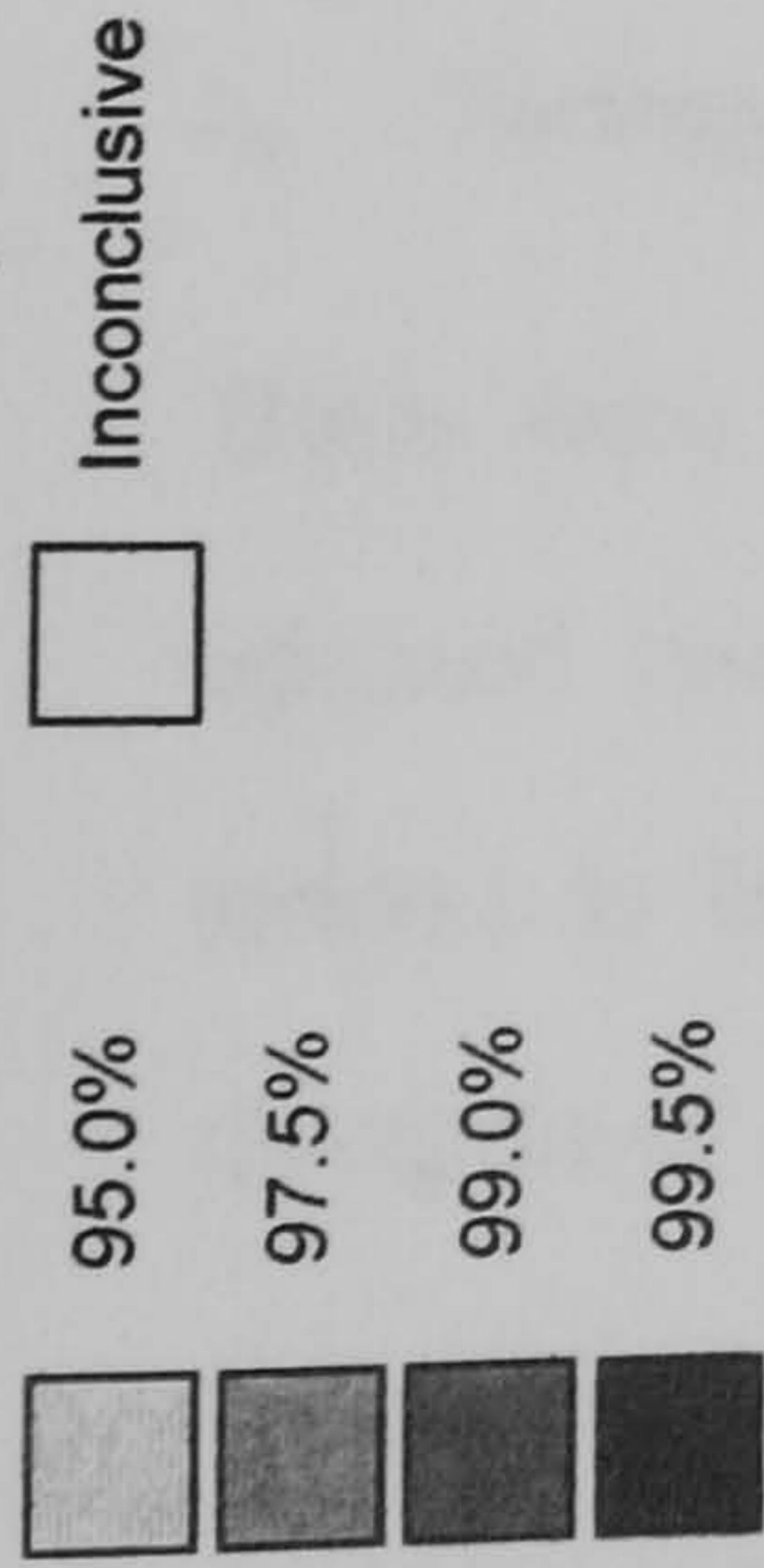
Significant variances at 99.5% ( $\chi^2 = 17.241$ ,  $df = 4$ )

**Table 6.9 Other sustainable practices adopted**

<b>Resource consumption (frequency of adoption stated if greater than one)</b>		
<ul style="list-style-type: none"> <li>• Insulated property (8)</li> <li>• Installed thermostatic heating controls (3)</li> <li>• Collected rainwater to flush WCs (3)</li> <li>• Used water-butts (3)</li> </ul>	<ul style="list-style-type: none"> <li>• Used own timber as fuel (2)</li> <li>• Adopted a minimum laundry policy</li> <li>• Purchased a fuel-efficient car</li> <li>• Paid a premium for 'green' electricity</li> </ul>	<ul style="list-style-type: none"> <li>• Used a wood-chipping machine</li> <li>• Installed showers heated at 'point of issue'</li> </ul>
<b>Reduction of waste</b>		
<ul style="list-style-type: none"> <li>• Used plastic milk containers (5)</li> <li>• Constructed a reed bed filter system (3)</li> <li>• Reused paper (3)</li> <li>• Used a wormery (3)</li> <li>• Recycled plastic (2)</li> <li>• Used kitchen waste as an animal feed (2)</li> </ul>	<ul style="list-style-type: none"> <li>• Repaired and reused items</li> <li>• Returned egg boxes</li> <li>• Installed composting toilets</li> <li>• Actively purchased second-hand products</li> <li>• Given used clothing to charities</li> <li>• Purchased a 'mulching' lawnmower</li> </ul>	<ul style="list-style-type: none"> <li>• Refused junk mail</li> <li>• Reused timber</li> <li>• Recycled toner cartridges</li> <li>• Recycled batteries</li> <li>• Used environmentally friendly cleaning materials</li> </ul>
<b>Improving the local environment</b>		
<ul style="list-style-type: none"> <li>• Planted trees (9)</li> <li>• Undertaken organic gardening</li> </ul>	<ul style="list-style-type: none"> <li>• Collected litter in the area</li> <li>• Objected to planning permission for an 'inappropriate development'</li> </ul>	<ul style="list-style-type: none"> <li>• Given lectures on the subject</li> <li>• Removed Japanese Knotweed</li> </ul>
<b>Supporting the local community</b>		
<ul style="list-style-type: none"> <li>• Provided a community bus service</li> <li>• Support community drama &amp; dance</li> </ul>	<ul style="list-style-type: none"> <li>• Operated a tourist accommodation helpline</li> </ul>	<ul style="list-style-type: none"> <li>• Employed local staff</li> <li>• Boycotted French goods</li> </ul>
<b>Encouraging environmentally friendly tourism</b>		
<ul style="list-style-type: none"> <li>• Educated customers (3)</li> <li>• Promoted wildlife in brochures</li> </ul>	<ul style="list-style-type: none"> <li>• Produced own 'Rules for the countryside'</li> </ul>	<ul style="list-style-type: none"> <li>• Managed customer groups to minimise impact</li> </ul>
<b>Other</b>		
<ul style="list-style-type: none"> <li>• Adopted traditional/organic farming methods (3)</li> </ul>	<ul style="list-style-type: none"> <li>• Renovated historic features (2)</li> <li>• Made improvements to grounds</li> </ul>	<ul style="list-style-type: none"> <li>• Denied fox hunt access to property</li> </ul>



**Legend** Significance of association  
(Chi-square test confidence limits)



	Reducing resource consumption				Reducing waste						Improving the local environment		Supporting the local community			Encouraging environmentally friendly tourism			
	low energy bulbs	condensing boiler	alternative energy	reduced toilet flush	composting	purchase min. packaged goods	purchase env'ly friendly goods	recycle paper	recycle bottles	recycle tins	created wildlife areas	community env'l project	purchase local products	organised tourism event	local event details to customers	encourage use of public transport	walking/cycling route details	recycling facilities for customers	communicate env'l improvements
Reducing resource consumption																			
Reducing waste	low energy bulbs																		
	condensing boiler																		
	alternative energy																		
	reduced toilet flush																		
Improving the local environment	composting																		
	purchase minimally packaged goods																		
	purchase environmentally friendly goods																		
	recycle paper																		
Supporting the local community	recycle bottles																		
	recycle tins																		
	created wildlife areas																		
	community environmental project																		
Encouraging environmentally friendly tourism	purchase local products																		
	organised tourism event																		
	local event details to customers																		
	encourage use of public transport																		
	walking/cycling route details to customers																		
	recycling facilities for customers																		
	communicate environmental improvements																		

**Figure 6.26**  
**Clustering of adopted practices**

strongest clustering related to business waste. Each waste-related practice was strongly associated with every other, together with local purchasing and activities that encouraged environmentally friendly tourism (e.g. communicating environmental improvements to customers). The recognised aims and benefits of these groups of practices appeared to be closely aligned, such that they were adopted as a package of related measures.

A further discrete clustering was detected between projects that sought to improve local sustainability through collaborative effort. Although few businesses had worked on a community environmental project, they were also likely to have organised a tourism event and created wildlife areas, which necessitated a planned and co-ordinated approach. Such practices were distinct from waste-related activities by appealing to social or community-orientated motives and would require very different policy interventions to encourage participation. Not surprisingly, all types of discriminatory purchasing behaviour were closely related. In contrast, practices that reduced businesses' consumption of resources (e.g. installing low energy light bulbs), which might appeal to financial motives, showed little clustering. Such activities were viewed and adopted largely in isolation to fulfil specific objectives.

The results in Figure 6.26 suggest that only a limited number of practices are recognised as being directly relevant to sustainability, particularly waste-related activities. Patterns of clustered adoption present both opportunities and problems. Targeted initiatives in one area of sustainability may also influence others that are closely associated. In contrast, activities that showed little or no association with others are likely to require discrete strategies to reaffirm their relevance to sustainability and to encourage adoption (e.g. community-related initiatives).

#### ***b. Timing of adoption***

There were also statistically significant differences in the order in which clustered practices were adopted (see Figure 6.27). The adoption of certain 'core' practices significantly preceded and tended to lead to the adoption of the other 'dependent' practices (Figure 6.28 summarises the direction of significant rank order relationships). Within the main cluster of sustainable practices, composting was usually adopted significantly earlier than other waste-related practices and represented the first step towards sustainability. All types of recycling and the communication of environmental improvements were adopted significantly later than most others and had benefited

**Legend** Direction of arrow indicates ranking direction (Wilcoxon test)

- Significant ranking difference (95% confidence)
- Partially significant ranking (90% confidence)
- Significantly similar ranking (95% confidence)
- Inconclusive ranking difference

	Reducing resource consumption				Reducing waste						Improving the local environment		Supporting the local community			Encouraging environmentally friendly tourism			
	low energy bulbs	condensing boiler	alternative energy	reduced toilet flush	composting	purchase min. packaged goods	purchase env'ly friendly goods	recycle paper	recycle bottles	recycle tins	created wildlife areas	community env'ly project	purchase local products	organised tourism event	local event details to customers	encourage use of public transport	walking/cycling route details	recycling facilities for customers	communicate env'ly improvements
Reducing resource consumption																			
Reducing waste	low energy bulbs																		
	condensing boiler																		
	alternative energy																		
reduced toilet flush																			
Reducing waste	composting																		
	purchase minimally packaged goods																		
	purchase environmentally friendly goods																		
recycle paper																			
recycle bottles																			
recycle tins																			
Improving the local environment	created wildlife areas																		
	community environmental project																		
Supporting the local community	purchase local products																		
	organised tourism event																		
	local event details to customers																		
Encouraging environmentally friendly tourism	encourage use of public transport																		
	walking/cycling route details to customers																		
	recycling facilities for customers																		
	communicate environmental improvements																		

**Figure 6.27**  
Timing of adoption - rank order relationships between sustainable practices

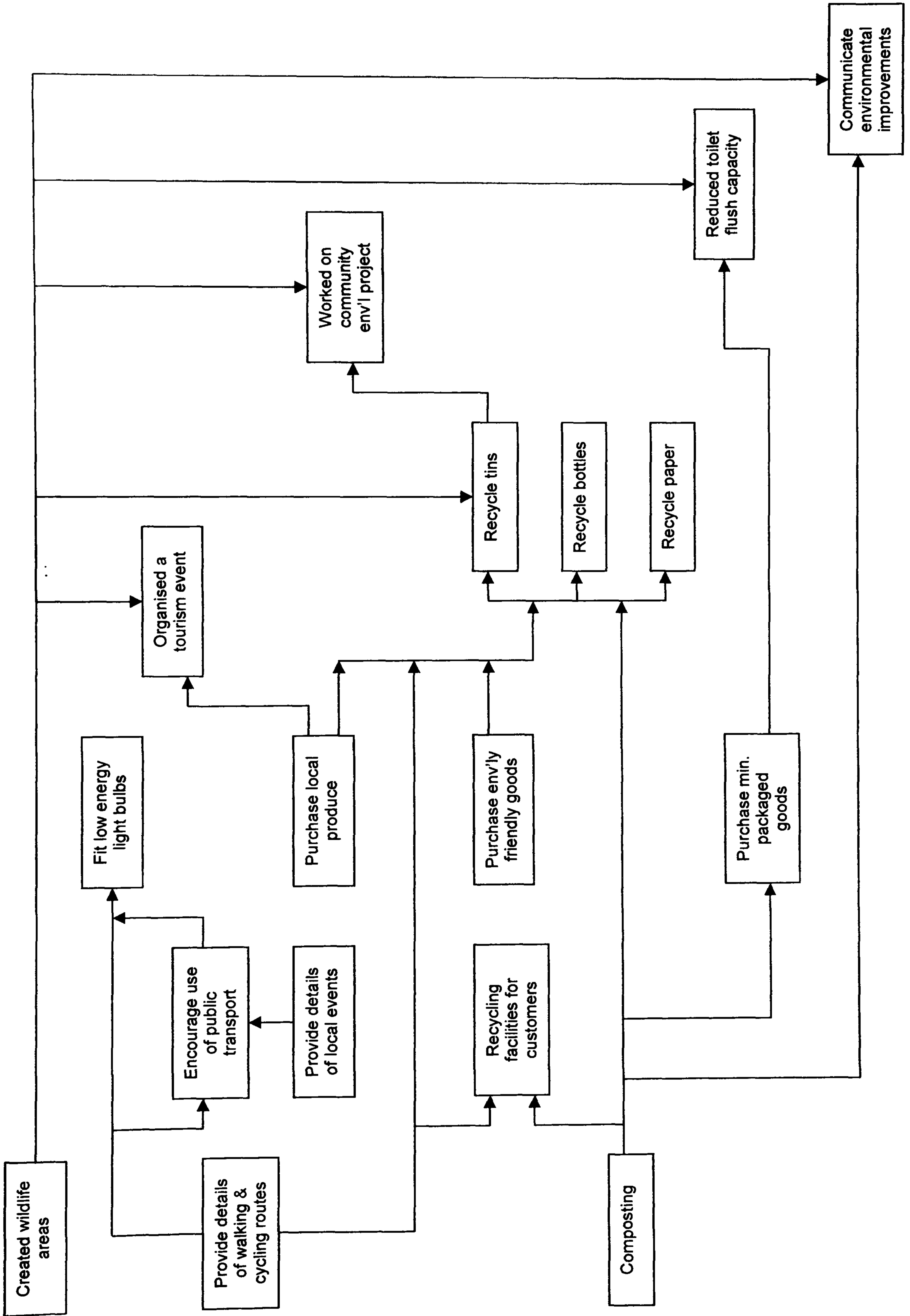


Figure 6.28 Direction of rank order relationships between activities

from the awareness and interest developed through earlier activity. Other 'early' practices included the creation of wildlife areas, providing details of walking and cycling routes, and actively purchasing local products. Policy interventions that target 'core' practices within key clusters of activity might establish a sound basis for encouraging other related practices. For example, it may be possible to use the more established practice of purchasing locally produced goods as a basis to encourage increased purchasing of environmentally friendly products. There also appears to be merit in extending the District Council's policy of offering residents discounted compost bins to tourism businesses to encourage interest in other waste-related activities.

The extent and manner in which sustainable practices had diffused within the district is indicative of the potential of tourism-related businesses to adopt sustainable practices and the challenges faced by the District Council to encourage them to do so. Significant patterns in the diffusion of individual practices suggest tactical solutions to target core practices within the main clusters of activity (e.g. waste-reducing practices, local purchasing) and to support the diffusion of innovations that have yet to gain wide acceptance (e.g. installing a condensing boiler). In contrast, variances in the number of practices adopted by tourism-related businesses suggest that more strategic interventions will be required to encourage iterative responses from all sections of the industry (e.g. through targeted information and advice). The factors that accounted for such diversity, and might inform such policy interventions, are discussed in the next section.

## **6.4 FACTORS INFLUENCING ADOPTION**

A range of independent factors were tested for statistical association with the number (indicated by adopter category) and type of practices that had been adopted (see Table 6.10). The choice of factors was informed by the results of the focus groups and past studies of innovation diffusion. A key premise of innovation diffusion theory is that statistically significant associations are indicative of the influences upon adoption. Where analysis of the survey data highlighted significant associations, the in-depth interviews allowed the nature of their influence to be examined.

### **6.4.1 The influence of business and business owner characteristics**

Of the 16 business and owner characteristics that were tested for association with the number of

**Table 6.10 Business factors tested for influence upon the adoption of sustainable practices**

<b>Factor</b>	<b>Rationale</b>
Type of business	To assess whether sustainable practices were more readily adopted within certain industry sectors
Business size	To test assumptions that small businesses were less able to adopt sustainable practices than larger businesses
Type of customers	To test the hypothesis that customer type encouraged/constrained the adoption of sustainable practices
Legal status	To test the hypothesis that certain types of business ownership encouraged/constrained adoption
Time in business	To identify the most relevant business 'milestones' for the adoption of sustainable practices
Gender	To identify differences in adoption practices between male and female business owners
Age	To test the assumption that younger generations of business owners were more willing to adopt sustainable business practices than older generations
Reasons for setting up business	To test whether initial business strategy had influenced the adoption of sustainable practices
Business priorities	To test whether entrepreneurship had influenced the adoption of sustainable practices
Closed during the year	To test whether businesses that closed during the year were less likely to adopt routine sustainable practices
Additional income source	To test the hypothesis that business owners with additional income sources felt more financially able to adopt sustainable practices
Location	To test the hypothesis that businesses in inland areas were more able to adopt sustainable practices
Membership of organisations	To test the influence of networks and organisations in the dissemination of sustainable practices
Conducted an environmental review	To test the influence of an environmental review on the adoption of sustainable practices

practices adopted, only six had a significant influence upon overall commitment to sustainability (see Figure 6.29).

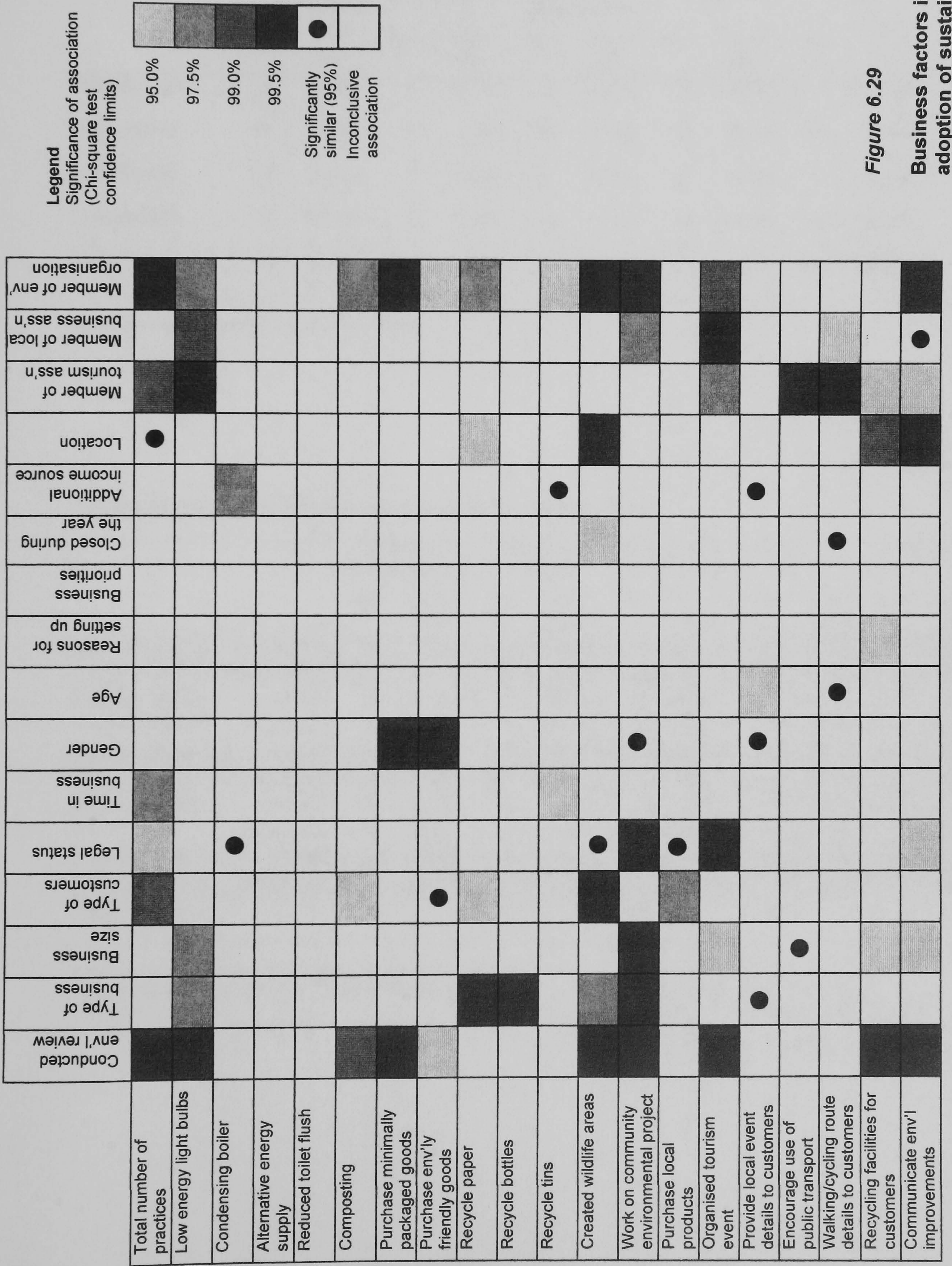
#### **a. Customer type**

Within the sample, certain types of clientele were associated with high levels of adoption. While all adopter categories had to accommodate families as the main type of visitors to the district, low adopters were most dependent upon this market (55.9 per cent) (see Table 6.11). Only one-quarter of high adopters (27.3 per cent) provided services to families. Other markets, such as professional couples and 'empty nesters' (couples with children, who have left home) and groups of adults were more important for the high adopter (36.3 per cent i.e. 12/33) and high majority adopter groups (39.1 per cent i.e. 27/69) than the low adopters (17.6 per cent i.e. 6/34). These customer types did not necessarily possess particularly strong environmental values, but, through relatively high disposable income, were more likely to express positive values about the environment through their purchasing decisions. In contrast, families, perhaps with limited budgets, offered little encouragement to owners to adopt sustainable practices. While these results seemed to provide evidence of demand-led adoption, the association was not reflected in the adoption of practices that might have been expected to be driven by customer demand (e.g. the provision of recycling facilities for customers, the communication of environmental improvements) (see Table 6.12). The interviews confirmed that businesses did not feel under particular pressure from their customers to adopt sustainable practices, but an environmentally sympathetic clientele enabled owners to make environmental improvements for their own reasons, as the following comments illustrate:

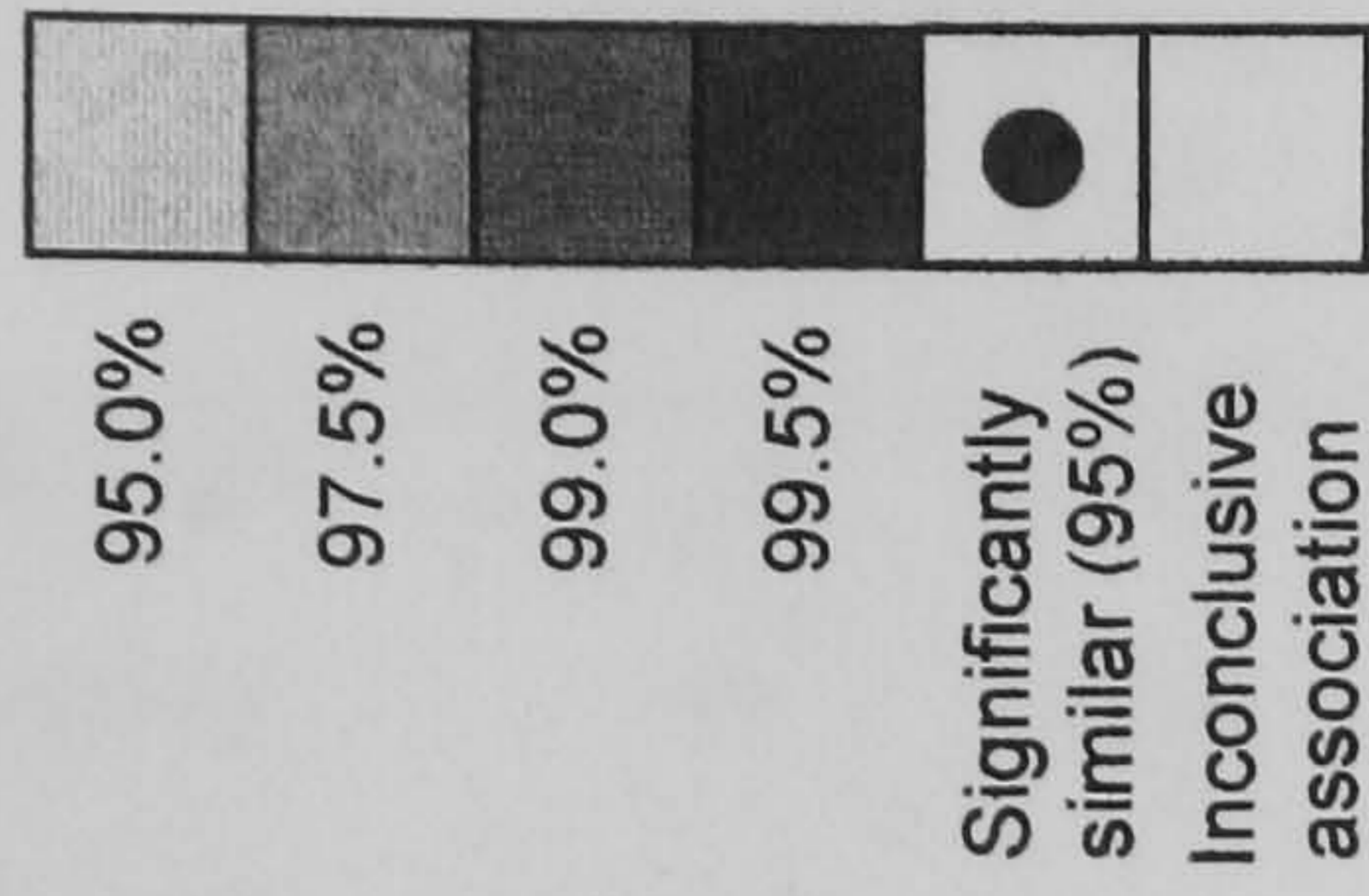
*"Guests notice, not all of them, but some of them say 'it is nice to see that someone is caring more about external things'. We do not tell them, other than the towels. There is a notice in the bedroom. Other than that we do not tell them. But people do notice that we have got energy saving bulbs in bedside lights" (High majority adopter).*

#### **b. Legal status**

The legal status of businesses appeared to have a significant influence upon the number of sustainable practices that had been adopted. More than half of high and high majority adopters were sole traders (54.9 per cent i.e. 56/102). In contrast, amongst low and low majority adopters, the most frequent business structure was a partnership (46.8 per cent i.e. 44/94) (see Table 6.13). There were insufficient numbers of other types of business organisation (e.g. limited companies, co-operatives) to analyse their individual effects upon adoption, but might have been significant in distinguishing the high adopters from other groups. The interviews revealed that it was the number



**Legend**  
Significance of association (Chi-square test confidence limits)



**Figure 6.29**

**Business factors influencing the adoption of sustainable practices**



**Table 6.11 Influence of main customer type on adopter classification**

	Families/ extended families		Groups of adults		Prof'l couples/ empty nesters		Other		Total	
	No.	% of row	No.	% of row	No.	% of row	No.	% of row	No.	% of row
High adopters	9	27.3%	4	12.1%	8	24.2%	12	36.4%	33	100.0%
High majority	17	24.6%	2	2.9%	25	36.2%	25	36.2%	69	100.0%
Low majority	14	23.0%	5	8.2%	20	32.8%	22	36.1%	61	100.0%
Low adopters	19	55.9%	4	11.8%	2	5.9%	9	26.5%	34	100.0%
<b>Total</b>	<b>59</b>	<b>29.9%</b>	<b>15</b>	<b>7.6%</b>	<b>55</b>	<b>27.9%</b>	<b>68</b>	<b>34.5%</b>	<b>197</b>	<b>100.0%</b>

Significant variances at 99% ( $\chi^2 = 22.124$ ,  $df = 9$ )

**Table 6.12 Adoption of individual practices by customer type**

		Families/ extended families		Groups of adults		Prof'l couples/ empty nesters		Other		Total	
		No.	% of type	No.	% of type	No.	% of type	No.	% of type	No.	% of all
Composting <sup>a</sup>	Adopted	25	42.4%	3	20.0%	32	58.2%	37	54.4%	97	49.2%
	Not adopted	34	57.6%	12	80.0%	23	41.8%	31	45.6%	100	50.8%
Purchase env'ly friendly products <sup>b</sup>	Adopted	31	52.5%	8	53.3%	30	54.5%	35	51.5%	104	52.8%
	Not adopted	28	47.5%	7	46.7%	25	45.5%	33	48.5%	93	47.2%
Recycle paper <sup>c</sup>	Adopted	36	61.0%	8	53.3%	46	83.6%	48	70.6%	138	70.1%
	Not adopted	23	39.0%	7	46.7%	9	16.4%	20	29.4%	59	29.9%
Created wildlife areas <sup>d</sup>	Adopted	28	47.5%	4	26.7%	22	40.0%	46	67.6%	100	50.8%
	Not adopted	31	52.5%	11	73.3%	33	60.0%	22	32.4%	97	49.2%
Purchase local products <sup>e</sup>	Adopted	44	74.6%	15	100.0%	47	85.5%	63	92.6%	169	85.8%
	Not adopted	15	25.4%	0	0.0%	8	14.5%	5	7.4%	28	14.2%
<b>Total numbers</b>		<b>59</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>55</b>	<b>-</b>	<b>68</b>	<b>-</b>	<b>197</b>	<b>-</b>

Only statistically significant relationships are reported  
Percentages add up to more than 100 as respondents could select more than one option

a Significant variances at 95% ( $\chi^2 = 8.731$ ,  $df = 3$ )

b Significantly similar at 97.5% ( $\chi^2 = 0.119$ ,  $df = 3$ )

c Significant variances at 95% ( $\chi^2 = 9.141$ ,  $df = 3$ )

d Significant variances at 99.5% ( $\chi^2 = 14.047$ ,  $df = 3$ )

e Significant variances at 97.5% ( $\chi^2 = 11.196$ ,  $df = 3$ )

**Table 6.13 Influence of legal status on adopter classification**

	Sole trader/ private business		Partnership		Other <sup>a</sup>		Total	
	No.	% of row	No.	% of row	No.	% of row	No.	% of row
High adopters	15	45.5%	11	33.3%	7	21.2%	33	100.0%
High majority	41	59.4%	23	33.3%	5	7.2%	69	100.0%
Low majority	18	30.0%	32	53.3%	10	16.7%	60	100.0%
Low adopters	17	50.0%	12	35.3%	5	14.7%	34	100.0%
<b>Total</b>	<b>91</b>	<b>46.4%</b>	<b>78</b>	<b>39.8%</b>	<b>27</b>	<b>13.8%</b>	<b>196</b>	<b>100.0%</b>

Not answered = 1

Significant variances at 95% ( $\chi^2 = 13.949$ ,  $df = 6$ )

<sup>a</sup> Includes limited companies, plcs, co-operatives, trusts, and charities

of decision-makers in the business and their spheres of responsibility, rather than legal status *per se*, that influenced adoption decisions. Sole traders were free to express their environmental values in all aspects of their business. As the number of decision-makers increased and responsibilities were divided, any individual concerns for the environment were effectively diluted and confined to the specific roles assumed within the business. One business in the in-depth interviews explained:

*“She [my wife] primarily looks after the furnishings and the food. When it comes to the energy costs and disposing of the rubbish, that falls into my province” (Low majority adopter).*

Where sustainable practices were considered jointly, there was often disagreement between partners with different values and priorities, with the overall effect that adoption was weakened.

The following comments illustrate the point:

*“I am constantly battling with my husband to get things done anyway, because he is the accountant in the family. He is saying ‘can we afford it?’ and I am saying ‘we have got to have it’. So we sort of get to a happy medium in the end. He is a green person, possibly not as much as I am. But he is the one who sent for all the ‘Hippos’, and he is the one that installed all the light bulbs, so he does think about things... I think it is probably more finance than environmental” (Low majority adopter).*

Policy interventions will need to be sufficiently flexible to recognise the very different priorities and concerns that can exist within the same business (e.g. by promoting both the environmental and financial benefits of adoption).

### **c. Business owner experience**

The length of time in business had a significant influence on adoption. Almost half of all high adopters had been established six to ten years prior to the survey (1990-1994) (46.9 per cent i.e.). In contrast, two-thirds of low and low majority adopters (66.0 per cent i.e. 62/94) commenced business three to five prior (1995-1997) or more than 10 years prior (1989 or earlier) (see Table 6.14). Business interest in sustainable practices seems to have varied over time, resulting in waves of adoption activity. A number of factors might account for these patterns. Almost two-thirds (60.0 per cent) of businesses established six to ten years prior to the survey, around the time of the first Earth Summit (1992), were strongly concerned about the state of the local environment, compared with only one-third (38.8 per cent i.e. 57/147) of businesses established at other times (see Table 6.15). Prevailing environmental attitudes at the time of business ‘start up’ appear to have had a lasting influence on business behaviour. Additionally, the relative reluctance of businesses established between 1995 and 1997 to commit time to environmental improvements (see Table 6.16) corresponds with a fall in visitor expenditure over the period (Cornwall Tourist Board, 2001a). These results indicate that adoption behaviour is contextualised with national and global trends of

**Table 6.14 Influence of time running current business on adopter classification**

	< 2 years		3 – 5 years		6 – 10 years		> 10 years		Total	
	No.	% of row	No.	% of row	No.	% of row	No.	% of row	No.	% of row
High adopters	6	18.8%	5	15.6%	15	46.9%	6	18.8%	32	100.0%
High majority	16	23.2%	11	15.9%	13	18.8%	29	42.0%	69	100.0%
Low majority	12	19.7%	14	23.0%	7	11.5%	28	45.9%	61	100.0%
Low adopters	8	24.2%	8	24.2%	5	15.2%	12	36.4%	33	100.0%
<b>Total</b>	<b>42</b>	<b>21.5%</b>	<b>38</b>	<b>19.5%</b>	<b>40</b>	<b>20.5%</b>	<b>75</b>	<b>38.5%</b>	<b>195</b>	<b>100.0%</b>

Not answered = 2

Significant variances at 97.5% ( $\chi^2 = 20.065$ , df = 9)

**Table 6.15 Concern for the state of the environment in S.E. Cornwall by time in business**

	Concerned about the state of the environment					
	Strongly agree		Other		Total	
	No.	% of row	No.	% of row	No.	% of row
Less than 2 years	14	34.1%	27	65.9%	41	100.0%
6-10 years	24	60.0%	16	40.0%	40	100.0%
Other	43	40.6%	63	59.4%	106	100.0%
<b>Total</b>	<b>81</b>	<b>43.3%</b>	<b>106</b>	<b>56.7%</b>	<b>187</b>	<b>100.0%</b>

Not answered = 10

Significant variances at 95.0% ( $\chi^2 = 6.265$ , df = 2)

**Table 6.16 Prepared to make time to improve environmental performance by time in business**

	Prepared to make time					
	Agree		Uncertain /disagree		Total	
	No.	% of row	No.	% of row	No.	% of row
Less than 2 years	27	67.5%	13	32.5%	40	100.0%
3-5 years	15	41.7%	21	58.3%	36	100.0%
6-10 years	27	67.5%	13	32.5%	40	100.0%
Over 10 years	44	66.7%	22	33.3%	66	100.0%
<b>Total</b>	<b>113</b>	<b>62.1%</b>	<b>69</b>	<b>37.9%</b>	<b>182</b>	<b>100.0%</b>

Not answered = 15

Significant variances at 95.0% ( $\chi^2 = 7.961$ , df = 3)

environmental awareness and economic confidence which may also influence the efficacy of policy interventions. Additionally, experiences during the formative years of a business can influence the long-term adoption of sustainable practices. Business 'start up' is a key time when many new practices are considered and owners seek advice to establish their business, and should be targeted by policy-makers.

#### **d. Membership of organisations**

Tourism and environmental organisations exerted a positive influence upon the number and type of practices adopted by their membership. Almost all of the 23 respondents who were members of an environmental organisation were either high or high majority adopters (see Table 6.17), and were significantly higher adopters of a range of practices than non-members (see Table 6.18). Similarly, within tourism organisations, more than a quarter of members (25.6 per cent i.e. 22/86) were high adopters, compared with only 9.9 per cent (11/111) of non-members (see Table 6.19). While environmental organisations openly disseminated information about sustainable practices, local tourism associations did not have a strong 'green' agenda. Their influence was in providing opportunities for owners to meet like-minded operators to exchange ideas, some of which related to sustainable practices. As one respondent stated in the interviews:

*"It is not something that comes up in conversation so much, wildlife, but I have come across a couple of people who are interested and do the same sorts of things, and when I get a bit more time, I will spend time with them" (High adopter).*

Membership of general business organisations (e.g. Chambers of Commerce) had no noticeable influence upon the number of practices adopted (see Table 6.20), and although a positive association with the adoption of certain practices was noted, the range was not as great as that influenced by the membership of a tourism association (see Table 6.21). The influence of organisation membership depended upon the extent to which members shared common values and circumstances. These results emphasise the importance of working with relevant organisations in the district to expedite the dissemination of sustainable practices. Although environmental organisations exerted the strongest influence upon adoption, the wider coverage of tourism organisations suggests that they would be more valuable partners.

#### **e. Conduct of an environmental review**

The conduct of an environmental review was associated with high levels of adoption. More than four-fifths (84.3 per cent) of owners who had conducted a review claimed to have implemented

**Table 6.17** Influence of membership of an environmental organisation on adopter classification

	Non-member		Member		Total	
	No.	% of row	No.	% of row	No.	% of row
High adopters/ High majority	81	79.4%	21	20.6%	102	100.0%
Low majority/ Low adopters	93	97.9%	2	2.1%	95	100.0%
<b>Total</b>	<b>174</b>	<b>88.3%</b>	<b>23</b>	<b>11.7%</b>	<b>197</b>	<b>100.0%</b>

Significant variances at 99.5% ( $\chi^2 = 16.295$ ,  $df = 1$ )

**Table 6.18 Adoption of individual practices by membership of an environmental organisation**

		Non-member		Member		Total	
		No.	% of non-members	No.	% of members	No.	% of all
Low energy light bulbs <sup>a</sup>	Adopted	98	56.3%	19	82.6%	117	59.4%
	Not adopted	76	43.7%	4	17.4%	80	40.6%
Composting <sup>b</sup>	Adopted	80	46.0%	17	73.9%	97	49.2%
	Not adopted	94	54.0%	6	26.1%	100	50.8%
Purchase minimally packaged goods <sup>c</sup>	Adopted	70	40.2%	17	73.9%	87	44.2%
	Not adopted	104	59.8%	6	26.1%	110	55.8%
Purchase env'ly friendly products <sup>d</sup>	Adopted	87	50.0%	17	73.9%	104	52.8%
	Not adopted	87	50.0%	6	26.1%	93	47.2%
Recycle paper <sup>e</sup>	Adopted	117	67.2%	21	91.3%	138	70.1%
	Not adopted	57	32.8%	2	8.7%	59	29.9%
Recycle tins <sup>f</sup>	Adopted	53	30.5%	12	52.2%	65	33.0%
	Not adopted	121	69.5%	11	47.8%	132	67.0%
Created wildlife areas <sup>g</sup>	Adopted	80	46.0%	20	87.0%	100	50.8%
	Not adopted	94	54.0%	3	13.0%	97	49.2%
Community env'l project work <sup>h</sup>	Adopted	23	13.2%	10	43.5%	33	16.8%
	Not adopted	151	86.8%	13	56.5%	164	83.2%
Organised a tourism event <sup>i</sup>	Adopted	43	24.7%	12	52.2%	55	27.9%
	Not adopted	131	75.3%	11	47.8%	142	72.1%
Recycling facilities for customers <sup>j</sup>	Adopted	52	29.9%	12	52.2%	64	32.5%
	Not adopted	122	70.1%	11	47.8%	133	67.5%
Communicate env'l improvements <sup>k</sup>	Adopted	38	21.8%	14	60.9%	52	26.4%
	Not adopted	136	78.2%	9	39.1%	145	73.6%
<b>Total numbers</b>		<b>174</b>	<b>-</b>	<b>23</b>	<b>-</b>	<b>197</b>	<b>-</b>

Only statistically significant relationships are reported  
Percentages add up to more than 100 as respondents could select more than one option

- a Significant variances at 97.5% ( $\chi^2 = 5.820$ ,  $df = 1$ )
- b Significant variances at 97.5% ( $\chi^2 = 6.343$ ,  $df = 1$ )
- c Significant variances at 99.5% ( $\chi^2 = 9.347$ ,  $df = 1$ )
- d Significant variances at 95% ( $\chi^2 = 4.661$ ,  $df = 1$ )
- e Significant variances at 97.5% ( $\chi^2 = 5.607$ ,  $df = 1$ )
- f Significant variances at 95% ( $\chi^2 = 4.333$ ,  $df = 1$ )
- g Significant variances at 99.5% ( $\chi^2 = 13.649$ ,  $df = 1$ )
- h Significant variances at 99.5% ( $\chi^2 = 13.339$ ,  $df = 1$ )
- i Significant variances at 99% ( $\chi^2 = 7.613$ ,  $df = 1$ )
- j Significant variances at 95% ( $\chi^2 = 4.601$ ,  $df = 1$ )
- k Significant variances at 99.5% ( $\chi^2 = 15.929$ ,  $df = 1$ )



**Table 6.19 Influence of membership of a tourism association on adopter classification**

	Non-member		Member		Total	
	No.	% of row	No.	% of row	No.	% of row
High adopters	11	33.3%	22	66.7%	33	100.0%
High majority	38	55.1%	31	44.9%	69	100.0%
Low majority	37	60.7%	24	39.3%	61	100.0%
Low adopters	25	73.5%	9	26.5%	34	100.0%
<b>Total</b>	<b>111</b>	<b>56.3%</b>	<b>86</b>	<b>43.7%</b>	<b>197</b>	<b>100.0%</b>

Significant variances at 99% ( $\chi^2 = 11.692$ , df = 3)

**Table 6.20 Influence of membership of a local business association on adopter classification**

	Non-member		Member		Total	
	No.	% of row	No.	% of row	No.	% of row
High adopters	22	66.7%	11	33.3%	33	100.0%
High majority	56	81.2%	13	18.2%	69	100.0%
Low majority	45	73.8%	16	26.2%	61	100.0%
Low adopters	28	82.4%	6	17.6%	34	100.0%
<b>Total</b>	<b>151</b>	<b>76.6%</b>	<b>46</b>	<b>23.4%</b>	<b>197</b>	<b>100.0%</b>

Variances inconclusive ( $\chi^2 = 3.522$ , df = 3)

**Table 6.21 Adoption of individual practices by membership of a local business association**

		Non-member		Member		Total	
		No.	% of non-members	No.	% of members	No.	% of all
Low energy light bulbs <sup>a</sup>	Adopted	82	54.3%	35	76.1%	117	59.4%
	Not adopted	69	45.7%	11	23.9%	80	40.6%
Worked community env'l project <sup>b</sup>	Adopted	20	13.2%	13	28.3%	33	16.8%
	Not adopted	131	86.8%	33	71.7%	164	83.2%
Organised tourism event <sup>c</sup>	Adopted	33	21.9%	22	47.8%	55	27.9%
	Not adopted	118	78.1%	24	52.2%	142	72.1%
Provide walking & cycling routes <sup>d</sup>	Adopted	126	83.4%	44	95.7%	170	86.3%
	Not adopted	25	16.6%	2	4.3%	27	13.7%
Communicate env'l improvements <sup>e</sup>	Adopted	40	26.5%	12	26.1%	52	26.4%
	Not adopted	111	73.5%	34	73.9%	145	73.6%
<b>Total</b>		<b>151</b>	<b>-</b>	<b>46</b>	<b>-</b>	<b>197</b>	<b>-</b>

Only statistically significant relationships are reported  
Percentages add up to more than 100 as respondents could select more than one option

- a Significant variances at 99% ( $\chi^2 = 6.936$ ,  $df = 1$ )
- b Significant variances at 97.5% ( $\chi^2 = 5.701$ ,  $df = 1$ )
- c Significant variances at 99.5% ( $\chi^2 = 11.818$ ,  $df = 1$ )
- d Significant variances at 95% ( $\chi^2 = 4.443$ ,  $df = 1$ )
- e Significantly similar at 95% ( $\chi^2 = 0.003$ ,  $df = 1$ )

**Table 6.22 Changes made following an environmental review**

	No.	%
Yes	43	84.3%
No	7	13.7%
Not answered	1	2.0%
	<b>51/197</b>	<b>100.0%</b>

additional practices as a consequence (see Table 6.22). While more than two-thirds of high adopters had conducted a review (69.7 per cent): none had been undertaken by low adopters (see Table 6.23). The use of formal mechanisms, such as the Green Audit Kit, was confined to only a small minority of businesses (see Figures 6.24 and 6.25). Most 'reviews' were conducted by owners themselves without external support or guidance, so it is doubtful that they would have undertaken a detailed critical assessment of environmental performance. Indeed, owners considered that they had undertaken a 'formal' review by virtue of their continuing attention to environmental issues and their willingness to adopt sustainable practices. As one high adopter stated in the interviews:

*"No I do not sit down every January the first and say 'am I environmentally sound still? Am I falling down on such and such?' ... It is an ongoing thing" (High adopter).*

Instead of encouraging a structured environmental review, less formal support and advice throughout the life of a business, which reflects the way owners view sustainable practices, is likely to have wider appeal.

#### **f. Other business factors**

It was surprising that many of the 'standard' characteristics of business innovation did not have a significant influence upon the number of practices adopted. The influence of business type was inconclusive (see Table 6.24), although some practices were particularly suited to certain sub-sectors (see Table 6.5 and discussion in Section 6.3.2). Analysis of the effects of business size also proved inconclusive because of the absence of large tourism businesses in the district (see Table 6.25). However, small increases in size appeared to have a positive influence upon the adoption of certain practices (e.g. low energy light bulbs, as financial savings became significant; and involvement in community projects, as management time was freed up through delegation) (see Table 6.7).

Factors such as business owner age, gender, reason for commencing business, commercial orientation, and access to additional income streams had no noticeable influence upon the number of practices adopted. Although the focus groups had suggested spatial variations in adoption, this hypothesis was not supported by the survey results. Indeed, adoption rates were significantly similar between businesses in different types of location (see Table 6.26). It is likely that the suggested spatial patterns of adoption, in particular, the distinction between coastal and inland areas, reflected variations in clientele rather than the influence of location *per se*. Similarly,

**Table 6.23 Influence of an environmental review on adopter classification**

	Conducted a review		Not conducted a review		Total	
	No.	% of row	No.	% of row	No.	% of row
High adopters	23	69.7%	10	30.3%	33	100.0%
High majority	20	32.8%	41	67.2%	61	100.0%
Low majority	8	13.3%	52	86.7%	60	100.0%
Low adopters	0	0.0%	34	100.0%	34	100.0%
<b>Total</b>	<b>51</b>	<b>27.1%</b>	<b>137</b>	<b>72.9%</b>	<b>188</b>	<b>100.0%</b>

Not answered = 9

Significant variances at 99.5% ( $\chi^2 = 49.671$ , df = 3)

**Table 6.24 Influence of business type on adopter classification**

	Serviced accommodation		Non-serviced /campsites		Attraction		Total	
	No.	% of row	No.	% of row	No.	% of row	No.	% of row
High adopters	13	39.4%	14	42.4%	6	18.2%	33	100.0%
High majority	32	46.4%	31	44.9%	6	8.7%	69	100.0%
Low majority	25	41.7%	29	48.3%	6	10.0%	60	100.0%
Low adopters	11	32.4%	20	58.8%	3	8.8%	34	100.0%
<b>Total</b>	<b>81</b>	<b>41.3%</b>	<b>94</b>	<b>48.0%</b>	<b>21</b>	<b>10.7%</b>	<b>196</b>	<b>100.0%</b>

Serviced accommodation includes guesthouses, B&Bs, hotels, inns

Non-serviced accommodation includes self-catering, holiday parks

1 holiday company not included in above analysis

Variances inconclusive ( $\chi^2 = 4.423$ , df = 6)

**Table 6.25 Influence of business size on adopter classification**

	Size of business (No. of employees)							
	0		1 - 4		5 and over		Total	
	No.	% of row	No.	% of row	No.	% of row	No.	% of row
High adopters	8	25.8%	17	54.8%	6	19.4%	31	100.0%
High majority	29	43.9%	26	39.4%	11	16.7%	66	100.0%
Low majority	24	41.4%	20	34.5%	14	24.1%	58	100.0%
Low adopters	16	50.0%	9	28.1%	7	21.9%	32	100.0%
<b>Total</b>	<b>77</b>	<b>41.2%</b>	<b>72</b>	<b>38.5%</b>	<b>38</b>	<b>20.3%</b>	<b>187</b>	<b>100.0%</b>

Not answered = 10  
 Variances inconclusive ( $\chi^2 = 6.709$ , df = 6)

**Table 6.26 Influence of location type on adopter classification**

	Countryside		Village		Town		Total	
	No.	% of row	No.	% of row	No.	% of row	No.	% of row
High adopters	9	36.0%	10	40.0%	6	24.0%	25	100.0%
High majority	23	38.3%	22	36.7%	15	25.0%	60	100.0%
Low majority	15	33.3%	17	37.8%	13	28.9%	45	100.0%
Low adopters	7	26.9%	11	42.3%	8	30.8%	26	100.0%
<b>Total</b>	<b>54</b>	<b>34.6%</b>	<b>60</b>	<b>38.5%</b>	<b>42</b>	<b>26.9%</b>	<b>156</b>	<b>100.0%</b>

Table excludes attractions/ 'other' businesses and businesses with multiple sites  
 Significantly similar at 95% ( $\chi^2 = 1.260$ , df = 6)

suggestions that businesses which closed during the winter months might be higher adopters of sustainable practices through additional time to implement business improvements were not supported by the survey results (see Table 6.27). Owners had chosen to use this time for other purposes (e.g. taking holidays themselves).

#### **6.4.2 The influence of business owner motives and attitudes**

The limited number of business-specific factors that had influenced overall commitment to sustainability suggested that other factors not directly related to the nature or circumstances of businesses were also relevant, such as the motivations, attitudes and values of the business owner.

##### ***a. Business owner motivation***

Business owners varied greatly in their motives for adopting sustainable practices (see Figure 6.30). Surprisingly, the most popular motive for adoption was a personal concern for the environment (37.9 per cent). Less than a quarter of respondents (20.7 per cent) were motivated by financial benefits. A further 9.5 per cent were motivated by a desire to reduce waste. Almost half (47.4 per cent) of the sample, therefore, had adopted sustainable practices for non-financial reasons. These findings were not expected and contradicted assumptions that small businesses will only focus on environmental issues where the commercial benefits are proven. It should be noted, however, that these results were drawn from a small sample (58.9 per cent i.e. 116/197), and were skewed towards the views of high or high majority adopters (65.5 per cent i.e. 76/116) (see Table 6.28). Notwithstanding this bias, the results revealed a much greater influence of altruistic concerns within adoption decisions than expected, which is currently not recognised within policy interventions.

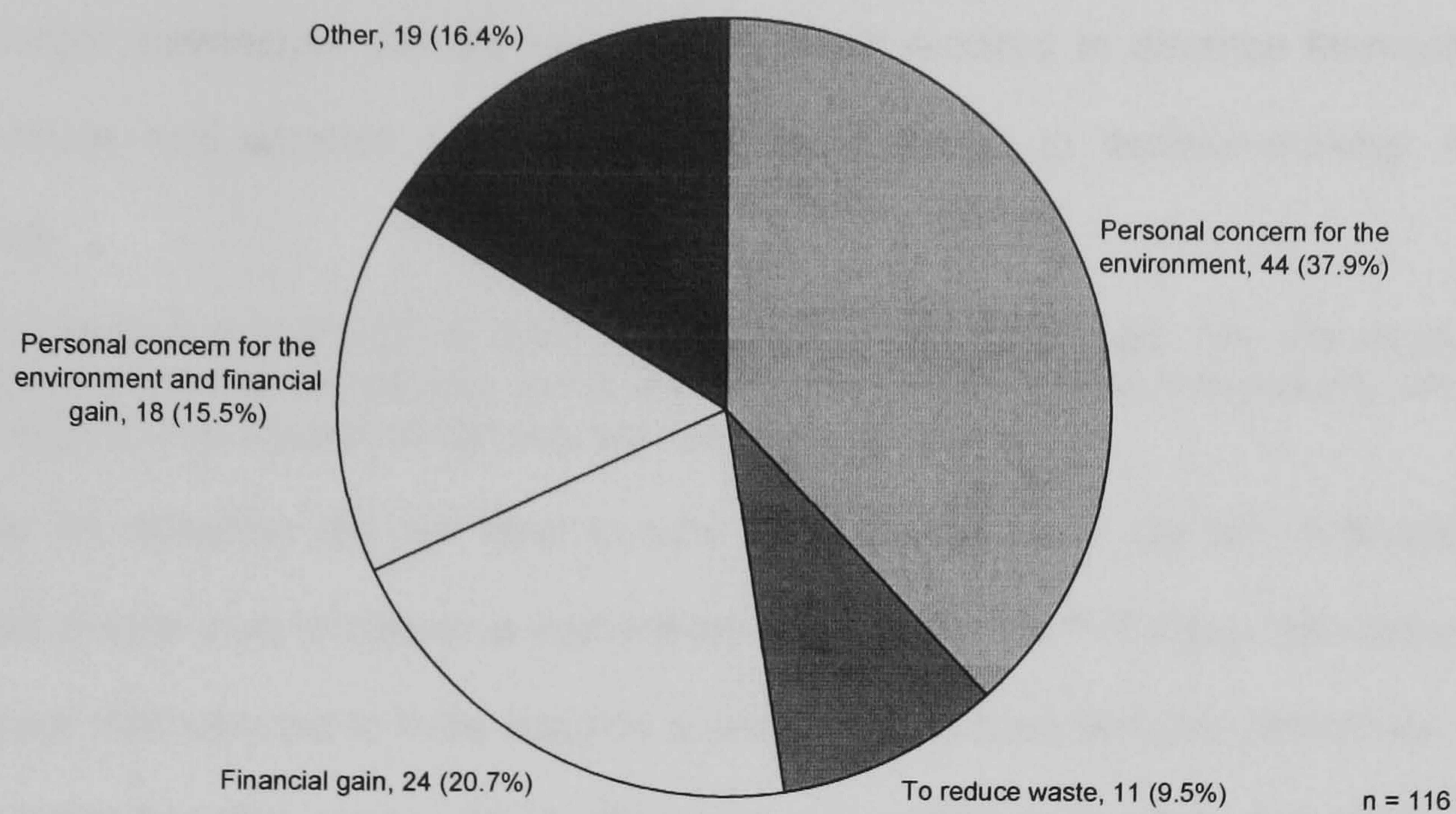
Business owner motivation had a significant influence upon commitment to sustainability. Amongst high adopters, the main motive was a personal concern for the environment (58.6 per cent); only a minority (10.3 per cent) were motivated by financial gain (see Table 6.28). Strong altruistic concerns, rather than commercial imperatives, had driven the highest adopters in the district. In contrast, amongst low and low majority adopters, financial gain was the main motive for adoption (37.5 per cent). Low adopters were effectively constrained by a limited interest in environmental issues and afforded them no special importance within adoption decisions.

**Table 6.27 Influence of business seasonal closure on adopter classification**

Business closed during year	Yes		No		Total	
	No.	% of row	No.	% of row	No.	% of row
High adopters	12	36.4%	21	63.6%	33	100.0%
High majority	31	47.0%	35	53.0%	66	100.0%
Low majority	20	32.8%	41	67.2%	61	100.0%
Low adopters	8	24.2%	25	75.8%	33	100.0%
<b>Total</b>	<b>71</b>	<b>36.8%</b>	<b>122</b>	<b>63.2%</b>	<b>193</b>	<b>100.0%</b>

Not answered = 4

Variances inconclusive ( $\chi^2 = 5.598$ ,  $df = 3$ )



**Figure 6.30 Motive for adoption**

**Table 6.28 Motives for adopting sustainable practices by adopter category**

		Personal concern	Financial	Personal & financial	Other	Total
High adopter	No.	17	3	7	2	29
	% of row	58.6%	10.3%	24.1%	6.9%	100%
High majority	No.	18	6	10	13	47
	% of row	38.3%	12.8%	21.3%	27.7%	100%
Low majority / Low adopter	No.	9	15	1	15	40
	% of row	22.3%	37.5%	2.5%	37.5%	100%
<b>Total</b>		<b>44</b>	<b>24</b>	<b>18</b>	<b>30</b>	<b>116</b>
		<b>37.9%</b>	<b>20.7%</b>	<b>15.5%</b>	<b>25.9%</b>	<b>100.0%</b>

Not answered = 81

Variances significant at 99.5% ( $\chi^2 = 27.124$ , df=6)



The interviews revealed other relevant aspects of business motivation. Within the smallest businesses, owners did not distinguish between their business and personal lives. The business was viewed as an extension of the home and reflected the same personal values and attitudes. Within larger businesses owners were able or were required to distance themselves from their home values and adopted a more commercial approach to decision-making. A low adopter explained:

*“My problem is that I do not think of us as being business people. We are simply people who have cottages where people come. It is just what we do. I think living on the site, as we do, it is simply an extension of the way we live” (Low adopter).*

Reasons for adoption did not tend to vary between practices. Owners motivated by altruistic concerns always tried to choose a sustainable option, provided that it was ‘affordable’. Additionally, businesses who claimed to have adopted sustainable practices because of both the environmental and financial benefits, tended to be driven by one motive rather than the other. The additional benefits reinforced their primary reason for adoption.

A wide range of issues lay behind personal concerns for the environment, including interests in animal welfare, health and conservation. Higher adopters were driven primarily by global issues and were noticeably more principled in their concerns, referring, for example, to a business responsibility for sustainability and a concern for the welfare of future generations. In contrast, lower adopters were more interested in local issues that materially affected the commercial attraction of the area. Even amongst the lowest adopters, however, there were ethical limits to business behaviour. Business owners did not like to feel that they were consciously damaging the environment, even though few were aware of the potential impacts of their businesses on the environment (see Figure 6.14).

These results emphasise the importance of psychology within the business response of individual owners to sustainability and present a number of challenges to policy-makers. First, there is a need to recognise the importance of altruistic motives *per se* within adoption decisions (e.g. by promoting the environmental as well as financial benefits of adopting sustainable practices). Second, there is a need to develop a range of policy interventions that appeals to the diversity of motives and reflect the different ways in which owners operate their businesses (i.e. as an extension of their home or as a separate commercial entity). Third, more action might be stimulated by identifying and targeting the main environmental concerns within the district to encourage a wider altruistic

response. In particular, a focus on the local issues that impinge on the visitor experience and the direct negative impacts of tourism businesses (e.g. business waste, litter, water pollution, noise pollution) could be used to develop a genuine interest amongst the lowest adopters in the district who will require evidence of commercial relevance to their business.

**b. *Attitudes towards the environment***

Strong values and attitudes towards the environment were associated with high levels of adoption. Almost all of the 33 high adopters were concerned about the state of the local environment, compared with 71.9 per cent (21/32) of low adopters (see Table 6.29). Higher adopters also showed greater awareness of the impacts of tourism. Almost two-thirds (63.8 per cent) agreed that tourism contributed to environmental problems in the district, compared with only 55.4 per cent of lower adopters (see Table 6.30). Half of high adopters (51.6 per cent i.e. 17/33) were concerned about the environmental impact of their business, compared to only 28.1 per cent (9/32) of low adopters (see Table 6.31). Through greater awareness and concern for the local environment, high adopters were more likely to have adopted sustainable practices to mitigate their own impact on the environment than other businesses.

**c. *Willingness to improve environmental performance***

Not surprisingly, a willingness to invest time in sustainable practices was associated with high levels of adoption. Almost two-thirds of all respondents (62.4 per cent) and over three-quarters (84.8 per cent) of high adopters were prepared to commit time to environmental improvements (see Figure 6.31 and Table 6.32). The willingness of a substantial proportion of low adopters (50.0 per cent) was also encouraging. Respondents, however, were divided in their willingness to pay extra for environmental quality (see Figure 6.32). While almost a third (29.7 per cent) of respondents were prepared to pay a premium, a similar proportion (33.0 per cent) were not, and although proportionately more high adopters (48.5 per cent) were prepared to commit financially, the differences were inconclusive (see Table 6.33). Nevertheless, a substantial proportion of high and high majority adopters (25.3 per cent i.e. 24/95) appeared to have implemented a range of sustainable practices without additional financial outlay, indicating the potential to share good practice. Additionally, the substantial proportion of businesses who were uncertain about committing time (28.0 per cent) and money (37.3 per cent) to environmental improvements represent a key population to target (e.g. through information and advice about the benefits and

**Table 6.29 'Concerned about the state of the environment in S.E. Cornwall' by adopter category**

		Disagree/ Uncertain	Agree	Strongly agree	Total
High adopters	No.	3	6	24	33
	% of row	9.1%	18.2%	72.7%	100%
High majority	No.	12	28	24	64
	% of row	18.8%	43.8%	37.5%	100%
Low majority	No.	12	22	25	59
	% of row	20.3%	37.3%	42.4%	100%
Low adopters	No.	9	14	9	32
	% of row	28.1%	43.8%	28.1%	100%
<b>Total</b>		<b>36</b>	<b>70</b>	<b>82</b>	<b>188</b>
		<b>19.1%</b>	<b>37.2%</b>	<b>43.6%</b>	<b>100.0%</b>

Not answered = 9

Significant variances at 97.5% ( $\chi^2 = 16.193$ ,  $df = 6$ )

**Table 6.30 'Tourism contributes substantially to environmental problems in S.E. Cornwall' by adopter category**

		Strongly disagree	Disagree	Uncertain	Agree/ Strongly agree	Total
High adopters/ High majority	No.	2	16	16	60	94
	% of row	2.1%	17.0%	17.0%	63.8%	100%
Low majority/ Low adopters	No.	10	9	22	51	92
	% of row	10.9%	9.8%	23.9%	55.4%	100%
<b>Total</b>		<b>12</b>	<b>25</b>	<b>38</b>	<b>111</b>	<b>186</b>
		<b>6.5%</b>	<b>13.4%</b>	<b>20.4%</b>	<b>59.7%</b>	<b>100.0%</b>

Not answered = 11

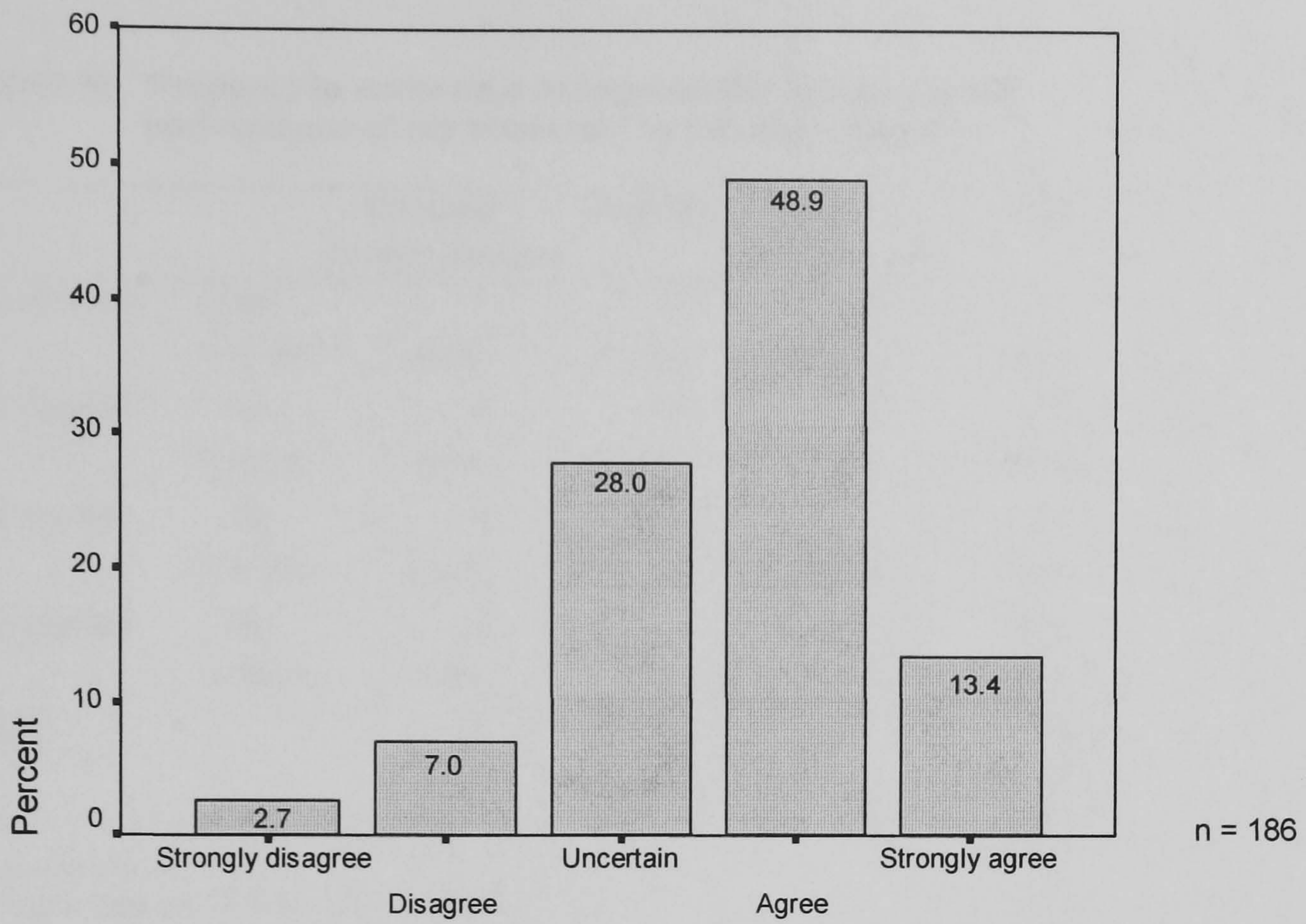
Significant variances at 95% ( $\chi^2 = 8.950$ ,  $df = 3$ )

**Table 6.31 'Concerned about the impact of my business', by adopter category**

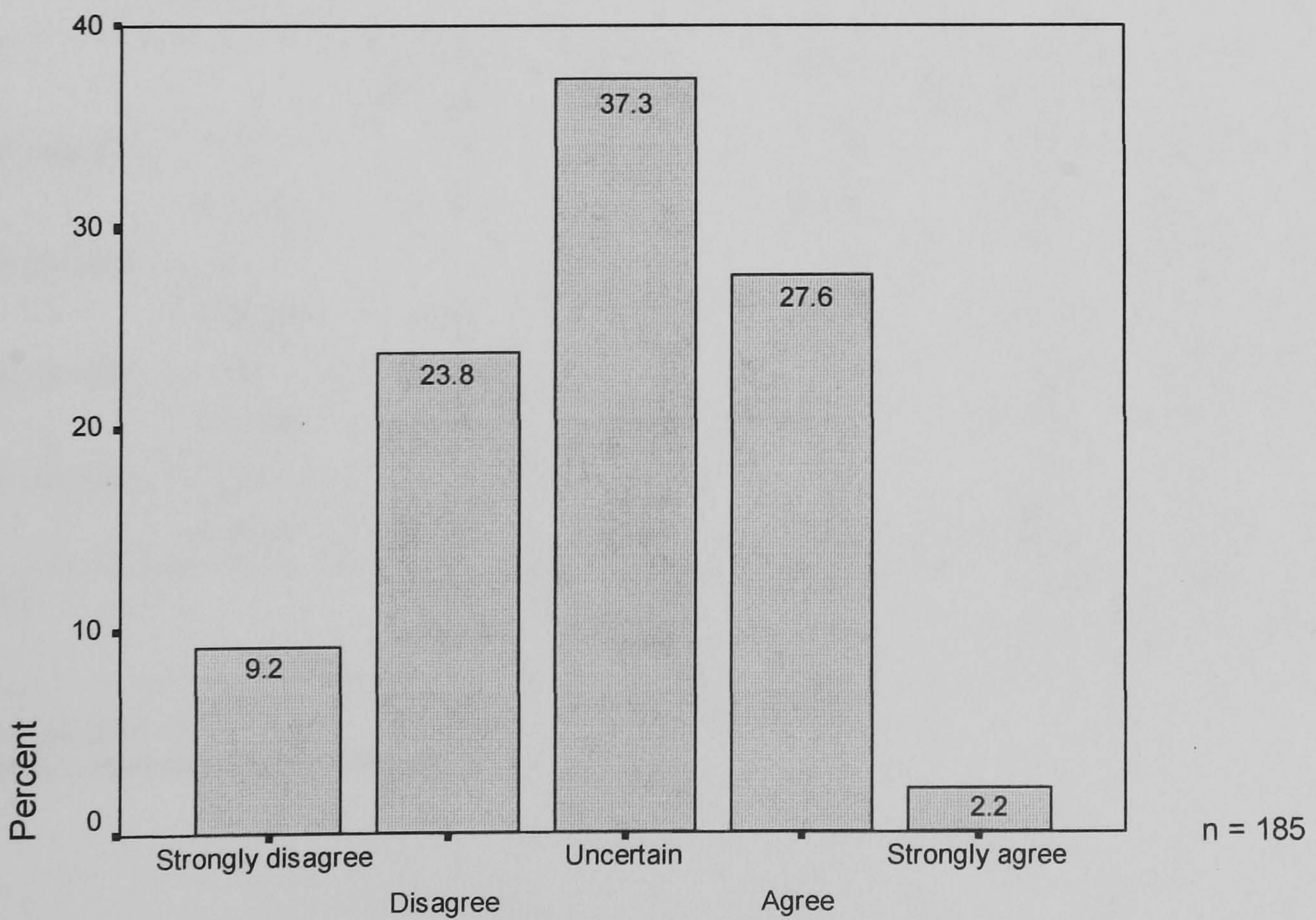
		Disagree/ Strongly disagree	Uncertain	Agree	Strongly agree	Total
High adopters	No.	14	2	12	5	33
	% of row	42.4%	6.1%	36.4%	15.2%	100%
High/ Low majority	No.	70	25	25	5	125
	% of row	56.0%	20.0%	20.0%	4.0%	100%
Low adopters	No.	16	7	6	3	32
	% of row	50.0%	21.9%	18.8%	9.4%	100%
<b>Total</b>		<b>100</b>	<b>34</b>	<b>43</b>	<b>13</b>	<b>190</b>
		<b>52.6%</b>	<b>17.9%</b>	<b>22.6%</b>	<b>6.8%</b>	<b>100.0%</b>

Not answered = 7

Significant variances at 95% ( $\chi^2 = 12.591$ ,  $df = 6$ )



**Figure 6.31** 'I am prepared to make time to improve the environmental performance of my business' (% agreement)



**Figure 6.32** 'I am willing to pay extra for environmental quality' (% agreement)

**Table 6.32** 'Prepared to make time to improve the environmental performance of my business' by adopter category

		Disagree/ Strongly disagree	Uncertain	Agree/ Strongly agree	Total
High adopters	No.	1	4	28	33
	% of row	3.0%	12.1%	84.8%	100%
High majority	No.	4	16	41	61
	% of row	6.6%	26.2%	67.2%	100%
Low majority	No.	6	23	31	60
	% of row	10.0%	38.3%	51.7%	100%
Low adopters	No.	7	9	16	32
	% of row	21.9%	28.1%	50.0%	100%
<b>Total</b>		<b>18</b>	<b>52</b>	<b>116</b>	<b>186</b>
		<b>9.7%</b>	<b>28.0%</b>	<b>62.4%</b>	<b>100.0%</b>

Not answered = 11

Significant variances at 99% ( $\chi^2 = 17.173$ , df = 6)

**Table 6.33** 'Willing to pay extra for environmental quality' by adopter category

		Strongly disagree	Disagree	Uncertain	Agree/ Strongly agree	Total
High adopters	No.	4	5	8	16	33
	% of row	12.1%	15.2%	24.2%	48.5%	100%
High majority	No.	3	12	30	17	62
	% of row	4.8%	19.4%	48.4%	27.4%	100%
Low majority	No.	8	16	20	15	59
	% of row	13.6%	27.1%	33.9%	25.4%	100%
Low adopters	No.	2	11	11	7	31
	% of row	6.5%	35.5%	35.5%	22.6%	100%
<b>Total</b>		<b>17</b>	<b>44</b>	<b>69</b>	<b>55</b>	<b>185</b>
		<b>9.2%</b>	<b>23.8%</b>	<b>37.3%</b>	<b>29.7%</b>	<b>100.0%</b>

Not answered = 12

Variances inconclusive ( $\chi^2 = 15.349$ , df = 9)

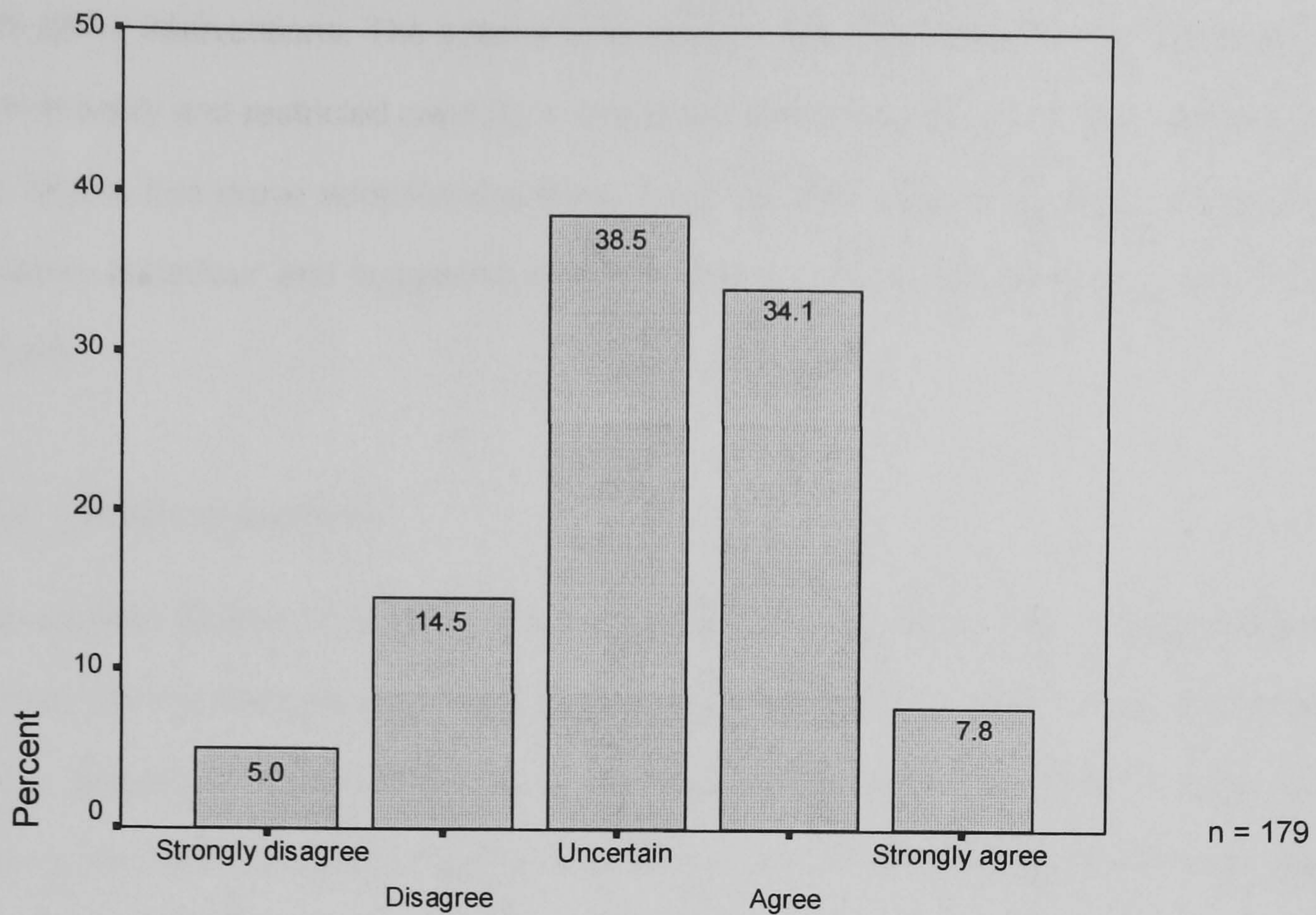
ease of adoption) (see Figures 6.31 and 6.32).

Willingness to participate in a collective initiative was also associated with higher levels of adoption. A total of 41.9 per cent of all respondents and more than half (58.1 per cent) of high adopters were prepared to participate, compared to only one-quarter (26.7 per cent) of low adopters (see Figure 6.33 and Table 6.34). Only a minority of low (30.0 per cent) and low majority adopters (25.4 per cent) ruled out participation, suggesting that initiatives aimed at creating a collective response to sustainability are likely to receive a favourable response across all adopter categories if presented in the right way.

The results suggest explanations for the diversity of responses to sustainability amongst tourism-related businesses arising from the circumstances and characteristics of individual businesses and their owners. It is not suggested that the highlighted factors represent a complete list of influences. Indeed, focus upon statistically significant associations has tended to overshadow some of the more subtle influences, and it was not always clear whether the highlighted factors were direct influences or reflected other more relevant correlations that had not been explored. Additionally, a larger sample might have highlighted other significant associations. Nevertheless, the value of this approach has been to indicate a number of significant features of business behaviour that are not currently recognised within policy interventions. In particular, the results have stressed the importance of personal attitudes and values within adoption decisions, the benefit of an appreciative clientele, and the influence of like-minded peer group members within formal networks and organisations. Sustainable practices have appealed more to the personal concerns of business owners than the commercial needs of businesses. Clearly, there is much to be done to reinforce the commercial relevance of environmental innovations if they are to become accepted as good business practice across the industry. The next section develops discussion of the issues that are of relevance to policy formation, but in relation to the main barriers to action.

## **6.5 BARRIERS TO ADOPTION**

The results indicated two types of barriers to adoption which extended the range of issues raised by the focus groups. The first, *practical barriers*, were highlighted by businesses themselves as



**Figure 6.33** 'I would be willing to work with other businesses to reduce the environmental impact of tourism in S.E. Cornwall' (% agreement)

**Table 6.34** 'Willing to work with others...' by adopter category

		Disagree/ Strongly disagree	Uncertain	Agree/ Strongly agree	Total
High adopters	No.	3	10	18	31
	% of row	9.7%	32.3%	58.1%	100%
High majority	No.	8	18	33	59
	% of row	13.6%	30.5%	55.9%	100%
Low majority	No.	15	28	16	59
	% of row	25.4%	47.5%	27.1%	100%
Low adopters	No.	9	13	8	30
	% of row	30.0%	43.3%	26.7%	100%
<b>Total</b>		<b>35</b>	<b>69</b>	<b>75</b>	<b>179</b>
		<b>19.6%</b>	<b>38.5%</b>	<b>41.9%</b>	<b>100.0%</b>

Not answered = 18

Significant variances at 99% ( $\chi^2 = 17.489$ , df = 6)



issues that had physically constrained adoption decisions and encompassed many of the direct and indirect barriers discussed in Chapter Five. Such issues indicate tactical solutions to reduce the most pressing barriers to action, and, in the short-term, are likely to represent the main focus of local policy interventions. The second type, *internal barriers*, related to the essential nature of the local industry and restricted capacity to adopt sustainable practices through deficiencies within the key factors that drove adoption decisions. Such barriers were revealed by significant patterns in adoption behaviour and suggested strategic solutions to realign the nature and structure of the industry.

### 6.5.1 Practical barriers

The practical barriers to adoption were investigated in two ways: first, through the past problems encountered by businesses; and second, through perceptions of the issues that might constrain future adoption. The results of both enquiries highlighted very similar issues, but also key differences (see Table 6.35). Significantly, while two-thirds of respondents (67.5 per cent) indicated barriers to future adoption, less than a third (29.1 per cent) reported past problems, reflecting the difficulties of recall, but also perhaps a search for reasons to justify inaction. The most frequently experienced problems related to recycling, which were mentioned by almost half (48.1 per cent) of the sample. The absence of a kerbside collection scheme or accessible bring-banks for businesses meant that the segregation and disposal of recyclate materials was considered to be messy and time-consuming. A respondent in the in-depth interviews explained:

*“It is not a problem, but a fag. You have to collect all our stuff in our garage so that you can hardly get the car in, take a massive trip up [to the recycling point], and then we come back smelling of beer. Implementing recycling is quite an awkward and messy business really” (High adopter).*

Recycling problems were most acute during the main season when the volume of waste was greatest, owners were at their busiest, and traffic congestion in towns impeded access to bring-banks. In lieu of a collection system, business owners had developed their own recycling processes, including the expedient, but illegal use, of public recycling facilities. Of the businesses which recycled their waste, more than three-quarters (86.6 per cent) disposed of it through public bring-banks (see Figure 6.34). Although Waste Regulations presented a statutory barrier to adoption, most businesses were either unaware of them or chose to ignore them. They considered that the volume and type of waste produced was no different from that of a large household. As one business explained:

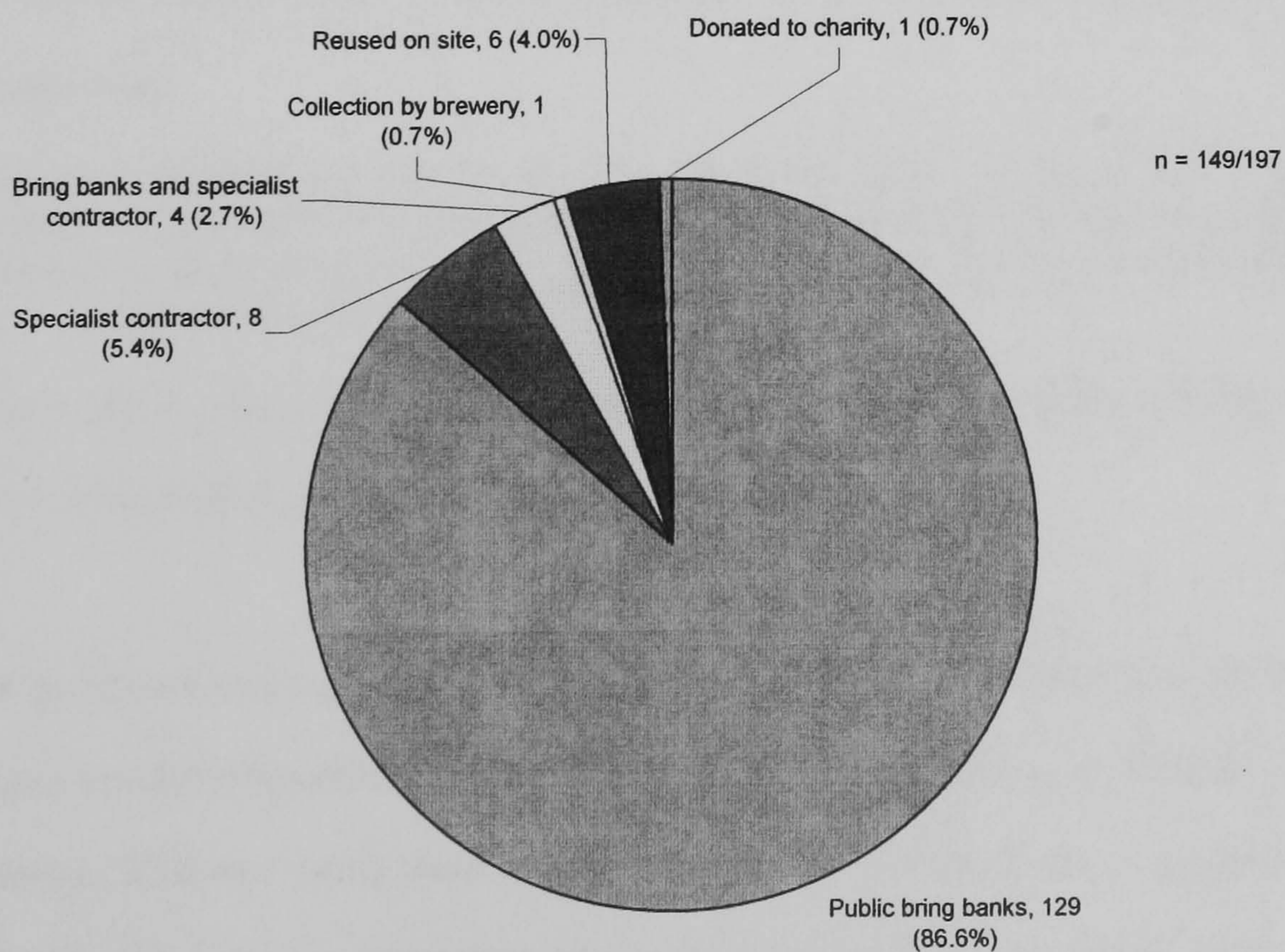
**Table 6.35 Barriers to adoption**

Issues	Past problems		Barriers to future adoption	
	No.	% of businesses	No.	% of businesses
Lack of recycling collection/facilities	13	48.1%	16	12.0%
Costs of implementation	8	29.6%	66	49.6%
Lack of help and support	5	18.5%	25	18.8%
Time and effort	3	11.1%	40	30.1%
Lack of customer cooperation	2	7.4%	5	3.8%
Available space	1	3.7%	10	7.5%
Too small to make a difference	-	-	6	4.5%
Lack of public transport	-	-	5	3.8%
Other	4	14.8%	21	15.8%
<b>Number of respondents</b>	<b>34/117<sup>1</sup> (29.1%) of which 27 specified problems</b>		<b>133/197 (67.5%)</b>	

<sup>1</sup>not answered = 80

Percentages expressed as a proportion of businesses who specified problems.

Percentages add up to more than 100 as respondents could provide more than one answer.



**Figure 6.34 Method of disposal of segregated waste**

*“It needs to be clear what our responsibilities are as businesses. Caradon’s policy [on waste regulations] needs to be clarified and those barriers to people doing it need to be removed, and their perception of barriers, because they are not necessarily there” (High adopter).*

While infrastructural shortcomings were the main frustration for those who had already adopted sustainable practices, it was the economic realities of adoption that were a greater issue for those contemplating further adoption. By far the most frequently mentioned barriers to further adoption were the perceived costs (49.6 per cent) and time and effort (30.1 per cent) to implement environmental improvements (see Table 6.35). The interviews confirmed that businesses reached a financial and practical limit to adoption, beyond which they felt unable to invest in sustainable practices:

*“We are always looking for more efficient things to do, but again it comes down to practicalities and finance, which is horrible to say, but it does come down to that in the end” (Low adopter).*

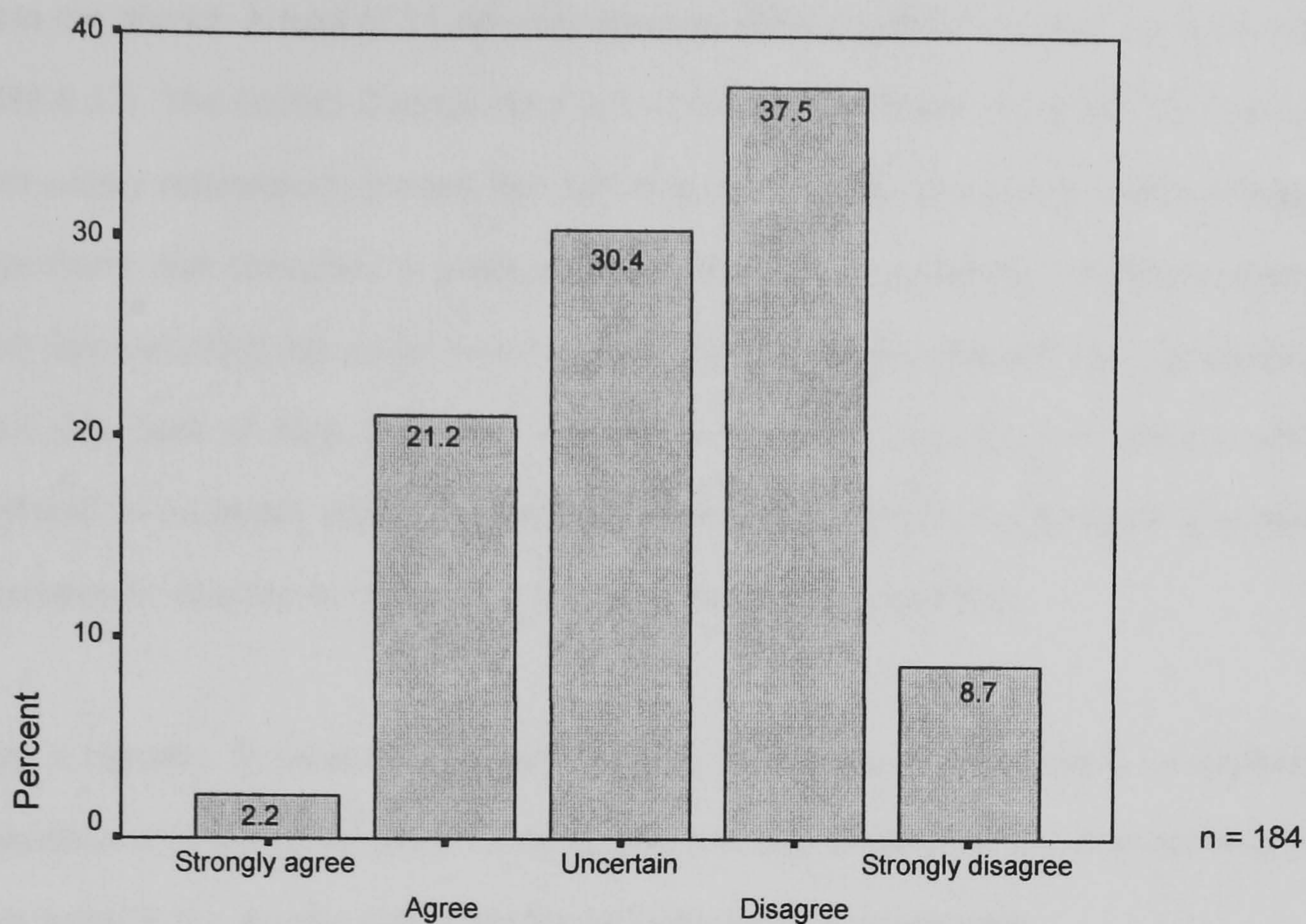
Amongst low adopters, this point of financial and practical limits was soon reached, bounded by low awareness and interest. For such businesses, time and money represented absolute barriers to adoption. Amongst higher adopters, the same issues were treated as variables against which financial and non-financial benefits might be balanced. Shortages of time and money were less likely to prevent the adoption of day-to-day maintenance practices (e.g. recycling, local purchasing), which required little financial outlay and could be accommodated within day-to-day routines, but were more often mentioned as barriers to the adoption of capital improvements. One owner explained:

*“Finance would be the barrier to stop me doing more... I would like to get rid of the gas appliances and electric appliances and have it all done by solar panels, but it is out of financial reach. We use recycled paper and energy saving bulbs, things like that, which are within my financial range” (High majority adopter).*

Businesses which believe that they are already fully committed to sustainability will require financial and practical support to increase adoption.

A lack of guidance and support for sustainable practices in the district was highlighted as a problem by 18.5 per cent of respondents and as a barrier to future adoption by 18.8 per cent. Over half of all respondents (53.8 per cent) were either uncertain or confused about sustainable practices (see Figure 6.35). Although this proportion was lower amongst high and high majority adopters (45.2 per cent i.e. 42/93) (see Table 6.36), even these ‘innovators’ admitted to an incomplete understanding of the practical implementation of sustainable development:

*“We try to practice environmentally, but there is a hell of a lot that we do not know. We are ignorant about a lot of things” (High majority adopter).*



**Figure 6.35** 'I am confused about which actions are and are not environmentally friendly' (% agreement)

**Table 6.36** 'Confused about which actions are and are not environmentally friendly' by adopter category

		Agree/ Strongly agree	Uncertain	Disagree	Strongly disagree	Total
High adopters	No.	3	10	10	8	31
	% of row	9.7%	32.3%	32.3%	25.8%	100%
High majority	No.	16	13	31	2	62
	% of row	25.8%	21.0%	50.0%	3.2%	100%
Low majority	No.	13	24	17	5	59
	% of row	22.0%	40.7%	28.8%	8.5%	100%
Low adopters	No.	11	9	11	1	32
	% of row	34.4%	28.1%	34.4%	3.1%	100%
<b>Total</b>		<b>43</b>	<b>56</b>	<b>69</b>	<b>16</b>	<b>184</b>
		<b>23.4%</b>	<b>30.4%</b>	<b>37.5%</b>	<b>8.7%</b>	<b>100.0%</b>

Not answered = 13

Significant variances at 99.5% ( $\chi^2 = 26.095$ ,  $df = 9$ )

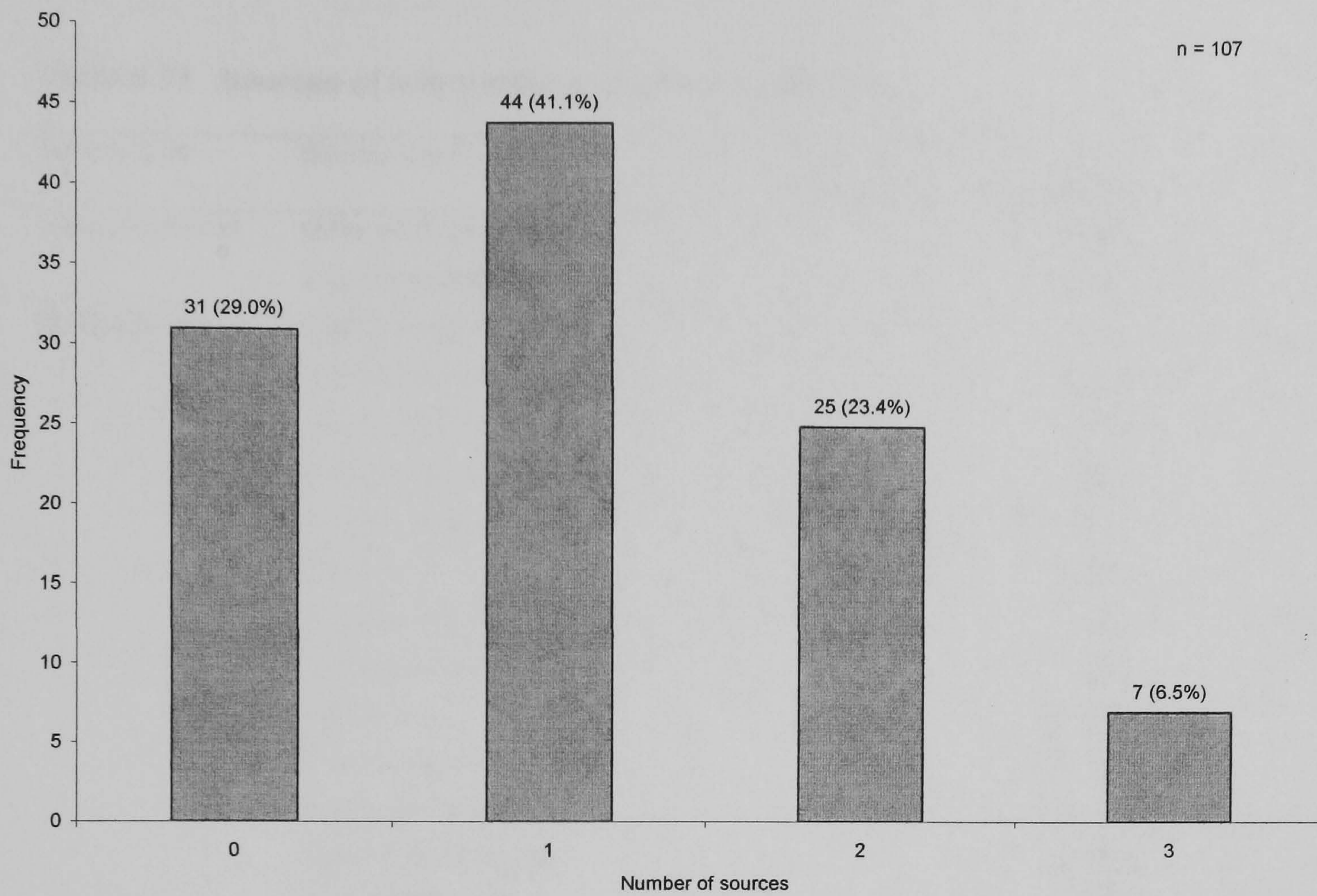
While most businesses (71.0 per cent) had consulted one or more sources of information or advice about sustainable practices (see Figure 6.36), there was no recognised single point of contact within the district. A total of 31 different sources of information had been used by the sample (see Table 6.37). The District Council (13.1 per cent) and the Green Audit Kit (10.3 per cent) were the most widely referenced sources, but had only been used by a minority of businesses. Only one respondent had consulted a professional advisor. Not surprisingly, few lower adopters (6.5 per cent) had consulted more than one source of information (see Table 6.38), compared to almost half (48.4 per cent) of high adopters. In view of the large proportion of owners who were either confused or uncertain about investing in sustainable practices, the absence of a recognised point of contact for assistance represents a significant barrier to adoption.

Only a minority of respondents had received resistance (7.4 per cent) or expected to receive resistance (3.8 per cent) from customers to the implementation of environmental improvements (see Table 6.35). As one owner explained in the in-depth interviews:

*“You cannot go telling people ‘don’t flush the loo, don’t wash or don’t shower’. You have got to restrict the amount of restrictions you put on people really” (Low adopter)*

In this respect, businesses require reassurance that sustainable practices will add value and not detract from the perceived quality of the tourism product, particularly in relation to energy and water conservation. Nevertheless, the analysis detected more fundamental barriers relating to the nature of visitor demand in the district. While almost half (47.3 per cent) of the sample had detected an interest in environmental issues amongst their customers (see Figure 6.37), only a minority (8.9 per cent) felt that their clientele would be willing to pay a premium for a more sustainable holiday experience (see Figure 6.38). Significantly, high adopters noted greater interest (71.0 per cent i.e. 22/31) (see Table 6.39) and willingness to pay (25.8 per cent) amongst their clientele (see Table 6.40), suggesting that, for some, sustainable tourism was a recognised business opportunity. Most business owners, however, were more sceptical and required hard evidence of a profitable customer demand.

Other barriers related to the practical constraints of available space (7.5 per cent), particularly for recycling and composting, and deficiencies in public transport (3.8 per cent) (see Table 6.35), primarily as a constraint upon reducing the impact of visitor movements. Some businesses (4.5 per cent) perceived themselves to be too small to have a significant impact on the environment, which reiterated the limited awareness within the industry.



**Figure 6.36** Number of sources of information and advice consulted

**Table 6.37 Sources of information and advice consulted**

Source type	Source used	No. of businesses	% of respondents
Internal sources	Other parts of business	4	3.7%
	Experienced staff	1	0.9%
Local sources	District Council	14	13.1%
	SUSTAIN/Green Audit Kit	11	10.3%
	Local newspapers	7	6.5%
	Friends and neighbours	6	5.6%
	County Council	3	2.8%
	SECTA	2	1.9%
	West Country Tourist Board	2	1.9%
	Local Agenda 21 Office	1	0.9%
	LEADER II	1	0.9%
	Town Council	1	0.9%
	Duchy of Cornwall	1	0.9%
	Bodmin Moor Project	1	0.9%
	Tamar 2000 Project	1	0.9%
	Cornwall Tree Scheme	1	0.9%
	Sustainable Tourism Course	1	0.9%
	Library	1	0.9%
Professional advisers/consultants	1	0.9%	
National sources	Newspapers/books/TV	18	16.8%
	Environmental organisations	6	5.6%
	MAFF	5	4.7%
	Environment Agency	4	3.7%
	Utility Companies	4	3.7%
	Internet	2	1.9%
	David Bellamy Award Scheme	2	1.9%
	DETR	2	1.9%
	Farm tourism associations	1	0.9%
	Forestry Commission	1	0.9%
	Other	General information	6
Suppliers		3	2.8%
<b>Total responses = 107</b>		<b>152</b>	<b>-</b>

Not answered = 90

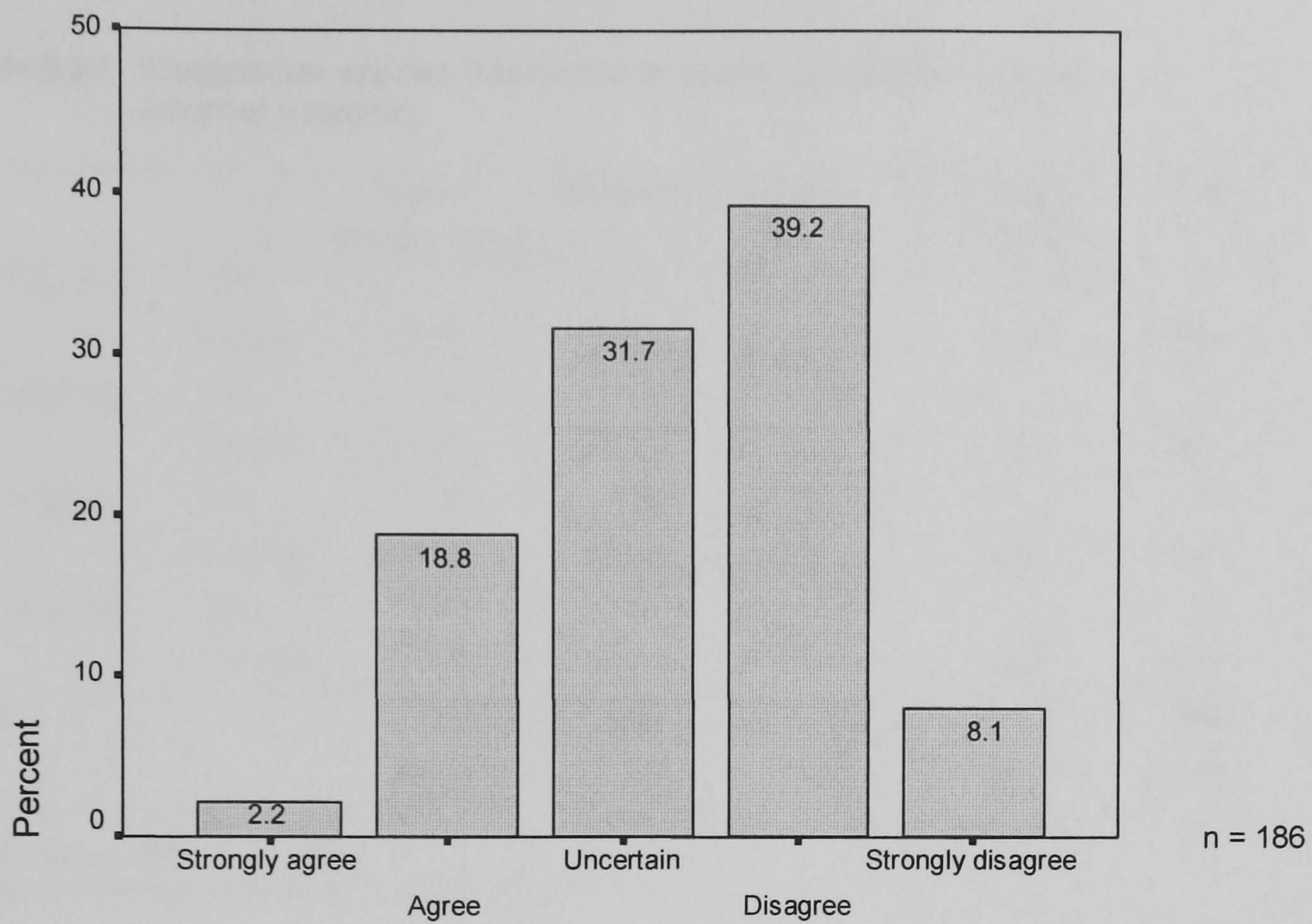
**Table 6.38** Number of information sources consulted by adopter category

		Number of sources			
		0	1	2 - 3	Total
High adopters	No.	6	10	15	31
	<i>% of row</i>	19.4%	32.3%	48.4%	100%
High majority	No.	11	19	15	45
	<i>% of row</i>	24.4%	42.2%	33.3%	100%
Low majority/ Low adopters	No.	14	15	2	31
	<i>% of row</i>	45.2%	48.4%	6.5%	100%
<b>Total</b>		<b>31</b>	<b>44</b>	<b>32</b>	<b>107</b>
		<b>29.0%</b>	<b>41.1%</b>	<b>29.9%</b>	<b>100.0%</b>

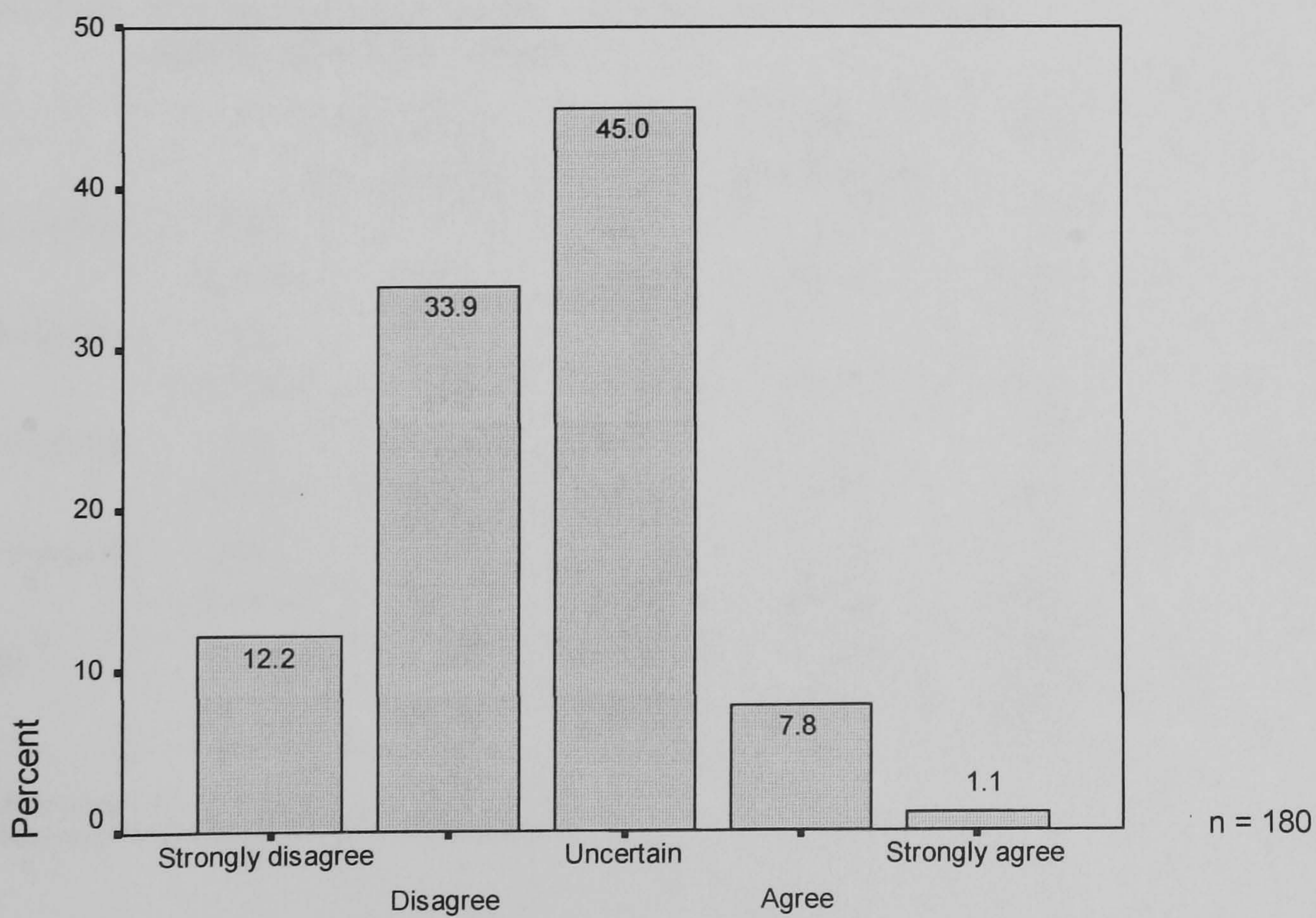
Not answered = 90

Significant variances at 99% ( $\chi^2 = 14.535$ ,  $df = 4$ )





**Figure 6.37** 'My customers are not interested in environmental issues' (% agreement)



**Figure 6.38** 'My customers are willing to pay extra for environmental quality' (% agreement)

**Table 6.39 'Customers are not interested in environmental issues' by adopter category**

		Agree/ Strongly agree	Uncertain	Disagree	Strongly disagree	Total
High adopters	No.	1	8	19	3	31
	% of row	3.2%	25.8%	61.3%	9.7%	100%
High majority	No.	11	18	30	5	64
	% of row	17.2%	28.1%	46.9%	7.8%	100%
Low majority	No.	16	22	16	6	60
	% of row	26.7%	36.7%	26.7%	10.0%	100%
Low adopters	No.	11	11	8	1	31
	% of row	35.5%	35.5%	25.8%	3.2%	100%
<b>Total</b>		<b>39</b>	<b>59</b>	<b>73</b>	<b>15</b>	<b>186</b>
		<b>21.0%</b>	<b>31.7%</b>	<b>39.2%</b>	<b>8.1%</b>	<b>100.0%</b>

Not answered = 11

Significant variances at 97.5% ( $\chi^2 = 20.256$ , df = 9)

**Table 6.40 'Customers are willing to pay extra for environmental quality' by adopter category**

		Disagree/ Strongly disagree	Uncertain	Agree/ Strongly agree	Total
High adopters	No.	8	15	8	31
	% of row	25.8%	48.4%	25.8%	100%
High majority	No.	29	29	3	61
	% of row	47.5%	47.5%	4.9%	100%
Low majority	No.	26	29	3	58
	% of row	44.8%	50.0%	5.2%	100%
Low adopters	No.	20	8	2	30
	% of row	66.7%	26.7%	6.7%	100%
<b>Total</b>		<b>83</b>	<b>81</b>	<b>16</b>	<b>180</b>
		<b>46.1%</b>	<b>45.0%</b>	<b>8.9%</b>	<b>100.0%</b>

Not answered = 17

Significant variances at 99.5% ( $\chi^2 = 20.429$ , df = 6)

### 6.5.2 Internal barriers

A corollary of the positive associations with adoption, discussed in Section 6.4, was that the 'absence' of each factor was associated with low levels of adoption. The results, therefore, indicated that many of the essential characteristics of the local industry presented barriers to the adoption of sustainable practices (see Table 6.41). Issues such as the fragmented nature of the sector; an over-reliance on family holidays with little capacity to charge a premium for environmental quality; limited access to information and advice (e.g. through an environmental review); and low membership of trade associations, had created conditions that had obstructed rather than encouraged the adoption of sustainable practices. Such issues are, of course, common to the economic problems facing the local industry and illustrate the potential common ground between strategies for sustainable tourism and those for the general economic development of the industry. Supportive measures might include establishing new bases of cohesion within the industry (e.g. through subsidised membership of trade associations); encouraging innovation *per se* (e.g. grants for quality improvements, disseminating information); and remarketing the district as a year-round destination for a range of visitors.

Such broad-based initiatives, where environmental innovations are promoted as good practice within the context of general industry improvements, are likely to have wider appeal and present opportunities to integrate environmental considerations within a range of mainstream activities (e.g. including environmental criteria within certification audits). However, if increases in the industry's capacity for innovation are to be directed towards sustainable practices, then the attitudinal barriers to adoption also need to be addressed. Businesses without positive attitudes towards the environment were less aware of new sustainable practices and less likely to consider them as practical alternatives to existing methods. Unsympathetic attitudes, or a requirement that all innovations are justified commercially, inevitably reduces the range of practices that can be adopted. The question remains whether policy interventions should seek to change the values and attitudes of business owners (e.g. through training and education) or support product innovations to improve the financial viability of sustainable practices (e.g. through financial support for innovation). Additionally, businesses cannot be expected to operate in isolation of market demand. A more progressive policy might be to develop awareness of sustainable tourism issues across all visitor and business types to address both demand and supply-side issues (e.g. by promoting

**Table 6.41 Internal barriers to the overall adoption of sustainable practices**

Factor	Relevance of factor	
	<i>As an encouragement to adoption</i>	<i>As a barrier to adoption</i>
Conduct of an environmental review	Conducted a review (formal or informal)	Not conducted a review
Type of customers	Professional couples, empty nesters, groups of adults	Families
Legal status	Sole traders	Partnerships
Experience running current business	Less than 2 years or 6 – 10 years experience	3 – 5 years experience or more than 10 years experience
Membership of organisations	a. Member of a tourism association b. Member of an environmental organisation	a. Non-member b. Non-member
Motivation for adoption of sustainable practices	Personal concern for the environment	Financial
Attitudes towards the environment	a. Concerned about the state of the environment b. Recognise environmental problems caused by tourism c. Concerned about impact of own business on the environment	a. Not concerned about the state of the environment b. Do not recognise environmental problems caused by tourism c. Not concerned about impact of own business on the environment
Willingness to improve performance	a. Prepared to spend time to improve env'l performance b. Willing to participate in a collective initiative	a. Unwilling to spend time to improve environmental performance b. Unwilling to participate in a collective initiative

environmental interpretation on business premises).

The analysis also indicated a number of barriers that related to particular practices and suggested the need for product and process innovations to increase adoption (see Table 6.42). For example, not all businesses could afford to implement 'expensive' environmental improvements, even if financially viable (e.g. a condensing boiler), and require convincing evidence of the financial benefits and help with the costs of implementation. Similarly, businesses with restrictions on space require practical solutions if they are to start segregating and recycling their waste (e.g. regular collections, space-saving bins). Many practices are not suited to small businesses because of pressures of time or a lack of perceived relevance (e.g. involvement in community-based projects, communicating environmental improvements). Businesses require 'ready-made' solutions (e.g. standard templates for environmental policies) and ongoing support (e.g. grants and administrative support for community projects) to encourage the adoption of such practices.

The results confirmed that a wide range of issues had constrained the adoption of sustainable practices within the industry, which present a multiplicity of targets for policy intervention. A priority will be to address the practical issues of available time, money and awareness of sustainable practices to increase the capacity of individual businesses to adopt sustainable practices. Perhaps more important, however, will be measures that increase the capacity of the district as a whole by addressing the main infrastructural barriers, in particular, a lack of support for recycling and the provision of information and advice. Other potential targets relate to the deficiencies of environmental innovations themselves (e.g. their image, functionality, perceived quality) and to the processes through which they diffuse (e.g. communications and sales processes). In the short-term, such issues might be compensated for through financial support and advice, but ultimately require the co-operation of producers, retailers and distributors, which may be beyond the scope of any single local authority. The internal barriers to adoption, such as a lack of industry cohesion and an economic reliance on family holidays, have much in common with the general structural weaknesses in the local industry and suggest opportunities to integrate strategies for economic and environmental sustainability. Such common ground, however, should not be interpreted as unconditional support for continued growth of the industry, but highlights the importance of economic security within progressive responses to environmental and sustainability issues. Additionally, it will be necessary to address strategic issues of awareness, attitudes and motivation

**Table 6.42 Internal barriers to the adoption of specific practices**

Practice	Factors that encouraged adoption	Factors that constrained adoption
Low energy light bulb <sup>a,b</sup>	Energy costs incurred by the business owners	Energy costs passed to customers
	Large business sizes (significant energy costs)	Small business sizes (low energy costs)
	Influence of peer group contact	Lack of peer group contact
Condensing boiler	Additional sources of income	No additional sources of income
Purchasing goods with minimal packaging <sup>a,b</sup>	Purchasing conducted by female decision-makers	Purchasing conducted by male decision-makers
Purchasing env'ly friendly goods <sup>a,b</sup>	Purchasing conducted by female decision-makers	Purchasing conducted by male decision-makers
Recycling paper <sup>b</sup>	Business types with manageable amounts of waste	Business types with large amounts of waste
	Businesses in countryside locations	Businesses in urban locations
Recycling bottles	Business types with manageable amounts of waste	Business types with large amounts of waste
Creating wildlife areas <sup>a,b</sup>	Business types with substantial grounds and in countryside locations	Business types with limited grounds and in urban locations
	Businesses that close during the winter months	Businesses that remain open throughout the year
Involvement in community projects (tourism and env'l) <sup>a,b</sup>	Larger business sizes (more than five employees) with resources to commit	Smaller business sizes (less than five employees) with constrained resources
	Influence of peer group contact within a business organisation	Non-membership of a business organisation
Provided recycling facilities for customers <sup>a</sup>	Larger business sizes (but not over nine employees)	Smaller business sizes of over nine employees
	Businesses in countryside locations with space to segregate waste	Businesses in urban locations with constrained premises
Communicated env'l improvements <sup>a,b</sup>	Larger business sizes (but not over nine employees)	Smaller business sizes of over nine employees
	Businesses in countryside locations	Businesses in urban locations
Encouraging the use of public transport	Access to disseminated information through membership of a tourism organisation	Non-membership of a tourism organisation

Notes: <sup>a</sup> Practices encouraged by the conduct of an environmental review and constrained by the absence of a review  
<sup>b</sup> Practices encouraged by membership of an environmental organisation and constrained by non-membership

amongst both visitors and businesses to ensure that a strengthening tourism industry is directed towards sustainable development. Although a range of direct and indirect barriers had been suggested by the focus groups, fewer were recognised as significant constraints by the survey sample. While it might be concluded that a valuable level of detail has, therefore, been lost, the results have helped to prioritise the most pressing issues to address. The next section evaluates the acceptability of potential policy interventions designed to reduce the barriers from the perspective of the businesses.

## **6.6 POLICY INTERVENTIONS TO ENCOURAGE ADOPTION**

Business views on the interventions necessary to reduce the barriers to adoption were examined by the questionnaire in two ways. First, respondents were asked for suggestions as an open question. Almost three-quarters (70.0 per cent i.e. 138/197) of respondents suggested measures in this way (see Table 6.43). Second, respondents also gave their views on a range of measures that had been suggested by the focus groups (see Figures 6.39 to 6.47). The interviews then explored the specific nature of the interventions that might be required. Not surprisingly, the list of suggested measures reflected the main issues that respondents believed had constrained their response to sustainability: the availability of time and money; a lack of support for recycling; and weaknesses in information support networks (see Table 6.43). The views of businesses owners on potential policy assistance, therefore, provided another insight into the barriers affecting the adoption of sustainable practices.

### **6.6.1 Financial incentives**

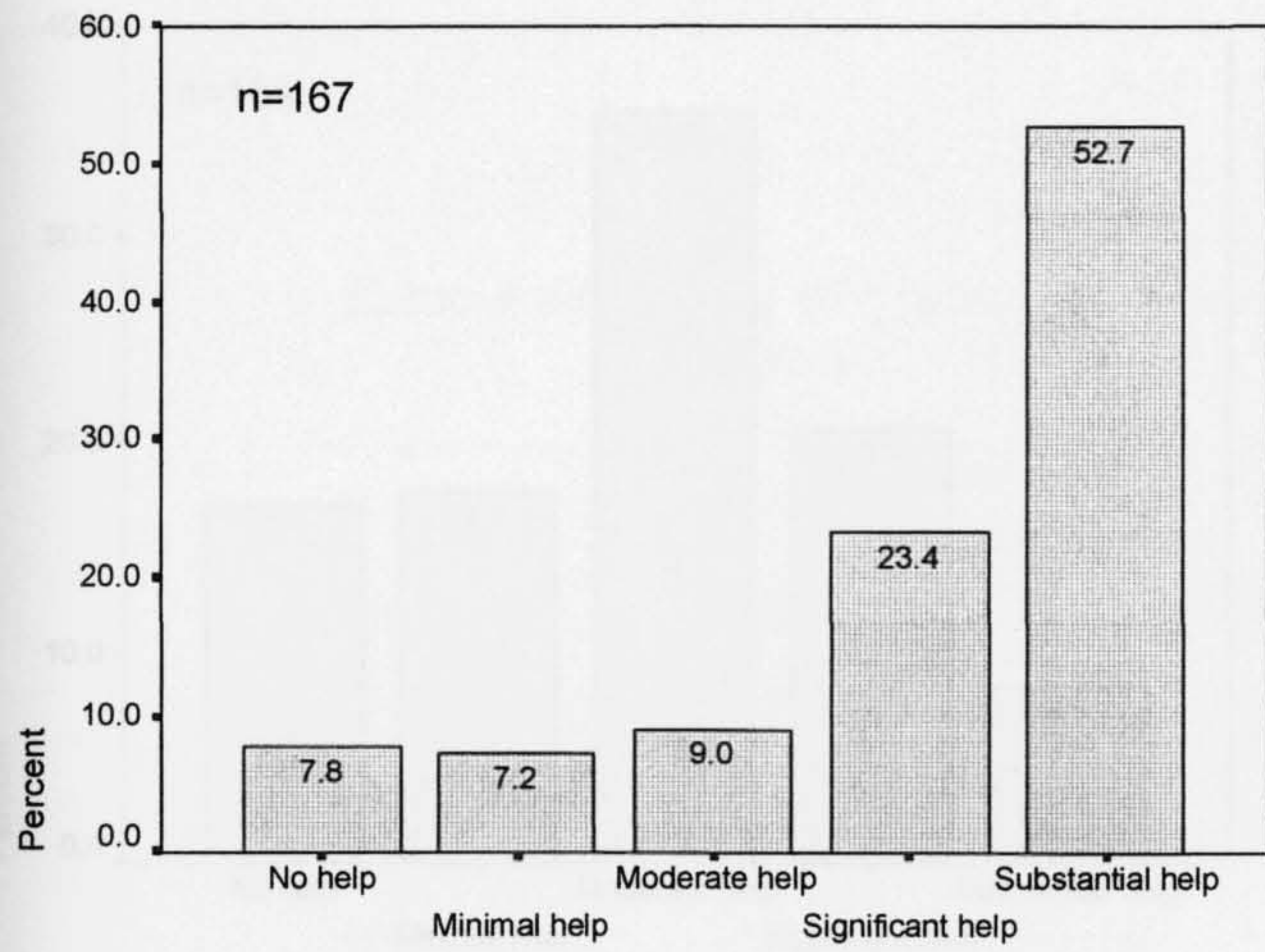
Financial incentives were the most popular form of policy intervention. Unprompted, more than half (52.9 per cent) of respondents suggested a range of financial measures, including grants, soft loans, product discounts and reductions in business rates (see Table 6.43). When prompted, more than three-quarters (76.1 per cent) considered financial support to be of 'significant' or 'substantial help' (see Figure 6.39). To some extent, financial incentives were also likely to overcome business owner reticence to invest time in sustainable practices. It may not, therefore, be necessary to target the constraints of time and money separately. Financial measures were particularly important to high adopters - almost all of whom considered them to be of 'significant' or 'substantial help', compared to only half of low adopters (see Table 6.44):

**Table 6.43 Suggested policy interventions**

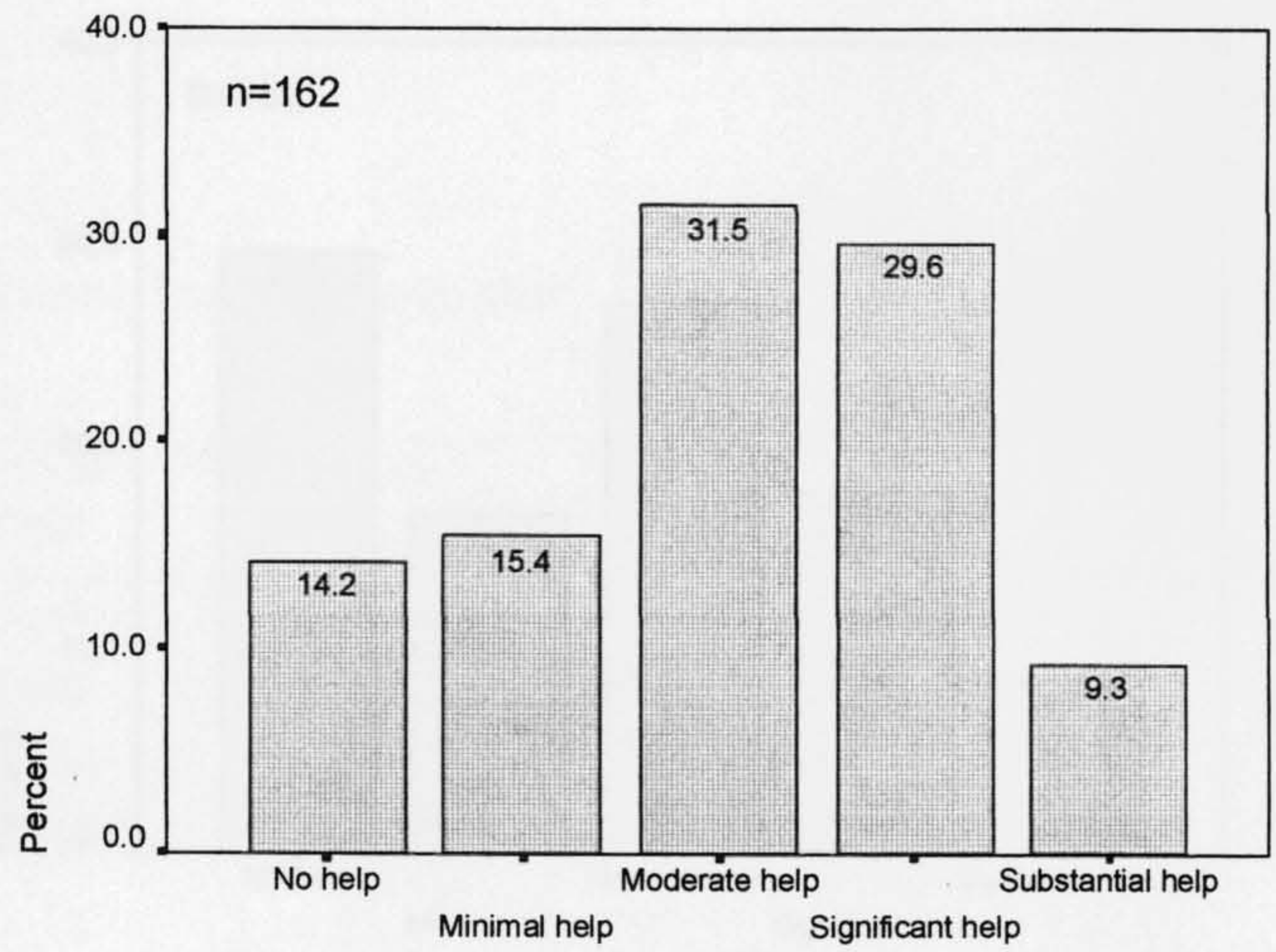
	Suggested initiative	No.	% of businesses mentioned
Financial measures	Financial support	47	34.1%
	Reduction in costs	14	10.1%
	Tax incentives	9	6.5%
	Reduction in business rates	3	2.2%
	<b>Sub total</b>	<b>73</b>	<b>52.9%</b>
Infrastructure measures	Collection of waste for recycling	27	19.6%
	Local recycling facilities	17	12.3%
	Council support	8	5.8%
	Separate bins for recycling	3	2.2%
	'Legalise' recycling	3	2.2%
	Fines for non-implementation	2	1.4%
	Better water pressure	2	1.4%
	Remove planning restrictions	1	0.7%
<b>Sub total</b>	<b>63</b>	<b>45.7%</b>	
Information & advice	More information	15	10.9%
	Relevant advice	15	10.9%
	Proven cost-effectiveness	5	4.7%
	Reliable alternatives	2	1.4%
	<b>Sub total</b>	<b>37</b>	<b>26.8%</b>
Time saving measures	More time	6	4.3%
	Time-saving initiatives	5	3.6%
	More staff	2	1.4%
	<b>Sub total</b>	<b>13</b>	<b>9.4%</b>
Local measures	Safe paths & cycleways	3	2.2%
	More bins for dog waste	1	0.7%
	Limit the use of HGVs	1	0.7%
	<b>Sub total</b>	<b>5</b>	<b>3.6%</b>
Other	Don't know	4	2.9%
	Nothing	3	2.2%
	Already environmentally friendly	3	2.2%
	Other	2	1.4%
	<b>Sub total</b>	<b>12</b>	<b>8.7%</b>
<b>Total responses = 138</b>		<b>203</b>	<b>-</b>

Not answered = 59

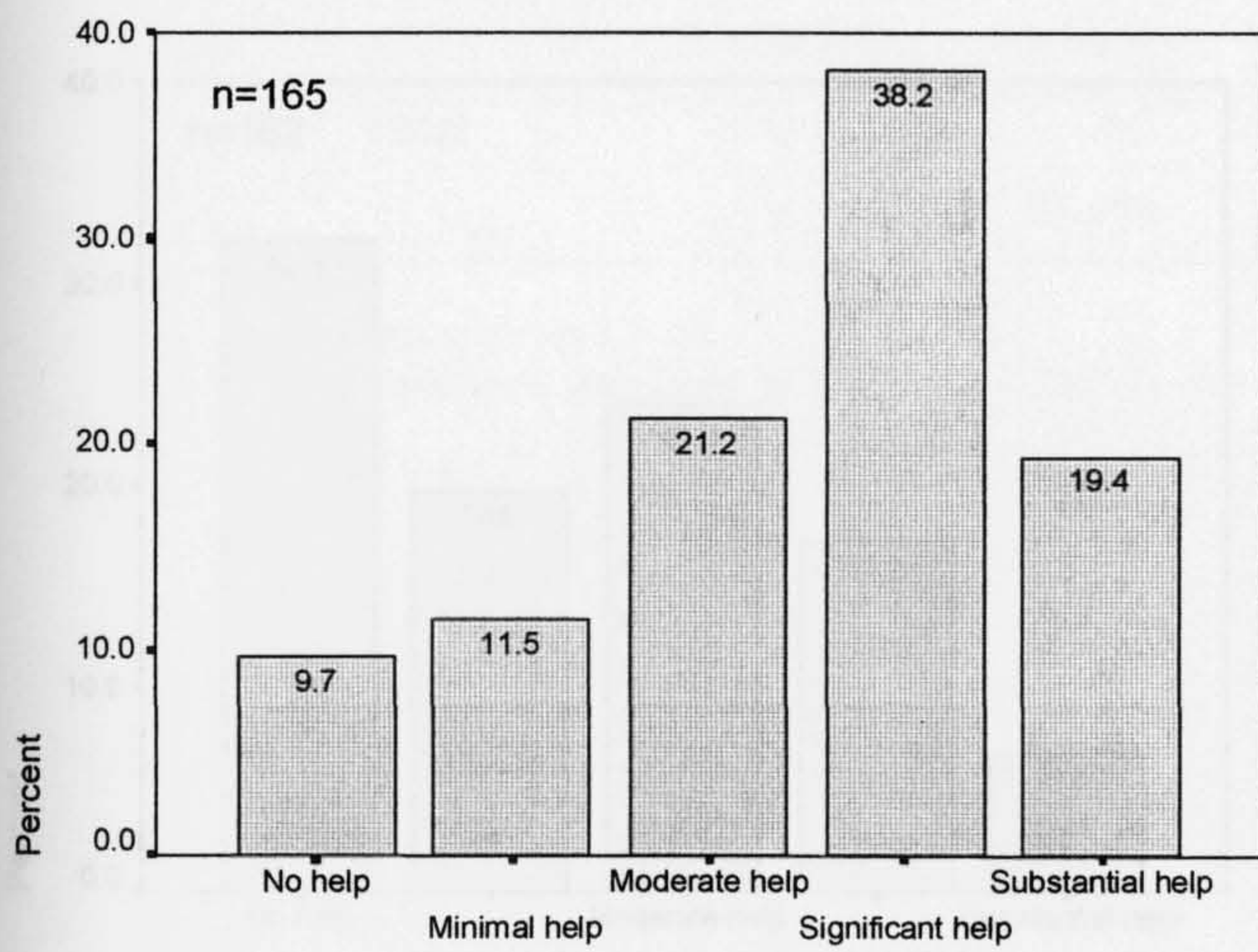




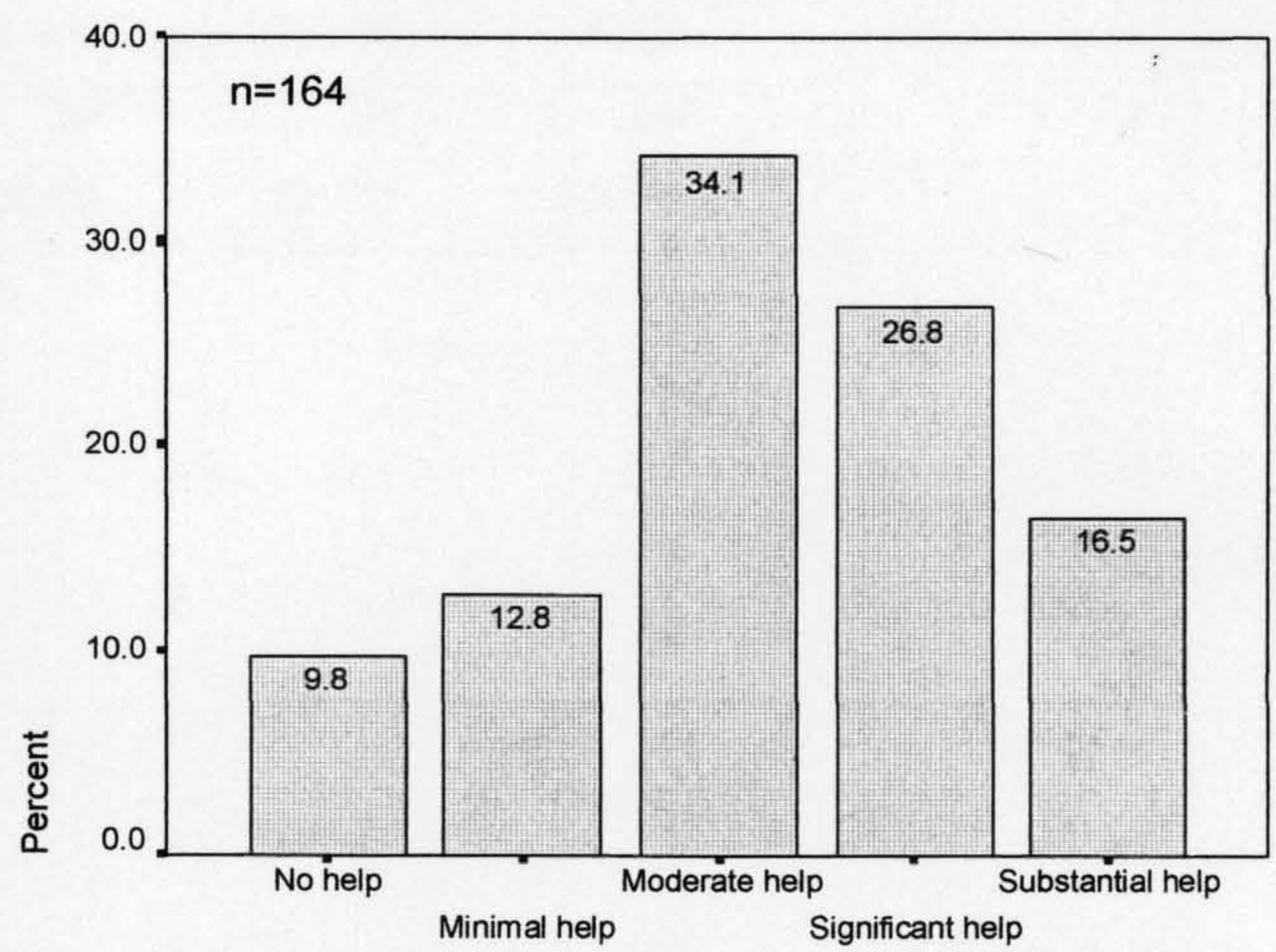
**Figure 6.39 Grants and financial assistance (%)**



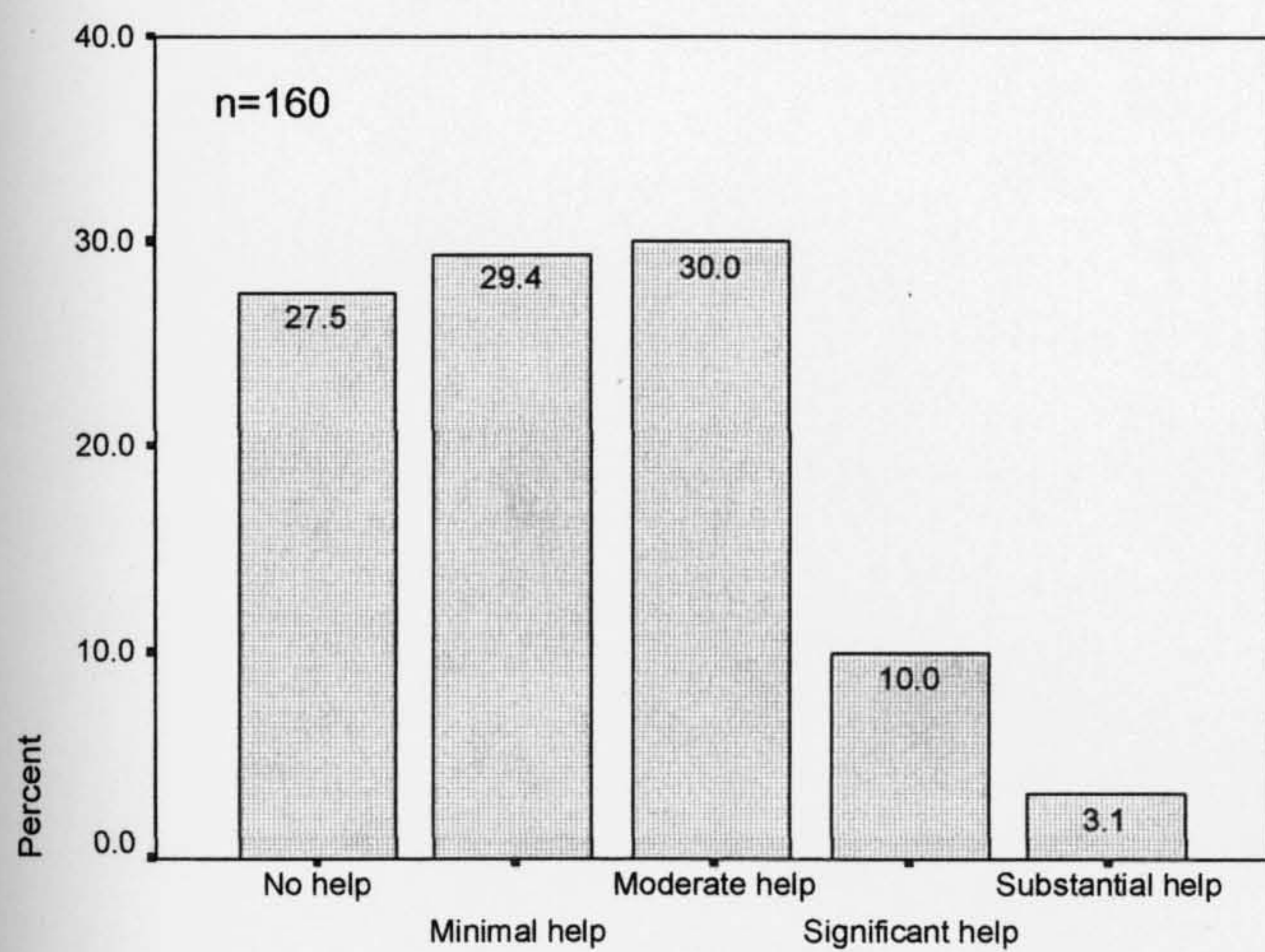
**Figure 6.40 Information on the environmental benefits (%)**



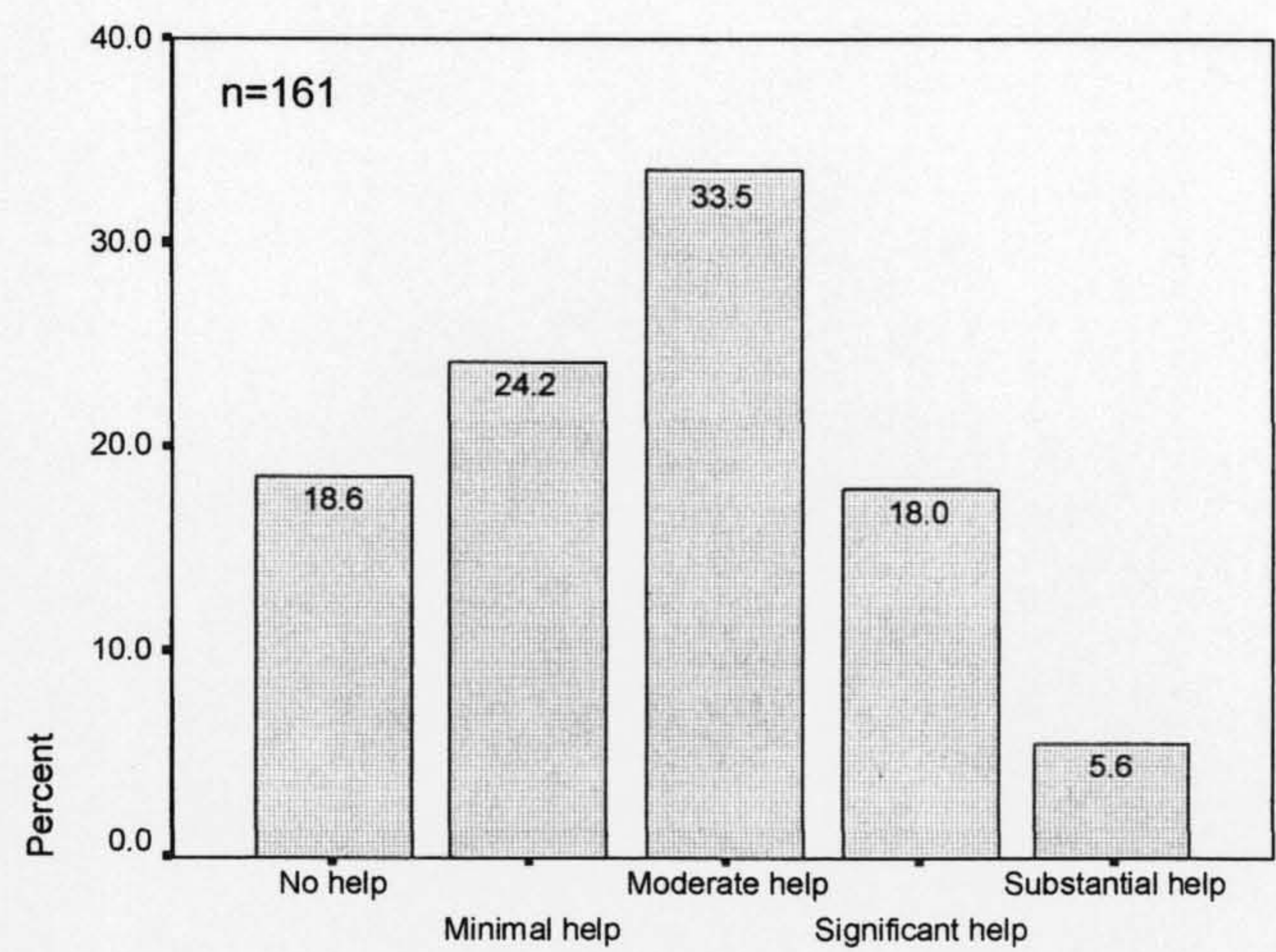
**Figure 6.41 Information on the financial benefits (%)**



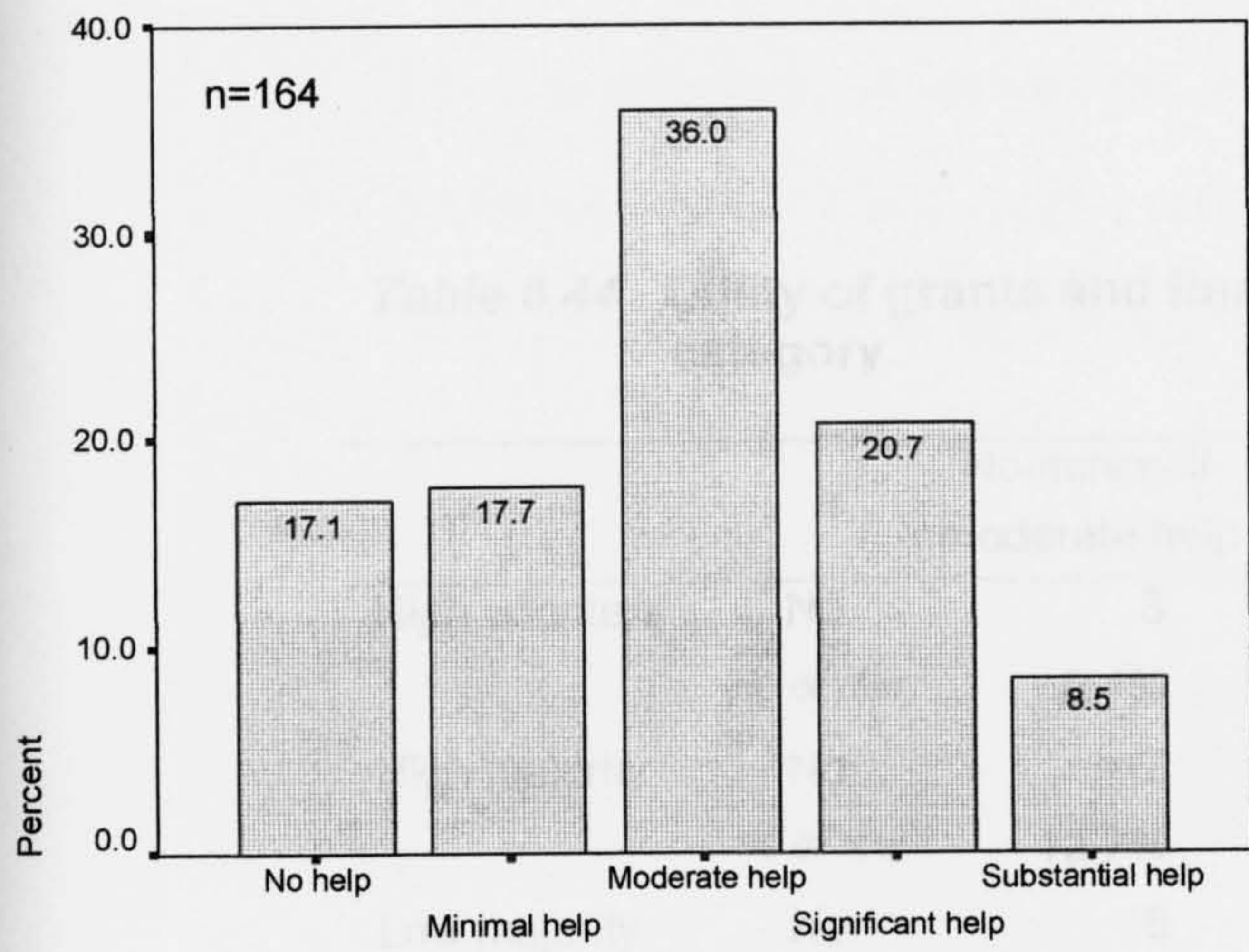
**Figure 6.42 Advice on appropriate practices (%)**



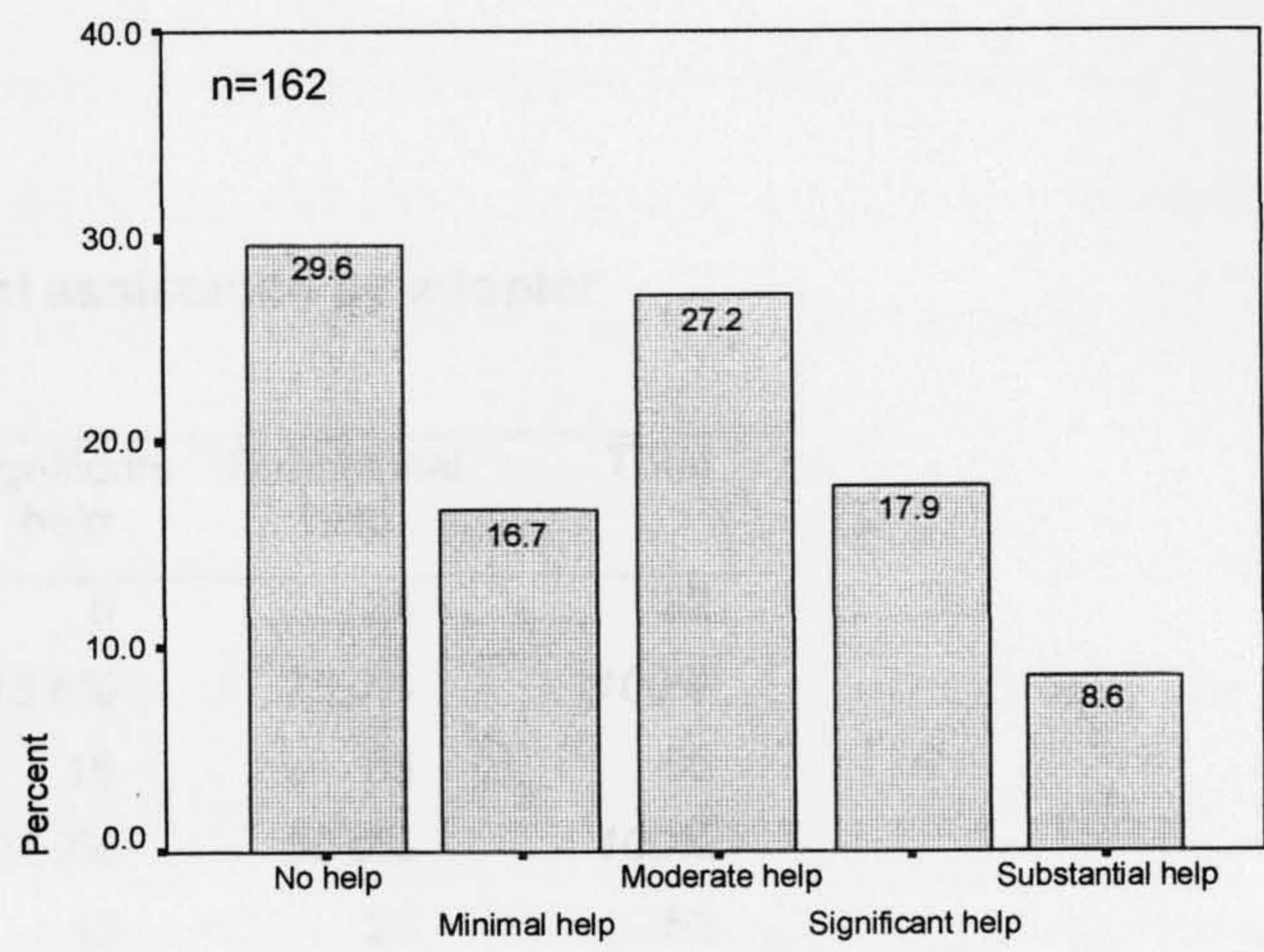
**Figure 6.43 Training seminars and workshops (%)**



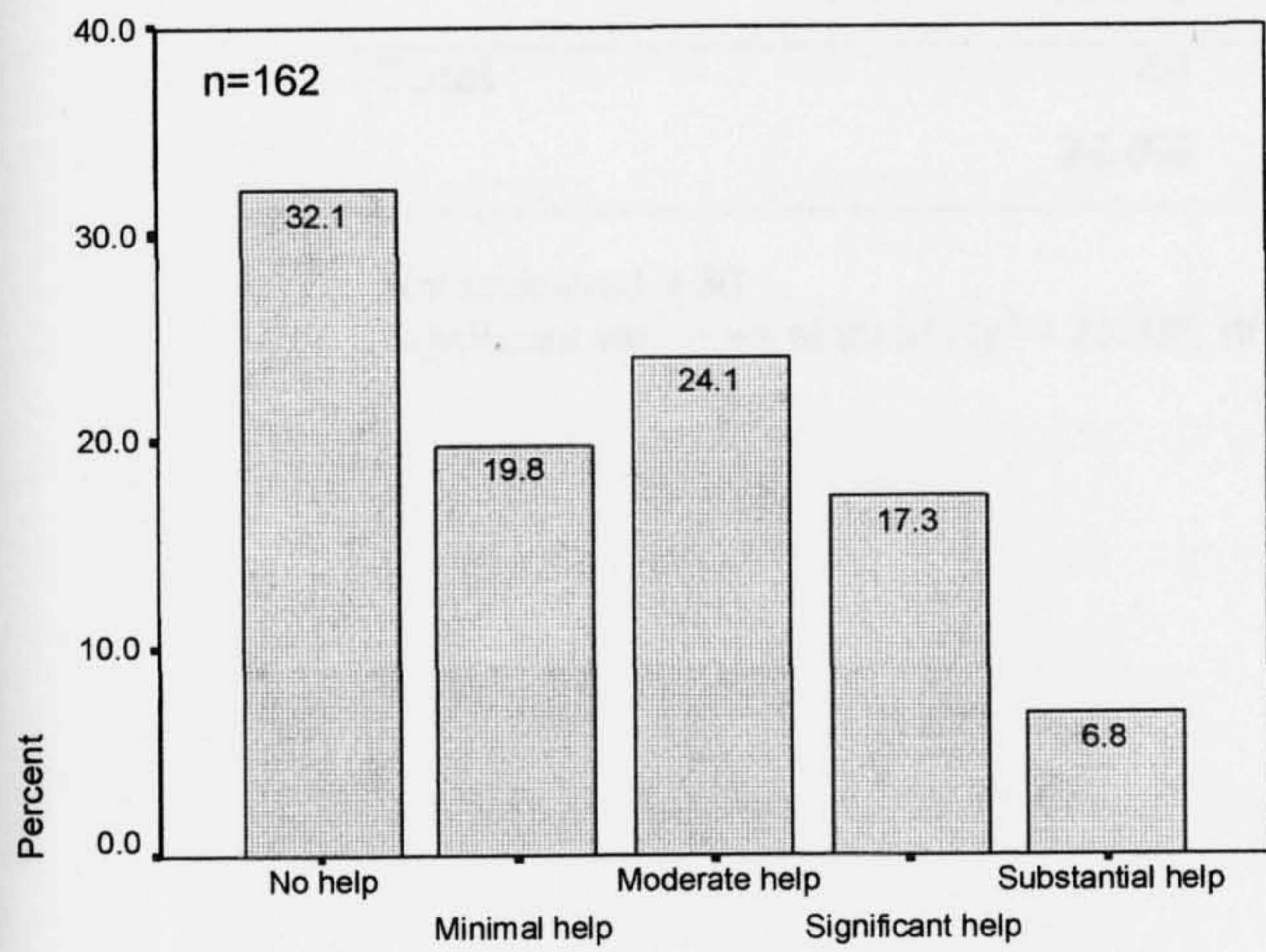
**Figure 6.44 Opportunity to discuss with other businesses (%)**



**Figure 6.45 Case studies of best practice (%)**



**Figure 6.46 Information and guidance on CD ROM (%)**



**Figure 6.47 Information and guidance on the internet (%)**

**Table 6.44** Utility of grants and financial assistance by adopter category

		No/minimal/ moderate help	Significant help	Substantial help	Total
High adopters	No.	3	5	24	32
	% of row	9.4%	15.6%	75.0%	100%
High majority	No.	7	15	33	55
	% of row	12.7%	27.3%	60.0%	100%
Low majority	No.	16	13	23	52
	% of row	30.8%	25.0%	44.2%	100%
Low adopters	No.	14	6	8	28
	% of row	50.0%	21.4%	28.6%	100%
<b>Total</b>		<b>40</b>	<b>39</b>	<b>88</b>	<b>167</b>
		<b>24.0%</b>	<b>23.4%</b>	<b>52.7%</b>	<b>100.0%</b>

Not answered = 30

Significant variances at 99.5% ( $\chi^2 = 23.335$ ,  $df = 6$ )

*“There are larger things that I would like to do here. I would like to do more environmental activities and maybe more environmental activity weekends for guests... but in order to do that we would need a grant” (High adopter).*

For low adopters, financial incentives were required to stimulate an initial interest in sustainable practices. In contrast, high adopters, who had already adopted a wide range of sustainable practices, sought financial support to implement more innovative capital improvements.

The interviews highlighted a number of potential pitfalls in relation to financial measures. First, adoption decisions that are dependent upon financial subsidies may prompt only short-term changes in behaviour, which can be quickly reversed when funding ceases. Financial support needs to be carefully targeted to build long-term capacity. The potential dangers were highlighted by one respondent in the in-depth interviews:

*“[I would be interested in grants] because that would save money. In the fishing [industry] we used to go for things we could get a grant on, not because you wanted it” (Low adopter).*

Second, the disproportionate interest of high adopters in financial measures raises questions of additionality in supporting activities that would be undertaken regardless. A number of discrete interventions may be required to target high and low adopters separately (e.g. by offering ‘first-time buyer’ discounts, but also capital grant schemes for more innovative projects). Third, the bureaucracy attached to grant funding may itself act as a barrier to adoption, which may be counter-productive, as the following comments suggest:

*“[I have] never applied [for any grants], but would like to. But I have always got the impression that they were very long-winded, very difficult to get hold of... lots of conditions” (Low adopter).*

### **6.6.2 Support for recycling**

Almost half (45.7 per cent) of the sample suggested that infrastructural improvements would encourage adoption (see Table 6.43), most of which (79.4 per cent i.e. 50/63) related to recycling. Although recycling was well established in the district, this activity reflected the personal commitment of business owners rather than District Council support. Without additional support, further adoption is unlikely. Additionally, a stricter application of the waste regulations (which preclude businesses from using public recycling facilities) could lead to the collapse of existing recycling activity. To date, the District Council has tended to overlook ‘illegal’ recycling practices which have contributed to household recycling figures (now subject to statutory Best Value Performance Indicator targets). The results of this research indicate that if this activity continues to be overlooked, the number of tourism businesses practicing the principles of sustainable tourism is

unlikely to increase.

Throughout the research, waste had been emphasised as businesses' most visible impact on the environment and the main sustainability issue for owners. Waste-related practices were central to the main cluster of activities perceived as being relevant to sustainability, and many of the identified barriers to future adoption related to problems with recycling. As one business stated:

*"[What would help the most?], helping us with recycling, because that is our biggest time and effort" (High majority adopter).*

The importance attached to the activity suggests that barriers to recycling may have wider significance and act as barriers to the adoption of other sustainable practices. It is unlikely, therefore, that business owners' main environmental concern can be omitted from any strategy for sustainability in the industry. One business stressed:

*"I feel that more could be done to maximise my time so that I could do more. For example, providing, as they do in many areas now, recycling boxes, which would mean that I don't have to be making constant trips down to bottle banks, paper banks to get rid of it" (High majority adopter).*

The preferred solution was a kerbside collection system to reduce the time and effort associated with recycling, although needs varied between businesses. Higher adopters required support, primarily in the summer months, and were willing to pay for collection. Indeed, larger businesses felt that they could justify their own bring-banks during the summer months. In contrast, lower adopters required a system that was just as convenient as general waste collection and expected to make financial savings as a consequence. There was a general acceptance that collection in rural areas and outside the main season may not be viable and might require a number of operational responses (e.g. a seasonal collection service in towns and villages, and business waste recycling points in rural areas). Alternatively, establishing a collection service on a not-for-profit basis (e.g. as an extension of the Willing Workers on Organic Farms (WWOOF) scheme<sup>1</sup> or as a social enterprise providing work experience to disadvantaged groups) could enable a district-wide collection service to be introduced and generate valuable social benefits.

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<sup>1</sup> The WWOOF programme began in Britain in 1971 to enable people from urban areas to experience living and working on an organic farm. Volunteers receive board and lodging, while learning methods of organic farming, in exchange for labour. There are now WWOOF farms worldwide, including North America, South America, Africa, Asia and the South Pacific. Through farm diversification, the programme has been extended into tourism-related activities (McIntosh and Campbell, 2001).

### 6.6.3 Information and advice

Measures that provided information and advice about sustainable practices were suggested by more than a quarter (26.8 per cent) of respondents (see Table 6.43). When prompted, three-quarters agreed that information about the environmental (70.4 per cent) and financial (78.8 per cent) benefits of adoption, and personal advice on sustainable practices (77.4 per cent) would be of at least 'moderate help' (see Figures 6.40 to 6.42). Businesses required access to reliable information and advice at all stages of the adoption process to improve the quality of decision-making. A number of features of business behaviour indicated that a range of interventions would be required to inform such decisions, based on the information needs of individual businesses, the preferred means of communication and dissemination, and the stage in the business lifecycle.

Information needs varied greatly according to the circumstances, priorities and motives of individual businesses. Most businesses were interested in the relative merits and practicalities of adoption, but the level of required detail varied considerably. The range of views, even amongst higher adopters, is illustrated by the following comments:

*"I would like to know what actually happens to the wool I put in such and such a woollen bank, or the cans or whatever. And whether it is costing them more to recycle than it would to extract the raw materials from a third world country in which it was also providing jobs for people, who would not be having those jobs if we were recycling here, and so on and so forth..." (High adopter).*

*"Not too detailed or complicated, basic points and bullets of how you can cut your energy costs, that sort of thing. The moment you make it too long-winded, if it is anybody like me, they just haven't got time to read all the small print. You just want something that says 'for further information contact this number'" (High majority adopter).*

Where personal advice was preferred, high adopters, with wide experience of sustainable practices, typically required advice on complex or site-specific issues (e.g. building materials that are not harmful to wildlife, the installation of solar panels):

*"I'm sure we do things that we are not aware of that are actually damaging the bird populations. We have barn owls here and trying to find out... We had to go off our own backs to the Barn Owl Trust and get nesting boxes put in because there was no local information" (High majority adopter).*

In contrast, lower adopters were less confident and had more basic needs, such as understanding the general merits of sustainable practices and how to compost green waste. Although such information was available, low adopters felt that they had neither the time nor motivation to search for it. The lowest adopters typically required face-to-face persuasion to adopt even the most basic sustainable practices, as indicated in the following comments:

*“We probably, most likely, don’t know enough about it, do we? We’re ignorant, aren’t we?... what we could possibly be doing... I think you take it in more if somebody is telling you, than you do reading it?” (Low adopter)*

There were also wide differences in the preferred manner in which information should be communicated. No single method of disseminating information appealed to all businesses (see Figures 6.43 to 6.47). While most high adopters considered training seminars (66.7 per cent i.e. 20/30) and meetings with other businesses (83.3 per cent i.e. 25/30) to be of at least ‘moderate help’, they were of limited interest to low adopters (23.0 per cent i.e. 6/26, and 39.3 per cent i.e. 11/28, respectively) (see Tables 6.45 and 6.46). Mechanisms that require a substantial time commitment were considered inappropriate for targeting businesses without strong environmental values. Case study examples of best practice were more popular (see Figure 6.45) with support from all adopter categories, although it was important that the examples were transferable to small operators. Interestingly, the provision of information on CD-ROM or through the internet was of limited appeal. A total of 46.3 per cent and 51.9 per cent of respondents respectively, considered such methods to be of ‘no’ or ‘minimal help’ (see Figures 6.46 and 6.47). Communication channels that rely upon new technologies may reinforce, but cannot yet replace the main communication channels (i.e. written and face-to-face).

During the interviews, the provision of advice as part of an inspection and rating scheme was not popular, reflecting scepticism about the commercial relevance of sustainable tourism and perceptions that sustainable practices were often not consistent with customer care. Owners, who were already members of rating schemes, were averse to the inclusion of additional performance criteria, while non-members would not contemplate joining any scheme because of the perceived bureaucracy, costs and limited value to their business. Willingness to participate in a separate scheme was dependent upon critical mass so that the achievement of an award gained meaningful recognition.

The interviews confirmed that needs and preferences changed during the life of a business. At ‘start up’, the financial pressures to generate income meant that only practices that required little financial outlay could be adopted (e.g. composting, recycling, local purchasing). Directories were the most popular methods of disseminating information about such ‘maintenance practices’ (e.g. local recycling facilities, suppliers of ‘green’ goods and services). Personal advice was only appropriate where substantial changes were contemplated before trading commenced. Advice on

**Table 6.45 Utility of training seminars and workshops by adopter category**

		No help	Minimal help	Moderate help	Significant/ substantial help	Total
High adopters	No.	4	6	14	6	30
	% of row	13.3%	20.0%	46.7%	20.0%	100%
High majority	No.	14	13	20	8	55
	% of row	25.5%	23.6%	36.4%	14.5%	100%
Low majority	No.	14	20	11	4	49
	% of row	28.6%	40.8%	22.4%	8.2%	100%
Low adopters	No.	12	8	3	3	26
	% of row	46.2%	30.8%	11.5%	11.5%	100%
<b>Total</b>		<b>44</b>	<b>47</b>	<b>48</b>	<b>21</b>	<b>160</b>
		<b>27.5%</b>	<b>29.4%</b>	<b>30.0%</b>	<b>13.1%</b>	<b>100.0%</b>

Not answered = 37

Significant variances at 95% ( $\chi^2 = 18.838$ ,  $df = 9$ )

**Table 6.46 Utility of discussions with other businesses by adopter category**

		No help	Minimal help	Moderate help	Significant help	Substantial help	Total
High adopters	No.	2	3	14	7	4	30
	% of row	6.7%	10.0%	46.7%	23.3%	13.3%	100%
High/low majority	No.	19	28	34	18	4	103
	% of row	18.4%	27.2%	33.0%	17.5%	3.9%	100%
Low adopters	No.	9	8	6	4	1	28
	% of row	32.1%	28.6%	21.4%	14.3%	3.6%	100%
<b>Total</b>		<b>30</b>	<b>39</b>	<b>54</b>	<b>29</b>	<b>9</b>	<b>161</b>
		<b>18.6%</b>	<b>24.2%</b>	<b>33.5%</b>	<b>18.0%</b>	<b>5.6%</b>	<b>100.0%</b>

Not answered = 36

Significant variances at 95.0% ( $\chi^2 = 15.584$ ,  $df = 8$ )



the installation of environmentally friendly capital equipment was more relevant towards the end of an asset's life or when wholesale changes were contemplated (e.g. refurbishment or expansion), which was often only considered after a period of financial consolidation. One owner stated:

*“When people are doing major refurbishments or extensions, or what have you. I would like to see that if somebody is refurbishing or building an extension, that that environmental advisor could come out and say ‘right, this is what you could do to conserve energy, these are the best sort of materials to use’. That guidance and support, not mandatory, but that people should be making sure that they are using the best available materials” (High majority adopter).*

Factsheets were preferred for communicating detailed information on capital improvements; however, opinion was divided as to whether they should be available electronically or on paper.

To encourage the adoption of sustainable practices, most owners will need a range of information and advice supplied at key junctures over the life of their business. The diverse nature of the industry and business commitment to sustainability will require such support to be flexible, personal and sustained over time.

#### **6.6.4 Other measures**

A minority (9.4 per cent) of respondents highlighted the need for measures to reduce the time and effort required to adopt sustainable practices, although no specific suggestions were made (see Table 6.43). Co-operative initiatives, which might replicate the critical mass available to larger businesses and provide economies of scale and convenience, such as a ‘green’ bulk-buying scheme, were only of interest to high adopters, who were already committed purchasers. A small minority (3.6 per cent) suggested measures which might improve the sustainability of the area (e.g. the provision of additional footpaths and cycleways, limiting heavy goods vehicles). Such measures reflected more the personal agenda of individual respondents rather than serious efforts to improve the sustainability of the industry itself.

#### **6.6.5 Prioritisation of policy interventions**

The results have emphasised that a range of policy interventions will be required to encourage the adoption of sustainable practices in the district. However, unless other stakeholders can be persuaded to share the responsibility and costs for intervention (e.g. local trade and environmental associations, national and regional agencies), local authorities may need to prioritise the businesses that they can afford to support to obtain ‘best value’ from their investment. To this end, the results suggest a basis for targeting the population of tourism-related businesses in the district

and varying the level of support according to needs and potential.

The majority of businesses within each of the four adopter categories could be identified by their possession of the key factors associated with adoption (see Table 6.47). The factors that defined the majority of respondents in each category are summarised in Table 6.48 (factors that were common to all categories are omitted, as they provided no meaningful distinction between groups). Although this analysis begins to illustrate the distinguishing features of each adopter category, there was little commonality between the businesses characterised by each factor (see Table 6.49) demonstrating that the nature of each category was somewhat diverse and resisted simple classification. More relevant as a basis for segmentation was the number, rather than the type, of factors exhibited, in particular, the features associated with high adopters (see Table 6.50). Defining all adopter categories in terms of their similarity to the characteristics of high adopters highlighted the ease with which different groups of businesses might be persuaded to migrate to higher levels of adoption.

A suitable criterion for distinguishing high adopters from other businesses was their possession of at least four features (cell A). Such a cut-off point accurately defined both the majority of high adopters (84.8 per cent), which lay above this point, and the majority of other adopter categories, which lay below this point. The differences between other categories were less clear. High majority adopters ranged from businesses that resembled high adopters (exhibiting four or more features) to those which were more closely aligned to lower adopters. The characteristics of low adopters and low majority adopters were very similar. A further cut-off point seemed to be the possession of two features (cells B and C), which differentiated the majority of low majority adopters and a substantial proportion, but not the majority, of high majority adopters from low adopters (cell D). On the basis of these results, the highest priority would be to support businesses with many of the characteristics of high adopters, but which had not yet fulfilled their potential (i.e. cells E, F and G).

A short questionnaire would be required to collect the necessary data to accurately position businesses within this segmentation model, but might also include questions relating to preferred methods and frequency of contact. The results would provide a basis for varying the level of support according to needs, potential, and individual preferences of businesses and so increase the effectiveness of policy interventions. Such an approach represents one of a number of strategy options which are discussed in the conclusion to this chapter.

**Table 6.47 Possession of significant factors by adopter categories**

Factor		High adopters		High majority		Low majority		Low adopters		Total No.
		No.	% category	No.	% category	No.	% category	No.	% category	
Conducted an env'l review	a) Yes	23	<b>69.7%</b>	20	29.0%	8	13.1%	0	0.0%	51
	b) No	10	30.3%	41	<b>59.4%</b>	52	<b>85.2%</b>	34	<b>100%</b>	137
Type of customers	a) Prof. couples/empty nesters/grps. adults	12	36.3%	27	39.1%	25	41.0%	6	17.6%	70
	b) Families	9	27.3%	17	24.6%	14	23.0%	19	<b>55.9%</b>	59
Legal status	a) Sole traders	15	45.5%	41	<b>59.4%</b>	18	29.5%	17	50.0%	91
	b) Partnerships	11	33.3%	23	33.3%	32	<b>52.4%</b>	12	35.3%	78
Experience running business	a) Less than 2yrs or 6-10yrs	21	<b>63.6%</b>	29	42.0%	19	31.1%	13	38.2%	82
	b) 3-5yrs or more than 10yrs	11	33.3%	40	<b>58.0%</b>	42	<b>68.9%</b>	20	<b>58.8%</b>	113
Organisation membership	a) Member of env'l organisation	12	36.4%	9	13.0%	2	3.3%	0	0.0%	23
	b) Non-member of env'l organisation	21	63.6%	60	<b>87.0%</b>	59	<b>96.7%</b>	34	<b>100%</b>	174
	c) Member of tourism organisation	22	<b>66.7%</b>	31	44.9%	24	39.3%	9	26.5%	86
	d) Non-member of tourism organisation	11	33.3%	38	<b>55.1%</b>	37	<b>60.7%</b>	25	<b>73.5%</b>	111
Motivation	a) Personal concern	24	<b>72.7%</b>	28	40.6%	9	14.8%	1	2.9%	62
	b) Financial	10	30.3%	16	23.2%	14	23.0%	2	5.9%	42
Attitudes	a) Concerned about state of environment	30	90.9%	52	75.4%	47	77.0%	23	67.6%	152
	b) Recognise impact of tourism	22	<b>66.7%</b>	38	<b>55.1%</b>	34	<b>55.7%</b>	17	50.0%	111
	c) Concerned about impact of business	17	<b>51.5%</b>	16	23.2%	14	23.0%	9	26.5%	56
	d) Not concerned about impact of business	14	42.4%	38	<b>55.1%</b>	32	<b>53.3%</b>	16	47.1%	100
Willingness to improve	a) Prepared to take time	28	<b>84.8%</b>	41	<b>59.4%</b>	31	<b>50.8%</b>	16	47.1%	116
	b) Willing to work with others	18	54.5%	33	47.8%	16	26.2%	8	23.5%	75
<b>Total numbers</b>		<b>33</b>	-	<b>69</b>	-	<b>61</b>	-	<b>34</b>	-	<b>197</b>

'Indicator features' highlighted in bold (i.e. held by more than 50% of a category and distinguishing one category from another)  
Percentages add up to more than 100 as respondents could select more than one option

**Table 6.48 Distinguishing features of adopter categories**

High adopter	High majority	Low majority	Low adopter
Conducted an environmental review		Not conducted an environmental review	
Less than 2 yrs or 6 – 10 yrs experience running business		3 – 5yrs or more than 10yrs	
Member of a tourism organisation		Not a member of a tourism organisation	
Motivated by a personal concern for the environment	Established as a sole trader	Established as a partnership	Main market families
Concerned about the impact of own business on the environment	Recognise the impact of tourism on the environment	Not concerned about the impact of own business on the environment	
	Prepared to take time to improve environmental performance		

**Table 6.49 Proportion of high adopters characterised by combinations of indicator features (%)**

Indicator	Conducted an env'l review	Business experience	Member of tourism organisation	Motivated by a personal concern	Recognise impact of tourism	Concerned about impact of business	Prepared to take time to improve performance
Conducted an env'l review	<b>69.7</b>	<b>48.5</b>	<b>45.5</b>	<b>51.5</b>	<b>45.5</b>	<b>33.3</b>	<b>60.6</b>
Business experience		<b>63.6</b>	<b>45.5</b>	<b>42.4</b>	<b>45.5</b>	<b>30.3</b>	<b>54.5</b>
Member of tourism organisation			<b>66.7</b>	<b>45.5</b>	<b>45.5</b>	<b>39.4</b>	<b>57.6</b>
Motivated by a personal concern				<b>72.7</b>	<b>45.5</b>	<b>39.4</b>	<b>66.6</b>
Recognise impact of tourism					<b>66.7</b>	<b>39.4</b>	<b>51.5</b>
Concerned about impact of business						<b>51.5</b>	<b>45.5</b>
Prepared to take time to improve performance							<b>84.8</b>

Total number of high adopters = 33  
 'Indicator combinations' highlighted in bold

**Table 6.50** Groups of businesses defined on the basis of the number of high adopter features exhibited

		0 – 1	2 – 3	4 – 7	Total
High adopters	No.	0	5	<b>A</b> 28	33
	% of row	0%	15.2%	84.8%	100%
High majority	No.	11	<b>B</b> 34	<b>E</b> 24	69
	% of row	15.9%	49.3%	34.8%	100%
Low majority	No.	17	<b>C</b> 34	<b>F</b> 10	61
	% of row	27.9%	55.7%	16.4%	100%
Low adopters	No.	<b>D</b> 15	12	<b>G</b> 7	34
	% of row	44.1%	35.3%	20.5%	100%
<b>Total</b>		<b>43</b>	<b>85</b>	<b>69</b>	<b>197</b>
		<b>21.8%</b>	<b>43.1%</b>	<b>35.0%</b>	<b>100%</b>

## 6.7 CONCLUSION

The results revealed a more positive response to sustainability than expected. A wide range of environmental improvements had been adopted by respondents, including a number of genuinely innovative practices. Many were firmly established within existing industry behaviour and had been implemented as clusters of activities. Most respondents were concerned about the state of the local environment and were prepared to make time to improve the environmental performance of their business, although not through a feeling of responsibility for environmental problems in the district. Behind these findings, however, lay wide variations in the response of individual businesses. The use of innovation diffusion theory provided a basis to investigate and account for such diversity.

The extent and manner in which individual practices had diffused within the district varied greatly depending upon their commercial application; the length of time they had been available; the ease and cost of implementation; the efficacy of information support networks; and their perceived relevance to sustainability. Businesses also varied greatly in their commitment to sustainability. The sample ranged from businesses that had adopted just one sustainable practice to those that had implemented more than 20. Half of the sample accounted for more than two-thirds of sustainable practices adopted. A number of factors appeared to account for this diversity. Characteristics, such as business size and commercial orientation, which were expected traits of innovation, had little influence upon the number of practices adopted. Additionally, there was little evidence of demand-led adoption in response to a growing interest in environmental issues amongst visitors. More relevant were the experience, attitudes, and motivation of the business owner. Adoption was driven more by the values of the owner than the circumstances of the business.

Although situated within the District of Caradon, the results of the questionnaire survey and in-depth interviews potentially have important implications at all levels of policy formulation. Interventions to date have assumed a homogenous industry motivated by commercial opportunity and have offered single solutions, such as the Green Audit Kit. The results revealed a mis-match between existing policy interventions and the behaviour, needs and preferences of small tourism businesses in a number of respects. First, policy interventions do not currently recognise the strong

altruistic motives for adopting sustainable practices, which were relevant to all adopter categories. Consequently, most businesses are not being encouraged to make environmental improvements in the most appropriate manner. Second, present support mechanisms do not reflect the very different needs of low, medium and high adopters, or the changing requirements of a business through a typical lifecycle, particularly at 'start up', expansion and refurbishment. Third, the continued promotion of even semi-formal tools of environmental management is at odds with the manner in which businesses have adopted sustainable practices. Businesses require less formal and more flexible support which encourages the adoption of new practices over time. Fourth, policy interventions have yet to address the main barriers to adoption, particularly financial constraints and a lack of infrastructural support, which have limited the capacity of tourism businesses to make environmental improvements. An alternative to the development of new resources is the more effective co-ordination, communication and application of existing resources (e.g. by establishing and promoting a county information bank). Arguably, the infrastructural barriers, which relate to the context within which adoption decisions are made, appear to be the most pressing for policy-makers. It is likely, therefore, that a range of policy interventions will be required to support the changing needs, priorities and preferences of a diverse population of businesses throughout the adoption process.

The results have provided a 'benchmark' position of adoption within the district, against which progress can be measured. More important, the findings have informed a number of strategic options for the District Council to consider for future policy implementation. By highlighting the influences upon decisions to adopt sustainable practices and the manner in which adoption has occurred, the results could inform both tactical measures to encourage the adoption of specific practices, or a business-focused approach, which targets low, medium and high adopters to encourage iterative improvements. The results have suggested a segmentation model to prioritise support based upon the potential of businesses to adopt sustainable practices and their propensity to do so, indicated by their possession of the key factors associated with high levels of adoption. As many of the key factors relate to the personal experiences, values and motivations of owners, a practical application of the model would require periodic data collection. The extent to which District Councils would want to implement such a strategy would depend upon their own commitment to sustainability, the scale of improvement required, and available resources to implement and deliver a needs-based support service. It is likely that the segmentation model will have greater utility as a conceptual framework for the design of a range of flexible policy measures, than as a practical



basis for service delivery.

A further strategic option would be to target the main infrastructural barriers to adoption, in particular, to provide support for business recycling activity as a catalyst to increase awareness and activity within other areas of sustainability. Without a district-wide infrastructure for business waste recycling, it will be difficult to encourage other sustainable practices.

The results also highlighted opportunities for the formation of strategic partnerships, both within and beyond the District Council. The goals and policies of different departments with responsibility for tourism (i.e. Economic Development and Countryside Services) within the District Council might need to be more closely integrated than at present to facilitate the provision of appropriate supporting infrastructure and services. On a tactical level, there is an opportunity to work with the main tourism organisations in the district to expedite the diffusion of sustainable practices (e.g. through endorsed workshops, events and communication mechanisms). Additionally, many of the issues and barriers operated on a geographical scale beyond the Caradon District (e.g. public transport, waste, pollution to air and water). Strategies for sustainable tourism will require co-operation and co-ordination of a range of public, private and voluntary sector organisations within the district and at regional and national levels.

The most suitable strategy option for Caradon will depend upon the District Council's own strategic priorities, objectives and capabilities, and of the local industry itself. The District Council has committed to a process of close consultation with the industry in developing and agreeing a strategy for sustainable tourism informed by the findings of this research. The policy options are not mutually exclusive. Indeed, a combination of tactical and strategic measures might help to sustain business interest. What is important is that policy interventions begin to reflect the varied behaviour and needs of small tourism businesses which, to date, have largely been overlooked within the context of policy to encourage and support sustainable development.

# Chapter Seven

## Discussion and conclusion

### 7.1 INTRODUCTION

The primary aim of this thesis has been to develop a detailed understanding of how tourism-related businesses within the Cornish district of Caradon have responded to the concept of environmental sustainability. In particular, it has sought to identify the issues that have constrained the adoption of sustainable business practices to inform the formulation of future policy interventions. Through a necessary focus on small family-run operators, which comprised the majority of tourism businesses in the district, a further aim has been to contribute to the under-researched topic of micro-business behaviour towards sustainable development. What is 'known' about the response of micro-businesses to environmental and sustainability issues has largely been inferred from studies and theories of large business behaviour which, operationally, have little in common with small family businesses. To address this research gap, a generalised theory of innovation diffusion, which has precedence in the study of micro-businesses and environmental innovations, although not within tourism, was used as a theoretical basis for the study.

The results have supported the conclusions of past studies of SMEs that small business responses to environmental sustainability are constrained by a lack of resources, skills and expertise, reflected by their low adoption of formal tools of environmental management. Underlying these findings, however, the study has revealed a complexity and diversity of response that, hitherto, had not been explored. The findings suggest that policy interventions to date have been based largely upon preconceptions of small business behaviour and have not adequately recognised the variety of attitudes, priorities and motives within the industry or the range of real and perceived constraints on the adoption of sustainable practices. A significant mismatch, therefore, exists between the needs of tourism-related businesses and the nature and level of support that is currently available.

The purpose of this final chapter is to discuss the practical and theoretical implications of this research, which is presented in three parts. Section 7.2 summarises the main findings and discusses their implications for policy formation, both within the district of Caradon and at other levels of strategy development. Section 7.3 then evaluates the contribution of the study to a

conceptual understanding of micro-business behaviour within tourism. The chapter concludes with a review of the opportunities for further research arising from this study.

## **7.2 MAIN FINDINGS AND IMPLICATIONS FOR POLICY INTERVENTIONS**

### **7.2.1 Response of the tourism industry to sustainability**

The first objective of the study was to assess the extent and manner in which tourism-related businesses in the district had responded to the concept of environmental sustainability through their adoption of a range of sustainable practices. The results provided a 'benchmark' measure of performance to highlight the potential of businesses to adopt further practices and against which the efficacy of future policy interventions might be assessed. At the commencement of the study, expectations of business performance within sustainable development were low. There is wide consensus within the literature that, by virtue of their limited resources, skills and expertise, small businesses face additional problems and barriers in responding to the challenges of sustainability in comparison to large businesses (see discussion in Chapter Two). In the absence of empirical evidence to the contrary, the inference has been that the problems and barriers faced by micro-businesses, which comprised nine-tenths of the research sample, are more acute and that few positive responses to sustainability should be expected. The results confirmed that, in a number of ways, the research sample conformed to this view and had encountered many of the same problems faced by SMEs within other sectors. The sample showed little awareness of the concept of environmental sustainability or of the impacts that their businesses might have on the environment. Most respondents had very limited knowledge of environmental regulations (e.g. relating to waste), were low users of information about sustainable practices and were often unaware of the financial benefits of adoption. Owners felt constrained in their ability to respond to environmental and sustainability issues by multiple demands upon their time and by a perceived lack of resources, particularly financial resources. Consequently, respondents were very low adopters of formal tools of environmental management, which are widely regarded as indicators of environmental commitment. Beyond these expected findings, however, the results revealed a number of surprising aspects of business behaviour.

A lack of understanding of the meaning and relevance of environmental sustainability to the industry belied the significant changes in business behaviour that had taken place within the

sample. A wide range of sustainable practices had been adopted within the district, some of which were genuinely innovative (e.g. the installation of compost toilets and the creation of a reed bed filter system). Many practices were ingrained within normal business behaviour and required little additional encouragement (e.g. recycling, local purchasing). Others were relatively new (e.g. the installation of a condensing boiler) and will require targeted support if they are to become established within the industry (e.g. through grants and technical support). Variances in the rate of adoption of different practices related to the perceived benefits of adoption (financial and environmental), the time and effort associated with implementation and the absolute costs of adoption. Measures to encourage the adoption of specific practices will need to address these core issues.

Limited understanding of the concept did not indicate a reluctance to participate within sustainability, but reflected the general exclusion of small businesses from the sustainability debate within tourism. Businesses were implicitly aware of many of the sustainability issues within the district, but were uncomfortable with the terminology of policy-makers and academics. Instead, owners had developed their own lists of pressing environmental issues, reflecting their personal experiences and priorities, and upon which they were prepared to take positive action. These results highlight an important distinction between business understanding of the meaning and relevance of environmental sustainability, which might represent a necessary prerequisite for the long-term and holistic application of the concept, and shorter-term operational responses, which reflect current priorities and perceptions. While both are relevant to the research problem, the short-term operational responses are arguably of greater interest to local authorities, who will need to evidence added value and measurable outcomes through their interventions.

The manner in which the research sample had approached sustainable practices was very different to that anticipated by existing policy interventions. The low take-up of even semi-formal tools of environmental management, such as the Green Audit Kit, had not prevented many businesses from adopting a wide range of sustainable practices. Instead, environmental innovations had been adopted on a more informal basis, over time, and in response to opportunity, in particular, at business 'start-up', refurbishment and expansion. Significant patterns in the ordering and clustering of adopted practices indicated that certain innovations were central to business perceptions of sustainability (e.g. waste-reducing activities, local purchasing) and, once established, often led to the adoption of other improvements. The main motivation for adoption was revealed to be a

personal concern for the environment rather than for commercial gain, which was not expected. Indeed, almost half of the sample had adopted environmental innovations for non-financial reasons. To increase the adoption of sustainable practices in the district, it is not sufficient to promote a range of environmental innovations to meet identified business needs; they must also be presented in a manner that reflects business purchasing behaviour.

Although the range of sustainable practices that had been adopted within the district was encouraging, there were wide differences in the commitment of individual businesses, such that it was not possible to generalise the overall response of the sector. The average number of adopted practices was just under ten, but the range varied from just one to over 20. Half of the sample accounted for 70 per cent of the adopted practices. A number of factors accounted for these differences. Attributes and dimensions, such as business size, type and location, had no conclusive influence on adoption. Of greater importance were the personal experiences, attitudes and beliefs of business owners. The highest adopters in the district were environmentally aware, driven by strong concerns for the global environment, had undertaken an environmental review to mitigate the impacts of their business, had clientele who appreciated environmental improvements, and were active professionals as members of trade associations. In contrast, the lowest adopters were much more likely to be motivated by commercial imperatives, reflecting their main markets and clientele; showed little awareness of environmental issues; and were unwilling to invest time in environmental improvements. Policy-makers will, therefore, need to respond to a wide range of motives, priorities and circumstances to encourage the adoption of sustainable practices across the sector.

The benefit of such detailed knowledge of the extent and manner in which tourism businesses had adopted sustainable practices was in highlighting the innovations and businesses that might be prioritised for support, the patterns of behaviour that represent opportunities to disseminate sustainable practices, and the factors that will be critical to the success of approaches to different businesses. These implications will be discussed in Section 7.2.4.

### **7.2.2 Barriers to the adoption of sustainable practices**

The second objective of this study was to identify the main issues that had constrained the adoption of sustainable practices within the industry to inform the formation of policy interventions.

Through a focus upon individual practices rather than 'indicator' tools of environmental management, which had characterised the approach of previous SME studies (Gladwin, 1993), the results have provided a new level of detail. A range of barriers to adoption, operating at different scales has been revealed, which indicates that policy interventions will need to be broad-based.

On one level, a distinction can be made between barriers that constrained the internal capacity of individual businesses to adopt sustainable practices (e.g. available time, money, expertise), and external weaknesses in the market to provide commercial pressures for adoption (e.g. deficiencies in the attributes of environmental innovations, the absence of a recognised demand for sustainable tourism amongst visitors). Such a distinction accords with neo-classical interpretations of economic behaviour, where businesses respond rationally to market signals. The introduction of fiscal measures to correct imbalances within the market and provide commercial reasons to adopt sustainable practices, might therefore be considered in future policy intervention (Pearce *et al.*, 1989; Elkington and Burke, 1989; Cairncross, 1995).

On a district-wide level, weaknesses in the local infrastructural support for sustainable practices (e.g. for recycling business waste, dissemination of information and advice, access to public transport, availability of environmentally friendly products) had frustrated the choices available to businesses and represented a barrier to adoption within the industry. In the case of recycling, many businesses had overcome these barriers through expedient, but nevertheless illegal, use of public 'bring-banks' to dispose of their segregated waste. Indeed, the importance attached to waste issues locally will require practical solutions to the 'recycling problem' if local strategies for sustainable tourism are to be credible within the industry. Infrastructural barriers were typically rooted within wider processes of restructuring, such as the privatisation of municipal waste management and public transport in the 1980s and 1990s, and the reorganisation of local government since the 1970s. Such influences emphasise that the reconciliation of economic and environmental imperatives can only be achieved when all levels of decision-making, from individual businesses to central Government, have made a serious commitment to environmental sustainability.

A further level of barriers was intrinsic to the local industry and the nature of tourism demand in the area (e.g. the fragmented nature of the industry, a reliance on family summer holidays, and unsympathetic attitudes towards the environment). Such issues had obstructed or discouraged the

diffusion of innovations in the district and ultimately constrained the capacity of the local industry to adopt sustainable practices. Structural weaknesses in tourism supply and demand represent longer-term targets for policy intervention (e.g. through destination marketing, strategies for regeneration and economic development). While the District Council might pose questions about the nature of tourism in the district and facilitate debate with the local industry, any strategy for change will depend largely upon the collective will of private operators and the strength of the partnerships that can be formed. In the face of the complexity of issues that constrain the adoption of sustainable practices, policy-makers will need to take a strategic view to prioritise the focus of their interventions. The various strategic options are discussed further in Section 7.2.4.

### **7.2.3 Business support needs**

The third objective of this study was to investigate the policy measures that might reduce the barriers to adoption. While many of the measures suggested by businesses had been highlighted before (see, for example, Stabler and Goodall, 1997; Berry and Ladkin, 1997; Donovan and McElligott, 2000; Carlsen *et al.*, 2001), the results provided a further level of detail by indicating variances in the nature and level of support required by businesses; by exploring measures to overcome the infrastructural and contextual barriers to adoption, which have largely been overlooked within strategies for sustainable tourism; and by prioritising the most appropriate forms of intervention. Additionally, these results provided a further insight into the practical barriers to adoption.

On a general level, there were some elements of consistency in the type of support that businesses required to overcome the barriers to adoption. Only a minority of owners were confident and sufficiently motivated to implement a wide range of practices without outside assistance; most required leadership, direction, and encouragement. Accordingly, the most popular forms of intervention related to the main practical barriers to adoption (e.g. financial support, the dissemination of information and advice). Perhaps the strongest views, however, were reserved for interventions to support the recycling of business waste, which would help to address the main environmental concern of business owners in the district.

Behind these general findings, however, the needs of individual businesses varied greatly, reflecting differences in business commitment to sustainability, but also a number of complicating

factors. Needs varied temporally, both as a consequence of accumulated knowledge and experience of sustainable practices, and in response to the key life-stages of business development (e.g. business 'start-up', refurbishment and expansion). A further level of complication arose from variations in the preferred method and medium of communication, which reflected individual tastes and management style. While the analysis of adopted practices suggested a four-fold basis for categorising the population of tourism-related businesses, the examination of support needs and preferences added further bases of segmentation to present a more complex model of business behaviour. Few measures were singled out as being particularly helpful or unhelpful. The main value of these results was, therefore, in stressing the flexibility required within the design and delivery of policy measures and the dangers of relying upon single solutions to appeal to a range of needs, motives, and preferences. The wider implications of this study for policy formation are discussed in the next section.

#### **7.2.4 Implications for policy formation**

In the last ten years, little has changed in the manner by which businesses have been encouraged to adopt sustainable practices. In 1991, the English Tourist Board (ETB) urged tourism-related businesses to 'go green' by undertaking an environmental audit to recognise the financial benefits of adopting sustainable business practices (ETB *et al.*, 1991). In 2001, the English Tourism Council (ETC) encouraged businesses to participate in 'environmental management schemes', such as the Green Audit Kit, "*to improve their environmental performance and raise awareness of the issues among their customers*" (ETC, 2001b, p.7). The ETC intends to measure business commitment to sustainable tourism through recorded participation in such schemes (ETC, 2001b).

The results of this study, however, have indicated that such approaches have not addressed the main barriers to the adoption of sustainable practices (see Section 7.2.4a). Additionally, a reliance upon normative tools of environmental management is at variance with the complex behaviour, needs and preferences of small and micro tourism-related businesses, and provides a poor indicator of underlying environmental performance (see Section 7.2.4b). Policy-makers are not faced with a single homogenous population of tourism-related businesses, but a series of diverse subsets that are not readily identifiable using traditional bases of segmentation. Consequently, centrally designed policy tools remain marginalised as an influence upon adoption behaviour. The results indicate a need to shift emphasis from national strategies and universal tools of



environmental management to locally defined contact strategies and service propositions that respond to the needs and preferences of individual businesses (see Section 7.2.4c). Although the results of this study relate to the District of Caradon, they have a number of potential implications for the focus, design, delivery and organisation of interventions at other levels of policy formation.

**a. *The focus of policy interventions***

The wide range of issues that had constrained business responses to environmental sustainability presents an array of possible targets for policy intervention. This study has identified barriers that related to the adoption of specific practices, to the number of practices adopted, and to the wider environmental sustainability of the industry. To obtain 'best value' from their interventions, policy-makers will, therefore, need to be clear about the precise activities that they wish to encourage and the barriers that obstruct progress before implementing appropriate policy measures.

To have an early effect upon the extent and range of sustainable practices adopted by the tourism industry, policy-makers will need to address the constraints that are most immediate to businesses. From the perspective of the industry, the most pressing issues relate to the costs, time and effort required to implement sustainable practices which might be compensated for through grants, subsidies and discounts to raise the commercial relevance of sustainable practices. The benefit of financial support was illustrated by the popularity of the Small Grants Scheme, which was offered to tourism businesses by the District Council as part of the project (1999-2001) (see Section 4.2.4). Although open to applications for less than a month, a total of 61 proposals were received. Of these, 13 were approved for support up to a maximum of £500 on the basis that they would provide exemplar case-studies of good practice (see Table 4.2). The results of this research, however, indicated potential drawbacks associated with financial measures. The provision of financial support to high adopters raises questions of additionality, and amongst low adopters, any changes in behaviour may be reversed once funding ceases. Any financial measures will need to be carefully targeted to build long-term capacity in the district (e.g. through discounts on business rates for sustained waste reduction, free product trials to convert potential users into confirmed adopters).

The Small Grants Scheme projects also highlighted that funding alone may be insufficient to ensure adoption. Other problems, such as sourcing equipment, obtaining the necessary consents

and licences, and logistical issues had obstructed progress. Of the 13 projects that were approved, three were not completed and a further two were scaled down to ensure completion before the funding deadline. Even the most dedicated business owners required outside assistance to overcome the practical barriers to adoption. Although it might be possible to 'signpost' business queries to relevant help-lines and suppliers in the short-term, more general and co-ordinated support (e.g. through a dedicated adviser to the local industry) may be required in the long-term.

To address the infrastructural barriers to adoption will require a broader policy focus. The District Council will need to target policy inconsistencies within its own departments (e.g. in relation to planning, economic development, waste collection) to develop a corporate response to environmental sustainability. Indeed, the District Council is arguably the largest and most influential tourism-related organisation in the district and, through its interface with the private sector, offers great potential to act as a powerful example of good practice to local operators. Additionally, the absence of such a policy would undermine the credibility of a Council strategy to encourage environmental improvements within the industry.

Other infrastructural barriers might be reduced more easily. As part of an Innovations Grant Fund (2000-2001), the District Council funded six projects (total £6,500) to address infrastructural barriers that had been identified by the study. The funded projects included a 'green' certification scheme to provide simple advice and information on sustainable practices to small accommodation businesses; a directory of local produce to encourage local purchasing; a newsletter to raise awareness of key issues relating to sustainability within the industry; an internet-based mailing list to provide a discussion forum and information sharing on sustainability; and the preparation of a brief to provide recycling facilities for businesses in South East Cornwall. The Small and Innovations Grants Schemes demonstrated that relatively small amounts of financial support could stimulate a culture of innovation in the district. Perhaps the main limiting factor will be the sustainability of the District Council's own funding to invest in such schemes.

To address other infrastructural weaknesses that are beyond its direct control, such as deficiencies in public transport and the availability of environmental friendly products in the district, the District Council will need to work in partnership with a range of private sector stakeholders. Such infrastructural barriers will not be addressed overnight, but by commencing a dialogue with stakeholders, the scope for adjustment in policy and the commercial opportunities for new services

can be examined. For example, the willingness of many business owners to pay for recycling collection suggests that such a service might be financially viable.

The barriers to adoption that relate to the essential nature of tourism in the district require longer-term strategic interventions to address intrinsic weaknesses within the industry (e.g. lack of cohesiveness, low membership of trade associations, and reliance upon a limited season). Such issues have been raised in economic assessments of the sector and present opportunities to integrate strategies for economic and environmental sustainability. Other weaknesses, such as unsympathetic attitudes towards the environment amongst visitors and business owners, will require more discrete measures (e.g. education and awareness campaigns) to ensure that a strengthening sector is directed towards environmental sustainability.

***b. Design and delivery of policy interventions***

To engage directly with tourism businesses, policy-makers will need to extend the range and flexibility of interventions, and vary the method of delivery to accommodate the diversity of needs within the industry. Differences in the motives, experience and confidence of businesses in implementing sustainable practices will necessitate very different approaches to encourage further adoption (see Table 7.1). While high adopters with a strong commitment to environmental sustainability responded well to information about the environmental benefits of adoption, to training courses and technical advice on complex projects, lower adopters would require more basic advice and personal encouragement to adopt even the simplest of innovations. In particular, it will be important to target the key business life-stages at which new practices and innovations are considered (e.g. by providing directories of local suppliers for 'start-up' businesses and offering a more detailed review of practices at expansion or refurbishment). Single and inflexible policy measures are likely to appeal to only a minority of business owners. Indeed, to engage the attention of the lowest adopters, who attribute no special value to sustainable practices, it may be necessary to integrate measures within more general support for business development (e.g. disseminating good practice *per se* within the industry, offering advice on environmental improvements within accommodation rating inspections).

To deliver the range and flexibility of support that is suggested within Table 7.1 will necessitate closer engagement and dialogue with the industry. Regular contact will be required with the

**Table 7.1 Variations in support needs to adopt sustainable practices**

Relevant factor		Support needs		
		Information	Advice	Financial
Motive for adopting sustainable practices*	Altruistic concern	Information about the environmental benefits of adoption, the state of the local environment, and the contribution of tourism-related businesses	General advice on implementation	Financial support to purchase more expensive environmental innovations
	Financial motive	Information about the financial benefits of adoption and instances where practices might harm the environment	General advice on implementation	Financial incentives to adopt any sustainable practices
Business 'life stage'	Start up	Directories and guides of local suppliers/facilities	Little time available for advice. Notification of contact point for queries in case of need	Financial support helpful if new equipment to be purchased at start up
	Expansion	Access to detailed information and factsheets on environmental improvements	Detailed advice on the identification, assessment, and implementation of environmental innovations	Financial support to purchase more expensive environmental innovations
	Refurbishment	Access to detailed information and factsheets on environmental improvements	Detailed advice on the identification, assessment, and implementation of environmental innovations	Financial support to purchase more expensive environmental innovations
Experience of sustainable practices*	Low adopter	Simple details on basic sustainable practices	Advice and face-to-face encouragement to adopt any practices	Financial support helpful to adopt any practices
	High adopter	Detailed information on complex practices Details of specialist sources of information	Advice on complex projects and site-specific issues	Financial support to encourage the adoption of complex and innovative projects
Owner support preferences*	Low contact	Periodic newsletters, no personal contact Advice of point of contact in case of need	Access to advice in case of need	No special needs indicated
	Regular contact	Regular telephone contact with an adviser	An ongoing relationship to provide regular and incremental support over time	No special needs indicated
Computer literacy*	Low	Hard copies of information	No special needs indicated	No special needs indicated
	High	Email communications and access to web sites	No special needs indicated	No special needs indicated

Notes: \* Only extreme category options shown to illustrate the diversity of needs

relevant decision-makers within each business to identify and anticipate changing needs and to introduce appropriate support mechanisms (e.g. targeting female business partners to encourage 'green' purchasing behaviour). Such requirements change the emphasis from the local delivery of a single standardised policy measure to the development of a range of flexible tools and mechanisms, which can be selected and adapted at the point of contact according to the needs, preferences and adoption potential of individual businesses. Indeed, the concept of an environmental review, which had a positive influence upon decisions to adopt sustainable practices, but only appealed to a minority of businesses, might be redefined to support the main business life-stages at which advice is required and to cover more general areas of business development. The most important elements within future policy interventions are not the 'environmental management schemes' that will be measured by the ETC, but locally defined service propositions and contact strategies which deliver face-to-face support and encouragement.

The effective delivery of such service propositions will require the formation of strategic partnerships with a number of organisations. Local authorities will need to work closely with business advisory services (e.g. Business Link, commercial banks, enterprise agencies) and with their own internal departments (e.g. planning, economic development) to target and introduce support at the key business life-stages. Additionally, working with trade organisations within the district will provide an opportunity to expedite the dissemination of sustainable practices amongst their membership. A key challenge for local authorities will be the manner in which productive relationships can be established with the majority of tourism businesses that are not members of a trade organisation. In this respect, ETC plans to establish a separate 'green' accreditation scheme, rather than integrate environmental and sustainability criteria within their existing accommodation rating system (ETC, 2001a), represent a missed opportunity to introduce elements of an environmental review to a large population of businesses on a regular basis. A wider basis for engagement might be achieved through industry newsletters, business 'start-up' welcome packs and accommodation listing surveys.

It may not be practical or economically viable to offer the same level of support to all tourism-related businesses. To this end, the results of this study have provided a basis for segmenting and prioritising the population of tourism-related businesses in the district according to their potential to adopt sustainable practices and their propensity to do so. In particular, it will be important to target the businesses with many of the key attributes of high adopters, but who have yet to fulfil their

adoption potential. The application of the segmentation model would require a short questionnaire to collect the necessary data (e.g. attitudes towards the environment), but might also include questions relating to the preferred method and frequency of contact. However, in view of the constraints upon local government spending, it is likely that such a model will have greater utility as a conceptual frame for the design of flexible policy interventions than as a practical tool for classifying businesses.

To encourage the adoption of sustainable practices, local authorities have two strategic choices: to adopt a product-based approach, which focuses upon and promotes individual practices; or to develop a relationship-based service, which centres on the needs of individual businesses and seeks to increase the number of sustainable practices adopted by each. By highlighting the key factors and barriers which had influenced the number and type of sustainable practices adopted by tourism businesses in the study area, the results of this study could be used to inform either approach. Strategy choices will depend upon local authorities' own commitment to sustainability, the scale of improvement required and available resources. Indeed, within a long-term strategy for sustainable tourism, elements of both approaches might be used: a relationship-based approach to provide continuity of support with periodic product promotions to generate attention, and in particular, to target the 'core' practices within key clusters of business activity that lead to the adoption of further practices.

### ***c. Organisation of policy interventions***

Within its strategy for sustainable tourism, the ETC makes a clear distinction between its own role, *"to develop a range of initiatives to help tourism businesses reduce their impact on the environment"*, and that of local authorities and destination groups, *"to take a lead role in advising and assisting small tourism businesses on ways in which they can lessen their environmental impact"* (ETC 2001a, p.17). The results of this study have questioned such a simple division of responsibility between the design and delivery of policy interventions. The indicated importance of a flexible and personal support service to encourage the adoption of sustainable business practices blurs the distinction between design and delivery. The role of local authorities is not simply to deliver centrally designed tools, but to assemble and present relevant packages of support in a manner that will appeal to individual businesses. The suggested division of responsibility may also be at variance with the scope of the issues to be addressed. Many of the environmental problems

and infrastructural barriers to action extended beyond the geographical boundaries of the district (e.g. public transport, waste management, pollution to air and water) and will require broader levels of intervention. Additionally, it is likely that a number of the support needs identified within the District of Caradon will be common to businesses and local authorities in other areas. At least some of the suggested policy interventions might be developed in conjunction with neighbouring districts to share the costs of design and delivery. To this end, further research is required to examine spatial patterns in the environmental impacts of tourism, the barriers to adoption, and the support needs of tourism-related businesses to establish the most appropriate geographical scale at which interventions should take place.

Similar issues arise in relation to the most appropriate industry level at which interventions should be applied. The extent to which support for tourism-related businesses could be integrated within wider measures to encourage more sustainable business practices within other key industry sectors within Cornwall (e.g. agriculture, leisure), particularly amongst small and micro-businesses, will depend upon the similarity of behaviour and needs. Comparative studies are required to evaluate cross-sectoral variances and the opportunities for integrated forms of support.

These findings do not suggest that a central role might be redundant, but that it should be reconfigured to reflect the needs of the industry. Indeed, the results have indicated an increased requirement for a range of support items, such as factsheets, directories, product guides, newsletters and internet-based resources, which might be produced centrally, but collated, personalised and delivered locally. A national body for sustainable tourism would also have much to offer in sharing good practice from local authorities, researching and disseminating new technologies, negotiating beneficial terms with national suppliers and lobbying for fiscal incentives (e.g. to encourage rather than obstruct the recycling of business waste). Additionally, a requirement to intervene in the development of innovations by evidencing viable markets for sustainable practices and encouraging product development will have national as well as local relevance.

The policy interventions suggested by this research would clearly have resourcing implications for local government at a time when discretionary budgets are under increasing pressure. While it is inevitable that policy interventions will be scaled to available budgets, it is important that this is done with knowledge of the needs of the industry. To this end, the results have indicated the

priority issues to address and the range of methods that might be adopted. The extent to which Caradon District Council felt able to respond to this agenda is discussed in the next section.

#### **7.2.5 Caradon 'Strategy for Greening the Tourism Industry: 2001-2006'**

An additional element of the research brief was to translate the findings into a strategy that could be implemented by the District Council to encourage more sustainable business practices within the local industry. In the light of this research, it is perhaps not surprising that the District Council's previous attempts to engage with the industry had achieved very limited success. Past initiatives had focused upon the use of the Green Audit Kit to encourage businesses to review their environmental performance, primarily for the financial benefits of adoption. Such approaches were at variance with the needs and preferences of most of the research sample. Additionally, the SUSTAIN Network, which provided a forum for the exchange of ideas, was only likely to appeal to the most committed businesses who were willing to invest time in meetings and workshops. The support of a dedicated project officer provided an impetus for action amongst the membership, but when this resource was withdrawn, the Network folded.

A revised strategy for the period 2001 to 2006 to reduce the main barriers to the adoption of sustainable practices was prepared in conjunction with the District's Sustainable Tourism Officer and other members of University staff (see Executive Summary in Appendix 6). As part of a process of consultation (April-May 2001), all tourism businesses in the district received a newsletter (see Appendix 1) outlining the main findings of the research and the suggested policy measures. Businesses were invited to comment in person at an open meeting at Liskeard Public Hall or by post. The strategy was subsequently launched, together with the South East Cornwall Tourism Strategy (Atlantic Consultants, 2001b), at the South East Cornwall Tourism Conference on 19 March 2002.

The first priority was to establish an infrastructure for recycling by businesses in the district. Failure to address this issue, which was the business owners' primary environmental concern, could potentially undermine the credibility of other elements of the plan. This action was, therefore, proposed as an immediate priority to provide a basis from which other sustainable practices might be encouraged. A second measure was to increase the dissemination of information about the practicalities, opportunities and benefits of adopting sustainable practices. The lack of business



awareness of sustainable practices represented a barrier that could be easily removed to facilitate more informed decision-making. The strategy proposed a range of communication messages and media (e.g. newsletters, factsheets, web sites, directories) to reflect the diversity of needs and preferences within the industry. A third priority was to increase access to advice on sustainable practices. The provision of face-to-face advice would provide the necessary flexibility to vary the level of assistance and encouragement in response to business needs and reduce some of the barriers of time and effort. The plan suggested that such support might be best achieved by the appointment of a dedicated officer, either based in the public sector or business organisation. A tactical measure to introduce both information and advice to businesses was to encourage 'environmental audits' within the industry. Audits were proposed, not as a formal evaluation of environmental performance, but integrated within guidance on general business matters, particularly at the key business life-stages of 'start-up', refurbishment, and expansion.

With financial cost being the most frequently mentioned barrier to adoption, a further policy initiative was to explore financial support as a means of encouraging adoption. Financial incentives might be targeted at popular clusters of activities to broaden the participation in sustainable development, or the more innovative and isolated practices to extend the range of activities. Longer-term policy objectives were indicated through a commitment to build partnerships with a range of public, private and voluntary sector organisations at district, regional and national levels to address the wider barriers to adoption. Additionally, the plan proposed further research to monitor the effectiveness of the planned initiatives as well as providing an empirical basis for future policy measures (see discussion of research needs in Section 7.4). These policies are currently being implemented by Caradon District Council.

Participation in the strategy development and consultation process highlighted other potential barriers to progress, relating to the capacity and commitment of the District Council to manage and facilitate change. A first potential barrier was the strategy process itself. A distillation of the research findings into a concise action plan that the District Council was prepared to endorse and present to the industry ran the risk that much of the detail might be lost or reinterpreted (e.g. the ways in which the District Council acted as an indirect barrier to adoption). The plan could not address all of the identified barriers to adoption, only those which were within the ambit of the District Council, which might elicit an early and positive response from the local industry, and were achievable within a five-year time frame. The involvement of both University and District Council

staff in the preparation of the plan ensured that the integrity of research findings was maintained, while recognising the limited resources of the District Council.

A second barrier to the implementation of the plan will be attracting financial support. The plan has been presented to the industry as a statement of intent rather than firm commitment and will be contingent upon securing additional funding. The Caradon district is fortunate in that it has European Union (EU) Objective 1 status within Cornwall, which provides matched funding for approved projects. The primary aim of such funding is economic regeneration within the target area. Although 'sustainable development' is recognised as one of three 'cross-cutting' themes of the Objective 1 Single Programming Document, the main criteria for assessment of potential projects relate to its contribution to local employment and income. To be able to access Objective 1 funding, more work needs to be done to evidence the economic benefits of sustainable tourism to the Cornish economy.

Related to the problem of funding are other potential barriers; namely achieving consensus and a corporate commitment to the plan from relevant departments of the District Council and from the local industry. In particular, a division of responsibility between different departments of the District Council for sustainable tourism (Caradon Countryside Services, part of the Planning Services Unit) and the economic development of the industry (Economic Development Unit) raises possible internal conflicts of interest between the priorities of planning and economic development. Additionally, concerns have already been expressed about the resourcing implications of some of the suggested policies within the plan. On the other hand, the Council's Public Services Unit has already indicated a willingness to introduce a recycling collection service for tourism businesses, subject to the identification of a suitable commercial partner.

To some extent, the problem of obtaining industry support to the plan has already been overcome. By emphasising the empirical basis of the strategy and seeking to address the main concerns of the industry, which were verified during the consultation process, the risk of political obstruction within the industry has perhaps been minimised. However, the initial consultation workshop was attended by only 21 businesses, although commercial pressures as a consequence of the Foot and Mouth outbreak may also have contributed to the low attendance. While the launch of the final strategy was attended by over 100 businesses, it is likely that the popularity of the event reflected a greater interest in the general strategy for tourism in South East Cornwall, which was launched at

the same conference. Given that the survey sample represented less than half of the tourism businesses in the district, a general apathy towards the subject may represent a more serious barrier to progress whatever policies and initiatives are introduced. However, these problems are not uncommon in public sector policy formulation. The important point is to support a long-term strategy of increasing the environmental responsibility of tourism businesses in the district that, together with national and regional initiatives, will slowly alter the outlook of the sector for the benefit of the local economy and community as well as the environment.

As a case study of a partnership approach to the implementation of sustainable development within tourism, this project has reiterated many of the experiences of previous studies (see Jamal and Getz, 1995; Bramwell and Sharman, 1999; Selin, 1999; Selin and Chavez, 1995; Bramwell and Lane, 1999, 2000). The added value of the partnership was in pooling the resources and expertise of a number of key stakeholders to develop a strategic response to an important issue. Through membership of the Project Steering Group (see discussion in Section 4.1), partners guided and influenced the direction of the research investigation to ensure that the data collected could be utilised to influence or formulate policy implementation. With hindsight, however, three aspects of the Steering Group framework were less satisfactory. First, while attendance at meetings by all the sponsors was good, pressures of time often limited the consideration that they could give to the implications of the results, particularly at the policy formulation and implementation stage. Members of the committee had taken on their role for their respective organisations as an extra duty within already busy schedules. Due to the on-going nature of the research, members usually received details of results for discussion a few days before the next meeting or, on some occasions, actually at the meetings. Full consideration of the implications was therefore unrealistic, especially as definite statements or commitments could not be made without reference back to the relevant line managers in the various organisations. The discussions and feedback was nonetheless useful, but actions were often left to the University and District Council to finalise and implement. As a result, and by default, unequal power relations began to develop towards the end of the partnership's limited life.

A second possible flaw in the partnership was that the composition of the Steering Group was drawn exclusively from 'public sector' organisations. There was no representation of business groups or organisations that might have contributed a slightly different perspective to discussions and advice. With hindsight, representatives from the local tourism association, South East Cornwall

Tourism Association (SECTA), might have been helpful, although there are other tourism trade organisations in the area. Indeed, even if tourism businesses had been represented formally on the Steering Group, there would have been no guarantee that their views would have reflected the full range of tourism businesses in the district. As the views of businesses were the central focus of the research project itself, opportunities were given for participation in the various data collection stages as well as during the consultation phase. Third, the importance of giving adequate publicity to the different stages of the research had been under-estimated when the project was being set-up. Presentations to tourism association meetings were undertaken and press coverage was arranged for the publicity of the Small Grants Scheme, but a higher profile public relations campaign might have raised local awareness and encouraged more participation in the consultation process. The project now faces other issues, in particular, managing the transition from policy development to implementation, which will require new partnership structures and a need to demonstrate tangible outcomes as a condition of potential funding. Such issues are not unusual within tourism partnerships. One of the contradictions of policy approaches to sustainable development is the requirement to develop and gain commitment to long-term visions of human activity on the basis of short-term structures and initiatives.

### **7.3 THEORETICAL IMPLICATIONS OF THE STUDY**

The main contribution of this study to a conceptual understanding of micro-business responses to environmental sustainability has been to apply a generalised theory of innovation diffusion within a new context to provide a different perspective on an under-researched issue. Within the environmental management literature, business responses to sustainability have largely been modelled and researched as strategic issues that demand rational responses to exercise control over an area of commercial risk (e.g. through the adoption of environmental management systems and the publication of environmental policies) (see discussion in Section 2.2.2). Expectations that small business responses to sustainability are proportionately weaker than those of large businesses reflect the limited resources and capacity of small operators to act strategically. By distancing the study from established theories of business 'greening', which have no empirical basis within the context of micro-businesses, this research has sought to establish a grounded model of small business behaviour.

The results have indicated that, rather than planned or deliberate responses to the concept of environmental sustainability, most of the sample had adopted sustainable practices in an opportunist and ad hoc manner. The propensity of individual businesses to adopt sustainable practices was a function of a number of independent factors that related to the characteristics of the business, its clientele, the personal commitment and motivation of the main decision-maker, and their experience of a range of direct and indirect barriers to adoption. It is not suggested that this list of factors is exhaustive, but that the study has begun to highlight the complexity of small business behaviour towards sustainability, which will require further investigation and verification within other contexts.

The use of innovation diffusion theory has provided an alternative model of small business behaviour that recognises and attempts to account for the very different levels of commitment to sustainability that were indicated by the results. Within neo-classical economic theories of business behaviour, differences in environmental performance have been explained as variations in the internal competencies of individual businesses (e.g. resources, skills, expertise) to respond 'rationally' to their 'external environment' (e.g. market demand, legislation, competitor activity) (Williams *et al.*, 1993; Steger, 1993). This study has suggested that such diversity reflects more variations in the personal attitudes, priorities and motivations of business owners than any 'rational' or strategic response to sustainability. Small tourism-related businesses had responded to environmental sustainability on a personal basis rather than strategically. While studies of SMEs within tourism and other sectors have hinted at a growing influence of the environmental values and attitudes of individual decision-makers, such latent altruism was constrained by commercial imperatives (see Section 2.3). Whether the relative freedom of operators to express their environmental values was attributable to the context of tourism, to micro-businesses in general, or was peculiar to the district of Caradon, is not known. Further studies are required to test these findings within other areas and contexts. What is clear is that general theories of business behaviour towards the environment have only partial relevance within the sector.

Innovation diffusion theory itself does not provide an overarching explanatory theory of business behaviour, but highlights significant patterns in adoption which invites explanations. The resultant four-fold classification of adoption activity provides a framework within which alternative explanations of business behaviour might be positioned. The results of this research would support neo-classical economic interpretations to explain the behaviour of some of the lowest adopters,

who, in the absence of pressing legislation or evidenced market demand for sustainable tourism, had largely rejected sustainable practices as commercial innovations. Other theories are required to explain the 'non-rational' behaviour of the highest adopters in the district. For such businesses, theories which attempt to explain personal rather than commercial responses to sustainability may have greater relevance. In this way, the model facilitates a more ecumenical approach, by providing an empirically based framework for theory development and testing. Indeed, the model suggests an empirical link between the 'incremental' and 'categorised' models of business 'greening' within the environmental management literature (see discussion in Section 2.2.2), where progress is measured by the incremental adoption of sustainable practices. While most businesses might be expected to adopt an increasing number of sustainable practices over time (see Figure 2.1), their potential to do so was variously conditioned by the number of critical attributes they possessed that were associated with high levels of adoption, allowing a range of positions to be held towards the environment (see Figure 2.2).

In this way, the study has also provided an alternative basis upon which business commitment to sustainability can be assessed. Through a focus upon implemented improvements rather than policy statements or tools of environmental management, the methodology has provided a common measure of environmental performance which would allow direct comparisons between the behaviour of small and large businesses. Indeed, traditional business classifications on the basis of business size may be somewhat restrictive in the study of environmental performance. Within this study, business size had no conclusive effect upon the number of environmental innovations that had been adopted. The results have indicated other bases of classification which were more relevant and appear to cut across traditional business categories (e.g. the level of autonomy and the values of business decision-makers). The results do not indicate that the evidenced complexity and diversity of behaviour are peculiar to tourism or micro-businesses. The same methodology might also provide new insights into the behaviour of larger businesses and within other sectors. To identify and account for the distinguishing features of micro-business responses to sustainability will not only require more discrete studies within the sector, but also comparative studies with larger businesses using a common measure of performance.

The results have highlighted the importance of contextual factors within business decisions to adopt or reject sustainable practices, in particular, the wide range of barriers to adoption. Such influences have tended to be played down within studies of innovation diffusion (Marsden *et al.*,

1986), which have focused upon significant differences in the characteristics of adopters as explanations for variances in adoption behaviour. The study has presented a multi-dimensional model of the various barriers to adoption which had a dampening effect upon the diffusion of environmental innovations within the district. These results indicate the limitations of innovation diffusion theory and the need to refine the 'standard' model of innovation diffusion to recognise the relevance of context upon adoption decisions. Other methodologies are required to understand the effect of various stakeholders upon adoption decisions (e.g. the influence of the District Council). A conceptual understanding of the different barriers to sustainability will, therefore, need to draw upon a range of theoretical perspectives to account for the variety of processes that have impinged upon the adoption behaviour of tourism businesses.

A geographical perspective has contributed much to this study and offers an alternative perspective to established theories of environmental management. The use of innovation diffusion theory, which has a long history within human geography, has provided new insights into the research problem and generated an empirically based model of adoption behaviour, within which competing theories of business responses to environmental sustainability can be positioned. Although spatial patterns of innovation adoption were not investigated within this study, the results suggest that many of the influences upon adoption might have essential spatial qualities, such as the influence of clientele, business owner perceptions of environmental impacts and risks, membership of trade organisations, and the differential effect of various barriers to adoption. The manner in which geography might contribute further to a practical and conceptual understanding of the subject is discussed in the following section.

#### **7.4 AN AGENDA FOR FURTHER RESEARCH**

A single study can only begin to address the gaps in previous research, both in relation to the environmental performance of small and micro-businesses *per se*, and within the context of tourism. A number of important questions remain unanswered and other potential lines of enquiry have been indicated during the course of this study. Having discussed the contribution of this research to a practical and conceptual understanding of business behaviour, it is appropriate to conclude with a suggested agenda for further research, both within the District of Caradon and more generally.

Within the specific context of the study area, the findings of this research have provided a more detailed understanding of business behaviour upon which to base a range of policy interventions. The opportunity for further research arises from a number of strategic choices available to the District Council. The first opportunity is to investigate visitor demand for sustainable tourism in the district as a potential force for change. If sustainable tourism is to be positioned as a market opportunity, business owners will need convincing evidence of a profitable demand. The second opportunity is to examine the nature and extent of the impact of tourism-related businesses on the environment (natural, built, social and cultural) in the Caradon district. A long-term strategy, which seeks to mitigate the negative environmental impacts of tourism businesses, will need to evidence the contribution of tourism to environmental problems within the district. The opportunity to access Objective 1 funding highlights a third research objective; to identify and measure the benefits of sustainable tourism to the Cornish economy. Such research would need to draw upon successful examples of sustainable trading systems to evaluate the social and economic benefits to local communities to support applications for funding. A final research objective will be to monitor the effectiveness of the District Council's action plan and to develop meaningful and representative indicators against which long-term progress can be monitored. Any policy interventions that might be implemented within the District of Caradon as a consequence of this research will provide an opportunity for longitudinal studies to observe innovation diffusion 'in action', and to evaluate the predictive relevance of the segmentation model presented within this thesis.

While the findings of this study have provided a number of valuable insights, the validity of the results is confined to the District of Caradon. The findings cannot be transferred with confidence to the circumstances of tourism-related businesses in other regions. To inform the formation of more general policy interventions, a priority must be to test the main findings within other destination areas, both to verify the results and extend the scope of analysis. Rogers' (1983) model of innovation diffusion is based upon a synthesis of the results from a large number of studies. To establish similar models within the specific context of tourism and in relation to sustainable practices will require further studies of adoption behaviour.

There are also opportunities to extend the analysis and refine the methodology used. Only a proportion of the generalised characteristics of innovation reported by Rogers (1983) were tested within this study (see Table 2.4), and others (e.g. the influence of business size) could not be



explored adequately because of the characteristics of the local industry. Testing for the influence of other factors upon decisions to adopt sustainable practices will provide further insights into the nature of business behaviour and contribute towards a more robust model of segmentation. A further refinement would be to develop the examination of attitudinal influences upon adoption decisions. Within this study, the influence of business owner attitudes towards the environment was examined by testing correlations between responses to individual attitude statements and decisions to adopt sustainable practices. Although this method has been widely used within studies of innovation diffusion (see for example Carr and Tait, 1990, 1991; Wilson, 1996), it can oversimplify the nature and complexity of attitudinal influences upon behaviour. A more reliable method would be to construct a single scaled measure of business owner attitudes towards the environment which recognises the multidimensional nature of attitudinal influences (Oppenheim, 1992; Foddy, 1993; Parfitt, 1997).

A further line of enquiry would be to examine the spatial dimensions of business behaviour suggested by this research. A comparison of the actual and perceived environmental risks and impacts attributable to tourism-related businesses would provide further insights into the way in which businesses translate concerns about the local environment into modified behaviour. On a wider scale, an analysis of spatial variations in the number and type of practices adopted, the problems and barriers encountered, and the recognised support needs of tourism businesses will be critical to establishing the most appropriate geographical scale and focus of policy interventions. For some of these lines of inquiry, innovation diffusion theory would provide a suitable frame and methodology. For others, it represents a starting point from which to develop more in-depth research strategies.

To meet the specific objectives of the project sponsors, this study has focused upon 'demand-side' theories of innovation diffusion (see Ilbery, 1992), which have emphasised differences in the characteristics and circumstances of individual operators as explanations for variances in the extent to which they had adopted sustainable practices. Other relevant variables within the adoption process relate to the attributes and features of sustainable practices, and the strategies and plans of agencies and bodies sponsoring the diffusion of sustainable practices, such as the District Council. By examining only one perspective of innovation diffusion, the list of identified barriers to environmental sustainability within the industry is, therefore, incomplete. A further research priority is to examine the diffusion of sustainable practices from the perspective of other

relevant stakeholders (e.g. product manufacturers, marketers, retailers, trade associations, local authorities) to establish a more comprehensive list of barriers that may require intervention and to inform inclusive strategies for change. In particular, a more detailed understanding of how local authorities have organised to deliver sustainable tourism, the manner in which they have engaged with the tourism industry, and the results they have achieved will provide a contrasting perspective to the experiences and behaviour of private operators. There is a need for in-depth case studies within 'supply-side' perspectives of innovation diffusion to identify both the critical success factors and barriers associated with the design and delivery of policy interventions.

Comparative studies of micro-business responses to environmental and sustainability issues are required within other industries to address what is a substantial research gap across all sectors. The importance attached to the role of small and micro-businesses within world economies makes their continuing omission with research agendas for sustainability surprising. The development of more generalised theories and models of micro-business behaviour towards environmental sustainability would provide a valuable frame to studies within any sector. Additionally, an understanding of the response of the smallest enterprises offers a conceptual link between the behaviour of private individuals to environmental sustainability and that of large businesses. Such research should focus less upon the adoption of formal tools of environmental management, which were found to be unreliable indicators of environmental performance, and more upon the activities that such tools were designed to encourage.

A further priority would be to apply other theoretical perspectives to the research problem. Where the application of innovation diffusion theory provided a framework for categorising the research sample on the basis of their adoption behaviour, different models and theories will be required to explain the various ways in which businesses had responded to environmental and sustainability issues. Additionally, more detailed investigations of the infrastructural and contextual barriers to sustainability will need to draw upon other theoretical bases to examine the nature of their influence and inform relevant policy interventions. In particular, theories of ecological modernisation, which are premised upon the convergence of economic and environmental imperatives through the leadership of governments, might provide valuable insights into the role and response of local authorities within supply-side perspectives of innovation diffusion.

The issues highlighted by this research are not peculiar to tourism-related industries, and in this respect, geography will also have much to contribute to sustainability debates within other industry sectors. Most important, however, is that through its unique spatial perspective and understanding of human behaviour, geography provides an alternative view to the generalised theories of business behaviour that have to date characterised policy responses to environmental sustainability.

:

## **Appendix 1**

**Caradon Countryside Services newsletter to communicate the research findings and policy proposals (April 2001)**

SOME PARTS  
EXCLUDED  
UNDER  
INSTRUCTION  
FROM THE  
UNIVERSITY

## **Appendix 2**

**Letter to invite businesses to attend one of a series of focus groups**

«Title» «FirstName» «LastName»  
«Address1»  
«Address2»  
«Address3»  
«Town»  
«County»  
«Postcode»

21 May 1999

Dear «Title» «LastName»,

**Research into environmental sustainability – discussion groups with tourism businesses**

As part of a research project sponsored by Caradon Countryside Services, part of Caradon District Council, I am conducting a number of discussion groups with business people, about their views on:

- the environmental sustainability of tourism in the area;
- whether environmentally sustainable business practices can reduce costs or increase income; and
- the practical problems associated with introducing such measures.

An outcome of this research will be to formulate practical measures that will help local businesses.

I would like to invite you to attend one of four discussion groups being held in June. Details are attached. There are often a wide range of views on this subject and I would be very interested in hearing your thoughts. No preparation is required for the meetings and each group will be of between six to ten people.

This is an opportunity for your views to be heard and for you to influence the way in which local authorities provide help and support to businesses such as yours.

Each discussion group will begin at 8.00 p.m. and will end at 10.00 p.m. Wine and soft drinks will be provided and a light buffet meal will be served at 7.30 p.m. I will be pleased reimburse any appropriate travelling expenses incurred in getting to a group.

Please note that we would like to record the group discussions on the day. This will be undertaken simply to ensure accuracy, and the confidentiality of what you say will be respected. No identities will be disclosed and you will be free to leave at any stage. I will also be pleased to send you a summary of the research findings.

I should be grateful if you would kindly complete and return the enclosed response slip in the Freepost envelope provided to confirm whether you will be able to attend one of the groups. No stamp is required. If you have any questions relating to the groups please, contact me on .....

I do hope that you can make it.

Yours sincerely,

Jon Vernon  
University Researcher

**Discussion groups are being held at:**

**Monday 7 June 1999**

**Hannafore Point Hotel, Marine Drive, West Looe**

In West Looe follow the harbourside (Quay Road) into Hannafore Road and then into Marine Drive. The hotel is located on the right hand side.

Parking is available at the hotel.

Hotel tel. (01503) 263273

**Monday 14 June 1999**

**The Lord Eliot Hotel, Castle Street, Liskeard**

Approaching Liskeard from Plymouth, leave the A38 for Liskeard. As you approach the town centre, the hotel is located at the end of Plymouth Road on the left hand side next to St Martins Church.

Parking is available at the hotel.

Hotel tel. (01579) 342717

**Tuesday 15 June 1999**

**Lostwithiel Hotel Golf & Country Club, Lower Polscoe, Lostwithiel**

The hotel is just outside of Lostwithiel, signposted off the A390 on the way towards Liskeard.

Parking is available at the hotel.

Hotel tel. (01208) 873550

**Wednesday 16 June 1999**

**Sconner House, Polbathic, Nr. Torpoint**

The hotel is located just outside of Polbathic, on the right hand side of the A374 on the way towards Torpoint.

Parking is available at the hotel.

Hotel tel. (01503) 230297

**All groups will commence at 8.00 p.m. and will end at 10.00 p.m.**

**A light buffet will be served beforehand at 7.30 p.m.**



**RESPONSE SLIP**

**To:** Jon Vernon  
Department of Geographical Sciences  
University of Plymouth  
FREEPOST  
Faculty of Science  
Plymouth PL1 1BR

Tel: 01752 233053  
Fax: 01752 233054

**Environmental Sustainability Discussion Groups**

**Name:** .....

**Tel:** ..... (if we need to contact you)

**Please tick**

**Yes:** I confirm that I will be able to attend the following group:

- Monday 7 June - Hannaford Point Hotel, West Looe
- Monday 14 June - The Lord Eliot Hotel, Liskeard
- Tuesday 15 June - Lostwithiel Hotel Golf & Country Club
- Wednesday 16 June - Sconner House, Polbathic, Nr. Torpoint

Special dietary requirements? .....

To assist in planning the discussion it would be helpful if you could please answer the following questions:

- a) Approximately how many people do you employ during the Summer?  
 0     1-5     6-10     11-25     more than 25
- b) Are you a member of an environmental organisation?  
 Yes     No

If Yes, please state which

.....

**No:** I confirm that I will not be able to attend the group

If you would like to be involved in the further stages of research please tick

**PLEASE RETURN IN THE FREEPOST ENVELOPE PROVIDED  
(NO STAMP REQUIRED)**

## **Appendix 3**

### **Statement of project ethics**

:

**UNIVERSITY OF PLYMOUTH**  
**STATEMENT OF PROJECT ETHICS**

- Purpose:** The purpose of the discussion groups is to understand the range of views among tourism-related businesses towards the environmental sustainability of tourism and the practical problems it presents.
- Expenses:** The University will be pleased to reimburse any appropriate travelling expenses incurred in getting to the discussion group. Please ensure that you complete an expense claim form.
- Tape-recording:** It is proposed to tape-record the discussions to help ensure that we do not miss anything and the accuracy of our research notes.
- Confidentiality:** The confidentiality of your views will be respected. No names will be disclosed in either writing-up the tapes or in any research findings. Only members of the research team at the University of Plymouth will have access to the tapes and once written-up they will be erased. Any quotations used from the discussions will not be attributed to any individuals.
- Free to withdraw:** If at any stage you feel uncomfortable with the nature of the discussion you will be free to withdraw
- Feedback:** I will be pleased to send you a summary of the main findings from the discussion group.
- Point of contact:** If you have any questions relating to the discussion group after you leave, please do not hesitate to contact me.

**Thank you for participating in the group**

Jon Vernon  
University of Plymouth

## **Appendix 4**

### **Postal questionnaire**

:

# ENVIRONMENTAL SUSTAINABILITY - A QUESTIONNAIRE FOR TOURISM BUSINESSES

Your contribution to this research is important to us. Please complete and return this questionnaire in the Freepost envelope provided. Your co-operation is appreciated.

Please indicate your answers by placing a tick in the relevant box or boxes below.

## A. ENVIRONMENTAL MEASURES IN YOUR BUSINESS

The following questions ask about different environmentally friendly practices that you might have implemented in your business and approximately when you implemented them.

1. Have you ever reviewed the environmental performance of your business?  Yes  No (go to Q2)
- If YES, (a) In what year did you review it? .....
- (b) Did you use a particular assessment method or system to help you?  Yes (please specify) .....  No
- (c) Did you make any changes as a result of your review?  Yes  No
2. Have you ever implemented any of the following measures which might reduce the resource consumption of your business?
- |  | Yes, and still in place  | Yes, but no longer in place | No                       | If YES, year implemented or started? |
|--|--------------------------|-----------------------------|--------------------------|--------------------------------------|
| a. Fitted low energy light bulbs   | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| b. Installed a condensing boiler (e.g. gas, oil or liquid petroleum gas) | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| c. Installed an alternative energy supply (e.g. solar, wind)             | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| d. Reduced toilet flush capacities                                       | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| e. Other (please specify).....   | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
3. Have you ever implemented any of the following measures which might reduce the waste produced by your business?
- |   | Yes, and still in place  | Yes, but no longer in place | No                       | If YES, year implemented or started? |
|---|--------------------------|-----------------------------|--------------------------|--------------------------------------|
| a. Composted garden and kitchen waste                               | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| b. Actively purchased goods with minimum packaging                  | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| c. Actively purchased environmentally friendly or recycled products | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| d. Actively recycled business waste - paper                         | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| e. - bottles  | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| f. - tins   | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| g. Other (please specify).....                                      | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
4. If you currently recycle paper, bottles or tins, how do you dispose of the recycled material? (Tick one box only. If you do not currently recycle, go to Q5.)
- Through local recycling banks or bins
- Through a specialist contractor
- Other (please specify).....
5. Have you ever implemented any of the following measures which might help to conserve or improve the local environment?
- |   | Yes, and still in place  | Yes, but no longer in place | No                       | If YES, year implemented or started? |
|---|--------------------------|-----------------------------|--------------------------|--------------------------------------|
| a. Created wildlife areas on your property  | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| b. Worked with the local community/other businesses on an environmental project (please specify)..... | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| c. Other (please specify).....  | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
6. Have you ever implemented any of the following measures which might support the local community?
- |  | Yes, and still in place  | Yes, but no longer in place | No                       | If YES, year implemented or started? |
|--|--------------------------|-----------------------------|--------------------------|--------------------------------------|
| a. Actively purchased products and services produced locally | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| b. Organised a tourism event with the local community        | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| c. Provided details of local events to customers             | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |
| d. Other (please specify).....                               | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | .....                                |

7. Have you ever implemented any of the following measures which might encourage environmentally friendly tourism?	Yes, and still in place	Yes, but no longer in place	No	If YES, year implemented or started?
a. Encouraged customers to use public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
b. Provided details of walking and cycling routes from your property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
c. Provided facilities for customers to recycle waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
d. Communicated your environmental improvements to your customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
e. Other (please specify).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....

8. Have you ever implemented any other measures which might benefit the environment? (e.g. installed a reed bed sewage treatment system)

Yes (please specify)     No (go to Q9)

..... Year implemented? .....  
 ..... Year implemented? .....

**B. YOUR EXPERIENCES IN IMPLEMENTING ENVIRONMENTAL MEASURES**

The following questions ask about your experiences in implementing the measures you have highlighted in Section A. If you have not implemented any measures, please go to Q13.

9. In implementing your measures, what sources of information and advice did you consult?  
 .....  
 .....  
 .....

10. What were your reasons for introducing these measures? (Please indicate if your reasons varied for different types of measures).  
 .....  
 .....  
 .....

11. Did you experience any problems in introducing these measures?     Yes (go to Q12)     No (go to Q13)

12. What problems did you experience? (Please indicate if the problems varied for different types of measures).  
 .....  
 .....  
 .....

13. For the measures you have NOT implemented (see Q2-7), what were your reasons for not introducing such measures?  
 .....  
 .....  
 .....

14. What do you consider to be the main barriers to the introduction of (further) environmentally friendly practices in your business?  
 .....  
 .....  
 .....

**C. INITIATIVES THAT MIGHT HELP**

The next few questions ask about initiatives that might help you to implement further environmentally friendly practices in your business.

15. What would encourage you to implement (further) environmentally friendly practices in your business?  
 .....  
 .....  
 .....

16. To what extent would the following measures help you to introduce (further) environmentally friendly practices in your business?

	No help	Minimal help	Moderate help	Significant help	Substantial help
a. Information about the environmental benefits of sustainable practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Information about the financial benefits of sustainable practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Training seminars and workshops about sustainable practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Case study examples of good sustainable practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Grants and financial assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. The opportunity to discuss experiences with other businesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Advice on the measures appropriate for your business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Information and guidance on CD ROM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Information and guidance on the internet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Other (please specify) .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**D. YOUR VIEWS ON THE ENVIRONMENT**

17. To what extent do you agree with the following statements

	Strongly agree	Agree	Uncertain	Disagree	Strongly Disagree
a. I am concerned about the state of the environment in S.E. Cornwall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Tourism contributes substantially to environmental problems in S.E. Cornwall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. I am concerned about the impact of my business on the environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. I am prepared to make time to improve the environmental performance of my business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. The environment is the responsibility of public agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. I am willing to pay extra for environmental quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. I am confused about what actions are and are not environmentally friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. My customers are not interested in environmental issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. My customers are willing to pay extra for environmental quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. I would be willing to work with other business to reduce the environmental impact of tourism in S.E. Cornwall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**E. ABOUT YOU AND YOUR BUSINESS**

The following questions ask about you and your business which will help us to analyse your responses. As with the rest of the survey, your responses will remain confidential.

18. What type of tourism business do you run? (You may tick more than one box if applicable)

- |  |   |
|--|---|
| <input type="checkbox"/> Hotel, with ..... beds                        | <input type="checkbox"/> Inn/pub, with ..... beds                                   |
| <input type="checkbox"/> Guesthouse/bed and breakfast, with ..... beds | <input type="checkbox"/> Campsite/caravan site/holiday park, with ..... sites/units |
| <input type="checkbox"/> Self catering unit(s), with ..... units       | <input type="checkbox"/> Tourist attraction (please specify type) .....             |
| <input type="checkbox"/> Farm bed and breakfast, with ..... beds       | <input type="checkbox"/> Other (please specify).....                                |
| <input type="checkbox"/> Farm self catering unit(s), with ..... units  | .....   |

19. What was your MAIN reason for setting up a business in South East Cornwall? (Tick one box only)

- |   |  |
|---|--|
| <input type="checkbox"/> To continue an established family business | <input type="checkbox"/> To be my own boss           |
| <input type="checkbox"/> To maximise income                         | <input type="checkbox"/> Quality of life             |
| <input type="checkbox"/> Retirement decision                        | <input type="checkbox"/> Other (please specify)..... |
| <input type="checkbox"/> Redundancy decision                        | .....  |

20. Which of the following best describes the ownership of your business?

- |  |  |
|--|--|
| <input type="checkbox"/> Sole trader     | <input type="checkbox"/> Plc                         |
| <input type="checkbox"/> Partnership     | <input type="checkbox"/> Co-operative                |
| <input type="checkbox"/> Limited company | <input type="checkbox"/> Other (please specify)..... |
|  | .....  |

21. What is your role in your business? .....

22. How long have you worked in the tourism industry?

- |  |  |
|--|--|
| <input type="checkbox"/> Less than 6 months    | <input type="checkbox"/> 3 – 5 years   |
| <input type="checkbox"/> 7 months – 12 months  | <input type="checkbox"/> 6 – 10 years  |
| <input type="checkbox"/> 13 months – 18 months | <input type="checkbox"/> 11 – 20 years |
| <input type="checkbox"/> 19 months – 2 years   | <input type="checkbox"/> Over 20 years |

**23. How long have you been running THIS business?**

- Less than 6 months
- 7 months – 12 months
- 13 months – 18 months
- 19 months – 2 years

- 3 – 5 years
- 6 – 10 years
- 11 – 20 years
- Over 20 years

**24. Which of the following best describes the MAIN type of customers who visit you? (Tick one box only)**

- Families with children
- Extended families e.g. with grandparents
- Groups of adults
- Professional couples, both working, no children

- 'Empty nesters', couples aged 40-60, children left home
- Senior citizens
- Other (please specify).....

**25. Are there any times of the year when your tourism business is closed?**  Yes  No (go to Q26)

If YES, please tick the months you are closed

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

**26. How many people do you normally employ during the July – August period (full-time equivalent)?** People

(Example: 2 people employed half-time = 1 person full-time equivalent)

**27. Do you have any other sources of income in addition to your tourism business?**  Yes  No

**28. Which of the following statements best describes your personal expectations for your business? (Tick one box only)**

- To ensure my business becomes sufficiently profitable to support myself and my family
- To ensure my business becomes established as a viable business concern
- To ensure my business grows rapidly with considerable potential for future growth

**29. Are you a member of any business, community or environmental organisations?**

- a. Council member (e.g. Parish, Town, District, County)
- b. Tourism Association (e.g. SECTA)
- c. Local business association (e.g. Chamber of Commerce, Rame Traders' Association)
- d. Town Forum/Town Partnerships
- e. Environmental organisation (e.g. Friends of the Earth, Cornwall Wildlife Trust)
- f. Other (please specify) .....

Are you a member?  
(tick if YES)

Have you ever attended a meeting?  
(tick if YES)

Have you ever held a position of office?  
(tick if YES)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**30. Are you male or female?**  Male  Female

**31. Please indicate the category which best describes your age**

- 20 - 30
- 31 - 40
- 41 - 50

- 51 - 60
- Over 60

**F. PRIZE DRAW**

**32. All completed and returned questionnaires will be entered in a prize draw. Prizewinners will be notified by 19 May 2000. Please provide the following contact details:**

Telephone number ..... Contact name .....

*Thank you for your co-operation in completing this questionnaire. Please return it in the Freepost envelope provided to Jon Vernon, Department of Geographical Sciences, Faculty of Science, University of Plymouth, FREEPOST, Plymouth PL1 1BR.*



## **Appendix 5**

**Letter accompanying the postal questionnaire**

«Title» «FirstName» «LastName»  
«Address1»  
«Address2»  
«Address3»  
«Town»  
«County»  
«Postcode»

5 April 2000

Dear «Title» «LastName»,

**Your views on improving the environmental performance and sustainability of tourism businesses in South East Cornwall**

The latest Government strategy for the future of tourism in the UK, *Tomorrow's Tourism* (1999), stresses the importance of a sustainable, 'wise growth', approach. This strategy integrates the economic, social and environmental implications of tourism and takes care of the environmental resources upon which tourism depends. Special importance is attached to the role of tourism businesses in implementing this approach, whilst recognising that they may need help and support. One such area of focus is the adoption of environmentally friendly business practices.

I am writing to tourism businesses across South East Cornwall about their interest, adoption and implementation of environmentally friendly business practices, as well as the measures that might help them in the future. I would be most grateful if you could complete the enclosed questionnaire and return it to me in the Freepost envelope provided by 30 April 2000. This research is being undertaken by the University of Plymouth and is sponsored by Caradon Countryside Service, part of Caradon District Council. The project is also sponsored by South West Tourism (formerly West Country Tourist Board) and Caradon Area LEADER II. The results will be used by Caradon District Council to implement practical measures to help tourism businesses like your own.

It is very important that any new initiative reflect the concerns and problems of business people. Your contribution is important to us. Please take the time to complete the attached questionnaire to make your views and experiences known. The questionnaire should be completed by one of the main decision-makers in your business. Please be assured that your complete confidentiality will be respected. Your returned questionnaire will be collated and analysed with others. Individual details will not be disclosed to anyone and any comments you make will only be reported anonymously. To return the questionnaire, I have attached a Freepost envelope for your use. No stamp is required.

To thank you for your contribution, all completed questionnaires, which are returned by 30 April 2000, will be entered in a free draw. Prizes include a free environmental audit of your business by a professional assessor (worth £250), compost bins, recycled water butts, and copies of the Countryside Agency's Green Audit Kit. All businesses completing and returning a questionnaire will also receive details of the Green Compass initiative, designed by Groundwork, to help businesses identify the environmental opportunities and issues most relevant to them and to receive appropriate guidance.

If you feel unable to help me in this matter, please return the questionnaire to indicate that you do not wish to participate.

Your contribution to this research is greatly appreciated and will have practical outcomes of benefit to your business. Thank you for your co-operation. I look forward to hearing from you.

Yours sincerely,

Jon Vernon  
University Researcher

## **Appendix 6**

**Caradon 'Strategy for Greening the Tourism Industry: 2001-2006'  
(Executive Summary)**

# Executive Summary

*A framework for co-ordinated action in the district of Caradon.*

The purpose of this strategy is to set out a locally agreed framework for the sustainable management of tourism so that co-ordinated action can take place within the Caradon district, 2001-2006. It complements the Tourism Strategy for the Caradon District and specifically expands the section on sustainable tourism. Sustainable tourism refers to an approach which seeks to reduce the environmental impact of tourism by addressing both physical degradation caused by visitors and resource depletion resulting from the operation of tourism-related businesses. The English Tourism Council (2001a, p.11) recognise that sustainable tourism can no longer be regarded as an optional extra, but fundamental to safeguarding the long-term competitiveness of the industry. The term 'wise growth' has been used to encapsulate the objectives of this approach.

The importance of environmental protection for sustaining the local tourism industry has been an established priority within Caradon district for over ten years. Initially, the focus was on achieving these objectives through visitor management and interpretation but, in more recent years, encouragement has been given to the adoption of sustainable practices by tourism-related businesses. To extend this adoption, the District Council, with the University of Plymouth, has been undertaking research into the barriers affecting the adoption of sustainable practices by tourism businesses (1999-2001). The results of this research, together with consultation with the industry and related sectors, form the basis of the strategy.

## Key Objectives

### **A: INFRASTRUCTURE FOR BUSINESS WASTE RECYCLING**

*To establish a district-wide infrastructure for business waste recycling, which was considered to be the main sustainability issue by tourism-related businesses in the district.*

### **B: COMMUNICATION**

*To provide information on sustainable tourism practices to businesses so that all interest groups understand the options and potential benefits.*

### **C: SUPPORT**

*To provide flexible advice and support on sustainable tourism to meet the varied and changing needs of tourism-related businesses.*

### **D: ENVIRONMENTAL REVIEW**

*To facilitate systematic environmental reviews of tourism-related businesses. Such reviews have been shown to act as an important prompt to the adoption of sustainable practices.*

### **E: FINANCIAL SUPPORT**

*To provide financial support for tourism-related businesses wishing to adopt sustainable tourism practices and help overcome one of the main barriers to adoption.*

### **F: WIDER CO-OPERATION AND CO-ORDINATED ACTION**

*To establish wider co-operation and involvement in facilitating the adoption of sustainable tourism within the region and district.*

### **G: FURTHER RESEARCH**

*To monitor the effectiveness of the Action Plan and identify areas of further research to assist the extension of adoption.*

## List of Abbreviations

<b>AGLV</b>	Area of Great Landscape Value
<b>AONB</b>	Area of Outstanding Natural Beauty
<b>B&amp;B</b>	Bed and breakfast
<b>BRE</b>	Building Research Establishment
<b>CA</b>	Countryside Agency
<b>CEC</b>	Commission of the European Community
<b>DCMS</b>	Department for Culture, Media and Sport
<b>DEFRA</b>	Department of Environment, Food and Rural Affairs
<b>df</b>	Degrees of freedom
<b>DTI</b>	Department of Trade and Industry
<b>EA</b>	Environment Agency
<b>EC</b>	European Community
<b>EDG</b>	Employment Development Group
<b>EIA</b>	Environmental Impact Assessment
<b>EMAS</b>	Eco-Management and Auditing System
<b>EMS</b>	Environmental Management System
<b>ERDF</b>	European Regional Development Fund
<b>ESA</b>	Environmentally Sensitive Area
<b>ETB</b>	English Tourist Board
<b>ETC</b>	English Tourism Council
<b>EU</b>	European Union
<b>GDP</b>	Gross domestic product
<b>IAP</b>	Integrated Area Plan
<b>IHEI</b>	International Hotels Environment Initiative
<b>ISDC</b>	Ideal Sustainable Development Corporation
<b>LCA</b>	Life-Cycle Analysis
<b>LEAP</b>	Local Environment Agency Plan
<b>NGO</b>	Non-governmental organisation
<b>NUD*IST</b>	Non-numerical and Unstructured Data Indexing Sorting and Theorising
<b>ONS</b>	Office of National Statistics
<b>RDC</b>	Rural Development Commission
<b>RTB</b>	Regional Tourist Board
<b>SAGLV</b>	Special Area of Great Landscape Value
<b>SBS</b>	Small Business Service
<b>SECCERP</b>	South East Cornwall Community and Economic Regeneration Project
<b>SECTA</b>	South East Cornwall Tourism Association
<b>SIC</b>	Standard Industrial Classification
<b>SME</b>	Small and medium-sized enterprise
<b>SPD</b>	Single Programming Document

<b>SPSS</b>	Statistical Package for the Social Sciences
<b>SUSTAIN</b>	SUStainable Tourism, Audit and Implementation Network
<b>SWERDA</b>	South West of England Regional Development Agency
<b>UN</b>	United Nations
<b>UNCED</b>	United Nations Conference on Environment and Development
<b>WCED</b>	World Commission on Environment and Development
<b>WCTB</b>	West Country Tourist Board
<b>WTO</b>	World Tourism Organisation
<b>WTTC</b>	World Travel and Tourism Council
<b>WWF</b>	World Wide Fund for Nature
<b>WWOOF</b>	Willing Workers on Organic Farms

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