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**Conservation versus Visitor Use: a Case Study
within New Zealand's Conservation Estate**

A thesis presented in partial fulfillment of the requirements of the degree of

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For the Tomtens and other wise friends at Puhikereru

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Abstract

World tourism has boomed in recent years and as a result there is increasing pressure being placed on destinations in the natural environment. This pressure has implications for the long-term sustainability of 'natural' destinations. It is with regard to these issues that this thesis investigates whether recreation and conservation goals can be reconciled in New Zealand's conservation estate using sustainable approaches to tourism development.

This research question is analysed through a review of relevant policy and literature, and semi-structured interviews with people involved in tourism in a variety of contexts. In order to gain an appreciation of tourism impacts at a site-specific level, the Queen Charlotte Walkway in the Marlborough Sounds is investigated, using quantitative and qualitative research techniques. The walkway was recently developed in order to reduce pressure on the Abel Tasman Coastal Track in the Nelson region. However, in the years since its development, visitor numbers have grown considerably on both tracks.

The Queen Charlotte Walkway situation encapsulates the issues relating to the ongoing conflict between recreation and conservation in natural areas, and enables a better understanding of the consequences of New Zealand's institutional arrangements for tourism management. Moreover, the case study complements the findings of the policy and literature research as it illustrates a number of weaknesses in these institutional arrangements.

As a result of these weaknesses, tourism management agencies have limited options available to deal with tourism growth, particularly considering the lack of provision for regulatory management of visitors to the conservation estate. The study also illustrates that these agencies are currently unable to adopt a holistic approach to tourism planning due in part to an absence of strategic links in the institutional arrangements for tourism. This has serious implications for the achievement of sustainable tourism development in this country.

While the case study was specific to the Queen Charlotte Walkway, the findings of this thesis are relevant to any situation where rising tourist numbers are potentially threatening the intrinsic values of New Zealand's conservation estate.

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CHAPTER ONE - *Introduction*

1.1. **The Situation**

World tourism has boomed in recent decades as international travel has become easier and global income has become more evenly distributed between the world's rich and poor (MfE 1997: 9.38). Concurrently, there has been a growing awareness of what has been irrevocably lost in the natural environment. As a result, there has been a shift in focus in tourism trends towards admiring what does remain, causing a significant increase in demand for tourism experiences in the natural environment. As a result, New Zealand's tourism growth has been much greater than the world average, in part due to the aggressive marketing of its 'clean green' image and a favourable exchange rate making it a relatively cheap destination (MfE 1997: 9.38).

International tourism is now a major source of overseas income for New Zealand, comparable in scale to such high profile earners as meat, dairy and wool exports. Various estimates suggest that international tourists now contribute more than 20 percent of New Zealand's overseas earnings (MfE 1997: 3.12). International visitor arrivals to New Zealand are growing significantly faster than the average rate for the East Asia-Pacific region, which in turn is growing twice as fast as the world average (NZTB 1996: 4). Alternative tourism is growing particularly rapidly, especially 'adventure tourism', 'ecotourism' and the associated backpacking industries, reflecting both national and international interest in outdoor pursuits. Tourism enterprises nationwide stand to gain financially from this influx and it is widely acknowledged that tourism has the potential to produce tangible and important economic benefits for New Zealand (Ward & Beanland 1995: 1; NZTB 1996). For example, in the year to March 1996, international tourism supported over 100,000 jobs nationally and achieved a new foreign exchange earnings record for tourism estimated at \$4.77 billion (NZTB 1996). The former figure rises to some 190,000 jobs when domestic tourism is added (MfE 1997: 3.12).

Properly managed, tourism offers an alternative to unsustainable land-use practices. By adding economic value to land which is not being farmed, logged or mined, the tourism industry can be a powerful lobby for conservation in some areas (MfE 1997: 3.12). However, there is little doubt that tourism brings with it pressures that result in adverse effects on the environment (DoC 1994; Micczkowski 1995; Ward & Beanland 1996). This indicates that economic and social goals potentially conflict with ecological and environmental requirements. The *Parliamentary Commissioner for the Environment* (PCE) has stated that:

“...there are significant concerns expressed about various environmental issues relating to tourism, including the effects of tourism on the environment, and the relationship of tourism management to environmental protection” (PCE 1997b: v).

It has been argued that loss of the physical and intrinsic values of some relatively unspoilt parts of New Zealand's natural environment was one of three principle adverse effects associated with tourism (PCE 1997a).¹ However, tourism is reliant on the environment remaining in a clean and healthy state - as it is the environment that is its 'marketable product'. Therefore, the tourism industry faces the dilemma that its marketing success can damage the product on which it is based. Such a scenario could backfire on the industry in an increasingly environmentally conscious climate.

When considering the impact of tourism on New Zealand's natural environment, the role of the *Department of Conservation* (DoC) is particularly relevant. Currently, more than 30 percent of New Zealand's national land area is in protected conservation estate, administered by DoC under the Conservation Act 1987. This covers almost 8 million hectares and includes 13 National Parks, 19 Forest Parks, 4,000 Reserves, two World Heritage Sites, one World Heritage Cultural Site and 18 various Marine Reserves or

¹ The two other principle adverse effects were loss of amenity values from incremental development and pressure on infrastructure, particularly sewage and roads (PCE 1997a).

Sanctuaries (MfE 1997: 9.144). While New Zealand has one of the highest proportions of protected land in the OECD,² most of it is steep and mountainous, containing relatively few areas of lowland forest, wetland, duneland or even sub-alpine grassland. Among these protected areas, coastal ecosystems are under-represented (MfE 1997: 10.7).

The Conservation Act 1987 requires DoC to provide for recreation and tourism, although this must not be 'inconsistent with conservation' (Conservation Act s.6(e)).³ This clause has created a tension between 'protection' and 'visitor use' in DoC's mandate (DoC 1996: 4). About 55 percent of overseas visitors visit at least one national park during their stay, and in all, about two million people are recorded at DoC visitor centres each year. These visitors can place considerable pressure on some areas. They can also place enormous pressure on the limited resources of DoC, which devotes a third of its budget to tourism servicing (Logan 1998: 1). A result of this tourist-related pressure can be:

"...more roadworks, more tracks and track maintenance, and more and bigger campsites, accommodation and service facilities. It also means more crowding, trampling, sewage and waste, and weed invasions, particularly in small reserves, near roads and along the most popular walking tracks. When one area becomes degraded, visitors tend to seek more pristine areas, thus widening the impact zone" (MfE 1997: 9.39).

It has therefore been suggested that DoC should manage recreation in protected areas through a 'spectrum of use' that ranges from crucial conservation areas with no public access, through to high-use recreational areas such as visitor centres and reserves accessible by vehicle (Logan 1998: 1). This approach is designed to provide for both conservation and recreation values, thus meeting the requirements of section 6(e) of the Conservation Act.

² *Organisation for Economic Cooperation and Development*. This organisation promotes world trade and assists the economy of its members which include the industrialised countries of Western Europe, Australia, Japan, the US and New Zealand (The Oxford English Reference Dictionary 1996).

³ DoC's functions include a responsibility to: *foster the use of natural and historic resources for recreation and allow their use for tourism, to the extent that the use of any natural or historic resource for recreation is not inconsistent with conservation* (s.6(e) Conservation Act 1987).

However, as tourism in New Zealand grows, the Department of Conservation is coming under increasing pressure to alleviate crowding on the most heavily used walking tracks by developing more areas in the conservation estate (Campbell *pers comm* 1998). DoC's financial resources are limited. It has been acknowledged that the Department currently has too many assets to maintain with its current funding (Logan 1998: 9).⁴ By developing new tracks in the conservation estate, DoC's annual budget will be further stretched between providing for the conflicting requirements of 'protection' and 'visitor use' of New Zealand's natural and historic heritage. Conversely, if DoC were to avoid taking an active role in tourism planning and management in these protected areas, the risk of fragmented, *ad hoc* tourism growth across a considerably wider area would be greater.

In order to explore the consequences of these issues at a site-specific level, this thesis examines the development and promotion of a new tourism development in the conservation estate. The Queen Charlotte Walkway in the Marlborough Sounds has recently been marketed as an alternative coastal walking opportunity to the popular Abel Tasman Coastal Track in North-west Nelson. However, in the few years since it has been developed, the Queen Charlotte Walkway has failed to divert large numbers of visitors from its more crowded neighbour. On the contrary, both tracks have grown considerably in popularity during this period. Moreover, a number of key biophysical and socio-economic aspects of sustainability relating to the Queen Charlotte Walkway are under threat as tourism activities increase in the area.

1.2. Aim and Objectives of the Thesis

The aim of this thesis is to contribute to planning for sustainable tourism products in New Zealand's conservation estate. The central issue is whether an appropriate balance between 'protection' and 'visitor use' can be achieved in the face of growing demand for new

⁴ These assets include boardwalks, jetties, bridges, safety fences, viewing platforms and other structures (Logan 1998: 7).

tourism experiences in New Zealand's protected natural areas. In order to address this issue, the following research question is explored in this thesis:

Can conservation and recreation goals be reconciled in New Zealand's conservation estate using sustainable approaches to tourism development?

This research question is pursued through the following objectives:

1. examining general issues relating to the concept of sustainable tourism;
2. analysing the institutional arrangements for tourism management in New Zealand in order to establish how these arrangements provide guidance for sustainable tourism development; and
3. examining the planning and decision-making context of track development and marketing via a case study approach in order to assess the effectiveness of New Zealand's institutional arrangements for tourism management at a site-specific level.

The thesis is based on a review of relevant research and policy, literature, a range of interviews with various stakeholders, and a case study. The conclusion provides grounds for suggestions proposed for consideration by the Department of Conservation and the associated stakeholders involved in the Queen Charlotte Walkway, in order to advocate the importance of sustainability in this area. Ultimately, the findings of this thesis are intended to assist in the protection of New Zealand's natural environment from the adverse effects of tourism activities.

1.3. Research Design and Methodology

This thesis follows an action-research design which includes data collected in a number of formal and informal settings. The methodology includes objective and qualitative research techniques, applied within the context of a case study undertaken in the Queen Charlotte area. The objective techniques evaluate numerical data and historical facts, while the qualitative techniques evaluate stakeholders' opinions and observed physical tourism impacts in the case study area.

1.3.1. Identification of the Planning Issue

In order to gain an appreciation of the planning issues of tourism in the conservation estate and to recommend a solution, it is necessary to investigate the viewpoints of the primary stakeholders in the case study. These stakeholders include Crown management agencies, industry groups, community groups and user groups. Their concerns are canvassed using in-depth, semi-structured interviews. These interviews, in conjunction with an analysis of the relevant policy and literature, provide an appreciation of the differing perspectives of the impacts of tourism on the environment.

1.3.2. Information Sources

A review of the relevant literature established the issues relating to the concept of sustainability generally and sustainable tourism. Further literature research was then undertaken to identify New Zealand's institutional arrangements for tourism management and issues relating directly to the Abel Tasman and Queen Charlotte tracks. Concurrently throughout various stages of the research and as further issues came to hand, interviews and discussions were undertaken in order to gauge both expert and popular opinion relating to the issues revealed.

1.3.3. Use of a Case Study

An initial appraisal of the Abel Tasman Coastal Track provides a context within which to relate to the potential outcome of new tourism developments in New Zealand's conservation estate. Subsequently, an in-depth case study of the Queen Charlotte Walkway enables a more detailed examination of the planning and decision-making context of track development and marketing in New Zealand's protected natural areas. This case study provides an insight into the consequences of New Zealand's institutional arrangements for tourism management at a site-specific level.

1.4. Organisation of the Thesis

Chapter One introduces the planning issue and outlines the aim of the thesis. Chapter Two examines the nature of tourism and, more specifically, investigates issues relating to tourism and its relationship with the environment. Of particular relevance to this is the concept of sustainability. This concept is introduced in a broad sense relating to all resource use and then related to sustainable tourism.

Chapter Three expands on this through an investigation of the institutional arrangements that guide tourism planning and management in New Zealand, and how the notions of sustainability and sustainable tourism are dealt with. Chapter Four focuses on the consequences of the current institutional approach to tourism management, with particular reference to tourism in New Zealand's protected natural areas. This chapter indicates a number of barriers to achieving sustainable tourism in New Zealand and outlines how these arrangements are exacerbating the conservation-recreation tension within the conservation estate. At the end of this chapter, tourism opportunities in the conservation estate of the upper South Island of New Zealand are introduced in order to 'set the scene' for the case study of the Queen Charlotte Walkway.

Having outlined the historical development of the Abel Tasman and Queen Charlotte tracks, Chapter Five examines the objectives of the primary stakeholders in the Queen Charlotte Walkway development. The effectiveness of these objectives are then analysed. In particular, the diversion policy is analysed in order to establish whether tourists are choosing to visit the new walkway rather than the Abel Tasman Coastal Track. Chapter Six then expands on the issues pertaining to sustainable tourism on the Walkway. Using a sustainable tourism framework, the Walkway development is evaluated in order to gauge the effectiveness of planning and management processes. This evaluation establishes that the adverse effects of tourism activity have the potential to undermine a number of key biophysical and socio-economic structures over time, unless these adverse effects are acknowledged and appropriately provided for.

Chapter Seven concludes the thesis with a review of the research aim and objectives and the research approach. The key findings of the thesis are then revisited and a number of suggestions for the stakeholders associated with the case study are made. These suggestions are designed to assist in future planning and management practices. Finally, some implications are suggested regarding the future of tourism in the conservation estate and the implications of this activity for the sustainability of New Zealand's unique protected natural areas.

CHAPTER TWO - *Tourism and the Environment*

2.0. Introduction

Globally, there has been a growing realisation that humans must find an appropriate balance between 'protection' and 'use' of the world's natural resources upon which they depend, so that these resources can be sustained into the future. This realisation has resulted in the emergence of the sustainability concept. During the decade or so that the term 'sustainability' has been in popular usage, it has been used to defend and support a wide variety of positions with respect to human activities in the broader environment. Consequently, the multi-dimensional nature of this concept has created confusion as to what is being sustained and for whom.

This chapter explores these issues in relation to tourism activities in 'natural' areas, in order to gain an understanding of how an appropriate balance between conflicting demands for the same resource might be found. The various biophysical and socio-cultural dimensions that contribute to sustainable tourism are examined. Some options for the management of sustainable tourism are also explored, and their advantages and disadvantages are outlined. These options include the adoption of a carrying capacity approach to tourism management, that identifies the thresholds beyond which resource use cannot be sustained in the long term. In addition, 'alternative tourism' initiatives that focus on the preservation, protection and enhancement of the natural environment are reviewed. Firstly, however, the characteristics of tourism are discussed, in order to gain an understanding of the potential impacts that can result from the use of natural resources by this industry.

2.1. Tourism and its Relationship with the Environment

Tourism and the environment have an inter-dependant relationship. This relationship differentiates the tourism industry from other economic sectors that do not inherently require an attractive and healthy environment as their product, nor are so vitally and so

directly concerned with environmental quality (Mieczkowski 1995: 113). Since "*the environment is the travel industry's base product*" (Cook *et al* 1992 *cited in* McCool 1994), tourism is more vulnerable to environmental degradation than other economic sectors, and a sustainable natural environment is essential for the industry's survival.

Furthermore, the implications of this relationship reach well beyond the natural environment and extend to economic and social-cultural environments (Mieczkowski 1995: 113). For example, loss of the attractions which make a site or region attractive can spell economic disaster to the industry and those who depend on it (Ward & Beanland 1995: 1). This inter-dependency between tourism and the wider environment it operates within has been recognised at an international level by the *World Tourism Organisation* (WTO) which has stated that "*tourism must be environmentally sustainable - in both the natural and cultural environments - to be economically sustainable*" (WTO 1993:5). In other words, for tourism to be a truly beneficial economic strategy for any community, it must also be dedicated to improving the quality of life for the people who live and work there, and to sustaining the environment. Protection of the environment and achieving successful tourism development cannot be separated (WTO 1993: 5).

As a consequence of this inter-dependant relationship with the environment at large, tourism has been described as "*a complex and dynamic phenomenon*" (Heath & Wall 1992; Przeclawski 1993 *cited in* Clarke 1997: 226). This complexity is reflected in the wide range of impacts, both positive and negative, that tourist activities impose upon the physical, social-cultural and economic environments within which they operate. These impacts are examined below.

2.1.1. Positive Impacts of Tourism

Tourism is a potential 'protector' as well as a 'consumer' of the natural environment. It adds economic value to some aspects of nature which are of no particular value for other activities. By enabling people to enjoy protected areas and diverse environments, tourism

can provide an economic justification for conservation, while promoting public awareness and support for the conservation of natural areas and attractions (Ward & Beanland 1995: 1). This point is highlighted by Mieczkowski (1995: 113) who describes tourism as:

“a ‘smokeless industry’, an ecology-oriented sector, a logical partisan of environmental conservation... There will be no demand for tourist services in environmentally degraded destinations... Tourism frequently contributes to environmental improvements, not necessarily improvements correcting nature, but those that correct ecological outrages inflicted by other sectors of economy, or by impacts of human habitation”.

This indicates that tourism can encourage the management of impacts associated with the tourism industry with apparently positive outcomes (Stankovic 1991 *cited in* Hunter & Green 1995: 42). For instance, environmental objectives in tourist areas tend to include the protection of both the health of the local population and tourists and the maintenance of a high quality of environment to satisfy the long-term interests of the tourism industry in safeguarding its profitability (OECD 1980: 51-53 *cited in* Mieczkowski 1995: 113). With regard to this, the WTO (1993: 3) states that tourism development benefits local communities in several ways, including;

- new jobs and businesses;
- improved land use patterns
- improved infrastructure and community facilities and services; and
- greater environmental and cultural awareness and protection

2.1.2 Negative Impacts of Tourism

In addition to the industry’s significant positive effects, tourism as an economic and social activity has characteristics that can predispose it to adverse impacts on social, economic, environmental and other resources. Tourism can undermine existing ways of life and spearhead rapid changes that are unwelcome. Unlike other economic activities, the consumers have to travel to the product, which means that tourism can be highly

conspicuous and intrusive in host communities (Bramwell *et al* 1996: 35). This has prompted Craik (1995: 88) to comment that:

“it is therefore not surprising that a growing number of communities are ambivalent about tourism and want limits placed on further development”.

Tourism is an extremely diverse, multi-faceted and fragmented industry. A consequence of this is that it can be particularly difficult to control (Bramwell *et al* 1996: 35). This is significant, as when uncontrolled or overdeveloped, tourism can endanger natural resources, cause visual or cultural pollution, and ultimately destroy the very resource on which it is based (Simmons 1990 *cited in* Ward & Beanland 1995: 1). Consequently, the movement of consumers can damage biophysical and socio-economic environments in many ways, including:

noise pollution; air pollution; soil compaction and erosion; track/campsite/hut degradation; degraded water quality; increased water consumption; litter and sewage pollution; deforestation; reduction in biodiversity of fauna and flora; wildlife disturbance including behaviour, breeding and displacement; degraded ecosystems; attractions of pests and weeds; habitat loss and alteration; overcrowding; conflicts within communities; increase in crime and prostitution; traffic congestion; and decrease in amenity values causing negative effects associated with crowding and structures; vandalism of natural and cultural sites, souveniring (after Inskip 1991; DoC 1994a; Croall 1995; Mieczkowski 1995; Ward & Beanland 1996; Cessford 1997).

Unfortunately, despite strong evidence of the damaging effects of tourism, governments are typically embracing it as the industry of the future and hoping that the benefits will outweigh the costs, rather than encouraging and sponsoring social impact research (Craik 1995: 88). Craik argues that this research is imperative:

“...since tourism continues to grow internationally, there is an urgent need to develop means to shape tourism development, anticipate changes and impacts, and manage consequence and conflicts”.

Furthermore, while the relationship between tourism and the environment is acknowledged in the literature (for example, Eagles 1994; Mieczkowski 1995; Sproule 1996; Ward & Beanland 1996), tourism's dependency on environments, in particular, nature-dominated environments, does not appear to be well understood within the tourism and recreation industry (McCool 1994). This is of particular concern, as:

“...unless the tourist industry has an understanding of the impacts of its actions on the environment, then it risks its own future stability. Yet mechanisms have not yet been put in place to thoroughly evaluate the environmental consequences of visitors to natural areas and natural attractions” (Ward & Beanland 1995: 1).

Despite this, there are encouraging signs of a fundamental shift in values, such as tourism industry statements on the value of the environment (NZTB 1996) and the demand for ‘ecotourism’ (Craik 1995). This has largely come about through a change in public tastes and preferences and a consequent demand that the industry pursue sustainability and care of the environment (McCool 1994). Thus, there is a need to systematically explore the linkages that exist, whether recognised or not, between tourism, the natural environment and sustainability.

2.2. The Sustainability Concept

Sustainability as a concept has been devised as a means of finding an appropriate balance between conflicting demands for important resources that are imperative for long term human survival. This concept was popularised with the publication in 1987 of the Brundtland Report *Our Common* (McCool 1994). Here sustainable development was

defined as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”. The great value of the Brundtland Report was the plethora of ‘green’ ideas that evolved from it (Croall, 1995: 21). This report was concerned with equity or fairness in terms of access to wealth generating resources and in the distribution of development costs and benefits, encompassing both current social justice and fairness between generations, and the limits to growth within the environment (Schmidheiny 1992: 32). However, in the ensuing years since its conception, the concept has been surrounded by controversy, due to ambiguity as to what should be sustained and for whom. Some of the differing perspectives of sustainability are now examined.

2.2.1. Differing Philosophical Approaches Towards the Concept of Sustainability

Much controversy and fundamental debate is concealed within the apparently self evident phrase of the Brundtland definition. The concept of sustainable development, and by implication sustainable tourism development, is far from being clear-cut and value free. It is a concept that continues to be debated, and is constantly evolving. The underlying values inherent in the concept of sustainability cause difficulties when defining it, as Henry and Jackson (1996: 17) state:

“Where the term [sustainability] is applied without critical reflection, it simply represents a politically correct terminology with little implication for policy change. This is regrettable since ‘sustainable’ approaches carry with them the potential for the development of a coherent policy framework in fields such as tourism, founded upon specified policy goals and processes”.

The concept of sustainability also highlights the debate between the sometimes irreconcilable philosophical approaches of anthropocentrism and ecocentrism. Hunter and Green (1995: 56) argue that these important distinctions should be better understood, as they are relevant to any interpretation of sustainable thinking to tourism policy and management.

Ecocentrism rejects contemporary mainstream technologies and economies as fundamentally flawed, since they provide the basis for a materialist-and consumer-oriented society, promoting selfish values and short-term thinking. Nature is not merely regarded as a conglomeration of goods and services of instrumental value to humans. Rather, it is seen as having intrinsic or inherent value in itself (Hunter & Green 1995: 59). This paradigm, according to O’Riordan (1981 *cited in* Henry & Jackson 1996), is further divided into two camps:

Deep ecologists argue for the notion of bio-rights. This extreme resource-preservationist, zero-growth world-view creates difficulties for decision-makers since intrinsic value cannot be economically quantified (Hunter & Green 1995: 58-59); and

Self-reliant soft technologists reject modern technology because of its anti-democratic character, and thus emphasise community involvement in decision-making.

Anthropocentrism (or technocentrism) incorporates both an acceptance of market economy principles and the importance of technology, planning and management, for the addressing of contemporary problems. This paradigm is further divided into two camps:

Environmental managers accept the goal of continued economic growth through resource exploitation but seek to control the effects of this through taxation, legal protection of basic environmental standards, and compensation of those affected by environmental pollution, using environmental impact assessment or project appraisal; and

Cornucopians have faith in human kind’s technical ingenuity to solve any perceived limits to resource use, and the involvement of the (non-expert) community in project appraisal is viewed with suspicion. This approach is technocrat-led, optimistic and anti-participatory, and the analysis undertaken is essentially market analysis with limited concern for aspects of market failure (After O’Riordan 1981 *cited in* Henry & Jackson 1996).

The anthropocentric approach to sustainability has dominated international discussion on the concept. This is not surprising, as by its very nature, the concept of sustainability

focuses on human interactions with the broader environment. For example, when the Brundtland Report defined sustainable development as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”, human concerns were clearly given precedence over other aspects of the environment. Similarly, the first principle that emerged from the 1992 UN Conference at Rio de Janeiro stated that “*human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature*” (SECAC 1997).⁵ This principle reinforces the centrality of human needs and concerns within the sustainability concept.

2.2.2. *The Implications of Differing Philosophical Approaches towards Sustainability*

The philosophical distinctions between anthropocentrism and ecocentrism indicate that concern with sustainability should be widened beyond economic considerations and biophysical issues. It has been suggested that the concept should incorporate managerial practices, political and community structures (Henry & Jackson 1996: 22), and should deal with important concepts of social order, such as hierarchy, territory and norms (Burch & DeLuca 1984 *cited in* McCool 1994). This is important, as:

“The concept of sustainability owes its place in current policy debates predominantly to the development of Green philosophy, which seeks to develop forms of holistic analysis. This concept argues that policy programmes should recognise the interconnectedness of life domains, and be networked across these domains. In other words, in promoting particular environment policy programmes, it should first be ascertained whether the policy’s consequences, cultural, social and economic, are themselves sustainable or worth sustaining” (Henry & Jackson 1996: 18).

In other words, a holistic form of analysis would be concerned with sustaining physical outputs, ecological patterns and processes that maintain naturally occurring ecosystems, as

⁵ Socio-economic Data and Applications Centre.

well as the ongoing social, political, and cultural processes that give communities character and individuals security (McCool 1994). If the concept of sustainability addresses only ecological patterns and processes, broader community and social sustainability goals are unlikely to be achieved. Subsequently, McCool (1994) reasons that "*clearly, sustainability should be concerned with more than physical commodities from natural ecosystems*". Conversely, it can be argued that unless sustainability is understood as being underpinned by an ecological approach, then economic and social sustainability will ultimately not succeed (Boshier *pers comm* 1999).

Due to the pervasive nature of tourist activities in both ecological and human systems, there is clearly a need for the tourism industry to adopt a more holistic approach towards development in these systems. For instance, the adoption of tourism management approaches that acknowledge limits to resource use, defined in terms of carrying capacities, has been advocated by the World Tourism Organisation. It maintains that establishing the maximum use which can be made of a site without adversely affecting physical, socio-cultural or economic environments is essential if sustainable tourism development is to be achieved (WTO 1993: 16). Issues relating to this management technique are now examined.

2.3. Carrying Capacity

The concept of carrying capacity implies that there are limits to any kind of natural resource use. It has arisen from a concern that the natural environment is likely to be damaged as a result of overuse and may reach the limits of its sustainability (which is a certain critical capacity threshold or the saturation point) called carrying capacity (Mieczkowski 1995: 310). This concept is adapted from two widely utilised scientific principles; the product life-cycle concept, and the growth curves of animal populations (Hunter & Green 1995: 64). From a biophysical viewpoint, if carrying capacity is exceeded, an ecosystem can be damaged or destroyed forever (Mieczkowski 1995: 310), as its self-regulation (and thus

self-sustaining) functions are overwhelmed. Consequently, the concept of carrying capacity is closely linked with the over-arching concept of sustainability, as it identifies the thresholds beyond which resource use cannot be sustained.

2.3.1. *Limits to Growth in the Tourism Industry*

When applied to the tourism industry (usually at a site-specific level) the carrying capacity concept can be used to identify what level of use or development of an area will result in serious environmental deterioration, socio-cultural or economic problems, or will be perceived by tourists as depreciating their enjoyment and appreciation of the area (Hunter & Green 1995: 54). This implies that, like the elements of sustainability, carrying capacity can be exceeded in a number of broad areas. These areas can be defined as:

- **Physical carrying capacity** - the limit of a site beyond which wear and tear will start taking place or negative environmental impacts will arise. This capacity highlights the limitations of the 'free services' which the natural environment supplies, such as waste accumulation, clean air and water, climate regulation and food resources.
- **Social carrying capacity** - the lowest degree of enjoyment tourists are prepared to accept before they start seeking alternative destinations. This capacity relates to the tourists' perceptions of environmental quality and the degree of crowding users (tourists) are prepared to accept by others (other tourists).
- **Cultural carrying capacity** - the level of tolerance of the host population for the presence and behaviour of tourists in the destination area. Socially unacceptable levels of tourism-induced impacts can change the characteristics of the destination community, disrupting ways of life and changing the destination culture.
- **Economic carrying capacity** - the ability to absorb tourism activities without disrupting the host destination's ability to be economically self-reliant (after Craik 1995: 89; Hunter & Green 1995: 54; O'Reilly 1986 cited in Hunter & Green 1995: 66).

Of all these broad elements, cultural limits are most likely to be exceeded before other limits as a result of tourism activities (Ward and Beanland 1995). This is because tourism often focuses on small communities that have a limited ability to absorb an influx in visitors (Cater and Lowman 1994 *cited in* Wallace 1996). However, if social capacities are exceeded in these communities, they may lose the character that makes them distinctive and attractive to non-residents. As a result it is likely that they will lose their ability to vie for tourist-based income in an increasingly global and competitive marketplace (McCool 1994).

2.3.2. Advantages and Disadvantages of the Carrying Capacity Management Technique

The carrying capacity approach to tourism management is important because it may instil a precautionary approach to tourism development and a respect for local environmental limits, in keeping with the resource conservationist interpretation of sustainable development (Hunter & Green 1995: 69). Therefore, the WTO (1993: 23) has stated that while carrying capacity limits can be difficult to quantify, they are essential to environmental planning for sustainable tourism or recreation. Martin and Uysal (1990 *cited in* Hunter & Green, 1995: 69) support this point, stating:

“While recognising that tourism carrying capacity is difficult to define, and even more difficult to measure, it is, nevertheless, impossible to ignore. Tourism carrying capacity and the concept of a tourism life-cycle enjoy a synergistic relationship that creates a more viable framework for tourism management”.

This highlights a significant dilemma facing tourism managers; understanding these carrying capacities is essential to environmental planning, but determining them is rarely easy or precise. Exacerbating this problem is the fact that biophysical and social carrying capacities may develop and change through time (WTO 1994: 63). For instance, the perceptions of local residents of tourists and tourism are unlikely to remain fixed as development proceeds. At some stage of the development cycle, social factors such as

tensions between locals and tourists might provide a limit to expansion, despite under-used physical capacity (Hunter & Green 1995: 68). This indicates the complexity of carrying capacity approaches to tourism planning.

Another disadvantage with the use of the carrying capacity technique in tourism planning is that it focuses on the 'end point' of tourism. A consequence of this is that integrated planning, encompassing all planning stages from the initial marketing to site-specific issues, is not emphasised unless there is a real feedback loop back to the marketing stage (Boshier *pers comm* 1999).

Despite the apparent complexity of the carrying capacity technique, one commentator has argued that this approach to tourism planning may be too simplistic for the complexity and range of issues presented by tourism development (McCool 1994). Due to the difficulties associated with identifying traditional numerical carrying capacity indicators, McCool advocates moving beyond the carrying capacity approach to achieve sustainability within the tourism industry, stating that an adequate framework would:

- recognise that the interface between tourism and the environment involves primarily social questions as opposed to biotechnical ones;
- avoid the excessively reductionistic and limited perspective provided by a carrying-capacity-based approach; and
- include the wide range of stakeholders affected by tourism development choices in the planning and management processes (McCool and Stankey 1993 *cited in* McCool 1994).

Notwithstanding McCool's suggestions, the carrying capacity approach to tourism management has the potential to provide important information regarding the limits within which tourist activities should operate. Furthermore, the carrying capacity approach has important implications for the concept of tourism sustainability in general. Aspects of this complex concept that relate to the tourism industry are now examined.

2.4. Tourism and Sustainability

There is an awareness within the tourism industry that a sustainable approach should encompass social as well as environmental issues. For instance, a survey of tourism industry 'stakeholders' established that it is generally believed within the industry that sustainability is "*not just an environmental issue, but also an economic and ethical one*". It is also believed that the Brundtland Report definition of sustainability is insufficient on the basis of it being too 'abstract' as it makes no specific reference to tourism (Bramwell *et al* 1996: 8). This indicates that sustainable tourism should be defined in such a way that social, cultural and economic factors are acknowledged as well as the ecological basis of the concept. In addition to this, tourism should satisfy conservation and development objectives in order to be considered sustainable (Sproule 1996).

Clearly, there are a number of elements that the overall concept of 'sustainable tourism' should take account of. These aspects, which are listed below, are divided into two broad categories. The first three elements relate primarily to sustainability issues at the 'site' level. At this level, carrying capacity is very important and tourism numbers to an area are ideally limited to the below the most sensitive threshold level.¹ The last three elements relate primarily to sustainability issues at the 'institutional' level. These elements are usually the 'drivers' of tourism development and while carrying capacity is still relevant, tourism numbers are generally encouraged to develop to the maximum threshold an area can withstand. This paradox can perpetuate the 'protection'- 'use' dilemma inherent in tourism planning.

¹ This threshold, or carrying capacity could be of a physical; social; cultural; or economic nature. See Chapter Two (section 2.3.).

SITE SPECIFIC ELEMENTS

- **Environmental and ecological sustainability** seeks to ensure that non-renewable physical resources are not consumed or degraded beyond the ability of ecosystems to adapt in the process of tourism activity;
- **Cultural and community sustainability** seeks to ensure that tourism does not undermine the development or survival of appropriate indigenous community structures, or even have an impact upon the nature of the local/regional social and cultural structure *per se*; and
- **Social sustainability** seeks to ensure that tourism activity does not undermine the quality of the tourism experience, or the tourists' perceptions of environmental quality.

INSTITUTIONAL ELEMENTS

- **Economic and commercial sustainability** represents a concern to ensure that local and regional economic self reliance is promoted by tourism policy;
- **Managerial sustainability** represents a concern to promote the development of 'non-renewable' human resources in the managerial practices fostered in tourism policy; and
- **Political sustainability** represents the ability to promote and realise sustainable tourism practices without sacrificing political legitimacy, employing participative approaches to policy development (after Hunter & Green 1995: 54; Henry & Jackson 1996: 18).

The challenge is to explicitly address all these elements of tourism sustainability. This concept should be defined in a way that enables a clear understanding of how a tourism development may impact on ecosystems, the distribution of wealth or power, and land uses and zoning laws. It should also enhance our understanding of how tourism development might interject new behaviours or institutions, what these changes mean for community stability, and how they affect the community's ability to deal with such interventions (McCool 1994). As table 1 illustrates, definitions of the concept of tourism sustainability can vary widely in their focus.

Author(s)	Definition of Sustainable Tourism	Main Elements
Sproule (1996)	<p><i>Sustainable tourism development should generate:</i></p> <ul style="list-style-type: none"> • financial support for protection and management of natural areas; • economic benefits for residents near natural areas; and • support for conservation among these residents, in part due to the economic benefits. 	economic
Driml & Common (1996)	<p><i>Sustainable tourism must:</i></p> <ul style="list-style-type: none"> • be compatible with the conservation of the existing natural environment; and • provide a non-declining stream of net economic benefits. 	environmental economic
Hill (1992 cited in McCool 1994)	<p><i>Sustainable tourism allows:</i></p> <p>visitors to enjoy an attraction, community or region with a volume and impact in such a way that the local culture and environment are unimpaired</p>	environmental cultural
Hall, Springett and Springett (1993: 135)	<p><i>Sustainable tourism should:</i></p> <p>explicitly promote biological (genetic, species, ecosystem) and cultural diversity. Diversity should be maintained or enhanced</p>	environmental cultural
Owen et al (1993 cited in Eagles 1994)	<p><i>Sustainable tourism development should:</i></p> <ul style="list-style-type: none"> • be one part of a balanced economy; • allow for the long-term preservation and use of tourism environments; • respect the character of an area; • provide long-term economic benefits; and • be sensitive to the needs of the host population 	economic environmental cultural social

Table 1: Various definitions of the concept of tourism sustainability

These definitions illustrate a few of the many possibilities for interpreting the meaning of sustainable tourism. For example, the two definitions that concentrate on the environmental and cultural aspects of sustainable tourism differ widely in their focus. Hill (1992 cited in McCool 1994) maintains (albeit unrealistically in the case of many tourist destinations) that tourist activities should leave the local culture and environment unimpaired, whereas Hall, Springett and Springett (1993: 135) maintain that sustainable tourism should explicitly promote biological and cultural diversity. Consequently, the two definitions have quite different implications for the planning and management of tourist activities.

Moreover, table 1 illustrates that sustainable tourism definitions can ignore or trivialise some important elements of the concept. This reduces the likelihood that a holistic, or all-encompassing, approach to tourism management would be adopted or seen to be necessary. What is apparent, however, is that most definitions of sustainable tourism imply that there are limits to resource use. This concept can also guide new 'green' tourism initiatives in delivering their promise of a more low-impact form of travel. The issues surrounding the trend towards 'alternative tourism' are now examined.

2.5. Alternative Tourism - a Sustainable Form of Tourism?

The term 'alternative tourism' is used as a collective expression of a range of terms which have recently appeared in the tourism literature. These terms include soft tourism, ecotourism, green tourism, low-impact tourism, nature tourism, gentle tourism, progressive tourism, adventure tourism, responsible tourism, appropriate tourism and sustainable tourism (Mader 1988; Himmetoglu 1992 *cited in* Hunter & Green 1995: 80; Eagles 1994; Craik 1995). The characteristics of these forms of tourism are similar. They all purport to focus on the preservation, protection, and enhancement of the destination environment (Hunter & Green 1995: 82). In doing so, alternative tourism should determine the carrying capacities of its activities, not only for natural systems but human systems as well. The community in which this tourism operates must also be receptive to change, seeing it as a

constructive means of facilitating positive change (Rauhe 1992 *cited in* Hunter & Green 1995: 82).

2.5.1. Evaluating Alternative Tourism

While the alternative tourism label seems useful, it is argued that it is meaningless unless it can be evaluated and enforced, and limits on tourism impacts can be set (Richardson 1994; Wallace 1996; and Blamey 1997). Consequently, it is suggested that accreditation may have an important role in providing consumers with the 'green label' with which they can differentiate environmentally responsible tourism from other forms of nature-based tourism that do not achieve sustainability (Blamey 1997: 128). In doing so, the tourism industry would become more accountable for any effects on the environment.

The difficulty is finding and agreeing upon an appropriate evaluation or monitoring procedure. It has been maintained that indicators and standards should ideally be selected by people who know the area and setting being evaluated, who agree on guiding principles, and who have come to some degree of consensus about existing problems and desired future conditions (USDA 1990 *cited in* Wallace 1996). Richardson (1994: 108) advocates an alternative tourism accreditation scheme that is industry regulated, and in which methods of and criteria for assessment are developed so that distinctions between accredited operations and those that are not accredited are apparent to consumers and stakeholders. For such a scheme to work, Richardson argues that industry must have a strong sense of ownership in the scheme which should be non-threatening to potential members if it is to encourage applicants to seek accreditation in the first place. This involves a large carrying capacity component to understand the dynamic effects of tourist activities on a range of different ecosystems.

2.5.2. *Weaknesses with the Alternative Tourism Approach to Sustainability*

Unfortunately, while these accreditation schemes and site-specific indicators are insightful, they have limited use unless they are enforced at a national or political level. Otherwise it is simply up to the integrity of the individual operator to join any such scheme, and there may not be any incentive to do so (USDA 1990 *cited in* Wallace 1996).

Another weakness of this approach is the lack of knowledge of the practical implementation of alternative tourism. Moreover, despite its growing popularity due to its sustainable dictum, no real evidence has yet come to light that alternative tourism as practised can truly be sustainable. Until such time, Hunter and Green (1995: 85) argue that it would be prudent to treat all tourism development as potentially destructive, regardless of its associated typology. Indeed, alternative tourism can have *increased* adverse effects, as:

“...new forms of tourism - such as cultural tourism, ecotourism, rural tourism, indigenous tourism and adventure tourism - are increasingly intrusive and dependant on the destination community. Tourists increasingly want to escape from the ‘fronts’ of tourism and explore the ‘backs’” (MacCannell 1973 *cited in* Craik 1995: 88)

It seems almost inevitable that tourism, and especially forms of alternative tourism, will encourage larger numbers of people to visit more and more remote areas, less and less used to coping with modern industrial human activities and attitudes. It is precisely in these relatively remote and undisturbed natural areas and rural communities sought by ecotourists and tour operators that the potential to negatively impact or to protect natural and cultural systems is the greatest (Cater and Lowman 1994 *cited in* Wallace 1996). Moreover, as ecologically diverse, and therefore valuable natural habitats become rarer, threats to their integrity or even continued existence become more important (Hunter & Green 1995: 84).

Another criticism of alternative tourism is that it is “*a misplaced search for answers to the perceived problems of mass tourism*” (Wheeler 1993 *cited in* Ryan 1997: 18). For example,

it has been questioned whether ecotourism should be treated as a distinct segment of the tourism market, as there is a 'false distinction' being made between tourism and ecotourism (Preece et al *cited in* Blamey 1997: 116). In another example of the potentially 'thin line' between alternative and mass tourism, Ryan (1997) highlighted a debate among tourism researchers that considered ecotourism as including economically sustainable tourism, with some arguing that Disneyland is a good example of ecotourism from both environment and economically sustainable perspectives. This indicates that alternative tourism is potentially open to abuse:

“Ecotourism and adventure tourism are often used by unscrupulous promoters as trendy catch words, as a green cover, to denote any place set in an attractive natural setting. The term 'ecotourism' often serves as an alibi for the intensification of pernicious social and ecological impacts. Ecotourism, when used in this way, may be more harmful for the environment than conventional mass tourism, especially if it is allowed to operate outside the constraints of controls and regulations imposed on other forms of tourism” (Mieczkowski 1995: 477).

These criticisms of alternative tourism reflects the industry's lack of accountability and free license to use green labels without being compelled to act sustainably. In particular, to avoid Mieczkowski's scenario of the 'ecotourism alibi', there need to be evaluative systems put in place so that tourists can make informed travel decisions.

The fact that alternative tourism lacks accountability and may cause greater adverse effects on the environment than mass tourism, despite its sustainable dictum, illustrates that there are barriers in the path of the achievement of sustainable tourism. Some of the issues that can create a 'barrier' to the achievement of sustainability in the tourism industry are now considered.

2.6. Barriers to the Achievement of Sustainable Tourism

The difficulties associated with defining sustainable tourism, adopting the carrying capacity technique and the apparently false distinction between alternative and mass tourism indicate that while sustainability appears to be an attractive model for action, it is difficult to implement practically or operationally. There are a number of significant barriers that must be overcome before tourism in any of its forms can be truly sustainable. These barriers are now examined.

2.6.1 *Types of Barriers to the Achievement of Sustainable Tourism*

- Barrier one: a short-term rather than long term economic framework

The world's economic system has a short-term focus, as it is based on gross national product or per capita income. McCool (1994) argues that these are incomplete measures of well-being, as they do not address inter-generational equity issues or capture important quality of life factors. Consequently, the profit motive, arising from anthropocentric values, can hinder the realisation of sustainability, as the emphasis is on the use rather than protection of resources. As a result, developers are unlikely to implement sustainable tourism policies unless coerced, because the basic profit motive is geared towards short-term economic returns rather than long-term 'altruistic' resource conservation (Pigram 1990 cited in Hunter & Green 1995: 90). As a result, some commentators argue that the economic system, as the largest of all human systems, must be directed towards the sustainable use of natural resources (for example Pearce *et al* 1987; McCool 1994; Driml & Common 1996).

- Barrier two: the characteristics of the tourism industry

The structure and characteristics of the tourism market can hinder the achievement of sustainable tourism (Henry and Jackson 1996: 23). For instance, a primary difficulty stems

from the fostering of tourism development through large-scale or multinational companies, resulting in the "*extrapolation of profits from the region*". Also, the types of jobs generated by the tourism industry tend to be seasonal, part-time, low-paid and perhaps un-unionised. Henry and Jackson (1996: 23) warn that "*this is the type of situation in which communitarian ideas of participation are perhaps least likely to be realised in the workplace*".

- Barrier three: the nature of tourism and tourist behaviour

Ironically, the nature of tourism itself can hinder the achievement of sustainability. Tourists have considerable power as consumers through the potential rejection of environmentally degraded destinations, forcing the industry to act sustainably. However, as the transient nature of tourism suggests, tourists usually only stay in a destination for a few days or weeks (and may never return), and so are unlikely to feel involved in the long-term fate of the area. Indeed, as Hunter and Green (1995: 90) note, they may feel it is their right to utilise the various resources on offer to the maximum, having paid for the privilege. It is therefore unrealistic to expect the majority of tourists to make travel plans based on how 'sustainable' a destination is perceived to be. While there is a growing support for this concept, travellers' ethics alone cannot be relied upon to force the industry to adopt a sustainable tourism framework. This issue applies in particular if the cost of a sustainable destination is greater than other destinations or attractions.

2.6.2. *Addressing the Barriers*

These barriers have major implications for the realisation of sustainable tourism, particularly in the face of increasing international tourism numbers. If they are not addressed, tourism activity will continue to escalate the conflict between 'protection' and 'visitor use' at destinations world-wide, resulting in irreversible social and environmental harm. McCool (1994) highlights this point, stating:

“One option for the tourism industry is to continue the road of the past, focusing on delivering the service and retail sectors that have provided the bulk of economic benefit to local communities - such as lodging, transportation, food and retail sales, without considering the emerging concerns about the industry. This option is based on assumptions about stability in values and preferences of travellers, and it delays answers to vital questions about the tourism product, appropriate scale and type of development, sustainability, and hosts’ quality of life”.

It is therefore clear that *“these assumptions are questionable in an era of rapid social change where the future is no longer a straight-line projection of the past”* McCool (1994). Unless specific steps towards more sustainable practices are taken, tourism destination areas and resources will inevitably become over-used, unattractive and eventually experience declining use (Butler 1991: 203 cited in Hunter & Green 1995: 63). Therefore, measurable limits need to be imposed on resource use in the tourism industry in the foreseeable future. Moreover, the planning and decision-making process in the development and marketing of new tourism products in natural areas world-wide should be examined in order to establish how these might be improved.

2.7. Framework for Evaluating Sustainable Tourism Development

Having examined the issues and barriers relating to the carrying capacity approach, sustainable tourism and alternative tourism, it is clear that there are a number of significant conflicts that must be recognised and addressed in order to achieve sustainable tourism development. Figure 1 re-visits the elements of sustainable tourism introduced earlier in this chapter. It illustrates the inherent conflict in achieving sustainable tourism at both a site-specific and institutional level. The institutional elements act as ‘drivers’, resulting in greater tourist numbers at a site. In turn, tourism-related activities at the site generate management impacts that must be dealt with in the institutional context.

Framework for Evaluating Sustainable Tourism Developments

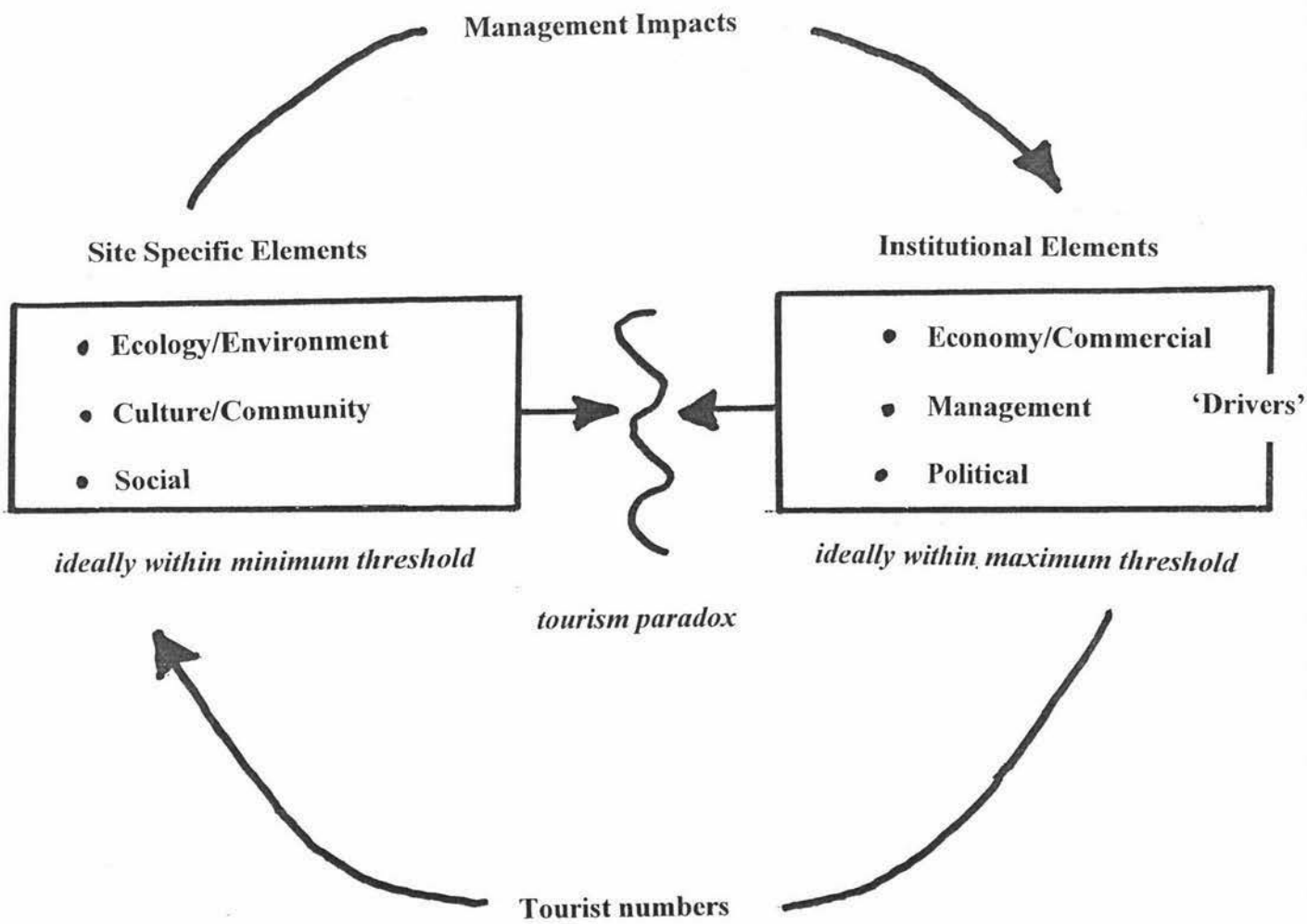


Figure 1: Sustainable Tourism Framework

This framework will be used to evaluate the sustainability of the Queen Charlotte Walkway development in Chapter Six. In carrying out this evaluation, the compatibility of these two potentially conflicting categories of sustainability will become more apparent.

2.8. Conclusion

The global demand for tourism activities and experiences is escalating. Tourism can impact on the biophysical and socio-cultural environments of any given destination, potentially damaging the ability of these environments to retain their character in the long-term. The concept of sustainability, when applied to the tourism industry, enhances the future viability of this huge industry and the resources it relies on. In examining the various dimensions that contribute to sustainable tourism, the following points have been established:

- the tourism industry is unique in its dependence on an attractive and healthy environment as its base product, and is more vulnerable to environmental degradation than other economic sectors;
- differing value systems indicate that concern with sustainability should be widened beyond economic considerations and biophysical issues, to ensure that socio-cultural aspects are also sustained;
- While the carrying capacity approach is essential to tourism planning, environmental thresholds are difficult to determine and may develop and change through time, particularly in a socio-cultural context;
- the tourism industry capitalises on 'green' forms of tourism, but shows a lack of accountability in meeting any criteria of 'sustainability'. As a result, in many cases alternative tourism is causing more biophysical damage than mass tourism; and
- the tourism industry needs to embrace a new paradigm of absolute limits and take greater responsibility for its impacts on the environment if tourism destinations are to be sustained in the long-term.

As the international tourism industry continues to grow in scope and in the extent to which it impacts upon natural environments, communities and economies, it becomes increasingly important to address these issues. While changing attitudes and the will to act is not easy, the tourism industry needs to take greater responsibility for the effects of its activities on environments world-wide, so that these environments can continued to be used into the future.

Clearly, the institutional arrangements that deal with the tourism planning process play an important role in requiring the tourism industry to take more of this responsibility on board. The following chapter identifies the institutional arrangements that guide the planning and management of tourism in New Zealand. These institutional arrangements, represented on the right-hand side of figure 1, are analysed to establish whether they encourage the tourism industry to follow the path towards sustainability, or to simply enhance the *status quo*.

CHAPTER THREE - *The Institutional Arrangements for Tourism Management in New Zealand*

3.0. Introduction

Tourism has the potential to alter the distribution of wealth or power in a destination, affect land uses, interject new behaviours or institutions, and alter community stability (McCool 1994). In addition to this, tourism activities can adversely affect the environments in which they operate. As a consequence, institutional arrangements that deal with tourism effects are crucial in achieving sustainable development. These arrangements may require tourism to develop at an appropriate scale and in an appropriate manner, while satisfying both conservation and economic objectives (Sproule 1996).

This chapter examines the institutional arrangements that deal with the effects of tourism activities on New Zealand's socio-economic and natural environments. These institutions include tourism and environmental advisory agencies, conservation and tourism management agencies, regional government and industry organisations. A variety of statutes guide these institutions and organisations in the provision and management of tourism. The implications of these arrangements for the planning and management of tourism in New Zealand are explored. Firstly however, tourism growth trends and general tourism planning issues are examined in order to clarify the current situation facing New Zealand's tourism industry.

3.1. Tourism Growth Trends in New Zealand

The tourism industry supports economic activity across a number of sectors (Bramwell *et al* 1996: 35, Clarke 1997: 226) and is the largest earner of foreign exchange in New Zealand (NZTB 1996: 10). A recent estimate suggested that New Zealand has \$11.1 billion directly

invested in the tourism industry and that tourism revenue was contributing \$3.2 billion to the national economy (NZTB 1998: 3).

As a consequence of this huge nation-wide investment in the tourism industry, there is strong interest in tourism growth trends and forecasts. However, uncertainty associated with the future means that growth forecasts can be misleading. For example, in the early half of this decade, while visitor growth to New Zealand was increasing by about 12 percent *per annum*, the *New Zealand Tourism Board* (NZTB) forecast that this country could be host to three million visitors annually by the year 2000. Under this scenario, it was estimated that New Zealand would earn an estimated \$9 billion in foreign exchange (NZTB 1995).

It is now clear that this forecast was overly optimistic, as Figure 2 illustrates. This has since been acknowledged by the NZTB, which has abandoned this forecast (Collier 1997: 358). However, even with lower levels of visitor growth, the country is facing important resource management issues as a result of tourism activity. It was suggested in 1994 that if international arrivals increased at only 6 percent *per annum*, resulting in 1.5 million visitors by 2000, many of the natural resources visited by tourists will be approaching or exceeding their maximum carrying capacity (Ernst & Young 1994: 7). International visitor arrivals to New Zealand in fact reached 1.5 million in 1997, although this number dropped by 4.3 percent in 1998 (Statistics NZ 1998a: 5).

If the natural resources visited by tourists are indeed reaching their maximum carrying capacity, it is clear that any growth in visitor numbers has significant implications for New Zealand's socio-economic and physical environments. In addition to this, it is likely that visitor arrivals will continue to rise, "*perhaps to the point of exceeding the New Zealand population by 2005*" (McDermott 1998: 348). If this is the case, the potential adverse effects of tourism must be recognised and provided for, as Rackham (1989: 104) warns:

“...recreation and tourism are often cited by those deeply concerned about our ‘natural’ environment as a solution to the problem of economic and social development in isolated regions of New Zealand. There appears to be an assumption that the scale and nature of tourism development will be determined by the landscape’s environmental sensitivity. In the majority of cases this is not so. Tourism and recreation should not be thought of as a ‘soft option’.”

This indicates that tourism should be a key element in the strategic planning process amongst crown management agencies, regional and local planning authorities and across all other sectors involved in the tourism industry. This issue is examined next.

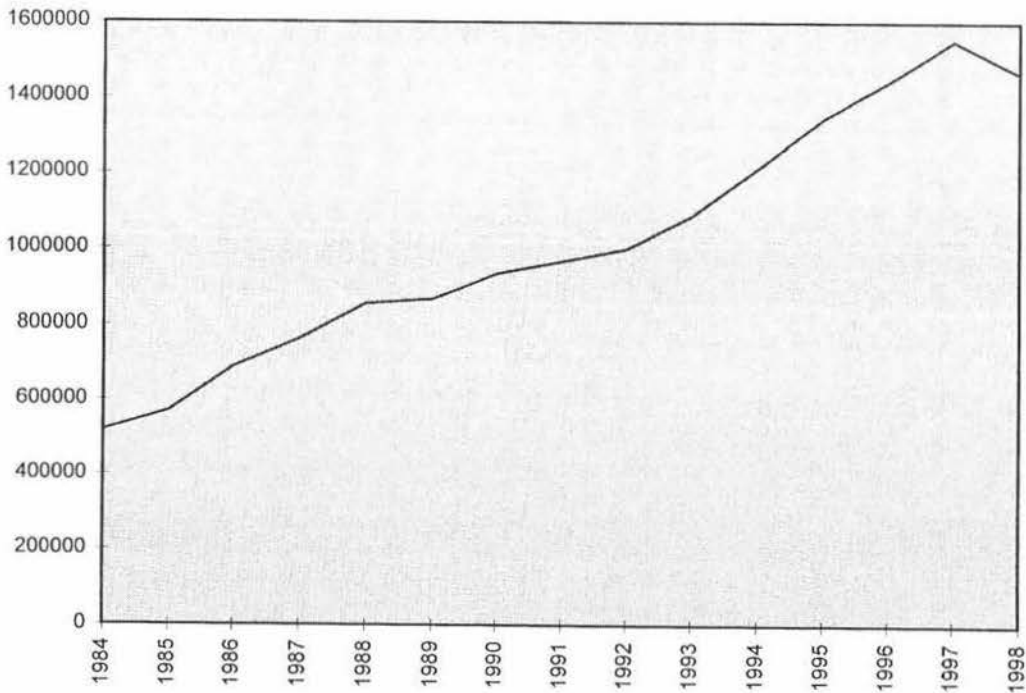


Figure 2: International visitor arrivals since 1984 (Source: Statistics NZ 1998b).

3.2. Planning for Tourism

Planning for the development, infrastructure, promotion and marketing of tourism can occur across a variety of government and private organisations and can take place at different levels of resolution - for example at international, national, regional and local levels (Hall 1991 *cited in* Page & Thorn 1997: 61). However, while the private sector plays an important role in tourism planning, it is argued that the planning and management functions within public sector organisations are the main vehicles for influencing, directing, organising and managing tourism as a human activity with various effects and impacts (Page & Thorn 1997: 59). Indeed, a common expectation today is that governments should provide the impetus for developing policies and plans for national tourism development. This expectation has arisen with the advent of mass tourism and the recognition of the economic advantages that tourism has to offer, literally forcing the creation of structured and co-ordinated tourism plans (Collier 1997: 353).

Moreover, with respect to the general concept of sustainable tourism development, many commentators argue that an effective and holistic strategic framework for planning the long-term development of an area is required (for example, Hunter 1995; Collier 1997; Dymond 1997; Page & Thorn 1997). Such a framework is seen as being the responsibility of government bodies, and in particular, local government. There is general agreement that strategic and integrated planning should not be left up to the private sector and other components of the public sector (Cronin 1990; McKercher 1993; Patterson & Theobald 1995 *cited in* Dymond 1997: 280). Collier (1997: 353) argues that this is due to the fact that these sectors lack the ability to adopt an all-encompassing approach to planning:

“The need for co-ordinated and integrated tourism planning arises out of the need to balance the interests of different groups within a nation, as well as the needs of the nation as a whole. The development of structured tourism plans recognises the long-term economic (and often socio-cultural) benefits to be gained from tourism while at the same time addressing the potential that tourism development has to degrade both human and natural resources”.

Consequently, strategic tourism planning requires that governments create a climate whereby sectoral interests can be accommodated and the role of the private sector is not overlooked. A strategic planning framework cannot exist in isolation from other sectors, as this would belie the concept of sustainability:

“Plans, strategies, approaches or frameworks which purport to chart a sustainable path for tourism development in a destination area or wider region, with little or no explicit or explanatory recourse to the actual or potential interactions of tourism with other sectors, are unsustainable. Patterns of socio-economic and ecological interdependence created by intersectoral connections must be recognised and policies formulated which encourage positive synergies between sectors, within overall resource availability constraints” (Hunter 1995: 161).

Finding an appropriate interaction between these sectors is essential. For instance, it has been asserted that the development of tourism will be sub-optimal if it is left in the hands of private sector entrepreneurs, as they are motivated by profit and loss accounts. On the other hand, if the public sector dominates the process, tourism is unlikely to be developed at an economically optimal rate (Cooper *et al* 1993 *cited in* Page & Thorn 1997: 61). This indicates that balancing public and private sector concerns regarding tourism planning may be problematic. In addition to this, the complex structure of the tourism industry, described by one commentator as “*a rather nebulous agglomeration of various actors and agencies*” (Wheeler 1992 *cited in* Hunter 1995: 159) can cause the task of integrated tourism management to be extremely daunting. The institutional arrangements within which New Zealand’s tourism planning framework operates is now examined.

3.3. The Role of the New Zealand Government in Tourism Planning

3.3.1. The Government's Historical Role

Since the first New Zealand central government tourism office was established in 1902, the tourism industry was controlled for many years by the Government as investor, marketer and regulator (McDermott 1998: 344). In 1954, The New Zealand Tourist and Publicity Department was established, incorporating the Information and Press Services, National Publicity Studio, National Film Unit and the Government Tourist Bureau (TPG 1998). Investment, marketing, research and development were actively promoted by the New Zealand Tourism and Publicity Department and the New Zealand Tourism Department (Page & Thorn 1997: 64; McDermott 1998: 344), which took a lead in marketing initiatives and even provided direct grants for tourism investment.

In the 1980s, the state's dominant role in the industry was reinforced by the high level of debt investment by the government-owned Development Finance Corporation (McDermott 1998: 344). This led to a tendency to treat the industry as a closed shop by government agencies, dominated by an institutional framework focused on the domestic and Australian markets, and prejudicing the industry's ability to take advantage of emerging markets further afield (Ministry of Works and Development 1984).

During this time, there was increasing recognition that direct national regulation and intervention by-passed difficult intergovernmental issues, and failed to address the negative consequences of development and inappropriate uses of land (May 1997: 1). In 1984, the central government approach was overturned with the introduction of the Labour government (Dixon & Fookes 1995: 105), which led major legislative reforms in order to open the economy to deregulated market forces and external competition (Franklin 1991 *cited in* Memon & Gleeson 1995: 114). These fundamental changes in policy direction were dominated by ideology of the marketplace and a search for economic efficiency in the use of resources (Holland & Boston 1990 *cited in* Memon & Gleeson 1995: 114).

3.3.2. *Central Government's Role in the 1990s*

However, it was not until the early 1990s that the Government turned its attention towards reforming and re-organising the public policy and structures that dealt with tourism (Page & Thorn 1997: 64). In 1990, the New Zealand Tourist and Publicity Department was restructured to focus its activities solely on developing and marketing New Zealand as an international tourist destination, becoming the New Zealand Tourism Department. During the process of restructuring, the Government sold its commercial operations, including the New Zealand Tourist and Publicity Department's travel sales offices, the National Film Unit, and Communicate New Zealand (TPG 1998).² In November 1991 the Government split the functions of government policy advice and marketing activities into two separate organisations: the Ministry of Tourism and the New Zealand Tourism Board (TPG 1998). In doing so, the Government withdrew from direct intervention and investment, although it remains active in three areas:

- access to the Conservation Estate through the activities of the *Department of Conservation* (DoC) and the tourism concessions it operates;
- marketing support provided by the NZTB; and
- the Government's regulatory role, which deals with environmental standards and safety regulation in the industry (McDermott 1998: 344).

The Government is advised on environmental policy issues by the *Ministry for the Environment* (MfE). MfE reports on the state of the New Zealand environment and advises the Government on action necessary to improve environmental management, including tourism effects on the environment. It also consults with local government, resource users, resource managers, and others likely to be affected by changes in policy or legislation, and

² Formerly the National Publicity Studio and Information Press section (TPG 1998).

provides information and advice to assist them (MfE 1999). The Government is also assisted by the Department of Conservation, which is required to advise the Minister of Conservation on matters of conservation under section 6(f) of the Conservation Act 1987.

The PCE plays a 'watch-dog role' regarding the system of agencies and processes established by the Government to manage the allocation, use and protection of natural and physical resources (PCE 1999).³ The Commissioner's functions include the investigation of any matter in respect of which the environment may be or has been adversely affected by these systems or processes. Following an examination of the issues within conservation management, the PCE decided to investigate the management of the environmental effects associated with tourism. The major finding of this investigation, which involved stakeholders from the public and private sectors, was that a strategy for sustainable tourism in New Zealand was needed (PCE 1997a).

More specifically, the *Tourism Policy Group* (TPG), located within the Ministry of Commerce, advises the Government on policy issues related to tourism management in terms of the 'public good'. It adopted this role when it took over the responsibilities of the Ministry of Tourism in July 1994 (TPG 1998). This move signified the progressive downgrading of the power and the role of the Government in tourism management (Page & Thorn 1997: 64). Local authorities must now determine the future of tourism in their areas without the resources or financial incentives to encourage the development of supply features (for example accommodation, attractions and infrastructure). Likewise, they are required to plan for tourism development and activities without additional access to ratepayer resources (Page & Thorn 1997: 66).

Therefore, the 1990s are marked by a rapid growth in tourism arrivals at the national level (although this growth has slowed in the last few years). Despite this climate of growth, central government has stepped away from its former role as controller and investor of

³ The Commissioner is independent of the executive arm of government and may only be removed or suspended from office by the Governor-General (Environment Act 1986).

tourism in New Zealand. The planning and public management implications are delegated to regional and local planning bodies without any clear national plan to manage and direct the growth to areas able to cope with further development and expansion (Page & Thorn 1997: 64). In other words, this devolution has left regional and local government to deal with tourism and its effects with no over-arching strategy, guidance or assistance from central government.

3.3.3. *Regional Government's Role in Tourism Planning*

It is widely argued that co-ordination at a regional level is crucial to sustainable tourism development (Ministry of Tourism 1993; Collier 1997; Page & Thorn 1997; Patterson & Theobald 1995 *cited in* Dymond 1997). The primary legislative acts that guide the regional tourism management arrangements in New Zealand are the Resource Management Act (RMA) 1991 and the Local Government Act 1974 (and its 1992 amendments).

Under the RMA, each regional council is required to prepare a regional policy statement. These statements play a pivotal role in over-viewing the issues and providing the overall framework for all resource management policies within each region (Ministry of Tourism 1993). However, it is argued that under the RMA, the role of regional councils in tourism planning is limited to the core function of resource management (Howden 1992 *cited in* Dymond 1997: 282). This indicates that tourism issues may be primarily addressed by managing the environmental effects of specific activities.

The Local Government Amendment Act 1992 refers specifically to tourism management. It requires regional councils to prepare annual tourism plans and allows them to fund and co-ordinate the promotion of tourism within the region (section 593(b)). However, these provisions can only be met if all the territorial local authorities within their jurisdictions agree to co-operate (Page & Thorn 1997: 67). This can be problematic, as a study of twelve regional councils suggested (Dymond 1997). This study found that one third of the councils did not participate in tourism planning, due to their self-perceived exclusion from

tourism practices under s.593(b) of the Local Government Amendment Act (Dymond 1997: 291). Dymond argued that this result is disappointing, as a crucial component of sustainability is missing if the regional councils of New Zealand are not becoming involved in tourism or are ill-informed about tourism practices in their respective regions.

3.3.4. *Local Government's Role in Tourism Planning*

While regional planning is primarily concerned with setting objectives and policies for the sustainable management of the regions, local or district planning is concerned more with land-uses (i.e. specific physical form and location) within a policy framework as set out in regional policy statements and plans (Collier 1997: 369). Moreover, much of the responsibility for investment, downstream planning and regulation of tourism activities in New Zealand lies with local authorities (Kearsley 1997).

Increasingly, local authorities are viewing tourism as a vital component in their economic strategies (Bush 1995 *cited in* Dymond 1997: 282), sometimes at the cost of social and environmental considerations. For instance, Dymond's 1997 survey established that local authorities are generally concentrating on short-term, demand-related tourism indicators, such as the contribution of tourism to the local economy and consumer satisfaction. These survey findings illustrated that local authorities are giving social aspects of tourism less weight than economic aspects. This is of particular concern given the fact that territorial local authorities are supposed to represent the interests of their local community (Dymond 1997: 291). It also indicates that the prospect of large returns may be overturning a cautious approach to the environment, forcing local authorities to be reactive rather than proactive in their tourism planning (Dymond 1997: 289). Conversely, it could be argued that local authorities are being proactive by encouraging developments in their districts in order to secure crucial tourism revenue.

Despite these problems, it is clear that local authorities are acknowledging that they have a role to play in tourism growth. For instance, *regional tourism organisations* (RTOs) that

promote a particular region are being established throughout New Zealand, often as 'offshoots' from local authorities (Kaya 1994 *cited in* Dymond 1997: 282). In many cases, these RTOs are being used as a vehicle through which local authorities deal with tourism matters (Dymond 1997: 282).

However, some commentators argue that there is a significant weakness with this approach to tourism management. Dymond (1997: 290) contends that when the responsibility for tourism is held largely within economic, demand-focused units of local authorities such as RTOs, tourism policies often emerge without sufficient regard for the infrastructure necessary to implement them. Furthermore, the now-disbanded Ministry of Tourism stated in 1993 that in order to take a stronger stance towards the goal of sustainable tourism development, local government needs to commit resources to the development of well defined, comprehensive tourism objectives.

3.4. New Zealand Legislation Relating to Tourism Planning

While there is no legislation that exclusively deals with the management of tourism, there are numerous statutes that promote the management of environmental, health and safety aspects of tourism activities and their impacts. In relation to tourism in New Zealand's natural environment, the Conservation Act 1987 and the Resource Management Act 1991 are of primary significance as they respectively deal with tourism activities and their effects on the environment (and, more specifically, the conservation estate).

3.4.1. The Conservation Act 1987

The enactment of the Conservation Act resulted in the establishment of the *Department of Conservation* (DoC). Under this Act, DoC is required to oversee "*the preservation and protection of natural and historic resources*" in order to:

- maintain their intrinsic values;
- provide for their appreciation and recreational enjoyment by the public; and
- safeguard the options of future generations.

The functions of the Department are set out in section 6 of the Conservation Act.⁴ They include a responsibility to manage all land held by the Department, and all other natural and historic resources for conservation purposes. This section also requires DoC to protect New Zealand's recreational freshwater fisheries, to promote the benefits of the conservation of natural and historic resources and to advise the Conservation Minister on matters relating to its functions, or conservation generally. In other words, this section requires DoC to act as:

- a land manager;
- a policy agency; and
- a conservation advocate.

The Act has important implications for tourism in natural areas, as section 6(e) reiterates the validity of recreation on most lands managed by DoC, providing that conservation values are safeguarded (DoC 1996a: 7). It is argued that this section amounts to "*a passive injunction on DoC to act positively to allow for tourism*" (Ernst & Young 1994), as it requires the Department to:

"foster the use of natural and historic resources for recreation and allow their use for tourism, to the extent that the use of any natural or historic resource for recreation or tourism is not inconsistent with conservation".

Since an alternative meaning of conservation is "*preservation, safe-guarding, protection*" (Oxford English Dictionary 1989), section 6(e) could be interpreted as meaning that *tourism (or visitor) use* of natural and historic resources should be allowed, so long as this use is consistent with the *protection* of these resources. As a consequence, section 6(e) requires the Department to balance recreation and conservation values in the conservation estate.

However, this is a difficult task, as the requirements of 'protection' and 'use' contained in section 6(e) have the potential to conflict with one another. This can be illustrated through consideration of the definitions of the two terms. The Oxford English Dictionary (1989) defines protection as "*the action of protecting; shelter, defence, or preservation from harm, danger or evil*". Use is defined as "*the act of employing a thing for any (especially a profitable) purpose - employment or usage resulting in, or such as to cause, impairment, wear etc.*". Therefore, it could be argued that one requirement of section 6(e) suggests that natural and historic resources should be protected from 'harm or danger', whereas the other requirement suggests that the same resources could be subject to use that may cause 'impairment or wear'. This insinuates that these two statutory requirements have the potential to conflict with one another, despite being contained within the same clause.

3.4.2. *The Resource Management Act 1991*

In 1991, a new environmental mandate was embarked upon in New Zealand with the formulation of the *Resource Management Act 1991* (RMA), which became the governing legislation for nearly all resource use in New Zealand. The central purpose of this Act is to "*promote the sustainable management of natural and physical resources*" (s.5) in a primarily 'effects-based' approach requiring that resource users take responsibility for the effects of their activities on the environment.

The RMA does not directly or specifically regulate tourism; rather it focuses on the impact of tourism activities on the environment (Ministry of Tourism 1993). This is primarily carried out via regional policy statements and district plans drafted under the RMA, which set out environmental standards and regulations that require the tourism industry to adopt environmental management techniques which are consistent with the purpose of the Act (MfE 1997: 10.6). In theory, this legislative approach should encourage the evaluation of

4 Section 6 of the Conservation Act is outlined in Appendix I.

tourism effects on the environment and population against a sustainable framework (Page & Thorn 1997: 64). Consequently, Page and Thorn argue that:

“...the Act, although never mentioning the term *tourism*, is relevant to both the development and the promotion of tourism because it not only has an explicit commitment to the sustainability of the country as a destination but is also concerned with the way impacts are managed” (Page & Thorn 1997: 65).

Consequently, the RMA has important and significant implications for sustainable tourism, in the sense that it requires the sustainable management of its effects on the environment. Collier (1997: 364) supports this point, stating that the New Zealand tourism industry has a high degree of dependence on the maintenance of the quality of the country’s natural and physical environment and consequently:

“given the purpose of the Act as being to promote the sustainable management of natural and physical resources, then the Act, in so far as the mechanisms it has established seek to achieve this purpose, should be viewed as a significant and positive piece of [tourism] legislation”.

However, there are draw-backs to the RMA’s primarily effects-based approach to resource management. Upton (*cited in* Memon & Gleeson 1995: 119) has argued that the Act was not “*designed or intended to be a comprehensive socio-planning statute*” and that it gives greater weight to the biophysical dimension of the environment in the section 3 definition. As a result, “*the socio-economic needs of contemporary society are weakly inscribed in the RMA*” (Memon & Gleeson 1995: 121) and there is no intra-generational or social equity element which is also crucial to the realisation of sustainable development.⁵

Furthermore, without specifically mentioning intra-generational equity, the RMA may be ill-equipped to guide ethical or social justice issues, except within the context of sustainable

⁵ For instance, the Brundtland Report stated that sustainable development should address social justice and equity issues within generations as well as between them (Schmidheiny 1992: 32).

management (MfE 1991). It has also been questioned whether this Act, with its radical shift in emphasis to 'effects management', has the capacity to ascertain whether "*a policy's consequences, cultural, social and economic, are themselves sustainable or worth sustaining*" (Henry & Jackson 1996: 18). As a result, the RMA may not achieve broader community and tourism sustainability goals. However, it is important to highlight that it is not intended to do so except insofar as its effect will be to preserve the quality of the environment.

3.4.3. *Other New Zealand Statutes Relevant to Tourism Planning and Safety Standards*⁶

Beyond the Conservation Act 1987 and the RMA 1991, the primary statutes that promote the protection of the natural and historic values of the conservation estate are the National Parks Act 1980; the Reserves Act 1977; the Wildlife Act 1953; the Marine Reserves Act 1971 and the New Zealand Walkways Act 1990. These statutes are concerned with protecting the intrinsic values of areas of the conservation estate. They also define the public's right to access protected areas, and describe how these areas should be managed in order to provide for both recreational and conservation purposes (DoC & NZ Conservation Authority 1995; DoC 1996).

Statutes that guide the management of visitor safety and risk management include the Resource Management Act 1991; Building Act 1991; Occupiers' Liability Act 1962 and the Health and Safety in Employment Act 1993 (DoC 1996). These acts provide safety guidelines on the provision of visitor facilities via land-use consents and building regulations, as well as placing the onus on the management of an organisation to comply with relevant safety and environmental standards (McDermott 1998: 346).

⁶ Appendix II explains these statutes in greater detail.

3.5. Tourism Management Agencies and Organisations in New Zealand

3.5.1. *The Department of Conservation*

The Department's main role, under the Conservation Act 1987, is to manage the third of New Zealand's land mass which it holds in stewardship on behalf of all New Zealanders. Since it is estimated that about two million people visit the conservation estate per year, the Department plays a crucial role in tourism management in this country (Logan 1998: 1).⁷ In order to guide the management of visitors on conservation land, DoC has published a Visitor Strategy. This states that DoC:

“...does not own [these lands and waters], nor does it have a monopoly on the knowledge of them. Nevertheless, the Department as custodian and manager recognises that these places are of value to all visitors. They are welcomed as valued guests but expected to behave in a manner which respects and cares for the places they visit” (DoC 1996a: 8).

Clearly, finding a balance between conservation and recreation goals, while achieving its primary objective (the protection of intrinsic natural and historic values) is a significant management consideration for the Department. In order to achieve such a balance, DoC has identified a number of management principles in its Visitor Strategy (which deals with tourism in the conservation estate). These include the following principles:

- Most areas will be kept in their natural state without facilities development, to protect intrinsic natural and historic values and give visitors the opportunity to experience nature on nature's terms;
- the qualities of solitude, peace and natural quiet will be safeguarded as far as possible in all areas managed by the Department; and
- where the impacts of increasing visitor numbers to a site are unknown, the Department will adopt a precautionary approach until such time as it is clearly demonstrated that increasing numbers pose no significant problem (DoC 1996a: 13).

⁷ This number is recorded at DoC visitor centres which indicates a similar number will be visiting the conservation estate (Logan 1998: 1). It is impossible to gain more accurate numbers due to the nature of the areas visited.

In addition to this, the Department has stated that its objective in managing all visitors, facilities and services in the conservation estate is “*to avoid, reduce or minimise the impacts on intrinsic natural and historical values*” as the protection of these values is its primary concern (DoC 1996a: 13). DoC has also identified that it has a broad conservation goal of providing a good service to visitors, without compromising conservation, by the year 2000 (DoC 1996a: 1).

On a cautionary note, it has been stated that the use of the term ‘intrinsic values’ may be impossible to define, leaving the Department without a benchmark against which to measure its performance. Hartley (1997: 148) argues that the term is internally contradictory, since the notion of ‘value’ is itself ‘extrinsic’ or dependant on the existence of something outside any given object, namely, a beneficiary of the object. He argues further that the phrase ‘intrinsic value’ is used to attach some value to conserving natural resources that is over and above the value attached to that act by any human or set of humans, and that:

“...this is a meaningless concept, or at least, incommensurable. An organisation with an incommensurable goal has no basis on which to judge the quality of the job it is doing, and no basis on which to set priorities or allocate resources internally. Under these circumstances, it is not surprising that DoC appears to lack focus and effectiveness in providing some key services” (Hartley 1997: 216).

Despite this potential difficulty, the Department plays a crucial role in the provision and management of tourism activity in the conservation estate, while protecting important conservation values of these protected areas.

3.5.2. *The Tourism Policy Group*

The establishment of the Tourism Policy Group in 1994 signified a reduction in the Government’s role in tourism. For example, when the Ministry of Tourism was initially

formed in 1991, it had 11 staff with expertise in planning, resource management and policy advice. While the TPG adopted the functions of the Ministry, it is now based with another government department, with only seven staff and the resources to undertake very limited strategic planning tasks (Page & Thorn 1997: 64). This reflects the limited regulatory, 'hands-off' approach of Government towards tourism management (Campbell 1998 *pers comm*).

The TPG is a policy unit that promotes the objective that long-term tourism development must be environmentally, socially and economically sustainable. It advises the Government on the development of New Zealand tourism policy and represents the Government's tourism interests to other governments and inter-governmental organisations. It also monitors overseas trends to assess their relevance to the New Zealand tourism industry (TPG 1998). Its functions are:

Provision of:

- Policy advice to the Government and the Minister of Tourism on tourism matters of national and international significance;
- Advice to the Minister of Tourism on the purchase of outputs from the New Zealand Tourism Board; and
- Ministerial servicing, including briefing notes, draft correspondence and speech notes.

Administration of:

- Acts of Parliament for which the Minister of Tourism is responsible; and
- Tourism Facilities Development Grant Programme.

An offspring group of the Ministry of Commerce's TPG is the Tourism Research Working Group. Its role is to examine the research and information needs of the tourism sector. The Working Group has established that there are gaps in priority research areas,⁸ and that the tourism sector currently receives a disproportionately low level of research funding from the Public Good Science Fund compared to other sectors (TPG 1995: 1).

⁸ These research shortcomings include environmental issues; market research; provision of publicly funded facilities; economic impact analysis; and cultural and social issues (TPG 1995: 1).

As a consequence of the TPG's limited functions, the PCE has identified that there is some industry support for the re-instatement of the Ministry of Tourism (PCE 1997d: 16). For example, the Lincoln University Tourism Group (*cited in* PCE 1997d: 16) has argued that tourism management requires a robust, well researched central agency that is dedicated to tourism policy and planning and is prepared to undertake increased research into the environmental effects of tourism. In addition, such an agency must be committed to take appropriate action when capacities are reached or exceeded. It may be that there is a need for a body with the specific task of monitoring and controlling the interaction of industry and the environment. However, this is not consistent with the present trend of downgrading central involvement and investment in tourism.

3.5.3. *The New Zealand Tourism Board*

Another agency created as a result of the re-organisation of public-sector tourism management is the New Zealand Tourism Board. Established in November 1991, the Board's functions are to develop, implement and promote strategies for tourism and to advise the Government and the New Zealand tourism industry on achieving those strategies (TPG 1998). The Board also gathers and publishes tourism industry information, maintains offshore marketing offices, and acts as an advocate for tourism investment in New Zealand, both among local bodies and within the international investment community (McDermott 1998: 345). It is guided by the objective of ensuring "*that New Zealand is marketed as a visitor destination so as to maximise long-term benefits to New Zealand*" (NZTB Act 1991 s.6).

The NZTB has pursued a market-led philosophy, forging partnerships with the private sector, while the role of the central state is greatly diminished (Page & Thorn 1997: 64), reflecting the general trend in tourism management in New Zealand. While the NZTB is funded by the Government, it is supervised by a Board of private sector members whose

guiding directive is to “*enhance the visitor experience and continue to position New Zealand as a competitive tourism destination*” (NZTB 1997).

With this directive in mind, the NZTB has stated that in order to give people compelling reasons to visit New Zealand, more of the Board’s spending must be directed towards “*persuasive destinational marketing*” (NZTB 1998: 2). The returns on this spending were examined in a 1997 study by the National Bank. The findings suggested that a \$10 million investment in NZTB’s marketing expenditure generates total revenue of \$450 million, or a return of approximately \$45 for every \$1 invested (NZTB 1998), providing a justification for the Board’s spending on marketing campaigns. In addition to supporting destination branding, the NZTB markets New Zealand as a visitor destination through targeted offshore marketing and participating in joint venture campaigns with the private sector.

The NZTB also concerns itself with issues such as negative attitudes towards tourism in New Zealand. It has stated that the potential for a growth in anti-tourism attitudes and fear of over-crowding needs to be addressed by:

- Communicating (especially to New Zealanders) that the implications of three million international visitors by the year 2000 will have benefits rather than disadvantages if managed well; and
- Dispersing international visitors across more regions and attractions. This will also spread the economic benefits of tourism (NZTB & DoC 1993: 30).

On a cautionary note, the NZTB has been criticised for being too market-driven, despite the fact this was the purpose of the Board’s conception. In an investigation into the government system for tourism management in New Zealand, the PCE suggested that the marketing activities of the NZTB have driven the tourism sector:

“...to the extent that may have outstripped the capacity of the sector to manage the environmental consequences of tourism growth” (PCE, 1997a).

3.5.4. *The New Zealand Tourism Industry Association*

The *New Zealand Tourism Industry Association* (NZTIA)⁹ was formed to bring all the diverse elements of the private tourist industry together so that problems could be solved mutually, research and education pursued together, promotion and marketing co-ordinated and to enable the industry to speak with one voice. The NZTIA is the industry's most fully representative body and is usually the first point of contact when the private sector needs to be consulted on various issues. It has a wide membership covering individual operators, major industry associations and regional tourism organisations (TPG 1998).

3.6. **Implications of New Zealand's Institutional Arrangements for Tourism Planning**

Institutional arrangements that deal effectively with tourism effects are crucial in achieving sustainable development. Furthermore, an effective and holistic strategic framework for planning the long-term development of an area is widely seen as the responsibility of government bodies. However, this chapter has established that New Zealand's institutional arrangements for tourism management lack integration, due to the lack of central policy direction and the fragmentary nature of the institutions and their roles.

Figure 3 summarises the relationships between the public and private sector structures that play important roles in the management and provision of tourism in this country. It illustrates that the institutional arrangements for tourism management in New Zealand are divided into three levels; regulation, marketing and management.

Regulation

Central government dominates the regulatory level of tourism management. It receives tourism policy advice from a range of crown management agencies, but has adopted a

⁹ Formerly the New Zealand Tourist Industry Federation.

The Institutional Arrangements for Tourism Management in New Zealand

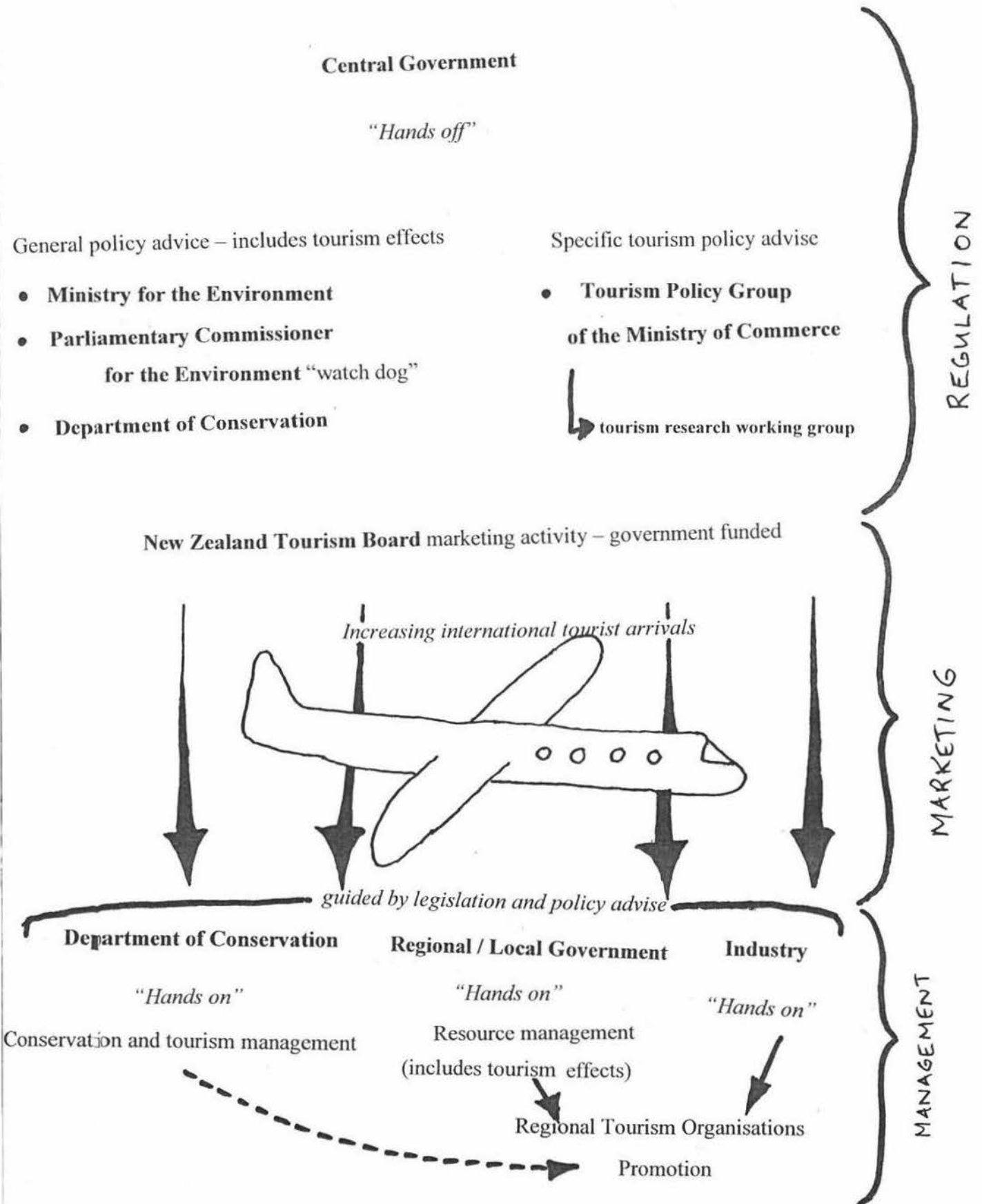


Figure 3: New Zealand's institutional arrangements for tourism management

'hands-off' non-interventory approach to tourism management. There is no strategic tourism policy to guide overall tourism direction and development at this level of the arrangements.

Marketing

This role is undertaken by the New Zealand Tourism Board, that promotes strategies for tourism. The Board receives its funding from the government, but is motivated by market-led philosophy. A steady growth in international tourism arrivals indicates the effectiveness of the NZTB's aggressive marketing campaigns.

Management

At this level of the institutional arrangements are the tourism management agencies and providers that deal with the downstream effects of tourism growth. The primary government agencies at this level are the Department of Conservation and the local authorities. In providing for tourism, DoC must find a balance between conservation and recreation goals. Meanwhile, the local authorities must deal with tourism and its effects with no guidance or assistance from central government. Consequently, they often use RTOs as a vehicle to deal with tourism matters. Finally the private sector industry also deals with the down-stream effects of tourism growth, although it is less concerned with dealing with the adverse effects of this growth.

3.7. Conclusion

This chapter has outlined the institutional arrangements that guide tourism planning and management in New Zealand. Since tourism is the largest earner of foreign exchange in New Zealand, it is essential that a balance is achieved between public and private sector concerns regarding its planning and management. However, this is problematic due to the complexity of these institutional arrangements and a lack of strategic tourism policy

direction. This chapter has established the institutional arrangements for tourism management are trending towards:

- less central government direction, more market-led philosophy;
- more focus on standards (for example, safety and environmental) which may limit tourism growth;
- some co-ordination in the market place, for example, between the NZTB, local authorities and RTOs;
- a diminishing capacity to co-ordinate the development of a product and its market due to a lack of strategic linkages between agencies and organisations; and
- continuing conflict between the environment and tourism development.

These points indicate that the effectiveness of New Zealand's institutional arrangements for tourism management is limited by some significant weaknesses. These weaknesses increase the chances of tourism adversely impacting on biophysical and socio-economic environments, and hinder the achievement of sustainability in this growing industry. Ultimately, these institutional weaknesses have caused a number of dilemmas for New Zealand's tourism management agencies. Chapter Four examines some of these dilemmas, which have important implications for the realisation of sustainable tourism in this country.

CHAPTER FOUR - *The Sustainable Tourism Dilemma: Management Issues in New Zealand*

4.0. Introduction

The previous chapter indicated some potential institutional conflicts between tourism development and environmental protection. Moreover, sustainable concepts indicate that the former depends on the latter in the long term. However, before sustainable tourism can be achieved in New Zealand's natural environment, there are a number of management issues that need to be addressed. This chapter examines the consequences of a number of tourism management dilemmas, particularly relating to the management of New Zealand's conservation estate.

Since the Department of Conservation is the government agency responsible for the conservation estate, management issues that affect its ability to provide for both recreation and conservation are examined, particularly pertaining to the internalised use-protection conflict in its mandate. Finally, a recent tourism development in New Zealand's conservation estate is introduced, in order to establish the consequences of these management issues via a case study approach. Firstly, however, a purportedly highly significant barrier to the achievement of sustainable tourism in New Zealand is examined; the absence of any national, strategic framework that could consolidate this country's approach to the management of tourism and its effects.

4.1. The Case for a National Strategy For Sustainable Tourism

It is widely argued that in order to realise the goal of sustainable tourism, a strategic framework is required for planning for the long-term future development of an area (for example, Hunter 1995; Collier 1997; Dymond 1997; Page & Thorn 1997). This framework

should ensure that “*local development policies and objectives, across all sectors, ‘nest’ within broader sustainable development goals at regional and national levels*” (Hunter 1995: 165).

In other words, a strategic approach to tourism planning could ensure that destination areas are not treated as stand-alone entities. The World Tourism Organisation (1993: 5) has highlighted that tourism at the local level is usually focused on tourists and the tourism industry. Consequently, argues Sproule (1996), without proper planning and integration, individual projects tend to operate in isolation, failing to significantly influence either conservation or development, and lacking the policy support necessary to bring their potential to fruition. Moreover, focusing down to the level of a destination area endangers the implementation of policies for sustainable tourism development, as:

“...the wider links that sustain the area will be forgotten. Even if a destination area becomes completely self-sufficient in its resource requirements, such an area will still ‘generate’ environmental impacts through tourist travel” (Hunter & Green 1995: 76).

A strategic approach to tourism could avoid this site-specific approach to tourism planning and management. However, there is no national strategic framework for sustainable tourism in New Zealand. This has been highlighted in a recent report from the office of the *Parliamentary Commissioner for the Environment* (PCE). In this report, it was claimed that there has as yet been insufficient discussion on what is meant by sustainable tourism in New Zealand and what it would involve for the tourism sector. Furthermore, it was argued that:

“...the lack of co-ordination in the sector will make it very difficult for tourism to achieve its potential and to deliver the sustainable, quality product that is universally desired, without a more generally agreed strategy for sustainable tourism in New Zealand. Such a strategy is a more important priority than any single environmental management issue. A key priority is thus the development of a vision and strategy for the whole tourism sector, that would set a

future basis for the management of environmental effects associated with tourism” (PCE 1997a: 6).

In addition to observations from the office of the PCE regarding the management of the environmental effects associated with tourism in New Zealand, submissions from tourism ‘stakeholders’ were also outlined in the report.¹⁰ Many of these submissions emphasized the lack of a strategic national approach to tourism management (PCE 1997d: vii). For example, a submission from the Lincoln University Tourism Group argued that there is a strong tension over whether tourism planning ought to be market driven (economics) or product led (environment), and that what is needed is a comprehensive tourism strategy that would provide a much more clearly defined context in which the marketing function of the NZTB might be carried out.

The PCE report also examined concerns regarding the roles of tourism management agencies, such as the *Department of Conservation* (DoC), which plays a crucial role in dealing with the effects of tourism in New Zealand’s protected natural areas. When contemplating DoC’s role, the PCE argued that the Department is handicapped by the lack of a real framework to assess whether these effects are being effectively managed. In addition to this, it was argued that the focus of DoC’s visitor strategy is relatively narrow (PCE 1997d: 13), implying that it is not a sufficient substitute for a national tourism strategy. Adding to the debate on the effectiveness of DoC’s role, the NZTB argued that while the Department is essentially a *de facto* tourism planning agency, it has no way of influencing the growth of the visitor industry. The NZTB stated that DoC can only deal with the outcomes of growth and is inadequately funded. As a consequence of these management dilemmas, the Board argued that “*it is time to re-define what constitutes sustainable tourism growth and a national tourism strategy is essential for a long term sustainable industry*” (NZTB cited in PCE 1997d: 14).

¹⁰ These stakeholders included regional councils, national organisations, individuals, universities, interest groups, industry, regional tourism organisations, territorial local authorities, conservation boards, central government agencies and research agencies (PCE 1997d: 3).

A key area of consensus drawn from the submissions to the PCE regarding the management of tourism effects was that the roles of DoC and local government in managing and regulating tourism are in conflict (PCE 1997d: vii). This conflict could arguably be a symptom of a lack of strategic linkages between social, economic and environmental policy at a national level. The office of the Parliamentary Commissioner for the Environment indicated its concern in the apparently poorly-developed policy linkages in this country, stating that:

“The economic and social environment in New Zealand will have an impact on, and be impacted by, the quality of environmental management. The linkages between social, economic and environmental policy have not been well developed. The strategic importance of environmental management for ensuring that the New Zealand economy continues to be sustainable should be recognised in the future” (PCE 1997c: 22).

While it is a generally held opinion among tourism management agencies and other stakeholders that a national tourism strategy would be useful in realising the goal of sustainable tourism on a long-term basis (PCE 1997d: 13), such a framework would not be problem-free. For instance, Gunningham (1996: 233) has cautioned that there is no such thing as a single optimal policy mix in a national strategy, or “*a magic formula which is universally applicable*”. On the contrary:

“...not only the variables involved, but also the political, social and economic contexts in which they arise will vary enormously, making such grand generalisations [regarding the benefits of a national strategy] extremely hazardous” (Gunningham 1996: 233).

To date, the tourism industry has managed to avoid significant adverse impacts on the environments on which it relies upon in New Zealand (McDermott *pers comm* 1999). This suggests a lack of strategic linkages between agencies and organisations involved in tourism management is not currently discouraging environmental planning. However, there is a widely expressed view that a national strategy for sustainable tourism would help clarify the roles of management agencies that deal with the effects of tourism in New Zealand. This

argument has significant implications for the Department of Conservation, who must deal with the consequences of tourism within this estate. Its role is now examined.

4.2. Tourism Management Issues Facing the Department of Conservation

The Department of Conservation plays an especially difficult role in tourism and conservation management. While it must manage and protect the resources, resource systems and major tourist icons that lie within 30 percent of New Zealand's land mass, it has virtually no say in the types of marketing strategies and therefore the types of tourists who are attracted to these areas (Lincoln University Tourism Group *cited in* PCE 1997d: 19), although the manner in which it presents its products can influence this.

In addition, tourist activity within the conservation estate is growing and it is here that concern for the integrity of tourism development prevails. O'Neil and Kearsley (1994 *cited in* Higham 1996: 144) propose that pressure on wilderness recreation resources has intensified more than increasing inbound tourist arrivals alone would indicate. While inbound tourism increases at the rate of 8-10 percent *per annum*, an increasing proportion of these tourists seek to experience qualities of wilderness during their visit. Moreover, the pressures of tourism are concentrated upon a limited number of key sites (Wilson 1993 *cited in* Higham 1996: 143). While many are lured to New Zealand by its wilderness qualities, the reality is that most converge on a small number of high profile, readily accessible attractions (Higham 1996: 143).¹¹ As a consequence, the means by which increasing tourism demand for qualities of wilderness will be managed offer the Department of Conservation a "*perplexing and urgent management task*" (Higham 1996: 144).

This management task is complicated by the mixed signals that are contained within the legislation that established and guides DoC. As stated previously, the Conservation Act

¹¹ This issue is examined in detail in Chapters Five and Six through a comparative study of the Queen Charlotte and Abel Tasman coastal walkways.

1987 created a tension between DoC's legislative aims and obligations in respect of conservation and current fiscal constraints (Ernst & Young 1994: 5; Sleeman 1994). The Department has acknowledged this tension, and has highlighted issues relating to the maintenance and development of New Zealand's major natural attractions and tracks which require consideration:

- DoC is both a regulator and a revenue generator; and
- DoC needs to be aware of commercial groups to generate revenue to cover a portion of its own costs. The bulk of its activities do not earn revenue. This will not be at the expense of its conservation mandate (NZTB & DoC 1993: 24).

There is widespread concern among tourism stakeholders that these management dilemmas, compounded by increasingly inadequate resources, limit the agency's capacity to carry out its roles effectively (PCE 1997d: 18). For example, in a report to the Ministry of Tourism regarding funding options for the provision of facilities in the conservation estate, it was argued that "*there is a risk that DoC will be further pressured into acting as a surrogate tourism agency unless alternative funding sources are derived or existing funding policies restructured*" (Ernst & Young 1994: 4). Moreover, the Department is faced with the task of balancing the conflicting needs of recreation and conservation within its jurisdiction. In light of this issue, the conflict between 'use' and 'protection' in the conservation estate is now examined.

4.3. 'Visitor Use' versus 'Protection' in New Zealand's Conservation Estate

The Department of Conservation has acknowledged that section 6(e) of the Conservation Act 1987 reiterates the validity of recreational use of most lands that it manages, providing that conservation values are safeguarded (DoC 1996a: 7). Unfortunately, these conservation values are potentially threatened by the increasing numbers of overseas visitors to the conservation estate:

“Overseas visitors now predominate in many of the higher profile sites, known as tourism ‘icons’. Their rapid growth in numbers, generally lower levels of back-country skills, and desire for higher quality facilities in the front country, has highlighted the tension between ‘protection’ and ‘visitor use’ that exists in conservation legislation. As the pressure of overseas visitor numbers increases, there is still no agreement on the degree to which more tourism can, or should, be accommodated on lands managed primarily for conservation” (DoC 1996a: 4).

This highlights the tension between ‘protection’ and ‘visitor use’ contained in the Conservation Act (DoC 1996a: 4).¹² In essence, this tension reveals the fundamental debate regarding conservation management in New Zealand. The Parliamentary Commissioner for the Environment alluded to this debate, stating that:

“Most of the current controversies in management for conservation reflect the ongoing and significant tension between protection/preservation and use of resources. This tension is reflected in the different roles and priorities held by the various agencies with responsibilities for, or interest in, conservation management, including central and local government, tangata whenua, non-government organisations and industry” (PCE 1997c: 25).

Conversely, Rackham (1989) contends that the preservationist movement can alienate the public from nature, stating that for too long ecological purists have determined conservation policy in New Zealand. This policy has emphasised the preservation of the *status quo*, particularly through reservation of ‘natural’ pockets of land from which the public are often excluded. Rackham’s view is that it is not appropriate to place everything of conservation value in a reserve, as:

“...[n]ot only does it appear to fly in the face of current ecological thinking (on landscape dynamics, and the importance of spatial interconnections etc.) but it also fails to recognise that without wide public support the conservation movement will become a narrow preservationist movement. It will increasingly be dominated by a small cabal that see people

¹² See Chapter Three (section 3.4.1.).

as a problem and preservation as the only solution. In the majority of cases, the segregation of people and nature is not a satisfactory solution” (Rackham 1989: 105).

Rackham’s views on the centrality of people in the natural landscape is a reminder that the conservation estate has its roots in the scenery preservation movement of the late 1800s and early 1900s. ‘Scenic reserves’ were conceived at this time under a Tourism and Health Resorts banner to protect picturesque scenery for tourism purposes (Park 1999a). This process of protecting natural ‘scenes’ from interference was recorded in one early publication which stated:

“it will be welcome news... that the Government has issued instructions to all Commissioners of Crown Lands throughout the colony to reserve from sale in future all the choicest scenery... and other places of public interest. If New Zealand is to be made in any way attractive to the tourists of the future, this is sound policy on the part of our rulers...” (New Zealand Graphic 1895 *cited in* Park 1995: 368).

The 1903 Scenery Preservation Bill went further in protecting ‘scenery reserves’ for sightseeing, by giving attention to the reservation of “*all places of natural beauty of whatsoever nature*”, which were seen as likely to become “*resorts for the people of the country hereafter*” (Smith, Surveyor-General 1903 *cited in* Park 1995: 143). This process was believed to be successful, as it was stated not long after this time that:

“...in this colony we have all the [scenery] elements which should make it one of the most interesting countries on the traveller’s world route” (Department of Tourist and Health Resorts 1904 *cited in* Park 1999b: 20).

Up until the 1930s, all scenic reserves were established for tourism or sightseeing purposes. After this time, the term ‘scenic reserve’ was also used to describe reserves that protected special features such as rare habitat, driven by the newly emerging conservation lobby (Park *pers comm* 1999). The early tourism-driven scenery preservation movement also protected hundreds of places that would otherwise have been cleared for farms (Park 1995: 143),

forming the basis of what is now the conservation estate. In other words, these protected natural areas were essentially set up for the purpose they are now being used for in many places; tourism and recreation (Park *pers comm* 1999).

It is clear that conservation management agencies have given consideration to balancing 'protection' and visitor use' of New Zealand's natural resources in the past. For example, prior to the establishment of the Department of Conservation in 1987, the Department of Lands and Survey was responsible for both the protection of large tracts of forest land and for the development and maintenance of tracks and places of interest visited by the public (Lucas 1965: 8). Similarly, this management approach was applied to Abel Tasman National Park when the Abel Tasman Park Board developed policy that closely resembles section 6(e) of the Conservation Act 1987. This policy stated that preservation of the National Park was the first priority, closely allied with a programme of development to open up areas for recreation where this did not "*detract unduly from the natural charm of the environment*" (Abel Tasman Park Board 1962). It was later recognised by the Board that finding an appropriate balance between development (use) and conservation (protection) was vital, as:

"...[t]he beauty and natural amenities of a national park can rapidly decrease under the pressure of human activity pursued within and around it, unless guarded with foresight and imagination" (Abel Tasman Park Board 1967).

Similarly, trade-offs between 'visitor use' and 'protection' must sometimes be made as a consequence of section 6(e) of the Conservation Act. Ernst and Young (1994: 14), when examining policy trade-offs between conservation and recreation at a national scale, adopted the perspective that the Government's commitment to promote the tourism industry should take precedence over other competing objectives such as leaving the conservation estate in its pristine state. Nevertheless, it was contended that the basic stance of Government policy is towards policy neutrality between sectors,¹³ and as such, there is no

¹³ Although it was conceded that the differing quantum of support suggest something less than pure neutrality (Ernst & Young 1994: 14).

policy to encourage tourism at the expense of conservation objectives (Ernst and Young 1994: 14).

Due to this policy neutrality, Ernst and Young (1994) assert that tourism and recreation should be treated as synonymous, placing an obligation on DoC to actively foster rather than merely allow for visitor use. Consequently, it is argued that DoC is obliged under the Conservation Act to develop and improve tracks and other facilities as demand increases (Ernst & Young 1994), which highlights the historical development of the conservation estate for tourism purposes. However, it stands to reason that developing these areas for tourism, detrimental visitor impacts may occur as a result.¹⁴ This has been acknowledged by DoC in documentation stating that increasing visitor numbers (mainly international visitors), commercial activity and an expanding range of visitor activities may cause adverse environmental effects. Nevertheless, it was noted that:

“...compared with the widespread devastation caused by introduced animal pests, the current environmental impact of visitors is still relatively localised and modest in scale” (DoC 1996a: 12).

However, controversy is often inevitable when there are demands for both development and protection of the same resource. Despite the ‘relatively localised scale’ of tourism impacts, it is essential that appropriate conservation management techniques are adopted by the management agencies which are responsible for the protection of the conservation estate.

4.4. ‘Visitor Use’ and ‘Protection’ in Conservation Management Planning

As the New Zealand Tourism Board continues to promote New Zealand internationally, local authorities and DoC have to face the environmental consequences of the ensuing increase in visitor numbers, with no additional funding from central Government (Manukau

¹⁴ See Chapter Two (section 2.1.2.) which documents the negative effects of tourism.

City Council *cited in* PCE 1997d: 21). Consequently, it seems certain that conflict between conservation and recreation goals in the conservation estate will become more pronounced as time passes. As a result, DoC will be forced to make trade-offs between potentially conflicting activities within the conservation estate. Potton (1994) acknowledges this point, warning that:

“..[c]learly in a pluralistic, multicultural and democratic society there must be a series of compromises made in planning recreational possibilities in the conservation estate. No absolute value judgements need be made between the intrinsic worth of competing uses but the Department of Conservation must nevertheless recognise, protect and advocate traditional recreational values, as this is at the base of its legislative mandate.”

In this climate, management planning is the essential mechanism for balancing preservation and use. This planning should be aimed at creating varied and interesting opportunities for visitors, while ensuring that the quality of the area is protected (Thom 1987: 195). However, conservation management planning in itself is problematic. For instance, Boo (1995: 236) warns that there is not always a linear relationship between environmental impact and visitor use. The physical impact on a track depends on the behaviour of track users, rather than a specific number of visitors to the area. Therefore, Boo contends that track managers should not simply set limits to visitor numbers. Instead, management objectives need to establish the ideal level of use for the area, and what is acceptable in terms of physical and social impacts.

This has significant implications for the concept of carrying capacity, which contends that critical capacity thresholds exist for biophysical, socio-cultural and economic environments.¹⁵ Adopting a carrying capacity approach in conservation management planning is problematic, due to the high level of uncertainty associated with capacity thresholds. These thresholds tend to change through time, particularly in a socio-cultural context (Hunter & Green 1995: 68). Nevertheless, the carrying capacity approach is seen as

¹⁵ See Chapter Two (section 2.3.) which documents issues relating to carrying capacity.

relevant to tourism planning in general (WTO 1994; Mieczkowski 1995; Ward & Beanland 1995; Hunter & Green 1995). The World Tourism Organisation, when supporting this approach, stated that “*carrying capacity limits can be difficult to quantify, but they are essential to environmental planning for sustainable tourism or recreation*” (WTO 1993: 23).

However, there is a danger that the carrying capacity approach to tourism planning may encourage an “*excessively reductionistic and limited perspective*” unless it is recognised that the interface between tourism and the environment involves primarily social questions as opposed to biotechnical ones (McCool 1994). A consequence of failing to adequately address the socio-cultural impacts of tourism growth is discussed by Kearsley (1997: 36), who states that:

“...[i]t seems inevitable that further displacement will take place with associated physical and social impacts as wilderness carrying capacities are breached. At some point, New Zealanders will recognise that their culture of free access has been compromised, with inevitable resentment following. As to when that will happen and what form it will take, remains unclear, but [given current attitudes] it cannot be too far in the future”.

Thus, the carrying capacity approach to conservation management planning must identify any socio-cultural concerns regarding the impacts of tourism growth in New Zealand’s conservation estate. It is also important to note that ‘socio-cultural concerns’ include concerns of both the host and visiting populations. While social-cultural thresholds are difficult to establish and are subject to change, planning for the ‘humanistic’ element of sustainability is imperative if conservation goals are to be upheld.

Despite the problems with the carrying capacity approach, it seems prudent that management agencies should take into account the concept of thresholds or limits to growth when planning for sustainable tourism. There is evidence of this approach being adopted by the Department of Conservation, which can oversee tourism development by limiting the

volume of operators, physical scope and range of developments and terms of concessions via its management plans. An example of DoC limiting the volume of operators occurred in the mid-1980s, when the Mount Cook Group negotiated a 30 year lease with the Department, giving it sole rights to the airport in the Mount Cook National Park (Ernst & Young 1994: 13).

However, it has been highlighted that there is no single set of Department of Conservation policies designed to enable capacity in natural areas to be increased along with increasing usage (Ernst & Young 1994). It is argued that as a result of this lack of policy direction, a number of outcomes could ensue:

- DoC will be increasingly called upon to act as a surrogate tourism development agency and in an ad hoc way because of the nature of its funding. Local authorities could be obligated in a similar manner;
- The existing facilities may be degraded because of overcrowding, and thus sending signals back to the country of visitor origin resulting in fewer (than otherwise) visitor numbers;
- Degradation of the natural resource as walks, tracks and facilities wilt under the pressure of increased visitor numbers; or
- Pressure to develop more facilities in existing natural areas and development of new natural areas (Ernst & Young 1994: 7).

While it has been argued that "*tourism growth and conservation need not be an either/or scenario*" (Collier 1997: 312), the Department of Conservation is clearly under pressure to provide for tourism over conservation in some areas and has limited funds to do so. Current legislation prevents the Department from charging for entry to popular tourist attractions within the conservation estate, compounding its funding problem. This issue is now examined.

4.5. Freedom and Equity of Access in the Conservation Estate

Freedom of access, with no charge to enter and travel, for visitors to the Crown-owned conservation estate has been a long held tradition in New Zealand. This reflects the desire of early settlers to have more land in public ownership or 'commons', with correspondingly greater freedom than in Europe (DoC 1996a: 20). Reflecting this desire, the National Parks Act 1952, and its successor the National Parks Act 1980, while stressing that parks were to be preserved in perpetuity, also recognised that:

“...the public shall have freedom of entry and access to the parks, so that they may receive in full measure, the inspiration, enjoyment and other benefits that may be derived from mountains, forests, sounds, sea coasts, lakes, rivers and other natural features” (DoC 1996a: 5).

However, some commentators argue that free access to New Zealand's conservation estate may in fact be inequitable in the face of rapidly growing visitor numbers (Cullen 1994; Ernst & Young 1994; Sleeman 1994; Hartley 1997). It is arguable whether the freedom of entry principles contained in the National Parks Act 1980 are relevant to many would-be users, as New Zealand's national parks and reserves are typically distant from major centres of population, making time and travel costs a more significant barrier to use for many people than any entrance fee (Cullen 1994: 1). Moreover, it has been questioned whether overseas visitors should be enjoying the tracks and paths in the conservation estate for free, when New Zealanders have funded their development and operation through paying taxes. Subsequently, there is some support for a new funding regime in the conservation estate that would deal with these perceived inequities. For example, Ernst & Young (1994), in a report to the Ministry of Tourism, highlighted the following issues as indications that the current funding regime is inadequate:

- The Government is seeking an expansion in tourist numbers and funds promotion through the NZTB. Meanwhile, DoC is under pressure to reduce spending while charged with providing free access to natural areas and use of tracks.

- In the areas of high demand and where charges can be imposed or new facilities provided by the private sector, there is a high proportion of use by international visitors. Taxpayers have contributed to this but receive no direct benefits other than through the contribution of tourism to the economy as a whole.
- The strong demand for short bush walks and the inability or unwillingness to charge users is placing increasing funding pressure on DoC. It is not realistic to contemplate charging for the short bush walks and more accessible reserves which account for a high proportion of visitors and DoC costs in respect of maintaining visitor facilities.

In response to these perceived shortcomings in the current regime, there is some support for the implementation of new approaches to funding New Zealand's protected natural areas. Two of these approaches are now explored.

4.5.1. The Benefit Principle

Visitors to New Zealand's conservation estate benefit disproportionately compared to the general public who also contribute to its funding. The majority of these visitors will make use of some of the facilities provided in the areas they visit and will contribute to congestion problems, tax costs and opportunity costs associated with use of the land (Cullen 1994: 4). When people do not have to pay for these costs, argues Hartley (1997: 288), they will tend to:

“...use conservation areas beyond the level where the marginal benefits they obtain from their use compensate for all the marginal costs they impose on others. Subsidising recreational use of conservation areas by using taxes on market activity to fund the explicit monetary costs of conservation thus exacerbates the costs associated with over-use”.

As a result of this perceived inequity, Cullen (1994: 4) argues that charges of some type seem justifiable to offset the costs of providing facilities such as information centres, tracks, huts and other infrastructure for visitors. In addition, these charges would provide a signal to users of the real costs associated with their use of these areas. This approach is an

application of the ‘benefit principle’ that states the people who benefit from actions should contribute towards their costs (Walsh 1986 *cited in* Cullen 1994: 1).

It has been established that users of natural areas in New Zealand, as in most countries, are predominantly well educated and in the middle to high income bracket. Among the users there are a significant proportion who are young, with low current but high expected earnings, and who typically come from families with relatively high incomes (Clough & Meister 1989 *cited in* Cullen 1994: 6). As a result, it is argued that this demographic group will not be excluded from the conservation estate if user-charges were to be introduced (Cullen 1994: 6). The benefit principle could also be applied to the development of some tracks, to counter the perception that track users are not paying their appropriate share of incremental improvements or extensions to tracks. This perception has arisen because:

“...[t]here is a quality gradation according to track usage from the ‘deluxe’ tracks such as the Kepler to the very rudimentary trails and guideposts of some of our more remote tracks. If the latter standard is all that is needed by DoC to meet its statutory aims, then users of the better quality tracks should pay for the improvements and ongoing maintenance and upgrading” (Ernst & Young 1994: 15).

The Conservation Act currently prohibits DoC from charging the public for the use of tracks and pathways in the conservation estate.¹⁶ However, Ernst and Young (1994: 15) have questioned whether this requirement is consistent with the reality of unrestricted access for increasing numbers of visitors. In a policy report to the Ministry of Tourism, Ernst and Young argued that these visitor numbers are placing such pressure on natural resources that the original conservation intent is becoming seriously eroded in practice, and that as a consequence:

“...it is possible to contemplate some restrictions of access and use of tracks being required in some areas to meet the conservation aims of the legislation. Those restrictions could be

¹⁶ However, under section 17(6) of the Conservation Act, charges can be imposed the use of other facilities such as huts and campsites.

by way of pricing for access and use of tracks, or they could be by way of queuing or by way of ballot for example" (Ernst & Young 1994: 15).

There is a significant counter-argument to the benefit principle approach. Cullen (1994: 4) has cautioned that many people may never visit a national park, and may have no expectation of doing so, but can still derive value from knowing of the existence of the park and the knowledge that the park will be available for others, including future generations, to visit and enjoy for free. As a consequence, these people could consider a user-pays approach to funding the conservation estate inequitable and unfair. Currently, there is a mix of funding mechanisms, such as use value at a site (for example, hut fees) plus option or existence values (for example, taxes).

4.5.2. Differential Charging

In an extension of the benefit principle approach, some commentators have argued for the introduction of differential charging between overseas and local users in order to deal with perceived inequities in the funding of the conservation estate (Cullen 1994; Ernst & Young 1994; Potton 1994; Sleeman 1994). The argument that free entry can be inequitable may be highlighted when the major sources of users of these areas are considered. Rapidly increasing numbers of overseas tourists are now major users of some of New Zealand's most popular natural areas (Cullen 1994: 1). Zero priced entry treats everyone equally, whether they are a New Zealand taxpayer, a non taxpayer, or a visitor and cannot address these perceived funding inequities.

Subsequently, there is some support for a New Zealand quota for specific high-use tracks. Potton (1994) describes such a quota as "*distasteful but necessary*", as it may prevent further growth of the backlash against foreign visitors who are seen to be overwhelming facilities on easier tracks, while the alternative is that the locals will become alienated and disenfranchised from their own land. Potton also reasons that:

“...a sense of equity suggests DoC should neither develop the facilities nor promote other easy overnight walks that could (with a little help from DoC and others) easily become the next candidates for the great walks package. There should be no impediment to free access for all citizens. Traditionally and ideologically it would be totally inappropriate to charge an entry fee to the commons - it is after all meant to be the opposite of Disneyland” (Potton 1994).

4.5.3. Implementing a New Funding Regime

It has been highlighted that a mere 20 percent of the tourism related facilities in natural areas probably have the potential to generate 80 percent of the total revenue, and that the remaining 80 percent of facilities in the conservation estate have limited potential to become significant revenue earners (Ernst & Young 1994). As a result, in their policy report to the Ministry of Tourism, Ernst and Young recommended a mix of funding options (including direct charging), in a way that the payers can see they are deriving increasing benefits. Due to the problems associated with entrance fees into natural areas with multiple points of entry or where the number of visitors is low, it was recommended that the imposition of an entry fee needs to be strongly governed by its practicability and the costs of recovering it. As a result, Ernst and Young suggested that track entrance fees might only be appropriate for Abel Tasman, Routeburn, Milford, Waikaremoana, Heaphy and Stewart Island.

While there may be a case for differential charging or New Zealand quotas on some tracks, implementing such a system would be very difficult in practice. Indirect levying of overseas visitors (for instance, on arrival) has been considered impractical by the tourist industry (Ernst & Young 1994: 10). In addition to this, while the Ministry of Tourism was still in existence, there was no central government support for such a move:

“The Ministry of Tourism does not consider that differential pricing is necessary or desirable in practice. If the concept of requiring users to pay for facilities upgrades is adopted then

there is no reason to distinguish between domestic and overseas visitors” (Ernst & Young 1994).

It is argued that one of the most important resource management decisions when dealing with equity is how to manage demand at a level that the environment can cope with while ensuring there is equitable access (Harland 1994). It is possible that by applying the benefit principle approach, differential charging, or as Potton (1994) suggests, a New Zealand quota, equitable access to New Zealand’s most popular tracks may be achieved. However, in the absence of any practical mechanisms for the application of these funding approaches, Ernst and Young (1994: 10) argue that it is central government’s responsibility to ensure that there is adequate long-term funding for the development and operation of paths and tracks.

Due to its inability to adopt a ‘user-pays’ approach to funding the conservation estate, the Department of Conservation is faced with finding alternative methods of dealing with tourism growth. One method is finding new recreational areas within the conservation estate to disperse or divert visitors to, in order to reduce pressure on the most crowded attractions.

4.6. Diversion: The Search for New Attractions

Over the last few decades, there has been a large increase in visitor numbers to New Zealand’s protected natural areas, the majority being of overseas origin (Statistics NZ 1998b). Several recent studies have suggested that this increase has begun to impact adversely upon the more established and popular parts of the conservation estate and to general perceptions of over-crowding (Harris 1984; Kearsley 1990; Keogh 1991; Kearsley 1996 *cited in* Kearsley 1997: 17) and ultimately the ‘visitor experience’, amongst other undesirable effects. Generally, there have been two sets of circumstances as a result:

1. DoC introduces limited access and overnight hut booking systems on the most popular tracks. In addition, there is public debate and popular alarm about suggestions that access fees might one day be charged to popular tracks, or that facilities charges might rise substantially.
2. Displacement of (mainly domestic) trampers to avoid perceived crowding. This leads to increased visitor pressure on more remote locations, and wilderness purists are displaced into limited reservoirs of pristine sites with obvious physical impacts. There are also impacts on host community satisfaction as domestic recreationalists are displaced by overseas visitors (Kearsley 1997: 17).

While the first set of circumstances has important implications for freedom and equity of access to the conservation estate, the second set of circumstances poses a significant risk to the sustainability of tourism in New Zealand's protected areas (Kearsley 1997: 17). This is of concern, as the creation of new visitor destinations is advocated by the New Zealand Tourism Board and the Department of Conservation as a possible method of managing the displacement of visitors from crowded areas. It is hoped that, by spreading tourists across more regions and attractions, the economic benefits of tourism will also be spread across a wider area, while the environmental impacts of tourist activity will be minimised (NZTB & DoC 1993: 30). This 'diversion' approach to tourism management has its proponents, such as Thom (1987: 251) who states:

“‘House full’ signs are inevitable [in the conservation estate] unless a major emphasis to strategic national and regional tourism planning is given... strategic planning that will diffuse tourism and provide alternative interests and destinations to the current focal points of interest and focus”.

In other words, there is support for the creation of new areas that will 'substitute' the visitor experience of an over-crowded destination. Shelby (1983: 5) refers to this as 'resource substitutability', or the substitution of a new resource (e.g. an area) for the original or

preferred resource.¹⁷ Substitutes become an issue when individuals are constrained from participating in a desired activity in a particular area. Constraints on participation can be externally imposed,¹⁸ or based on individual limitations such as insufficient time or money to participate or as a response to over-crowding (Baumgartner 1978 *cited in* Shelby 1983: 3). In either case, individuals can compensate by:

- Selecting a different activity which meets their particular demands;
- Choosing an alternative resource to continue participation in the original activity; or
- Deferring participation to a more auspicious time (Vaske & Donnelly 1982 *cited in* Shelby 1983: 3).

The theory of substitutability originates from economics theory, which states that prices primarily operate by encouraging customers and producers to substitute one activity for another:

“When economists refer to the *incentive effects* of prices, or price changes, they are emphasising that buyers will tend to *substitute away* from goods or services with relatively high prices, while sellers will tend to *substitute towards* those same items. It is the incentive, or substitution, effects that are primarily responsible for demand curves sloping down (so lower prices raise demand) and supply curves sloping up (so higher prices raise supply)” (Hartley 1997: 37).

This theory can be applied to the recreational usage of New Zealand’s conservation estate. The high price of undesirable conditions such as crowding can cause visitors to avoid heavily used areas, substituting this with another resource or activity (Shelby 1983: 6). Therefore, exceeding capacities can create the need for substitutes. In addition to this, the Palmerston North City Council has highlighted that growing visitor numbers to the conservation estate may result in the definition or creation of new ‘sacrifice areas’ in order to mitigate the adverse effects of tourism dispersal, resulting in:

¹⁷ As opposed to ‘activity substitutability’, where individuals substitute a new activity for the one they are prevented from participating in (Shelby 1983: 5).

¹⁸ For example, resource areas could be closed by a non-recreational use such as the building of a new hydro-dam in a trout fishing river (Shelby 1983: 3).

“...a gradual decline of the environment as ‘attraction areas’ degrade to such an extent from concentrating development and tourism activities in those areas that the maintenance of those areas as attractions is no longer desirable. The next question to ask would effectively be *which area is next?*” (PNCC cited in PCE 1997d: 11).

4.9. Conclusion

This chapter has examined a number of tourism management dilemmas and their consequences, particularly relating to New Zealand’s conservation estate. The following points have been highlighted:

- due to the lack of strategic linkages between social, economic and environmental policy at a national level it is widely argued that a national tourism strategy would be useful in realising the goal of sustainable tourism and clarifying institutional roles on a long-term basis;
- growing tourist activity within the conservation estate is placing pressure on DoC’s limited resources and further exacerbating the conservation-recreation tension in its legislation;
- DoC is obliged under the Conservation Act to develop and improve tracks and other facilities as demand increases, which is consistent with the historical development of the conservation estate for tourism purposes;
- the growth in tourism to the conservation estate has exacerbated issues regarding freedom of access and funding of these areas. Consequently, there is some support for the introduction of entry fees and/or differential charging between New Zealanders and overseas visitors; and
- DoC’s inability to adopt a ‘user-pays’ approach to funding has encouraged the creation of new attractions in order to divert visitors from over-crowded areas in the conservation estate.

Clearly, the fragmentation of institutional roles discussed in Chapter Three is exacerbating the conservation-recreation conflict in New Zealand’s protected natural areas, and limiting the management options that can be used to solve this conflict, particularly at a site-specific

level. With these issues in mind, a comparative case study of two coastal walkway opportunities in the upper South Island of New Zealand has been introduced. The Department of Conservation has been attempting to divert visitors from the crowded Abel Tasman Coastal Track to the lesser-known Queen Charlotte Walkway. Chapter Five will examine the validity and effectiveness of this diversion policy. It will also explore in more detail the institutional arrangements that have resulted in an increase in popularity of the Queen Charlotte Walkway. This will be undertaken via a historical review of the developments of both tracks.

CHAPTER FIVE - *Tourism in the Conservation Estate: a Comparative Case Study*

5.0. Introduction

In the climate of tourism demand in the conservation estate, the management issues relating to tourism diversion in New Zealand's protected natural areas are explored via a case study approach. This case study examines the consequences of the general increase in tourism in the protected natural areas of the upper South Island of New Zealand, and in particular, two coastal walking opportunities in this region.

The Abel Tasman Coastal Track has been a popular tourist destination for a number of decades and has experienced significant management problems as a result of this popularity. Consequently, the historical development of this track is relevant in that it represents one scenario for the future development of the Queen Charlotte Walkway, which is a new tourist attraction in the conservation estate. This walkway, while still in its infancy, promises to become a popular tourism destination, due to an increasing demand for new tourism experiences in New Zealand's protected natural areas.

Because of this demand, initiatives such as the Queen Charlotte Walkway are being encouraged by those who stand to gain from the influx in tourism revenue. Consequently, a range of stakeholders were involved from an early stage of the Walkway's development, although the individual reasons for involvement varied. This chapter examines the objectives of these stakeholders in order to establish where the impetus for the Walkway development came from, which institutions committed to the project, and why they were motivated to do so. These questions establish that the Queen Charlotte Walkway was initially developed as a 'diversion' to reduce visitor pressure on the Abel Tasman Coastal Track. This diversion policy is also examined in order to establish its validity and effectiveness.

5.1. Outdoor Recreational Opportunities in the Upper South Island, New Zealand

The upper South Island region contains three national parks and a maritime park which collectively cover about 730,000 hectares of protected land, illustrated in figure 4. The characteristics of these parks vary widely, so that collectively they offer a diverse range of recreational opportunities within close proximity of one another. The parks are all administered by the Department of Conservation.

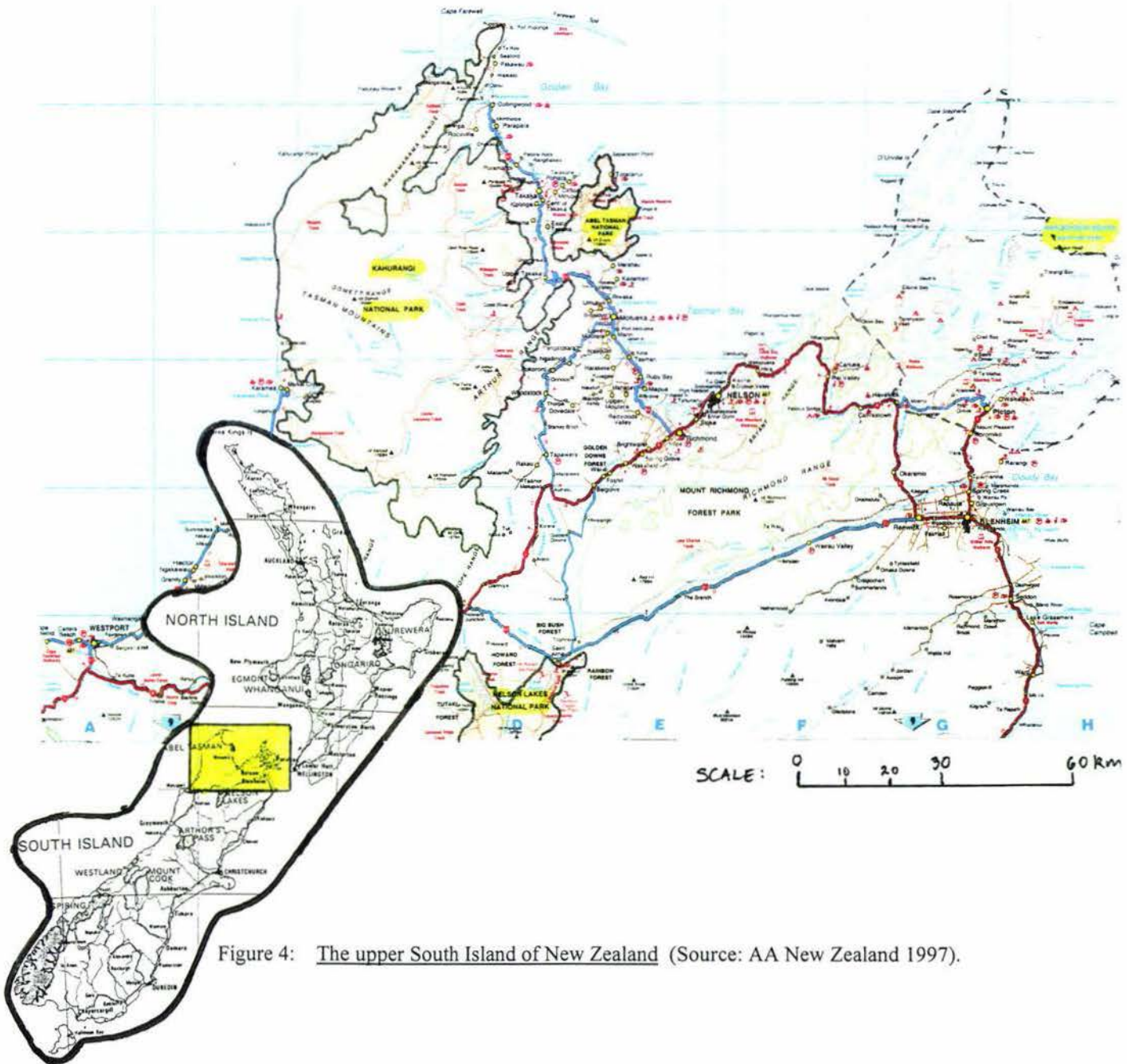


Figure 4: The upper South Island of New Zealand (Source: AA New Zealand 1997).

The southern-most of these parks is Nelson Lakes National Park. Constituted in 1956 (Host 1977: 7), the park protects 102,000 of mainly alpine country. Edged by beech forest, Lakes Rotoiti and Rotoroa lie between craggy glacial mountains, which mark the northern end of the Southern Alps. The gateway to the park is St. Arnaud village. The most popular of the network of walks and tracks in the park is the Travers-Sabine circuit, a four to six day tramp through alpine scenery (DoC 1999).

Further north in the Golden Bay region are two more national parks. In the north-western corner of Golden Bay lies Kahurangi National Park, New Zealand's newest national park. Constituted in early 1996, it protects most of the remaining natural lands in this area, and is the country's second largest national park at 452,000 hectares (DoC 1997a: 9). Motueka, Takaka, Karamea and Murchison are the park's gateway towns. Roads from these towns lead to the network of over 570 kilometers of walks, tracks and routes within the park. Of these tracks, the Heaphy Track has the highest usage with 4,500 visitors per year, and is the most popular with overseas visitors. The Tableland Track is the next most popular track with 3,400 visitors per year, and the Whangapeka Track is used by about 1,200 people per year. One third of the park's visitors are from overseas, and this share is increasing every year (DoC 1997a: 24).

Also within Golden Bay lies the Abel Tasman National Park, New Zealand's smallest national park at 23,000 hectares. Formed in 1942 (Spearpoint 1985: 69), the park contains a variety of features, ranging from a sandy and estuarine coastline to marble stonescapes in the hill country, pitted with sinkholes and caves. This national park is unusual as it has been subject to massive modification by man (Dennis 1986: 14). However, its golden beaches and warm weather make it one of the most popular national parks in the country (DoC 1999).

Finally, the Marlborough Sounds Maritime Park lies at the most north-eastern corner of the South Island, and is accessed via the gateway towns of Picton and Havelock. The many bays, coves and inlets of the Marlborough Sounds were formed when a system of deep river

valleys submerged as the sea level rose after the last ice age. These convoluted waterways, framed by a high, uneven skyline and narrow descending ridges and spurs, give the area a distinct landscape character. The Sounds, consisting of about 150,000 hectares of land and 100,000 hectares of water (Clifton *et al* 1980: 50), has 15 percent of New Zealand's entire coastline and nearly 1,500 kilometres of winding beaches and cliffs (Schellhorn 1984: 1). 52,000 hectares of the region lies in the Marlborough Sounds Maritime Park, which was constituted in 1972 (Schellhorn 1984: 3).

The northern South Island region attracts a large number of visitors in search of outdoor recreational opportunities due to these protected natural areas. The pressures that these visitors exert on the environment highlight the management dilemmas that have been previously discussed; a lack of central strategic direction for dealing with the effects of growth, conflict between conservation and recreation goals in the areas in question and issues of freedom and equity of access. As a result of these institutional difficulties, DoC is forced to provide alternative attractions for these visitors for lack of a better management alternative. This is arguably a reactive rather than a proactive response to tourism management. However, in developing new areas in conservation estate for tourism, the Department is acting within its mandate.

These management issues are now examined via an in-depth study of a new tourist attraction in the northern South Island. This case study, introduced below, highlights the consequences of developing new areas in the conservation estate in order to divert potential visitors away from over-crowded attractions.

5.2. Creating a New Product in the Conservation Estate: a Case Study

The Abel Tasman Coastal Track, illustrated in Figure 5, winds along the coast of the Abel Tasman National Park. It passes distinctive golden-orange sandy beaches and coves, framed by headlands of weathered granite forming interesting and unusual formations. As a

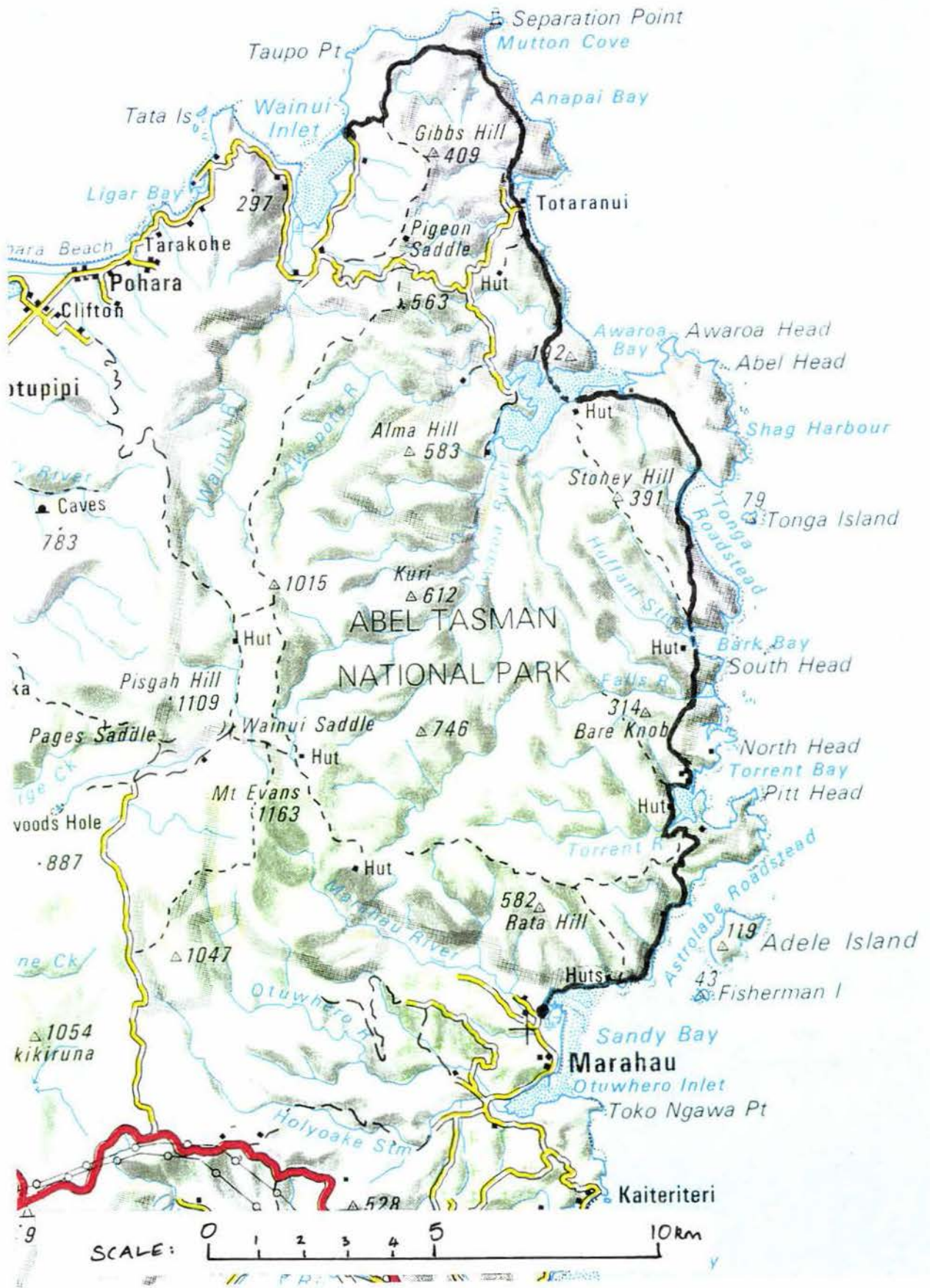


Figure 5: Abel Tasman Coastal Track (Source: Reed NZ 1987).

result of this picturesque setting, in combination with its easy gradient, the track attracts the highest visitor numbers of any of the nine internationally known 'premiere' tracks in New Zealand (NZTB 1996),¹⁹ close to 70,000 annually on its most heavily used areas (DoC 1998a). Unfortunately, these visitor numbers are placing considerable stress on facilities such as huts, toilets and campsites within the park (DoC 1996b: 44). Consequently, DoC has acknowledged that this high level of recreational use on the coast threatens the visitor experience and, "*in that sense, could be regarded as self destructive*" (DoC 1996b: 11).

In 1994 it was suggested that the Department of Conservation would come under pressure to develop more facilities in existing natural areas and to develop new natural areas as existing walks, tracks and facilities wilt under the pressure of increased visitor numbers (Ernst & Young 1994: 7). This warning appears to have been justified. As a result of the pressure on the Abel Tasman Coastal Track, in the early 1990s DoC became involved in the development of a new 'walking experience' in the coastal environment (NZTB & DoC 1993: 27; Rautjoki 1999 *pers comm*). It was argued that the development of this new walkway would allow over-crowding pressures to be distributed more evenly in the Nelson/Marlborough region (Hill 1995: 10).

This new 'walking experience' is the Queen Charlotte Walkway in the Marlborough Sounds Maritime Park, illustrated in Figure 6. The Walkway snakes along a peninsular beside Queen Charlotte Sound, covering 67 kilometres between Ship Cove and Anakiwa. It passes through coastal forest margins and regenerating scrub, around bays and over skyline ridges. Parts of the Walkway are historical, having originated as bridle paths between neighbouring bays and farm tracks in the early years of the century. The Walkway, as it is today, was opened in the early 1990s, when all the sections were finally linked and legalised over private land. Both walkers and mountain bikers can use the Walkway.

19 These include the Abel Tasman, Milford, Routeburn, Kepler, Tongariro, Northern Crossing, Heaphy, Lake Waikarimoana and Rakiura Tracks (DoC & NZTB 1993: 22).

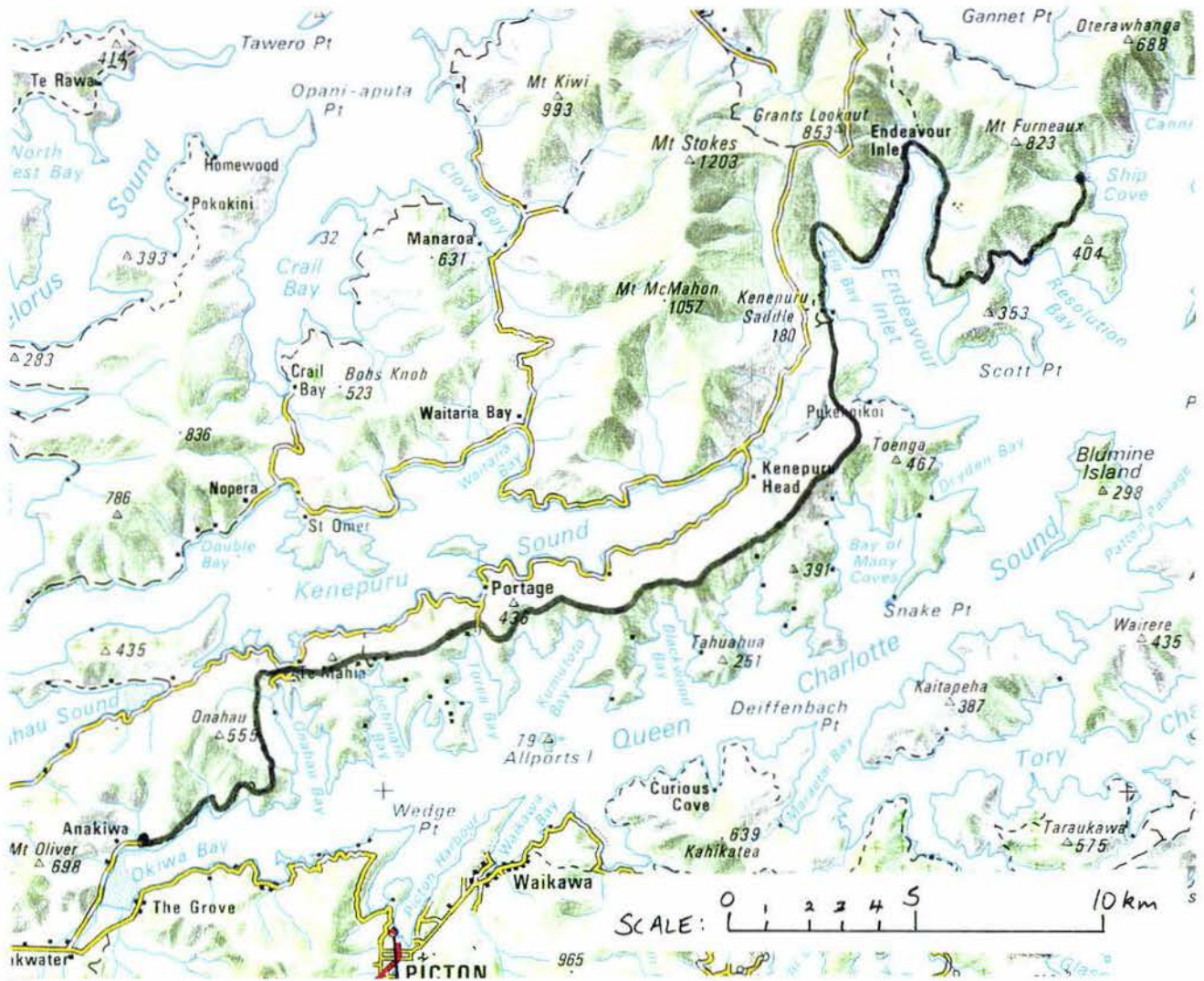


Figure 6: Queen Charlotte Walkway (Source: Reed NZ 1987).

The Queen Charlotte Walkway is considered unique (DoC 1998d; Grady 1996; Piper 1999 *pers comm*; Rautjoki 1994; and Watson 1999 *pers comm*), due to its accessibility from the water, pack delivery service and facilities provided by local operators, and accommodation on private land rather than in DoC huts:

“Like no other walking track anywhere in New Zealand, [the Queen Charlotte Walkway] has many boat entry and exit points served by small jetties along its entire length. Scheduled boat transport that increasingly caters for backpackers operates every day on sparkling waters parallel to the Queen Charlotte Walkway. This service also enables walkers on the track to have their heavy backpacks conveniently transported ahead each day” (Grady 1996: 7).

As a result of these features, the number of walkers and mountain bikers on the track has increased dramatically in the last few years. For instance, between 1995 and 1997, visitors have increased by almost 50 percent on the most popular parts of the Walkway, with close to 11,000 visitors in 1997 (DoC 1998a).²⁰ The future of the Queen Charlotte Walkway therefore seems certain - visitor numbers will continue to rise, and the Walkway’s international profile will continue to grow, spurred by marketing efforts and word of mouth amongst tourists. In the near future, it is expected that the Walkway could become as popular as the Routeburn Track, where about 10,000 trampers stay overnight per year (DoC 1994a: 8). Grady (1996) voices a general opinion regarding the Walkway’s future, stating:

“The Queen Charlotte Walkway ...has scarcely had its walking potential tapped. The new wonder-child of New Zealand walking tracks is still in its infancy and seem certain to win the hearts of a wide cross-section of walkers and nature lovers” (Grady 1996: 8).

5.3. Historical Development of the Abel Tasman Coastal Track

On the evening of 18 December 1642, the Dutch explorer Abel Tasman anchored a little to the north of Awaroa (Spearpoint 1985: 69), becoming the first known European to set eyes on the Tasman Bay area. It was here that the first recorded meeting between Maori and Pakeha occurred. However, this meeting was ill-fated; during a skirmish, four of Tasman’s men were killed (Dennis 1986: 12). The next significant European exploration occurred almost two centuries later in 1827, when Frenchman Dumont D’Urville spent six days in

²⁰ However, it is important to note that not all these people will have walked the entire track; many will be day walkers who have accessed part of the track by boat (Clough 1999 *pers comm*).

anchorage in Astrolabe Roadstead, surveying the locality, vegetation and wildlife (Department of Lands and Survey 1986: 12).

It was not long after this that the first steps towards scenery preservation in the Tasman Bay area were made, when Bark and Sandfly Bays became scenic reserves in 1847. More areas of what is now Abel Tasman National Park were set aside as provisional State forest in 1920 (Griffith 1947: 6). However, much of the surrounding land was still under threat of logging until a locally initiated campaign for the protection of the area was embarked upon in the late 1930s. In 1936, Captain M.M. Moncrieff and his wife Perrine purchased 502 acres of land between Astrolabe Roadstead and Torrent Bay, and had it gazetted as a private scenic reserve. Following this, Perrine Moncrieff embarked upon a five year campaign to establish a National Park in the area (Griffith 1947: 6).

This campaign eventuated in the establishment of the Abel Tasman National Park. The Park was officially opened on 18 December 1942, marking the tercentenary of Abel Tasman's visit to the area (Spearpoint 1985: 69). Administration of New Zealand's fourth National Park was undertaken by the Abel Tasman Park Board. The area that the Board was responsible for continued to expand; between 1947 and 1977 a further 4,000 hectares were added to the park (Dennis 1986: 154).

Since its inception, the Abel Tasman National Park has proved extremely popular, playing host to increasing numbers of visitors each year. However, this popularity has caused a potential conflict between use and protection of the Park. This conflict was alluded to by the Abel Tasman Park Board as early as 1962, which stated:

“Preservation is the main purpose of the Board's policy, closely allied with a programme of development to open up areas for recreation where this does not detract unduly from the natural charm of the environment” (Abel Tasman Park Board 1962).

In the ensuing years, visitor numbers to the National Park continued to grow. By the late 1960s, this conflict between conservation and development within the Park was beginning to escalate:

“As the use of the Park continues to increase each year, so do the problems of its development and conservation. The beauty and natural amenities of a national park can rapidly decrease under the pressure of human activity pursued within and around it, unless guarded with foresight and imagination” (Abel Tasman Park Board 1967a).

In response to the increase in visitor numbers, an overnight hut was built in Bark Bay in December 1967 (Abel Tasman Park Board 1967b). The following year, a decision was made within the Abel Tasman Park Board that it was necessary to build seven new huts due to growing use on the coastal track.²¹ It was argued that “*this would be sufficient for the next twenty years*” (Abel Tasman Park Board 1968). This response indicated that the Board was aware that the Park would be subject to increased use-pressures in the future.

In 1977 the Abel Tasman Park Board announced a new policy of upgrading the coastal track “...to a standard suitable for persons of all ages to walk with the objective of encouraging family group walking” (Abel Tasman Park Board 1977: policy 4.2.1). This was arguably the most significant policy decision made in terms of influencing future use patterns in the National Park. The new coastal track improved access along the coast, making the beaches and coves available to a much wider audience. In improving this track, the Park Board was setting the scene for the ‘tourism boom’ along the coastal areas of the park that can be seen today.

The resultant increase in visitor numbers was apparent only a few years later. In 1983 the *Department of Lands and Survey* (DoLS), having adopted the administration of the National Park from the Abel Tasman Park Board, acknowledged that there were problems associated with crowding during the summer along the coast (DoLS 1983: 11). As a consequence,

DoLS raised the issue of sustainability in relation to public use of the Park, stating “...public use of the park is to be encouraged to a level which the natural environment can sustain” (DoLS 1983: policy 4.2), although it was not specified how this might be measured and enforced. Three years later, DoLS stated that while the Park administrators had no idea of even approximate visitor numbers, it had become clear that during the 12 weeks of summer, the park’s facilities were being used “to capacity and beyond” (DoLS 1986: 19). As a result, research into visitor numbers was recommended in the new Abel Tasman National Park management plan (DoLS 1986: 46). It was also noted that:

“...[a] contributing factor to the problem of over-use is the large number of boats in summer and the use of the Park generated by boat traffic. This provides management problems” (Department of Lands and Survey 1986: 35).

The *Department of Conservation* (DoC) was formed under the Conservation Act 1987, adopting the role of administrator of all New Zealand’s national parks from the Department of Lands and Survey. In 1990, the Department undertook a user survey on the coastal track, questioning visitors on their perceptions and attitudes towards their experience. The results showed that 40 percent of walkers on the coastal track perceived that some part of their trip was overcrowded (Hill 1993).²² As a result, DoC began a publicity campaign to spread the seasonal peak and lengthen the season by promoting use at off-peak periods and other routes (DoC 1996c: 309).

Despite this initiative, visitor numbers continued to rise, becoming a major management issue for the National Park, particularly on the coastal track (DoC 1996b).²³ Tourism publicity regarding the National Park was having a big effect on visitor numbers, offsetting DoC’s publicity efforts to encourage off-peak usage of the park. This publicity drive was generated at both a national level by the *New Zealand Tourism Board* (NZTB), and at a local level by tourism operators (White 1999 *pers comm*). Publications such as

21 These huts were Awaroa; Tonga; Torrent Bay; between Wainui Hut and Centre Peak; Mutton Cove; Waiharakeke; and between Torrent and Marahau (Abel Tasman Park Board 1968).

22 31.4 percent of respondents said huts were crowded and 17.2 percent said campsites were crowded (Hill 1993).

international guide books were also raising awareness of the park's virtues, encouraging increasing numbers of tourists to visit the area. The following extract from the 'Lonely Planet' guidebook is typical:

"In the early 1980s, the Abel Tasman Coastal Track ...was hardly known outside the Nelson region. Today, overseas hikers arrive at the Nelson visitor centre almost daily, point at a page in their guidebook and speak the only two words they may know in the local language: 'Abel Tasman'. The change that has taken place since the 1980s is remarkable. This is now the most widely used recreational track in the country, easily surpassing such favourites as Routeburn and Milford. If you feel inexperienced as a trumper but desperately want to try one tramp, the coastal track is perfect. It is not a typical, rugged New Zealand track, and it is easier and better serviced than any other track in the country" (DuFresne & Williams 1995: 159).

By 1996, more than 50,000 people were visiting Abel Tasman National Park per year (DoC 1996c: 309). At the peak of the summer holiday season, visitor numbers reached 3,000 per day (excluding Totoranui where numbers were estimated to exceed 2,000), placing considerable stress on facilities (DoC 1996b: 44). As a result of this pressure, DoC adopted the following management objective regarding public access and use of the park:

"To facilitate public access, in a manner that is compatible with park values and the recreational setting, and to seek to control activities that detract from them" (DoC 1996b: 20).

In other words, it had become apparent that some form of visitor impact management was necessary in order to protect the intrinsic values of the park. Consequently, it was recognised by the Department that the appropriate form of management must be applied, and that there are three key factors in managing visitor numbers; place, intensity of use and timing:

23 These numbers included a large amount of kayakers that accessed the coast by sea.

“The first (place) can be controlled by determining access points and placement of facilities. The second (intensity of use) can be managed by the nature and capacity of facilities. The third (timing) can be controlled directly by booking systems and indirectly by publicity and general advocacy” (DoC 1996b: 22).

However, there was an awareness within the Department of the contentiousness of direct management techniques (White 1999 *pers comm*). Instead, the use of alternative management methods, such as advocacy, as a means of managing visitor growth and changes in the park were seen as more appropriate (DoC 1996b: 27). It was argued that alternative methods had proven effective in the past, when DoC promotion between 1990 and 1994 had restricted the growth in overnight stays along the Coast Track and spread use over a longer period, in the face of an overall growth in visitor numbers (DoC 1996c: 309).

Despite this, it was clear that direct intervention would most likely become necessary “*within the next five years*” as the Coast Track was being heavily used for at least six months of the year and further expansion of facilities was not desirable (DoC 1996c: 309). Recreational use on the coast was described in the national park’s management plan as high, and that it threatened the visitor experience and, “*in that sense, could be regarded as self destructive*” (DoC 1996b: 11). As a result of this dilemma, the introduction of a booking system to manage overnight stays in the National Park was raised as a management option:

“As a step in relieving stress on accommodation on the Coast Track, a booking system could be instigated for accommodation at huts and campsites with a limit of 400 people per night and 8000 bed nights per month. Specific limits may also be needed at some sites” (DoC 1996b: 45).

In addition to this, the Department acknowledged that the greatest pressure from visitor numbers was on the toilet facilities both at hut sites and other points along the Coast Track. This pressure was greatly accentuated by the increases in day visitor numbers at the peak season (averaging about 2000 per day or five times the number staying overnight on the Coast Track) (DoC 1996b: 45). However:

“Since current legislation does not permit limits to be placed on these numbers for social reasons (except where boat services can be managed) facilities must be appropriately placed and managed to cope with high day visitor numbers” (DoC 1996b: 45).

Two years later, DoC undertook a survey that examined visitor perceptions and attitudes toward management options on the coastal track. This survey established that 69 percent of walkers now felt aspects of the track were crowded, compared to 40 percent in the 1990 survey. Social impacts such as seeing too many other people on the track, seeing too many big groups, and disturbance by motorboats were reported. The survey indicated that visit-experience problems would emerge with future increase in use-levels, particularly due to social congestion (Cessford 1998a: 5). However, while many visitors indicated aspects of the track were crowded, this did not appear to affect how they felt about their overall trip; 92 percent of the visitors reported being highly satisfied with their experience (Cessford 1998a: 15).

In addition to walkers on the coastal track, sea-kayakers were also surveyed. Those who responded were highly positive, indicating little dissatisfaction in their experiences or any need for urgent management action. However, concern was expressed regarding crowding problems. Given the rapid growth in sea-kayaking activity in the park, the survey indicated that further visit-experience problems appeared likely to emerge, particularly relating to campsite congestion (Cessford 1998b: 5).

When surveyed on management options to address increasing use-pressures in the National Park, visitors indicated that they preferred information-based management rather than more regulatory controls, although many favoured controls on motorboat access (Cessford 1998a: 5). However, New Zealander visitors were more opposed than overseas visitors to regulatory methods, such as introducing booking systems and limiting boat use (Cessford 1998a: 8).

Unfortunately, it now appears that such regulatory methods to management of the use-pressures on the coastal track are unavoidable. On the first of October 2000, DoC will introduce a compulsory booking system for overnight visitors to the coastal track. To begin with, this will apply only to DoC huts. If it becomes necessary in the future, the booking system may be extended to DoC campsites as well. Due to the continuous growth in visitor numbers to the area, DoC can no longer depend on information-based management and must take a harder line on controlling visitor numbers (White 1999 *pers comm*).

5.4. Historical Development of the Queen Charlotte Walkway

The English navigator Captain James Cook was the first European to discover Queen Charlotte Sound during his exploration of New Zealand in 1770. The explorer used Ship Cove at the northern end of Queen Charlotte Sound as a haven and base for further exploration during three voyages in 1770, 1773-4 and 1777. Cook's voyages to the Marlborough Sounds were followed by a Russian expedition in 1820 lead by Thaddeus Bellinghausen, and a French expedition in 1827 lead by Dumont D'Urville in 1827 (Lucas 1965: 5).

Soon after these expeditions had occurred, the first wave of European settlement in the Marlborough Sounds began in the 1830s (Clifton *et al* 1980: 13). The settlers were attracted by the region's lucrative whaling industry and cheap land for farming. Consequently, farming had become widespread in the Sounds by 1910, with half its land area converted to sheep and dairy farms (Clifton *et al* 1980: 13). However, the farming industry in the Marlborough Sounds did not prove to be prosperous. By the 1930s, pastoral farming had begun to decline and dairy farming was being phased out, due to the depression and difficult farming conditions (Clifton *et al* 1980: 13). As farms were abandoned, much of the cleared land began to revert back into scrub. Sixty years later, much of the Sounds is covered in second generation forest, while the main form of farming is commercial forestry.

Tourism in the Marlborough Sounds has been slowly developing alongside the farming history in the area. For instance, the first guesthouses, including the Portage, were established for tourism as early as the 1870s (DuFresne & Williams 1995: 143). However, the development of the Sounds as a tourist region did not really begin until after road improvements were made in 1950. More significantly, the introduction of the ferry service from Wellington to Picton in 1962 made the region more accessible to a greater number of people, boosting tourism development as a result (Gardner 1984: 2). In response to the increase in tourism interest in the region, there was a trend towards developing tracks and walkways in the scenic reserves that lay scattered throughout the Sounds:

“A ranger appointed by the Department of Lands and Survey assists the [Queen Charlotte Sounds] Reserves Board and the public by ...caring for large tracts of forest land and in developing and maintaining picnic areas and places of interest visited by the public. Tracks are opened up and kept in order, and, along the more popular tracks, trees are labelled for easy identification” (Lucas 1965: 8).

In 1972 these reserves (numbering about 120) were joined together when the Marlborough Sounds Maritime Park was constituted. The reserves were mainly classified as ‘scenic’ for their outstanding aesthetic, ecological or recreational value (Schellhorn 1984: 3). In addition, the Park also contained a variety of climatic and timber reserves, flora and fauna reserves, historic reserves and state forest areas. The Park also protected 640 kilometres of Sounds Foreshore Reserve (sometimes referred to as the Queen’s Chain), averaging 20 metres wide. The majority of the Park was accessible only by water (Duckworth *et al* 1976: 233).

A few years after the Maritime Park was constituted, a survey of recreational activities in the region established that “*walking is a popular pursuit and provision has to be made for the further opening of existing tracks and the construction of new ones*” (Duckworth *et al* 1976: 244). However, the survey cautioned that it was vitally important to ensure that all

track developments are carefully balanced by preservation of the area (Duckworth *et al* 1976: 244), once again highlighting the use-protection dilemma in tourism planning.²⁴

In 1979, the advice in Duckworth *et al's* survey was followed when the Marlborough Sounds Maritime Park Board formally opened the Marlborough Sounds Walkway. The Walkway was developed from a series of bridle paths and foot tracks which then only experienced low to moderate use with seasonal peaks between Anakiwa and Mistletoe Bay and from Ship Cove to Resolution Bay (Hill 1994: 1). This walkway formed the basis of what would later become the Queen Charlotte Walkway.

During this time tourism was slowly growing in the Marlborough Sounds. However, it was clear that the region's full tourism potential had not yet been reached. For example, a 1980 study undertaken by Clifton *et al* on resource management issues in the Sounds suggested that the region had considerable recreational potential, due to its central location within New Zealand and with the increasing emphasis on developing land-based activities associated with those based on the water. Consequently, the study predicted that "*the Sounds will become an area of national importance for recreation*" (Clifton *et al* 1980: 50). In order to provide for this increase in tourism, the Marlborough Sounds Maritime Park Board undertook a survey that examined recreational possibilities in the area. The survey established that there was a general desire for more tracks in the Sounds area (Schellhorn 1984: 46). In particular, the survey found that public interest in coastal walkways was high (both local/residential - 93.7 percent and visitors - 74.9 percent). As a result, the survey report concluded that more coastal walkway opportunities should be developed (Schellhorn 1984: 65), and that the promotion of walking and boat access in the Marlborough Sounds was a viable proposition for the long-term management of the Maritime Park reserves (Schellhorn 1984: 90).

A year later, in response to these surveys and in recognition of the increasing demand for walking experiences in the coastal environment, the Marlborough Sounds Maritime Park

24 See Chapter Four (section 4.4.) regarding the use-preservation dilemma.

Board started to work on the middle section of the Marlborough Sounds Walkway. An old track was re-opened that had been bulldozed by the Board in 1971. However, this bulldozed section passed illegally over private land, and did not meet the 'walkway' specifications regarding maximum gradient of slopes. This caused administrative difficulties for the Board (Speedy 1999 *pers comm*) and consequently, the work was incomplete in 1987. At this time, the Marlborough Maritime Park Board and the Department of Lands and Survey were disbanded, and their roles went to DoC under the Conservation Act.

By 1990, the Department of Conservation was becoming concerned with the levels of crowding on the Abel Tasman Coastal Track (White 1999 *pers comm*). The Nelson/Marlborough conservancy of the Department began to look for new walking opportunities to alleviate some of this pressure. A decision was made to examine the viability of upgrading the Marlborough Sounds Walkway as another coastal walking opportunity in the Nelson/Marlborough region (Rautjoki 1999 *pers comm*). This decision coincided with a push from the Marlborough Marketing Board to use the Walkway as a catalyst for the promotion of Marlborough (Rautjoki 1994: 106). The Board was concerned that while domestic travellers were similar in numbers and in the length of stay between Marlborough and the neighbouring Nelson region, international tourists were only spending half as long in Marlborough. The assumption was made that the Abel Tasman Coastal Track was the draw card that held tourists longer in the Nelson region, and that a similar coastal walking experience in the Marlborough region could counter this imbalance (Rautjoki 1994: 106).

As a result, the Marlborough Marketing Board, the Marlborough District Council, the Department of Conservation, the Ministry of Tourism and the NZTB jointly developed a strategy in which the Marlborough Sounds Walkway, re-named the Queen Charlotte Walkway, was marketed to help meet the increasing demand for coastal walking opportunities in the Nelson/Marlborough area (Rautjoki 1994: 105). DoC spent a year planning the development of the track before any upgrading began. There was an awareness of the potential popularity of the track, and that future visitor numbers would be

high. The Department wanted to avoid making incremental decisions under pressure at a later stage, so developed a planning document that reconciled the upgrade of the track with regional and national goals of tourism growth. Under this approach, a carrying capacity approach to planning was avoided, but conservative limits on possible visitor growth on the track were set (Rautjoki 1999 *pers comm*).

In 1992, the Marlborough Marketing Board embarked upon an extensive promotional campaign highlighting the recreational advantages of the Queen Charlotte area, resulting in the Queen Charlotte Walkway experiencing increasing popularity (Hill 1994: 1). Promotion of the Walkway was also undertaken by the newly-formed Queen Charlotte Walkway Committee (Watson 1999 *pers comm*). The committee was concerned with the welfare of businesses that stood to gain from tourism revenue generated by the Walkway (Grose 1999 *pers comm*), and consisted of previously independent commercial operators. It became involved with the marketing of the track and its unique characteristics, in co-operation with the NZTB and the Marlborough Marketing Board (Watson 1999 *pers comm*).

The Department of Conservation recognised that the realignment and upgrading of the Walkway was dependent upon finance (NZTB & DoC 1993: 27), so began to campaign for funding. This campaign "*captured the imagination of many organisations*" and resulted in the following funds being made available between May 1993 to December 1993 (DoC 1994: 5):

Marlborough District Council: \$50,000 towards track upgrade.

Department of Conservation: \$85,000 towards track and structure upgrade (for example, bridges and toilets), plus the survey and negotiation of legal easements over private land.

Ministry of Tourism: \$128,000 towards track upgrade

Trust Bank Canterbury: \$45,000 to upgrade a section of the track and build new toilets at Davies Bay - this funding resulted from an application by the Havelock lions with support from Picton/Blenheim Lions.

Consequently, the Department of Conservation had a total of \$308,000 to bring the track up to a suitable standard for "*medium to high use*". However, it was acknowledged that additional funding may be sought at a later stage of development (DoC 1994a: 5). With these funds, DoC began the upgrade of the Queen Charlotte Walkway. This involved surface improvements such as widening, levelling, draining and realignment in some areas, the installment of new interpretative signage, foot bridges and boardwalks on sections of the Walkway, as well as a toilet block and picnic facilities at Davies Bay (DoC 1994a). However, the upgrade did not include the introduction of Department of Conservation huts along the Queen Charlotte Walkway. The policy decision not to build huts was made because lodges on private land in the various coves had the potential to provide overnight accommodation that would complement existing DoC campsites (NZTB & DoC 1993: 27). DoC, as a government agency, did not want to be seen to be competing with private enterprise in the region (Grose 1999 *pers comm*). This move also saves public resources and ensures that a pricing regime exists on the Walkway, dictated by private accommodation prices.

The Department of Conservation was interested in the Queen Charlotte Walkway generating financial benefits for the Marlborough region. For example, in a DoC report examining the social, environmental and economic factors as a result of upgrading the Walkway, it was suggested that the Walkway would boost tourism expenditure across Marlborough as a wide range of services would be used and commodities purchased. The report, based on a scenario of 10,000 people per year using the Walkway as an overnight experience (at an average of two nights per person), estimated that \$1.6 million could be injected into the tourism services directly associated with or near the Walkway. However, DoC acknowledged that it would probably be some years before this level of use was reached (DoC 1994a: 37). In the same study, it was estimated that DoC's potential annual income from the track would be about \$12,000, which was "*rather insignificant*". This highlighted how different the Queen Charlotte Walkway is to other high profile tracks managed by DoC which generate considerable income from hut fees (DoC 1994a: 37). However, the Department was enthusiastic about the financial possibilities of the Walkway, stating:

“...[it] will act as a focal point in attracting visitors who may undertake a wide range of other activities while in the area and so contribute significantly to the local economy. It is evident that the investment being made in upgrading the Walkway is well justified in an economic sense and will give a good boost to the local tourist industry” (DoC 1994a: 37).

The up-grading and marketing efforts carried out by DoC, the Marlborough District Council, the Marlborough Marketing Board and the NZTB successfully raised the profile of the Queen Charlotte Walkway. As a result of the Walkway being developed as a ‘marketable product’, the number of overnight users doubled between 1992 and 1993 with significant increases in both day use and mountain-bikers (Hill 1994: 1). DoC permitted mountain-biking on the Queen Charlotte Walkway due to the fact that it was becoming well established in New Zealand as a recreational opportunity, and was set to become “*more than just an alternative medium for exploring and enjoying the large variety of New Zealand back country tracks and roads*” (Hill 1995: 7). With this in mind, Departmental policy accommodated the needs of riders on the Walkway, while taking into account the rights of all user groups (Hill 1995: 7).

Around this time, the capacity of the Queen Charlotte Walkway was projected as 10,000 overnight and 15,000 day visitors (NZTB & DoC 1993: 27). However, the Department did acknowledge that growing tourism numbers on the Queen Charlotte Walkway could cause adverse effects, particularly from a social perspective. For instance, the results of a DoC survey of Queen Charlotte Walkway users suggested the potential for associated social and environmental impacts of such an increase in visitor numbers and that strain may be placed on existing facilities and the natural landscape. The survey report warned that “*visitors’ perceptions of the resource they have travelled to see may ...be reduced if overcrowding and environmental damage was to occur*” (Hill, 1994: 1). Recommendations were drawn from visitors’ suggestions, including the issue “*that DoC does not allow the Queen Charlotte to become too commercialised in a way that diminishes the visitors’ overall experience*” (Hill 1994: 33). However, this possibility had not yet eventuated; at the time of the survey, only 10.1 percent of visitors on the Queen Charlotte Walkway felt that the track facilities were overcrowded (Hill 1994: 34). Conversely, of the walkers surveyed, 53 percent stated mountain-bikers detracted from their experience, whereas 42 percent of walkers stated they did not mind the bikers (Hill 1995: 5). However, the survey report recommended retaining the *status quo*, and allowing mountain-bikers to continue to use the Walkway (Hill 1995: 50).

By 1995, the Marlborough Sounds were beginning to have a much higher tourism profile. This was partly due to the marketing efforts of the Marlborough Marketing Board and the NZTB (Grose 1999 *pers comm*). In addition, travel guidebooks such as the 'Lonely Planet' portrayed the Walkway in a favourable light, encouraging more people to visit the area:

"So often the poor cousin of the popular Nelson region to the west, the Marlborough Sounds is now being discovered by overseas travellers. New Zealanders have been enjoying the Sounds for well over a century, but often neglected the area's tremendous tramping potential. This is now being redressed, and trampers are starting to comb the ridges and forests that border the beautiful waterways. Those put off by the hordes doing the Abel Tasman [Coastal] Track may wish to try the Queen Charlotte Walkway as an alternative" (DuFresne & Williams 1995: 143).

While it is difficult to measure, it seems that this publicity was having tangible effects on the demographics of walkway users. As Figure 7 illustrates, in the three years following the publication of the 'Lonely Planet', the percentage of overseas visitors on the Walkway rose from 35 percent to 54 percent. In the 1998 DoC survey report, it was hypothesised that this increase in overseas visitors is due to 'word of mouth' and track publicity such as the 'Lonely Planet' guidebook (DoC 1998d). Visitor interviews on both the Abel Tasman and Queen Charlotte tracks undertaken for this assessment supported this hypothesis.²⁵

²⁵ See Appendices VII, VIII for interview results.

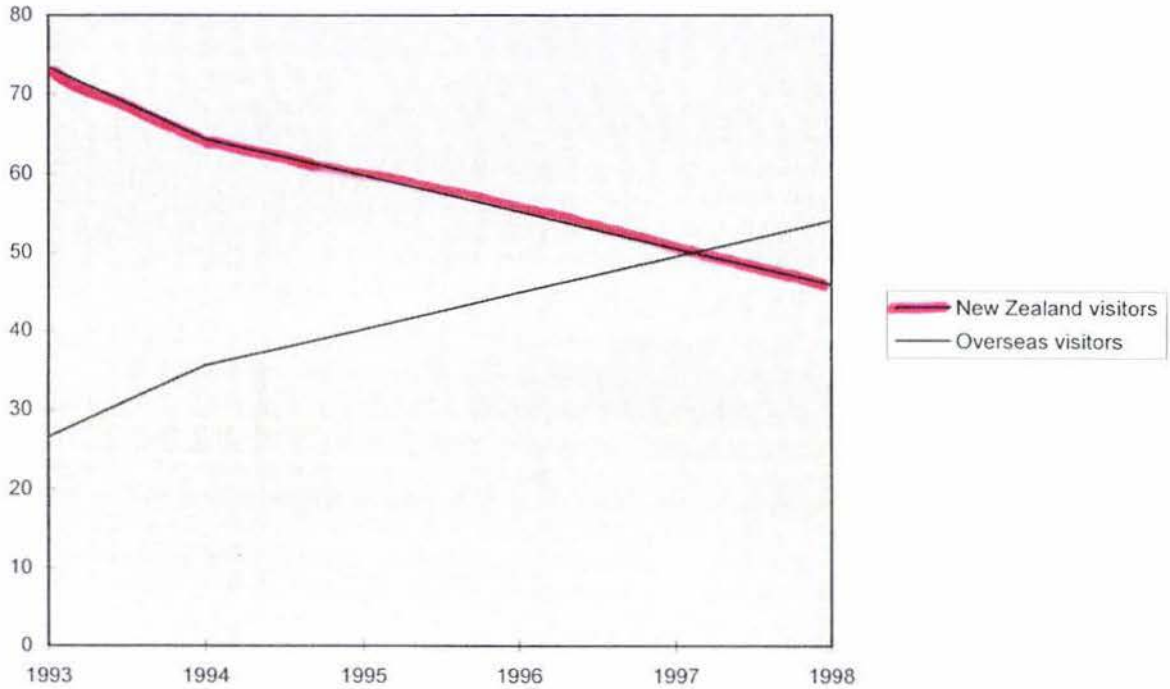


Figure 7: Change in demographics on the Queen Charlotte Walkway (Source: DoC 1998d)

The Queen Charlotte Walkway is now becoming a well-established tourist attraction in New Zealand. This is indicated by the fact that the Walkway won the best 'visitor attraction' award for 1998 from the New Zealand Tourism Board (NZTB 1999). The general consensus is that visitor numbers on the Queen Charlotte Walkway will continue to rise in the foreseeable future, and that the majority of visitors will be of overseas origin (Grady 1996; DoC 1998d; Clough 1999 *pers comm*; Grose 1999 *pers comm*; Rautjoki 1999 *pers comm*).

5.5. Stakeholders' Objectives for the Development of the Queen Charlotte Walkway

Since the Abel Tasman Coastal Track was upgraded in the late 1970s, it has become one of New Zealand's major tourist attractions. While the Queen Charlotte Walkway is at a much earlier stage of development, it is likely that future visitor growth on the Walkway will occur, bringing with it adverse impacts and pressures similar to those that the Abel Tasman Coastal Track is now experiencing. As a result, the Queen Charlotte Walkway is nationally significant in the sense that it can shed light on current planning approaches to sustainable tourism developments in New Zealand's conservation estate. Consequently, the stakeholders that supported the upgrade of the Queen Charlotte Walkway are now examined, in order to establish where the impetus for the Walkway development came from, where the institutional and financial commitment came from, and why each stakeholder was involved.

5.5.1. *The Department of Conservation*

The Department of Conservation, as the management agency for the conservation estate under the Conservation Act 1987, is responsible for "*the preservation and protection of natural and historic resources*" in order to maintain their intrinsic values, provide for their appreciation and recreational enjoyment by the public and safeguard the options of future generations.

With this responsibility in mind, DoC had two objectives for the development of the Queen Charlotte Walkway. The first objective was to provide a new recreation experience in the Marlborough region. Providing for recreation in the conservation estate is one of the major roles of the Department, and accounts for about a quarter of the Nelson/Marlborough conservancy budget (DoC 1996c: 265). DoC's role as a recreation provider fulfils an important aspect of its mandate, as:

“...[f]or many people it is recreation on areas administered by [DoC] that provides their link with the natural environment. As it raises their awareness of natural, historic and recreational values, this link must be nurtured by providing appropriate recreational opportunities in suitable areas while maintaining a quality visitor experience” (DoC 1996c: 265).

In order to achieve this, the Nelson/Marlborough conservancy has the objective of “*provid[ing] facilities to enhance visitor experience, minimise visitor impacts and to manage visitor numbers*” (DoC 1996c: 296). The provision, improvement, or extension of existing facilities must be carefully considered by the Department. Through utilising such developments, use can be concentrated or controlled, and damage to a wider area minimised. On the other hand, it is recognised that “*improved facilities increase the use in an area and place inordinate or unexpected demands on surrounding areas*” (DoC 1996c: 296). The Nelson/Marlborough conservancy also aims to “*provide opportunities for people to visit rewarding places on foot and to manage visitor impacts*” (DoC 1996c: 309). Consequently, the development and maintenance of the Queen Charlotte Walkway was named as a regional priority in the Conservation Management Strategy (DoC 1996c: 391).

DoC’s second objective for the development of the Walkway was to divert visitors away from an area of heavy use in the region, namely the Abel Tasman Coastal Track (White 1999 *pers comm*). A decision was made to develop a new coastal walking opportunity in the region in an attempt to divert potential visitors from this track. In an investigation into the viability of the development, it was stated that:

“...visitor facilities managed by DoC are being placed under increasing pressure as a result of the Government’s initiative to encourage more overseas visitors to New Zealand. The most popular walking tracks, and those most likely to be popular, need upgraded facilities so they can cope while still providing a high quality experience. The Queen Charlotte [Walkway] has many attributes which allow for increased use with few negative effects” (DoC 1994a: 3).

5.5.2. *The New Zealand Tourism Board*

The New Zealand Tourism Board is responsible for putting in place the Government's strategy to encourage more domestic tourism. Its mission is to ensure that New Zealand is "*developed and marketed as a competitive tourism destination to maximise the long term benefits to New Zealand*" (NZTB 1998b). In order to achieve this, a large proportion of the Board's budget goes towards "*persuasion destination marketing*", and funding quality tourism experiences that have a special regional flavour (NZTB 1998b). With this in mind, a NZTB check list was used to assess whether the Board should support the Queen Charlotte Walkway development. The assessment criteria included the following:

- Wide variety of features of interest to overseas visitors
- Good location close to major transport routes and visitor flows
- A variety of access options
- Potential for use over an extended season
- A coastal environment
- The track to be a two to four day option
- The track to be fully formed and operating
- DoC support for the track
- An easy to medium track grade and terrain
- Sufficient huts and camping areas or other forms of accommodation for an easy to medium day walk
- Private or Department-owned accommodation, or a combination of both
- Support for both freedom walkers and guided walkers
- A number of extra activities such as sailing, fishing, sea kayaking and mountain biking that could be incorporated into the overall 'experience' of the Walkway
- Potential for value-added options, for example, guided walks, different accommodation and special interest tours, to generate increase tourism profits to the region

It was confirmed by the NZTB that the Queen Charlotte Walkway met all these criteria and was thus suitable for development. Furthermore, it was agreed that the Walkway had the

attributes of a potential national and international attraction and the Board was therefore willing to give funding support to DoC for the upgrade (DoC 1994a: 4).

5.5.3. Marlborough District Council

The *Marlborough District Council* (MDC) is a unitary authority. This means that it fulfils the role of both a regional and district council. For instance, under the Resource Management Act 1991, it is required to prepare a *regional policy statement* (RPS) which identifies important resource management issues for the region. The absence of any specific mention of tourism in the Marlborough RPS (MDC 1995) indicates that the Council does not consider that tourism requires its own special management regime. Instead, it has chosen to address regional tourism issues primarily by managing the environmental effects of specific activities, rather than regulating the actual tourism industry and its effects.

However, Dymond (1997) has cautioned that this approach to tourism management has significant weaknesses.²⁶ One weakness is that local authorities tend to overlook the social and environmental implications of tourism. Instead, they tend to view it as vital component in their economic strategies, often concentrating on short-term, demand-related tourism indicators, such as the contribution of tourism to the local economy and consumer satisfaction (Dymond 1997).

This approach was apparent in the MDC's "*enthusiastic*" response to the Queen Charlotte Walkway development (DoC 1994a: 4). The Council was positive about the proposed development of the Queen Charlotte Walkway, which was expected to bring much-needed tourism revenue into the region. Consequently, its objective for supporting the project was to:

²⁶ See Chapter Three (section 3.3.) regarding this evidence.

“...promote [the Walkway] as a focal attraction of the Sounds in order to attract visitors to Marlborough. Together with many other visitor attractions, the Walkway has the potential to assist the economic development of the province” (DoC 1994a: 4).

No mention was made about the Council’s concern about the environmental consequences of an increase in tourism in the document that examined the environmental, social and economic factors of the Walkway upgrade (DoC 1994a). This indicates that the Council has adopted a passive role in the management of the Queen Charlotte Walkway, and has relied on the fact that standards in its Regional Policy Statement can cope with the environmental effects of tourism in the area.

5.5.4. *Destination Marlborough*

The objective of Destination Marlborough (formerly the Marlborough Marketing Board) is to promote the region’s attractions in order to attract valuable tourism revenue. This regional tourism organisation is closely involved with the MDC and has administrative ties with the NZTB and the Queen Charlotte Track Committee (Piper 1999 *pers comm*).

The Queen Charlotte Walkway was seen as a catalyst for the promotion of Marlborough by the Marketing Board and was promoted in the Board’s marketing strategy (Rautjoki 1994: 106). The Walkway has continued to be marketed by Destination Marlborough, mainly via a website that focuses on key attractions in the region (Piper 1999 *pers comm*). This website promotes Marlborough and lists the Queen Charlotte Walkway as one of the region’s special attractions (Destination Marlborough 1999).

5.5.5. *The Queen Charlotte Walkway Committee*

Local businesses and tourism providers have embraced the Queen Charlotte Walkway initiative, forming their own promotions group; the Queen Charlotte Walkway Committee (Watson 1999 *pers comm*). It represents the interests of businesses that stand to gain from

tourism revenue generated by the Walkway (Grose 1999 *pers comm*), consisting of previously independent commercial operators. The Committee has provided financial support for the development of the Walkway, donating track-counters to DoC and funding expensive track-clearance work required after slips closed the track in mid-1998. This committee is essentially a 'tourism marketing network', which the NZTB defines as:

"...[a] group of individual businesses who join forces to market new or existing activities, experiences or attractions which appeal to a specific segment in the market. By joining forces these businesses have the power to make the tourism sum far greater than its parts" (NZTB 1998b).

The NZTB has a policy of encouraging the establishment of these networks, and assisting them with international promotion. The committee also has links with Destination Marlborough, another promotional agency in the region. As a consequence, the committee has similar aspirations for the Walkway; for it to be a marketing success, bringing economic benefits to local businesses (Watson 1999 *pers comm*).

5.5.6. *The Community*

The Havelock Lions, with support from the Picton/Blenheim Lions, applied for a community grant from Trust Bank Canterbury, in order to upgrade a section of the track and build new toilets at Davies Bay. Their objective was to be involved in a project that would provide economic benefits and raise the profile of the community (Rautjoki 1999 *pers comm*).

Each of these stakeholders represented a different interest in the Walkway development. However, as table 2 illustrates, the overwhelming objective was to attract tourism revenue, whether at a national, regional or local scale. The exception was the Department of Conservation. DoC's objectives for the development were justified on both conservation and legislative grounds; diverting visitors from the Abel Tasman Coastal Track to an area

that could “allow for increased use with few negative effects”, and meeting its mandate as a recreation provider.

Stakeholder	Objective for Queen Charlotte Walkway	Scale
DoC	1. New recreational experience in region 2. Divert visitors from Abel Tasman Coastal Track	Regional
NZTB	Market NZ as a competitive destination, provide long term economic benefits	National
MDC	Economic development of province	Regional
Destination Marlborough	Economic development of province	Regional
Queen Charlotte Walkway Committee	Economic benefits for local businesses	Local
Community	Raise profile of community, economic benefits	Local

Table 2: Summary of stakeholders' objectives for the Queen Charlotte Walkway

5.6. Effectiveness of Stakeholders' Objectives for the Walkway Development

Since tourism on the Queen Charlotte Walkway is growing steadily, the main objective of the Walkway development is being met; most stakeholders are benefiting from an increase in tourism revenue generated by the Walkway (Watson 1999 *pers comm*). However, it is questionable whether visitors are being diverted away from the Abel Tasman Coastal Track in sufficient numbers to vindicate DoC's original objective for the Walkway. This objective was to develop the Walkway in order to 'substitute' the tourism experience, by encouraging the usage of a lesser-known area with similar characteristics to the area under pressure, thus spreading the impact of tourism across a greater area:

“[The Queen Charlotte Walkway] has many attractive features which have some similarities to the Abel Tasman Coastal Track. [It] could possibly become an alternative experience to that offered by the Abel Tasman Coastal track. This would allow over crowding pressures to be distributed more evenly in the Nelson/Marlborough region” (Hill 1995: 10).

The theoretical viability of this policy decision has recently been verified in a study that examined the degree of perceived 'wildness and uniqueness' of twenty well-known tourism destinations in natural areas in New Zealand (Kearsley *et al* 1998). The fact that the Abel Tasman Coastal Track and the Queen Charlotte Walkway were very closely positioned in the results indicated that:

"...they are seen as much the same as each other by visitors and the general public alike, so, presumably, they are easily inter-changeable, one with the other. It has become necessary to ration overnight accommodation on such tracks [as the Abel Tasman Coastal Track], so as to prevent overcrowding, with consequent spatial displacement; this apparent inter-changeability might well be used as the basis for directing visitors to a wider range of options without any necessary loss of satisfaction" (Kearsley *et al* 1998: 21).

The need for inter-changeable or substitutable attractions is created when a resource's capacities are exceeded, displacing some users who have the same need for a substitute resource or activity (Shelby 1983: 6). The high level of perceived crowding on the Abel Tasman Coastal Track (69 percent in 1998) indicates that many visitors feel that social capacities on the track have been exceeded. As a result, these people may be searching for new resource substitutions, or attractions. Shelby (1982: 5) proposes that the substitutability of a resource can be measured by comparing the following parameters:

- facilities or developments for recreation;
- other resource users besides recreation;
- perceived site impacts;
- user density;
- conflicting recreational uses; and
- the regiment of rule or regulations (Shelby 1983: 5).

Table 3 uses these parameters to measure the substitutability of the Abel Tasman Coastal Track and the Queen Charlotte Walkway.

	Abel Tasman Coastal Track	Queen Charlotte Walkway
Characteristics	<i>Surrounding area -</i> Greatly modified biodiversity. Fire, logging and farming have totally changed the fringes of the park (DoC 1996b: 13). <i>Track -</i> Coastal track, easy gradient,	<i>Surrounding area -</i> Landscapes developed and highly altered from their original condition (DoC 1996c: 265). <i>Track -</i> Coastal walkway, easy - moderate gradient.
Access	Car access at four points Boat access at numerous points along track (DoC 1998e).	Car access at four points Boat access at numerous points along track (DoC 1997b).
Facilities or developments for recreation	4 huts, 25 toilets, 22 camps, 1 private accommodation house (DoC 1998e).	No huts, 10 toilets, 7 camps, 11 private accommodation houses (DoC 1997b).
Other resource uses besides recreation	None	Farming - does not conflict with walkway use.
Perceived site impacts	Environmental impacts associated with track usage; Social and community impacts associated with track crowding	Environmental impacts associated with track usage; Social and community impacts associated with track crowding ²⁷
User density	29,874 (1997 calibrated total) 70 percent perceived crowding (1998)	9,154 (1997 calibrated total) 10 percent perceived crowding (1994/5)
Conflicting recreational uses	Walkers only on track. Possible conflict with sea-kayakers on coast.	Anticipated conflict between mountain bikers and walkers on track.
Rules and regulations	DoC legislation (see Chapter Three section 3.4.)	DoC legislation (see Chapter Three section 3.4.)

Table 3: Substitutability of the ATCT and the QCW based on resource characteristics (After Shelby 1983)

²⁷ Chapter Six examines the range of perceived site impacts associated with the growth in use on the Queen Charlotte Walkway in detail.

The similarity of the parameters of the two track indicates that they are highly substitutable. However, it is unlikely that tourists would be content to visit one track and forego visiting the other. It is more likely that visitors who walk the Queen Charlotte Walkway rather than the Abel Tasman have been 'displaced'. Shelby *et al* (1985 cited in Kearsley 1997: 29) argue that displacement is the result of a reluctant decision made to avoid unsatisfactory conditions, and occurs as the result of:

“...dissatisfaction with present or past experiences or expectations of likely future conditions and refers to the un-willing movement out of preferred places or times or to the re-evaluation of actual experiences. Displacement may be spatial, where recreationalists move from one site to another in order to obtain a preferred experience, or it may be seasonal”.

Tourism publicity on the Queen Charlotte Walkway supports the displacement theory, suggesting that it has similar options to the Abel Tasman Coastal Track (AA New Zealand 1998: 357), and that “*those put off by the hordes doing the Abel Tasman [Coastal] Track may wish to try this alternative*” (DuFresne & Williams 1995: 143). Discussions with walkers and accommodation operators on the Queen Charlotte Walkway have also indicated that a large percentage of visitors perceive the Abel Tasman to be too crowded, causing them to look for an alternative experience.

However, these discussions have also indicated that many tourists are simply adding the Walkway to their itineraries, in addition to other tracks in the area. In fact, the effect of the new walkway could be increasing visitor numbers on a region-wide scale, as the Marlborough Sounds Maritime Park and the Abel Tasman, Kahurangi and Nelson Lakes National Parks all lie in close proximity to each other, possibly acting as a collective magnet for tourists. It has been stated that this region-wide effect “*poses a dilemma because it is largely beyond the control of the various authorities*” (DoC 1994a: 30). There is also a concern about the effects of ‘word of mouth’ amongst backpackers and the influence this has on the destinations they choose (DoC 1994a: 30). A survey that ranked the importance of different sources of track information for backpackers found that informal

word of mouth is the most important information source at 47 percent, scoring well above tourist information centres (22 percent) and guide books (7 percent) (DoC and Tourism Resource Consultants 1993: 11). The result of this is that future use of tracks in the region becomes even more difficult to predict.

Consequently, it is difficult to measure the success of DoC's diversion policy. However, it has been six years since the Queen Charlotte Walkway was upgraded by the Department and the Walkway's publicity drive began. In this time, visitor numbers on the visitor numbers on both tracks have continued to grow as figure 8 illustrates. While the Walkway has provided a new opportunity and has become popular in its own right, it has had virtually no impact on the continued growth on the Abel Tasman Coastal Track (Rautjoki 1999 *pers comm*).

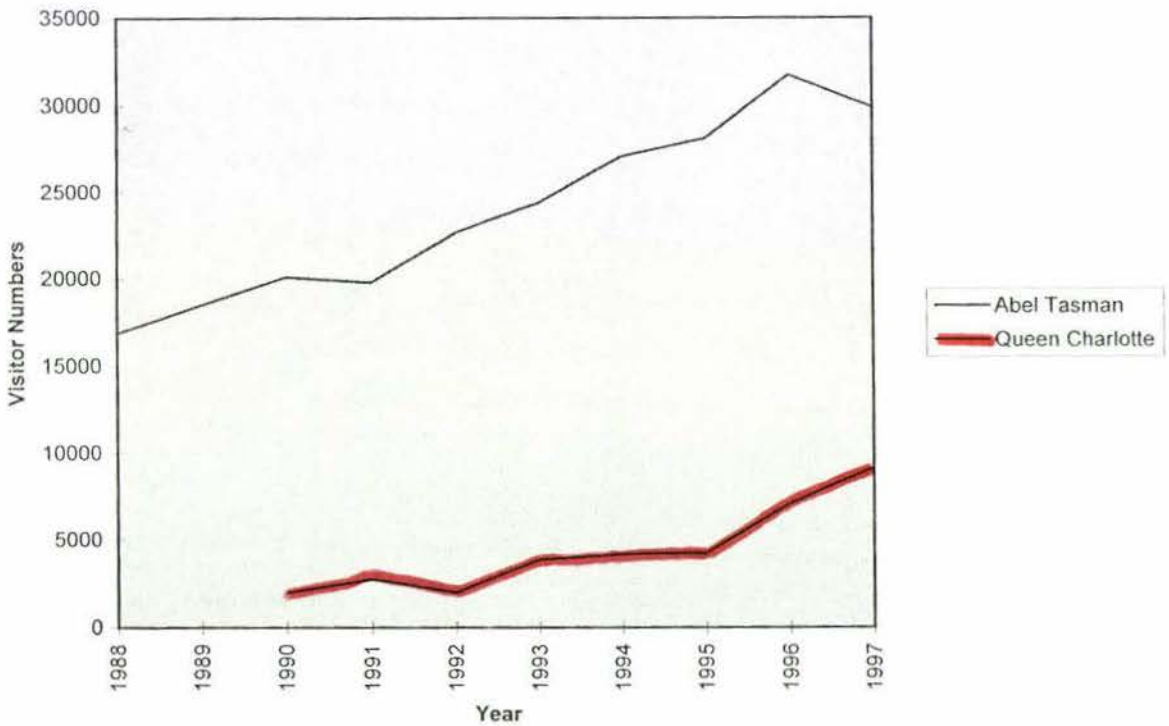


Figure 8: Comparison of Abel Tasman and Queen Charlotte visitor numbers (Source: DoC 1998a;b;c)

Moreover, Figure 9 illustrates that visitor growth on the Abel Tasman Coastal Track and the Queen Charlotte Walkway appears to be increasing at a faster rate than international arrivals numbers to New Zealand.

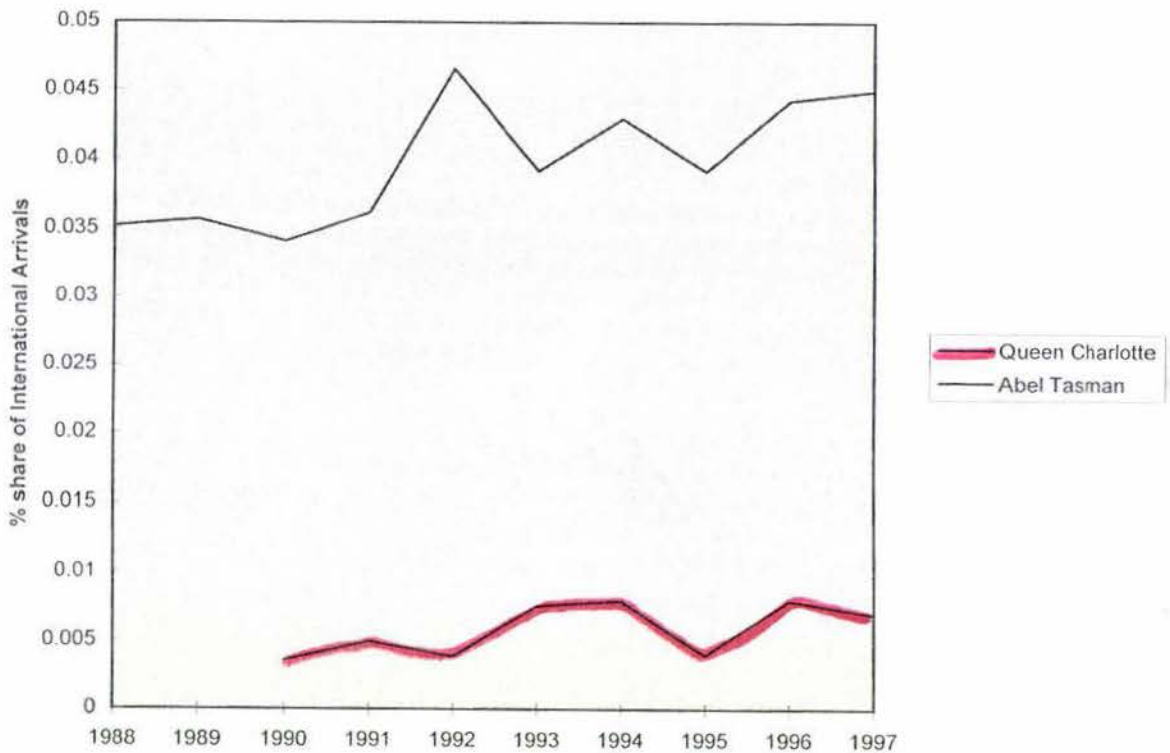


Figure 9: Percentage share of international arrival numbers on the ATand QC tracks (Source: DoC 1998a,b,c; Statistics NZ 1998b).

This indicates that the Department of Conservation's diversion objective has not been demonstrably successful. This is disturbing, considering that DoC was responsible for the primary drive to upgrade the Walkway. The Department made a commitment to upgrade

the Walkway in the face of growing demand for recreational experiences in the conservation estate, actively seeking out potential business partners who would contribute to the development (Rautjoki 1999 *pers comm*). However, if visitor numbers continue to grow on the Queen Charlotte Walkway, social and environmental capacities will inevitably be breached as they have been on the Able Tasman Coastal Track. Given this eventuality, DoC may be forced to divert visitors to some new destination, bringing tourism pressures to another corner of the conservation estate.

Incidentally, the Kepler Track in Southland is a similar example of an attempt at diversion. This track, which was developed in order to take visitor pressure off the DoC tracks in Southland, has become popular in its own right. However, visitor numbers have not dropped on the surrounding tracks (Rautjoki 1999 *pers comm*), although it is conceivable that tourist numbers on the surrounding tracks could be much higher without this new development. Moreover, a recent user-survey carried out on the Kepler Track found that 60 percent of visitors perceived aspects of their experience to be crowded (Cessford 1997b: 15). The survey report interpreted this as representing use-levels which are approaching 'social capacity', and suggested that visit-experience and congestion problems would emerge with a future increase in use-levels (Cessford 1997b: 7).

DoC has stated that its primary role is to represent the interests of the environment and that providing for recreation is secondary to this (DoC 1996c). However, in the case of the Queen Charlotte Walkway, the Department was the primary instigator of a tourism project which is supported on purely economic grounds by most stakeholders. As the Walkway has grown in popularity, the Department has distanced itself somewhat from the promotional activities of Destination Marlborough and the Queen Charlotte Walkway Committee, as it must be seen to be acting in the interests of conservation and the natural environment (Grose 1999 *pers comm*). Despite this, DoC is reliant on funding from these organisations for some aspects of the Walkway's up-keep. This was illustrated when the Queen Charlotte Walkway Committee met the costs of re-opening the Walkway after the 1998 winter's slips. However, the Department's financial resources are limited (Logan 1998: 9). The funding

allocated to DoC's Marlborough Sounds area office must finance a number of important statutory responsibilities, such as the management of the hundreds of kilometers of Queen's Chain in the Marlborough region (Grose 1999 *pers comm*).

In sum, the Queen Charlotte Walkway is a product of a rather *ad hoc*, reactionary approach to tourism planning. Its development has more to do with the convergence of multiple objectives of various stakeholders, and was dominated by commerce rather than conservation opportunity. Moreover, the role of commerce has come to dominate through subsequent promotion.

This is in part due to the fragmented nature of the institutional system that deals with tourism and its effects. It is also due to the lack of clearly defined responsibilities for the consequences of visitor growth on the Walkway. For instance, the marketing activities carried out by promotional groups such as Destination Marlborough and the Queen Charlotte Walkway Committee have caused the growth in popularity of the Walkway to take on 'a life of its own'. At any rate, it is argued that that visitor growth on the Walkway is now 'out of DoC's hands' (Rautjoki 1999 *pers comm*). This indicates that there has been a change in the stakeholders' roles, as originally DoC served as the catalyst, or seed, of the Walkway's development, and was accountable for raising its profile. This role has now been taken onboard by local promotional groups which have strong vested interests in the economic success of the Walkway.²⁸ DoC currently places a stronger emphasis on protection of the area's intrinsic values, indicating a shift along the use-protection continuum contained in its legislation.²⁹

5.7. Conclusion

The Abel Tasman Coastal Track and the Queen Charlotte Walkway have a number of factors in common. Both are coastal tracks in the northern South Island that are experiencing an increase in visitor numbers. In both areas, the Department of Conservation,

²⁸ Refer to table 3: Summary of stakeholders' objectives for the Q.C. Walkway, page 112.

as manager of the conservation estate, is responsible for dealing with the environmental and social effects associated with this growth. However, the Department lacks the funding and strategic direction to carry out this role effectively. As a consequence, the crowded Abel Tasman Coastal Track, which was fully developed over two decades ago, represents one possible scenario for the future of the much younger Queen Charlotte Walkway. In the face of increasing tourism to New Zealand's conservation estate, this scenario is not unlikely.

The Queen Charlotte Walkway is, in a sense, nationally significant, as it represents how new tourism developments in protected localities are currently planned for and managed. An analysis of the planning process of the Queen Charlotte Walkway established the following points:

- DoC was the original instigator of the Walkway development;
- DoC committed to the Walkway development on recreational grounds. The Department also represents the environment. There can be tension between these roles;
- DoC's objectives for the Walkway were to divert potential visitors from an area of heavy use, and to provide for recreation in the region. However, the Walkway has not achieved the diversion objective;
- The majority of the stakeholders wished to attract tourism revenue to the region. It was hoped that promoting a new tourism product such as the Queen Charlotte Walkway would achieve this; and
- The growing popularity of the Walkway is now attributed to the work of promotional bodies. DoC has distanced itself from this promotional work; it now places a stronger focus on protection of the Queen Charlotte area.
- The Queen Charlotte Walkway is the product of a loose institutional arrangement - no formal policy framework existed during its development.

³ See Chapter Four (section 4.3.) regarding the conflict between visitor use and protection in New Zealand's

Clearly, DoC's involvement in the development of the Walkway has indicated that it is under pressure to develop more facilities in existing natural areas and develop new natural areas for tourism, in order to cater for trampers displaced by crowding. This suggests that the lack of strategic links between tourism agencies and organisations, combined with a lack of government funding, is forcing the Department to adopt a reactive approach to tourism planning and development in the conservation estate.

However, regardless of the inconstancies in the process that created it, the Queen Charlotte Walkway is becoming an important tourist destination in the conservation estate. It is therefore important that the Walkway, as a 'tourism product', adheres to some measurement of sustainability. Consequently, Chapter Six measures this new tourism attraction against a framework of sustainability in order to establish what impacts are threatening the long-term viability of the resource.

CHAPTER SIX - *The Queen Charlotte Walkway: a Sustainable Tourism Product?*

6.0. Introduction

This chapter specifically evaluates the Queen Charlotte Walkway using the sustainable tourism framework introduced in Chapter Two, to establish whether its conservation and recreation potential is likely to be safeguarded to meet the needs of future generations. The evaluation is carried out using the results of in-depth interviews with experts, the community, iwi, commercial operators and tourists, as well as literature research and a visual inspection of physical impacts of tourism on the Walkway. The observations made in this chapter cast light on the outcomes of the institutional arrangements discussed in Chapter Five.

6.1. The Assessment Framework

In examining the 'sustainability' of the Queen Charlotte Walkway, this chapter focuses on how the Walkway is expected to cope with visitor use into the foreseeable future. The primary management agency with the greatest influence over the sustainability of this resource is the *Department of Conservation* (DoC). The sustainable tourism framework discussed in Chapter Two is the basis of evaluation. This framework takes into account both anthropocentric and ecocentric approaches, which require that concern with sustainability should be widened beyond economic considerations and biophysical issues (Henry & Jackson 1996: 22). This framework also examines the implications of tourism developments on managerial practices, political and community structures. The framework incorporates six elements of sustainable tourism, which are divided into two categories that potentially conflict with one another. These categories are:

Site Specific Elements

- Environmental and ecological sustainability
- Cultural and community sustainability
- Social sustainability

Institutional Elements

- Economic and commercial sustainability
- Managerial sustainability
- Political sustainability

The Walkway development is evaluated against each of these elements of sustainability below. The types of analysis used to evaluate these elements and their associated methodologies are outlined in Table 4.

Type of Analysis	Date	Methodology
Interviews with experts	Jan, Feb	Semi-formal, in-depth
Interviews with visitors on Abel	1999	structure
Tasman	April 1998	See appendices IV, VII
Interviews with visitors on Qn	April 1999	See appendices IV, VIII
Charlotte	April 1999	See appendices V, IX
Interviews with community members	April 1999	See appendices IV, X
Interviews with commercial operators	April 1999	Semi-formal, in-depth
Interviews with iwi	March 1999	structure
Visual track analysis	March 1999	See appendix XI
Visual campsite analysis	1998-9	See appendix XII
Policy analysis	1998-9	
Review of institutional arrangements		Review of Chapter 3, 4

Table 4: Types of analysis used to evaluate sustainability of QCW

The three *Site Specific Elements* of sustainability on the Queen Charlotte Walkway are now evaluated.

6.1.1. Environmental and Ecological Sustainability

This element of sustainability seeks to ensure that non-renewable physical resources are not degraded beyond the ability of ecosystems to adapt as a result of tourism activity (Henry & Jackson 1996: 18). Since most of the Marlborough Sounds has been cleared for farming in the past, most of its ecosystems have been drastically altered and it can be argued that it is no longer a 'pristine' natural environment. Therefore, it is unlikely that the primary environmental impact of the Queen Charlotte Walkway will be the disturbance of natural ecosystems. In fact, it is likely that local biodiversity will increase as the area revegetates. It is more likely that issues relating to the physical track condition, the accommodation of the increase in visitors and the hygiene of the environment will have the greatest implications for the Walkway's sustainability. These issues are now evaluated.

A. Physical Track Condition

Potentially, there are two causes of physical damage to the Queen Charlotte Walkway and its surrounds. The first is the physical development of the Walkway and its subsequent maintenance. The second is the ongoing trampling and eroding effects of the walkers and mountain-bikers on and around the Walkway.

Upgrading and Maintenance of the Walkway

Prior to the Walkway upgrade, the Department of Conservation expected some short term environmental effects associated with excavation and vegetation removal (DoC 1994a). Due to the lack of a record of the track's condition prior to the upgrade, these environmental effects cannot be evaluated. While it is assumed that care would be taken, there is some

community concern about recent excavation work required to repair parts of the Walkway damaged in the 1998 winter slips. One resident observed that the machinery used to repair the Walkway seems to have caused further erosion in places. Consequently, she felt that the repair work should have been done by hand (*Timms *pers comm* 1999). Another resident felt the repair workers had displayed a 'cowboy mentality', as a number of mature trees were felled to make room for the machinery, and damage was done to stable parts of the Walkway. She also felt that the Walkway was repaired too soon after the slips, when the ground was still saturated with water from the heavy rains (*Algie *pers comm* 1999).

These concerns are relevant, as the Department fixed the Walkway at the behest of commercial operators, which funded the work (*Corbett *pers comm* 1999). Consequently, commercial interests may have been given greater weight than the protection of the local environment in DoC's involvement in the track repair work. However, the adverse effects of the Walkway's upgrade and maintenance are fairly localised and can be interpreted as being less significant than the adverse effects caused by day-to-day use of the Walkway.

Mountain-biking and Trampling Effects

The DoC scoping report on the Walkway upgrade identified that mountain-bikes would cause environmental impacts on the track surface, and that these impacts would be monitored (DoC 1994a). Consequently, surveys were carried out in 1994 and 1998 to monitor visitors' opinions regarding mountain-biking on the Walkway (Hill 1994; DoC 1998d). Both surveys indicated that there is a strong perception that mountain-bikes are causing damage to the Walkway. Interviews conducted for the current evaluation indicated that this perception is also held in the local community. For instance, some community members stated that they strongly dislike mountain-bikes and believe they cause greater damage to the Walkway than walkers because all the weight of the rider is concentrated on a narrow track or 'print' (*Algie; *Anderson; Hazel *pers comm* 1999)

Currently, the northern section of the Walkway, from Ship Cove to Punga Cove, is closed to mountain-bikers during the summer season (1 December to 28 February). Consequently, when the track re-opens in March, there is a rush of mountain-biking activity on this section of the Walkway (*Corbett *pers comm* 1999). For instance, over one hundred bikers visited the premises of one of the eleven commercial operators during three rainy days in early March 1999. The operator questioned whether the Walkway could sustain this level of use, particularly since the wet weather caused the track to become very muddy (*Solomon *pers comm* 1999). A number of other community members highlighted the problems associated with mountain-biking in the winter season, arguing that it makes the Walkway extremely muddy and causes drainage problems (*Algie, *Hazel, *Luigi; *Timms *pers comm* 1999). However, some people noted that the Walkway is in good overall condition considering that it is on clay soil, which drains poorly (*Algie; *Hazel *pers comm* 1999).

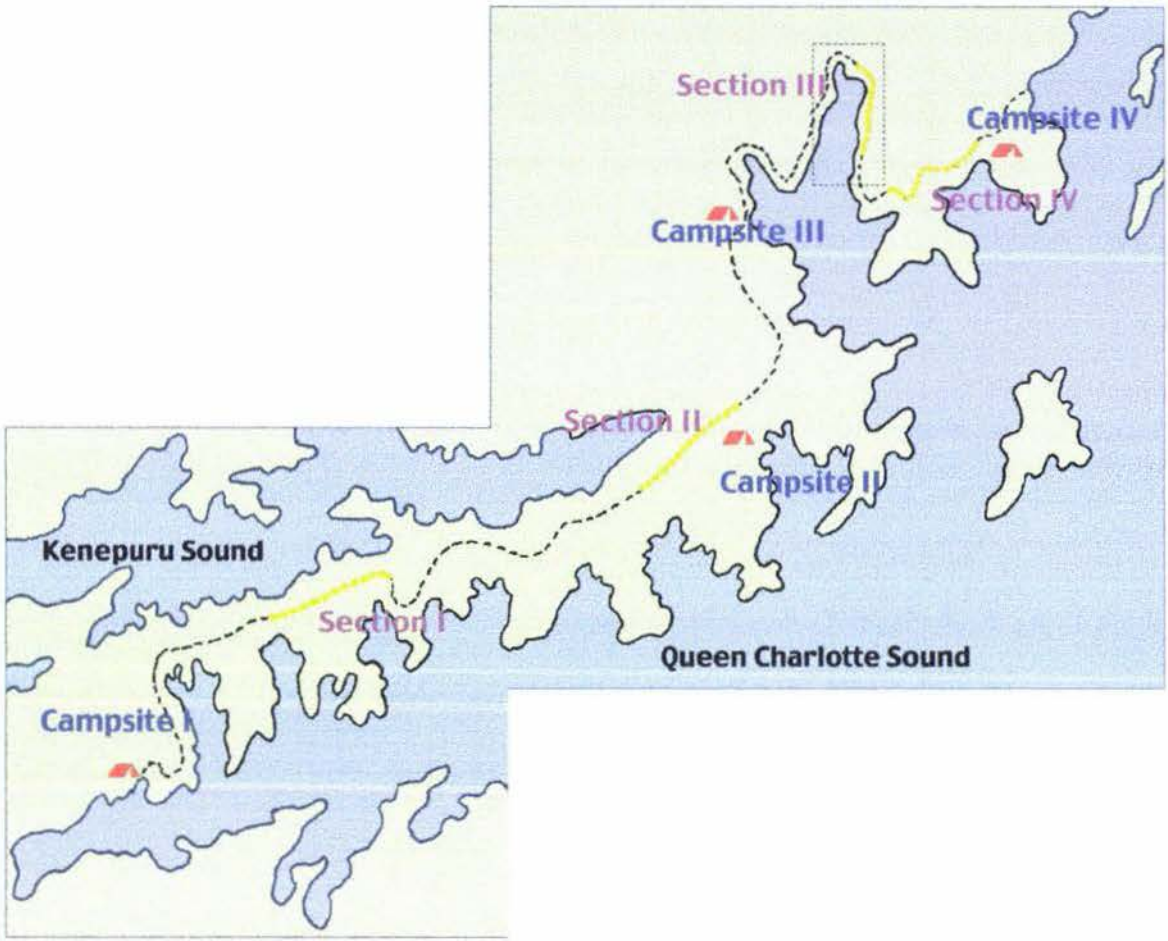
Observation of track damage associated with trampling and mountain-biking effects confirmed that the community concerns and DoC survey results were valid. Table 5 shows that there was evidence of damage at the four sites that were examined.¹ Figure 10 indicates four sections of track that were visually assessed for damage associated with trampling and mountain-biking. It also indicates four campsites that are assessed later in this chapter.

Type of track damage	Site I	Site II	Site III	Site IV
Soil and vegetation damage:				
• erosion of upper organic soil and litter horizons	✓	✓	✓✓	✓
• exposure of tree roots and rocks	✓✓	✓	✓	✓
• loss of existing and adjacent vegetation cover	✓	✓✓	✓✓	✓
Drainage problems:				
• development of wet/boggy areas due to poor drainage	✓✓	✓	✓✓✓	✓✓
• development of erosion channels and surfaces due to increased run-off	✓✓	✓✓	✓✓	✓✓
Track impacts due to user behaviour:				
• evidence of damage caused by mountain-biking	✓	✓✓	✓✓✓	✓✓
• 'multiple tracking' of walkers around wet/boggy areas or obstructions	✓✓	✓✓	✓✓	✓✓




Table 5: Track damage due to trampling and mountain-biking effects (After Simmons & Cessford 1989).

¹ See Appendix XI for an explanation of the methodology used in this analysis.

Location of campsites and track sections analysed on the Queen Charlotte Walkway



Legend

-  Analysed campsites
-  Analysed sections of walkway
-  Indicates area in which community interviews took place

Appendix XI outlines the specific criteria adopted in this assesment. However, the ranking generally indicates that each impact was observed to be:

✓	Infrequent
✓✓	Moderate
✓✓✓	Very frequent

Simmons and Cessford (1989: 58) found in their analysis of tourist-induced damage on the Saint James Track, a walking track in the South Island, that careful track construction with particular emphasis on control of drainage is most important in order to prevent track damage. In other words, drainage is the most influential factor that effects the condition of walking tracks (Simmons *pers comm* 1999). The Queen Charlotte Walkway has problems associated with drainage, due to the clay soil it is based on, which is relatively impermeable. Water tends to 'pond' in areas on the track, creating muddy obstacles to negotiate.

Mountain-bikes appear to be the main cause of damage to the Walkway. This damage is then typically compounded by 'multiple tracking' caused by walkers edging around the muddy centre of the track, illustrated in Figure 11. This increases soil damage to the surrounding area and effectively widens the existing track, ultimately increasing the ecological 'edge' effects. The results of this analysis, combined with the results of the DoC surveys and community interviews, imply that that while the track is in generally good condition, its physical carrying capacity is being significantly reduced by mountain-biking damage, the result of which is to extend its impact.



Figure 11: Typical damage caused by mountain-biking and subsequent 'multiple tracking' on the QCW

B. Accommodation Issues

An increase in visitor numbers inevitably brings with it increased physical impacts to the seven DoC campsites on the Queen Charlotte Walkway. In addition, the private accommodation businesses along the Walkway's length must deal with the environmental consequences of an increase in visitors to their premises. These issues are now examined.

Department of Conservation Campsites

Visitors are encouraged by DoC to use only designated camping areas, in order to reduce the ecological effects of large numbers of campers (DoC 1994a). For instance, the only designated fireplaces along the Walkway are in these campsites, reducing the risk of fire, a widened impact zone and pollution associated with freedom camping.² However, community members have witnessed a large amount of freedom camping, especially over the crowded summer season (*Algie; *Corbett; *Luigi *pers comm* 1999). This practice will inevitably spread the impacts of camping over a much wider area. Since no freedom campers were interviewed in the process of this evaluation, no reasons for an increase in freedom camping have been revealed. However, it is likely that freedom camping is a result of any one of the following factors: not enough capacity at campsites; DoC campsites not sufficiently reproducing the experience of the Queen Charlotte area; poor design; or poorly located campsites.

The impacts of camping have been documented in a study by McQueen *et al* (1991). This study identified vegetation degradation, soil compaction and erosion, and habitat degradation as a result of camping. The study also found that high impact on vegetation occurs when tent sites are occupied for more than 50 - 70 nights per year. Soils in camping sites are usually deficient in nutrients such as potassium, lack seedlings, have low levels of soil fauna, a diminishing diversity of native species, an increased presence of weeds, bare ground, damage to trees and removal of woody vegetation and litter. McQueen *et al* observed that most of these changes occur at low use levels, and that once a slight change occurs, reversal of change is difficult, even with management. However, the study found that deterioration is still reversible and recovery to 'natural' condition is possible provided use levels are very low.

Since visitor levels are fairly high on the Queen Charlotte Walkway, and are predicted to climb, it seems likely that the DoC campsites will be subject to at least some of the impacts identified by McQueen *et al* (1991). Subsequently, the impacts on four campsites (located

² On a cautionary note, even designated fireplaces are not risk-free; a community member has stated that on several occasions local residents put out fires in a fireplace that visitors had left burning when they left (*Timms *pers*

on Figure 10 above) along the Walkway were assessed using the criteria in Table 6.³ Appendix XII outlines the specific criteria adopted in this assessment. However, the ranking was similar to that adopted in Table 5 above.

This assessment indicates that the impacts on the DoC campsites are currently minor to moderate. The main impacts are erosion around the tentsites and an increase in rubbish. The overall condition of the DoC campsites is good. However, freedom camping is becoming more widespread with increasing numbers of visitors to the Walkway. This needs to be more tightly managed as it widens the impact zone which in turn, encourages further use. Most of the freedom camping is in the vicinity of the track and some is on private land (*Luigi *pers comm* 1999).

Type of campsite damage	Site I	Site II	Site III	Site IV
• damage to surrounding vegetation	✓	✓		✓
• bare ground, both on the margins and sites	✓	✓	✓✓	✓
• soil compaction and erosion	✓✓		✓✓	✓✓
• exotic weeds	✓	✓	✓	
• introduced animal pests				✓
• rubbish and sewage pollution	✓	✓		✓✓

Table 6: Damage to campsites (After McQueen *et al* 1991).

Private Accommodation Businesses

The Department of Conservation made a policy decision not to build DoC huts on the Queen Charlotte Walkway, as the provision of commercial accommodation on private land removes impacts from the scenic reserve and “*provides the Walkway with an unusual character compared to other major tracks in New Zealand*” (DoC 1994a: 24). However, interviews with some of the commercial operators have indicated that there may be point-source pollution caused by insufficient sewage systems associated with some operations,

comm 1999).

particularly at the peak of the summer season. There is also a perception of unfairness that not all of the operators have been required to test their water and sewage for resource consents (*Hayward *pers comm* 1999). However, this cannot be attributed solely to the increase in popularity of the Queen Charlotte Walkway, as these businesses also host a number of visitors who have not been on the Walkway (*Jamison *pers comm* 1999). Consequently, the Marlborough District Council needs to ensure that the private accommodation businesses have the infrastructure in place to cope with an increase in visitors, particularly in terms of sewage treatment and disposal.

C. Hygiene Issues

There are several important hygiene issues related to the increase in visitors to the Queen Charlotte Walkway, including the provision of toilet facilities, rubbish removal and disposal and the maintenance of the water quality.

Toilets

The community interviews indicated that there is a general consensus regarding the insufficient provision of toilet facilities on the Walkway (*Algie, *Corbett, *Timms, *Hazel, *Langford, *Luigi, *Ruby, *Solomon, *Steward *pers comm* 1999). A number of community members reported having seen toilet paper in the bush, and one person reported seeing faeces and toilet paper on their neighbour's lawn (*Algie *pers comm* 1999). Clearly, this was seen as totally unacceptable, and it was felt that more public toilets along the track would mitigate this problem. In addition, some of the commercial operators also reported that a large number of people were using the private accommodation businesses' toilets without paying (*Corbett, *Solomon *pers comm* 1999). Observation of a stretch of the Walkway corroborated this verbal evidence of a lack of toilet facilities; behind one popular

resting spot, a small track disappearing into the undergrowth was clearly used as a toilet by a large number of people.⁴

Some of the visitors interviewed during this evaluation reported that the existing pit toilets were smelly. This indicates that some people will not be using the facilities currently in place. As a consequence of this problem, a recent DoC policy decision has been made to put in flush units in some places along the Walkway, because they smell less than the pit toilets, and people cannot throw rubbish down them. The Department has trialed composting toilets on the Walkway, but found they require a high level of maintenance. However, it has been acknowledged that septic tanks cause their own set of management problems; getting resource consents for septic tanks close to the shoreline can be problematic, and they need a water source to function (Grose 1999 *pers comm*). Consequently, pit toilets will have to be used where there is a lack of available water (DoC 1994a). Despite the Department's endeavours to provide the necessary infrastructure, it appears to be impeded due to a shortage of funds. This is exemplified by a half-built toilet at the top of the Tawa Bay saddle, that has been unfinished for four months.

This is an important point that highlights the insufficiencies of the current institutional arrangements for tourism management. It seems clear that the Department of Conservation committed to the Queen Charlotte Walkway development without the capacity to meet its conservation mandate in response to the ensuing increase in visitor pressure. In the face of rising visitor numbers, this issue will become more urgent with time.

In summary, consistent observation by commercial operators, residents and visitors, combined with visual evidence, suggests that the infrastructure is not in place for current levels of use on the Queen Charlotte Walkway. This issue has important implications for the district's water quality, which is now examined.

Water Quality

⁴ Appendix XIII outlines this evidence.

Since the first positive detection of *giardia* in New Zealand waters was made in the Kakanui catchment, near Oamaru, in April 1990 (DoC 1991: 3), the risks of contamination of this parasite have become well-known. The *giardia* parasite lives in the intestine, and can cause serious stomach illnesses. It is spread by cysts passed through the faeces and entering a new host through the mouth; usually by drinking contaminated water. The *cryptosporidium* parasite has a similar life-cycle and can also cause serious stomach upsets. Water systems such as streams and lakes can become contaminated with *giardia* and *cryptosporidium* cysts as a result of poor toilet waste disposal. Once in these water systems, the cysts can survive at extremely low temperatures (DoC 1990). Possums, rats, dogs, pigs and cats are proven carriers of the *giardia* parasite in New Zealand (DoC 1991: 2), implying that once the parasite is introduced to an area, it is likely to spread into surrounding water systems by animal vectors. Clearly, this is an important issue relating to the sustainability of increasing use on the Queen Charlotte Walkway. It has been acknowledged by the Department that:

“...it is always possible that there may be *giardia* or high levels of faecal coliforms in stream water, especially as wild animals and domestic animals are present in the [Queen Charlotte] area. While the risk to health is low, visitors need to be aware of the situation. Increasing use of the Walkway may also increase the risk of contamination from casual human waste and a positive programme of education is required in this respect” (DoC 1994a: 18).

However, this statement does not adequately identify the implications of a potential *giardia* or *cryptosporidium* contamination for the local community. Since residents in the Marlborough Sounds rely on the streams in the area for their water source, these parasites pose an important community health issue. Consequently, some community members are very worried about the quality of their water being degraded as a result of the increase in tourism to the district (*Algie, *Hazel *pers comm* 1999). Commercial operators are also concerned about the implications of *giardia* because of the risks it poses to their businesses (*Boyce, *Corbett, *McDougal, *Solomon *pers comm* 1999). In order to reduce the risk of

the parasite spreading into the district, some operators warn visitors to drink out of fast moving streams and to be 'hygienic' (*Boyce, *McDougal *pers comm* 1999). Similarly, DoC has adopted an advocacy approach to the problem, by printing its New Zealand Environmental Care Code on walkway information brochures that include hygiene messages and warnings about the potential for disease in untreated water (DoC 1997b).

However, advocacy is not enough. Since this is an important community health issue, the *Marlborough District Council* (MDC) also has responsibility for the prevention of *giardia* and *cryptosporidium* contamination in the district. The MDC has identified the protection of water ecosystems as a regional priority, as:

"...it is important to recognise and provide for water issues which affect amenity and recreational values, and the preservation of natural character of water bodies and their margins" (MDC 1995: 25).

The Council has defined 'amenity values' as "*the provision of food, shelter, and clothing; economic prosperity; health and safety; spiritual and cultural freedom; and the qualities and characteristics of the community [people] live in*". Consequently, amenity values, or quality of life, is a measure of the well-being of people and communities (MDC 1995: 53). Furthermore, the MDC's policy on community health is:

"...[t]o avoid, remedy or mitigate any adverse effects of activities on the health of people and communities" (MDC 1995: policy 7.1.5).

The Council has argued that basic environmental hygiene is generally taken for granted until there is a measurable effect on people's health. Rather than addressing problems when they get to danger levels, MDC has stated that it will ensure that "*the health supporting ability of the environment is always maintained by resource use*" (MDC 1995: 56). The Council therefore has the mandate to intervene and ensure that the infrastructure on the Walkway is sufficient and any risks to community health are as low as reasonably possible.

The current insufficiency of toilet facilities on the Queen Charlotte Walkway poses a threat to community health in the Queen Charlotte area. This is an unsatisfactory situation. Once the area becomes contaminated with *giardia* and *cryptosporidium*, mitigation measures will be impossible. However, the risk of these parasites spreading can be greatly reduced by the development of more well-placed facilities. Consequently, the Department of Conservation should prioritise the resolution of this issue. Furthermore, the MDC needs to become involved and liaise with the Department to reduce the risk of water contamination, as it is an important public health issue in the district.

Rubbish

DoC has adopted a 'pack in, pack out' policy on the Queen Charlotte Walkway regarding rubbish disposal. Monitoring by the Department shows that this policy is working so far (Grose 1999 *pers comm*). Community interviews also support this; while there is more rubbish on the Walkway than there used to be (*Anderson, *Timms, *Steward, *Walker *pers comm* 1999), a number of people also noted that the Walkway was a clean track considering its popularity. This indicates that most visitors are very tidy (*Algie, *Anderson, *McDougal *pers comm* 1999). One community member said that they felt the Walkway was much less polluted than the Abel Tasman Coastal Track, where they have seen sanitary pads and nappies in the bush (*Anderson *pers comm* 1999s). Some commercial operators did complain that visitors were using their rubbish bins which they then must discard of at their own cost (*Corbett, *McDougal *pers comm* 1999). This is a management issue that DoC could possibly investigate; it already gives one private accommodation house rubbish bags to use for walkway rubbish, which it collects from time to time (*Solomon *pers comm* 1999).

While the Queen Charlotte Walkway is currently a tidy track, the future success of the 'pack in, pack out' policy depends on ongoing education and publicity. This could be carried out by commercial transport operator and accommodation businesses, as they have the greatest contact with most track users. The Department of Conservation may also need

to assist a greater number of private operators dispose of walkway rubbish as the Walkway grows in popularity. Another possible cross-boundary response to the problem of insufficient DoC resources that could be pursued further is the adoption of a 'track care partnership' requiring commercial operators and residents to act as guardians of the Walkway.

Summary of the environmental and ecological sustainability of the Queen Charlotte Walkway

Physically, the Walkway is in good overall condition considering that it is a clay track and, according to community members, has always been muddy. However, its physical carrying capacity is being reduced and its latent impacts extended by the damage caused by mountain-biking. This is a matter that the Department of Conservation needs to investigate more closely. The designated campsites are also in good overall condition, although freedom camping outside these areas is spreading impacts, and in turn, is encouraging further use of areas outside the campsites. Some private accommodation businesses along the Walkway need to upgrade their infrastructure in order to cope with the increase in visitors. The track is currently tidy and rubbish disposal is being managed fairly well. The most serious issue threatening the environmental sustainability of the Walkway is the current lack of toilets. It is unsatisfactory that DoC, as one of New Zealand's crown management agencies, is encouraging recreation that poses a threat to community health and well-being. Consequently, this public health issue should be addressed by DoC and the MDC as soon as possible.

While there could possibly be some impact on biodiversity along the Walkway, the fauna in the area is regenerating, which suggests that biodiversity is currently increasing in the Queen Charlotte area. Consequently, for the purposes of this evaluation, the assumption is made that visitor-impacts on local ecosystems and floral biodiversity are minimal.

6.1.2. *Cultural and Community Sustainability*

This element of sustainability seeks to ensure that tourism does not undermine the development or survival of appropriate indigenous community structures, or even have an impact upon the nature of the local and regional social structure per se (Henry & Jackson 1996: 18). Cultural and community sustainability is a key component of sustainable tourism development (McCool 1994), and can be measured using the core indicator of resident or cultural satisfaction with tourism development (Dymond 1997: 281). Consequently, the levels of cultural and community satisfaction in the Queen Charlotte Walkway development were evaluated via in-depth interviews with iwi and a number of residential community members and commercial operators in the area.

A. Key cultural concerns regarding the Walkway

The iwi interviews established that Te Atiawa are the iwi who hold *manawhenua* status in the Queen Charlotte area. Consequently, it is strongly felt that they should be full consulted in any resource management issue relating to this area. A lot of Te Atiawa's history occurred, and continues to occur, in areas that the track passes over and for this reason the area is prized and very special to this iwi (Hewett *pers comm* 1999).

Te Atiawa's specific management concerns for the Queen Charlotte Walkway include the disposal of waste materials and pollutants, particularly during peak holiday times. Furthermore, they feel strongly that promotion of the track on both a national and local basis provides very little, if any acknowledgement of things Maori. Te Atiawa are also concerned that the Walkway's promotion could exclude or cut off Maori from the area, as in some cases they can be the ones least likely to afford the costs of some of the expensive lodges and accommodation businesses along the Walkway (Hewett *pers comm* 1999). This is an important management issue for the Walkway that needs to be addressed.

B. Key community concerns regarding the Walkway

A survey carried out in the mid-eighties regarding the perceptions of overcrowding caused by summer visitors in the Marlborough Sounds established that 75 percent of the resident community surveyed felt that there were just the right amount of visitors or too many already (Schellhorn 1984: 54). This suggests that the local Queen Charlotte community might tend to be unhappy about the subsequent increase in visitors to the area due to the growth in popularity of the Queen Charlotte Walkway. DoC also acknowledged this possibility in its investigation into the upgrade of the Walkway, in which it was predicated that there would be increased pressure on adjacent properties, and:

“...reaction [towards an increase in visitors] will vary and some [owners] may perceive a loss of tranquillity and privacy. Staff will liaise with these property owners close to the Walkway to discuss any concerns they have” (DoC 1994a: 31).

Fortunately, the community interview results indicated that the community in general is not specifically opposed to a growth in local tourism. In fact, some people like the extra tourism activity in the area (although there is unanimous disapproval in the increase in mountain-bikers). This is an encouraging sign for the cultural and community sustainability of the Walkway, as it indicates that tourism does not necessarily undermine the local ‘way of life’. However, the interviews established that there are some key community concerns associated with the growth in visitor numbers. There is general feeling that the Walkway development has resulted in increased track usage, as well as a general growth in tourism in conjunction with greater publicity. Both of these forms of tourism growth cause adverse effects on the community.

The interviews indicated that the community is concerned with environmental issues associated with the increase in the Walkway’s popularity such as a shortage of toilet facilities, water hygiene, rubbish disposal, and physical track damage caused by mountain-

bikes. The implications of these issues have been discussed previously. Furthermore, the interviews indicated that there is a very high degree of concern in the perceived adverse effects the use of mountain-bikes is having on the community. As a result of these concerns, there was general support for stronger intervention to reduce visitor pressure on the Walkway and to fund its maintenance.

Impact of mountain-bikes on the community

Apart from the physical damage the mountain-bikes cause to the Walkway, the community interviews indicated two further causes for concern; speed and safety issues, and a perceived conflict between bikers and walkers on the Walkway. A number of community members feel that the mountain-bikers are too fast, particularly through the settlement adjacent to the Walkway (*Luigi; *Steward; *Timms; *Walker *pers comm* 1999). There is some concern that the bikers are a hazard on the Walkway, especially for children and elderly people, as they come fast and quietly around corners (*Boyce; *Anderson *Langford; *Luigi; *Walker *pers comm* 1999). In addition to this, some community members dislike having to constantly move out of the way for bikers, and believe that the current bike numbers conflict with the use of the track for walkers (*Algie; *Hazel *pers comm* 1999).

As a result of these concerns, there is some support for tighter management controls on mountain-biking. This support ranged from the introduction of a quota system for bikers (*Algie; *Hazel; *Solomon; *Timms *pers comm* 1999), to the banning of bikes from the Walkway (*Anderson; *Luigi *pers comm* 1999). Conversely, despite the problems associated with mountain-biking, some community members don't mind sharing the Walkway with bikers because they see it as a fun activity (*Boyce, *Walker *pers comm* 1999).

Regulatory Management on the Walkway

Currently, there is no limit on the amount of walkers or mountain-bikers that can use the Walkway. However, a number of community members and, interestingly, a few commercial operators, support visitor quotas on the Walkway (*Algie; *Boyce; *Hayward; *Hazel; *Solomon; *Timms *pers comm* 1999). One operator suggested that commercial transport businesses should have a license or a quota regulating the amount of people they transport to the Walkway. (*Boyce *pers comm* 1999). Another believes that visitor numbers should be controlled as people visit the Queen Charlotte area because of its remote and empty characteristics (*Hayward *pers comm* 1999).

A number of community members felt that all visitors should pay a fee in fund the Walkway's maintenance. It was generally argued that such a charge could be collected by the commercial transport boats as the visitors were dropped at the Walkway (*Anderson; *Hazel; *Steward; *Timms *pers comm* 1999).

In summary, there is a high level of community concern about the social impacts of mountain-biking on the Walkway. This indicates that the Department of Conservation investigation into the impact of mountain-biking on the local community may have been insufficient. Because of this, and the Walkway's impact on the environment, some residents are angry about DoC's role in the track development, with one resident stating that "*DoC is aiding and abetting the degradation of the local environment*" particularly with regards to hygiene (*Algie *pers comm* 1999). In addition, there is community support for stronger measures to control visitor numbers and pay for infrastructure.

C. Community concerns regarding general tourism growth

The community interview results have suggested that there have been two types of growth in the Queen Charlotte area; the growth in popularity in the Walkway, and an increase in casual renting of local properties. A number of community members are unhappy with the

increase in rental visitors as they bring a more rowdy element to the area, and are insensitive of the values of the community (*Algie; *Hazel; *Steward; *Timms *pers comm* 1999). In addition, one community member had observed environmental issues associated with the general growth in tourism to the area, such as an increase in 'light pollution', resulting in starlight being diminished, problems with too many freely roaming dogs in summer, and wekas and other birdlife vanishing in the busy season (*Algie *pers comm* 1999). Some community residents are also concerned with the drop in fish numbers in the area which they feel is partly related to an increase in general tourism (*Hazel; *Langford; *Walker *pers comm* 1999).

Clearly, secondary tourism impacts are being experienced in the area. However, since these impacts are not *directly* linked to the Queen Charlotte Walkway development, no crown agency or organisation is responsible for their management. This situation reflects the inherently multi-faceted and fragmented nature of the tourism industry, and the difficulties in controlling its adverse effects.

D. Increased Pressure on Anakiwa, Picton and Havelock

The Department of Conservation's investigation into the possible impacts of the Walkway development identified that the wider community would be affected by an increase in tourism. For instance, Anakiwa lies at the end of the Walkway, and is subject to increased road and boat traffic. There is also more 'people' activity around the road-end and foreshore area as a result of the Walkway upgrade. A suggested mitigation technique has been to market Picton as the start and finish point of the Walkway, in order to minimise the adverse effects of increased traffic to Anakiwa (DoC 1994a). The Department also predicted that more backpackers would stay in the Picton and Havelock areas as a result of the Walkway upgrade (DoC 1994a). However, this is seen as a positive change, as these towns have the infrastructure to absorb the extra tourist activity, and welcome the revenue it generates (Piper 1999 *pers comm*).

Summary of the cultural and community sustainability of the Queen Charlotte Walkway

Department of Conservation policy states that communities can be adversely impacted by tourism developments and consequently "*the development and maintenance of facilities such as tracks need to take into account the values in the area*" (DoC 1996c: 296). The community interviews indicated that the values of the Queen Charlotte Walkway include the right to drink clean water, the ability to walk on the track without worrying about conflict with bikers, and a tranquil, quiet, peaceful and serene environment (*Algie; *Boyce; *Langford; *Stewart; *Timms; *Walker *pers comm* 1999). There is general agreement within the local community that the Queen Charlotte Walkway development has implications for these values.

However, the community adjacent to the Walkway is isolated from Picton, the nearest regional centre. A result of this isolation may be that the management agencies and promotional bodies involved with the Walkway lack a strong comprehension of the community's character, and could therefore not clearly envisage how visitor growth on the Walkway might impact upon the values of this community. The community concerns discussed above indicate that the impact of the Walkway on the values of the area warrants further investigation by those agencies and organisations involved in the Walkway development.

6.1.3. Social Sustainability

This element of sustainability seeks to ensure that tourism activity does not undermine the quality of the tourism experience, or the tourists' perceptions of environmental quality (Hunter & Green 1995: 54; Henry & Jackson 1996: 18). In the case of the Queen Charlotte Walkway, this was evaluated via interviews with experts, commercial operators, community members and visitors on the Walkway, as well as a review of published visitor survey results. This research indicated that there are three potential threats to social sustainability; a general increase in pressure on the Walkway, an increase in pressure due to

mountain-biking; and an increase in pressure on commercial and DoC accommodation facilities along the Walkway.

A. A general increase in pressure on the Walkway

Visitor numbers on the Queen Charlotte Walkway are increasing (DoC 1998c). A possible social and environmental implication of this increase in numbers is that:

“...strain may be placed on existing facilities and the natural landscape. Visitors’ perceptions of the resource they have travelled to see may be reduced if over-crowding and environmental damage was to occur” (Hill 1994: 1).

However, levels of visitor satisfaction on the Queen Charlotte Walkway are encouraging. In a DoC survey carried out on the Walkway soon after it first started to grow in popularity, visitors expressed a high level of satisfaction in the Walkway. Only 10 percent believed they had experienced over-crowded conditions (Hill 1994: 34). While visitor numbers have increased since this survey was undertaken, preliminary investigations by DoC have indicated that perceived levels of crowding are still low. For instance, in a DoC survey carried out in 1998, 66 percent of visitors were totally satisfied and a further 31 percent were mostly satisfied with their trip (DoC 1998d). This may be because the majority of visitors walk in the same direction; from Ship Cove towards Anakiwa (Grose 1999 *pers comm*). As a result of this voluntary one-way system, the chance of visitors meeting walkers or bikers coming in the opposite direction is greatly reduced. Subsequently, the perception of crowding is generally low and the potential capacity of the Queen Charlotte Walkway is increased.

B. Increased pressure due to mountain-biking

The social impact of mountain-bikes on other walkers is considered by DoC to be an important aspect of the social sustainability of the Walkway (DoC 1994a). Consequently, a

DoC survey on the social effects of mountain-biking was carried out in 1994-5. It was found that 53 percent of 115 walkers interviewed felt bikers detracted from their enjoyment of the Walkway. Despite this, the survey report recommended retaining the *status quo* and allowing mountain-bikers to continue to use the Walkway (Hill 1995: 50). Interestingly, by 1998, only 10 percent of 135 walkers interviewed felt bikers detracted from their enjoyment (DoC 1998d), indicating that DoC's policy decision is justifiable on social grounds.

The 1998 survey also found that 75 percent of visitors agreed that a few irresponsible bikers cause problems for everyone, and there was general agreeance that as walkers got used to bikes and bikers learnt better behaviour, conflict would be reduced. Furthermore, while 60 percent of visitors felt that bikers have a greater impact on tracks in general, only 15 percent visitors agreed that biking should be banned from the Queen Charlotte Walkway altogether (DoC 1998d).

The visitor interviews conducted for this study highlighted similar issues to the DoC survey results and community interviews. All of those surveyed complained of track damage caused by mountain-biking, and a number complained about the safety aspects, speed and impoliteness associated with some mountain-bikers. There was also a number of positive comments about mountain-biking, which included that they added to the Walkway's atmosphere and character. However, there were a number of calls for limits to be imposed on mountain-biking numbers.

C. Increased Pressure on Accommodation

An opinion held within DoC is that, while visitor numbers are increasing, the 'controlling factor' in this growth is the capacity of private accommodation along the Walkway. However, this capacity is increasing as local resorts, in anticipation of a growth in popularity of the area, add more backpacker accommodation to their businesses (Grose 1999 *pers comm*). Interviews with commercial operators indicated that there were mixed feelings about the sustainability of the accommodation on the Walkway. One operator

believed that accommodation may not be able to keep up with demand, and that a shortage in accommodation will lead to bad publicity for the Walkway (*McDougal *pers comm* 1999). However, other operators disagreed with this, since visitor numbers were down on the previous season at the time of the interviews (*Corbett; *Hayward *pers comm* 1999).

However, if the accommodation capacity of the Walkway is reached in the future, it is unproven whether this will indeed act as a 'controlling factor' on the Walkway. A possible result of a lack of accommodation could be an increase in freedom camping, with a subsequent spreading of environmental effects of tourism in the area.

Social Sustainability Summary

There is currently a high level of trip satisfaction amongst visitors on the Queen Charlotte Walkway, indicating that the Walkway's social carrying capacity is not yet close to being exceeded. While some visitors perceive a conflict between mountain-biking and walking, general tolerance and understanding towards mountain-biking appears to have improved over the past five years. Furthermore, if accommodation is the controlling factor of visitor numbers, the Walkway has much greater capacity than its current levels of use. However, the implications of using accommodation as the self-imposed limit to visitor numbers on the Walkway are unproven; when visitor numbers inevitably reach accommodation limits, it may be that the adverse environmental impacts of tourism in the area are spread by an increase in freedom camping in the area.

The three *Institutional Elements* of sustainability on the Queen Charlotte Walkway are now evaluated.

6.1.4. Economic and Commercial Sustainability

This element of sustainability represents a concern that local and regional economic self-reliance is promoted by tourism policy (Henry & Jackson 1996: 18). Interviews with

experts, commercial operators and community members indicated that the Walkway is bringing economic benefits to the region, although there are some perceived inequities in the distribution of these benefits.

A. Economic benefits of the Walkway development

The Department of Conservation has asserted that well managed tourism growth is an important means of ensuring the future prosperity of Marlborough (DoC 1994a: 35). Consequently, prior to the upgrade, the Department stated that the Walkway development was "*well justified in an economic sense*" as it would give a good boost to the local tourist industry (DoC 1994a: 37). Furthermore, it was hoped that the Walkway would act as a focal point in the region, attracting visitors who may undertake a wide range of other activities while in the area and so contribute significantly to the local economy (DoC 1994a: 37). This indicates that the economic prosperity of the district was a motivating factor in DoC's original involvement in the Walkway. Consequently, the Walkway's under-funded infrastructure is highlighted as a significant issue that needs to be addressed.

When investigating the viability of the project, DoC developed a scenario of spending in the region based on 10,000 people per year using the Walkway as an overnight experience (at an average of two nights per person). The assumption was made that half will use commercial accommodation and the other half will use DoC campsites:

- Commercial accommodation - \$500,000
- DoC campsites - \$10,000
- Food and provisions - \$ 200,000
- Commercial boats - \$340,000, day walkers - \$75,000
- Picton and Havelock accommodation - \$500,000
- Concessions - \$500,000 (DoC 1994a: 36).

This scenario suggested that a total of \$1.6 million would be injected directly into the tourism services associated with or near the Walkway. It was also felt that this figure is

probably very conservative, as growth on the track may exceed expectations. The potential income of about \$12,000 to the Department was acknowledged to be rather insignificant, “*but it does highlight how different this walkway is to other high profile tracks managed by DoC which generate considerable income from hut fees*” (DoC 1994a: 37).

B. Perceived Funding Inequities on the Walkway

The results of the community interviews indicated that some community members believe it is fair that those businesses that profit from the Walkway should contribute towards its maintenance (*Anderson; *Hazel; *Walker *pers comm* 1999s). However, there is some opposition to this amongst the commercial operators. For instance, one operator said they do not want to pay levies on the track as they look after it at their own expense (*Corbett *pers comm* 1999). While a number of commercial operators are very positive towards the efforts of the DoC Marlborough Sounds area office, there is a general perception that the office lacks funds. Consequently, there is an understanding that if something needs to be done on the walkway, businesses must pay for it out of their own pockets (*Boyce; *Haward; *Ruby *pers comm* 1999). An example of this was when a collection of local businesses contributed \$30,000 for emergency track maintenance after the winter 1998 slips (*Boyce; *Corbett *pers comm* 1999). However, one commercial operator believes that the funding for the emergency slip maintenance should have come from the Earthquake and War Damage Commission, not the operators’ personal funds (*Ruby *pers comm* 1999).

While local businesses are contributing to maintenance on the Walkway, there is an argument for some form of on-going financial contribution from businesses in the wider community that also benefit from the extra revenue generated by this attraction. In order to provide critical infrastructure on the Walkway, additional funds must be found. The general perception is that DoC cannot raise these funds. However, a move to charge businesses in the wider community for track maintenance would be controversial and difficult to implement in the short to medium term.

Economic and Commercial Sustainability Summary

The Queen Charlotte Walkway appears to be contributing to the region's economic self-reliance, by generating tourism revenue in key services industries throughout Marlborough. However, since tourism should be part of one balanced economy (Owen *et al* 1993 cited in Eagles 1994), it is important that those who benefit from the Walkway are seen to contribute to its maintenance, in order to address perceived funding inequities. It is also crucially important that other important aspects of sustainability are not compromised by over-enthusiastic promotion of this attraction, arising from the profit motive.

6.1.5. Managerial Sustainability

This element of sustainability represents a concern to promote the development of 'non-renewable' human resources in the managerial practices fostered in tourism policy (Henry & Jackson 1996: 18). This requires that the Queen Charlotte Walkway is planned for and managed strategically, and that the institutional arrangements have the sustainability of the resource as their primary goal. These institutional arrangements include all documents, management agencies and promotional organisations which guide the planning process of the Walkway. In-depth interviews with experts and analysis of the Queen Charlotte Walkway planning documents identified the degree of strategic planning undertaken and some inherent inadequacies in the planning process.

A. Evidence of strategic planning

A consultative group with representatives from DoC, the Marlborough District Council, the NZTB and tourism operators was initially formed to plan the upgrade of the Walkway, in order to ensure any strategy to control or direct visitor numbers was given full support by all stakeholders. This co-operative approach to management was intended to "*ensure marketing is managed in a strategic and responsible manner with the proper management of the Walkway given first priority*" (DoC 1994a: 9).

In addition to this, DoC has regularly reviewed visitor numbers and patterns of use on the Walkway by analysing the results of the eight track counters installed along the Walkway (DoC 1998c) and carrying out two track user surveys that monitored visitor opinion on the Walkway (Hill 1994; DoC 1998d). The Department has stated that if, in the long run, it becomes evident that high use of the Walkway is having adverse environmental and social impacts, appropriate measures will be considered. These measures could include:

“...the judicious use of marketing and promotion, [which] can achieve positive results in controlling numbers if all agencies co-operate. Controls over total numbers are not expected to be necessary in the foreseeable future, but it may become necessary to use publicity and marketing to spread numbers away from the peak use period” (DoC 1994a: 9).¹

B. Inadequacies in walkway planning process

Despite the attempts to market and manage the Walkway in a strategic and responsible manner, the Queen Charlotte Walkway planning process has some inadequacies. For instance, a specific measurement of managerial sustainability is the existence of an organised regional tourism plan to aid management decisions (Dymond 1997: 281). While DoC has a visitor strategy that guides the Department's management of conservation in the conservation estate, its focus is fairly narrow (PCE 1997d: 13), and it does not apply to the other management agencies and promotional groups involved in the development of the Queen Charlotte Walkway. Prior to the Walkway upgrade, the Department of Conservation produced a document that evaluated the environmental, social and economic factors of the development (DoC 1994a). However, this document included no specific measurable criteria that could be used to evaluate the sustainability of the Walkway or to establish whether 'adverse environmental and social impacts' have occurred. Moreover, it did not apply to the management agencies and promotional groups involved in the development of the Walkway.

This highlights another weakness in the Walkway's planning process; a possible conflict in interest between the primary stakeholders in the Walkway development. While DoC is primarily concerned with the preservation of the Walkway's natural values and avoiding 'adverse environmental and social impacts' on the Walkway, the promotional groups are primarily driven by the profit motive. However, the current informal association with stakeholders appears to be working well. The site-specific evaluation has indicated that tourist-induced demise is minimal on the Walkway, and cultural, community, and social acceptability of track usage is high at the moment.

6.1.6. Political Sustainability

This element of sustainability represents the ability to promote and realise sustainable tourism practices without sacrificing political legitimacy, employing participative approaches to policy development (Henry & Jackson 1996: 18). This evaluation has indicated that the Queen Charlotte Walkway has not been created in a political system that explicitly promotes sustainable tourism practices. The political issues that hinder the sustainability of the Walkway potentially hinder all similar tourism developments in the conservation estate. These issues include the conflict within DoC's mandate between providing for visitor use and protection of the conservation estate.² As a result, attractions such as the Queen Charlotte Walkway are being developed in a reactive attempt to spread the adverse effects - and economic benefits - of tourism across a wider area.

The planning process in the Queen Charlotte Walkway development is faulty. This leaves it vulnerable to problems that have been discussed above; such as a lack of funding and important infrastructure. Moreover, there are important equity issues that have not been addressed in this process. They include the possibility of exclusion of iwi from the area due to economic barriers. Clearly, there is a need for stronger strategic links between stakeholders on the Walkway.

6.2. Analysis of Results

The Queen Charlotte Walkway has been assessed using a framework including five elements of tourism sustainability. Table 7 outlines the key conclusions drawn from each element of sustainability:

¹ However, it is acknowledged that "the nature of the walkway makes it difficult to restrict numbers" (DoC 1994a: 9).

² These issues are discussed in Chapter Four.

Element of Sustainability	Salient Points
Environmental and Ecological	<p><i>Physical Track Condition</i></p> <ul style="list-style-type: none"> • walkway's physical capacity reduced by mountain-biking damage <p><i>Accommodation Issues</i></p> <ul style="list-style-type: none"> • some freedom camping outside campsites is spreading impacts • some accommodation businesses need to increase their infrastructure capacity <p><i>Hygiene Issues</i></p> <ul style="list-style-type: none"> • toilet infrastructure is not in place for current levels of use on track • lack of toilets may cause introduction of <i>giardia</i> and <i>cyptospridium</i> • the Walkway is fairly free of rubbish, although some disposal problems
Cultural and Community	<ul style="list-style-type: none"> • lack of acknowledgement of Maori culture of iwi concern • possibility of cost acting as economic barrier to Maori participation • lack of toilets is a major public health issue of community concern. • insufficient consideration of impact of mountain-biking on local community • growth in secondary tourism effects due to walkway promotion
Social	<ul style="list-style-type: none"> • social carrying capacity for much greater use of track • general tolerance towards mountain-biking has improved • DoC believes accommodation is 'controlling factor' of visitor numbers
Economic	<ul style="list-style-type: none"> • walkway is contributing to region's economic self-reliance • perceived funding inequities on walkway need to be addressed
Managerial	<ul style="list-style-type: none"> • the primary goals of the stakeholders involved potentially conflict with one another, creating a barrier to the achievement of managerial sustainability
Political	<ul style="list-style-type: none"> • the adoption of a political system that emphasises strategic planning could address current weaknesses in planning processes at the local level

Table 7: Summary of Sustainability Elements

These conclusions give the overall impression that the Queen Charlotte Walkway is not a sustainable tourism product. While the Walkway is a 'green' attraction with relatively insignificant effects at a regional and national scale, the localised effects are significant and will become more significant as the Walkway grows in popularity. These effects include the problems associated with mountain-biking and water hygiene in the area. The institutional arrangements that deal with the management of the Walkway are too weak and *ad hoc* at present.

As a consequence of these issues, the Department of Conservation, as the Crown management agency that is responsible for ensuring the sustainability of the Walkway, needs to address these institutional weaknesses and adopt a more strategic approach to the management of this resource. Strategic planning would enable DoC to increase the capacity of the Walkway. This is critical if visitor growth is to be sustained.

Revisiting the sustainable tourism framework adopted in Chapter Two, it is clear that there is tension between the two categories of sustainability (site specific and institutional elements). In effect, these two categories represent 'protection' and 'visitor use' of the resource. This evaluation has established that the institutional arrangements are encouraging an increase in visitor numbers to the Walkway, that potentially threaten site-specific elements of sustainability. Consequently, these institutional arrangements need to be revised before conservation and recreation goals can be reconciled on the Walkway using sustainable approaches to tourism development.

Meanwhile, despite the absence of any national or site-specific strategic plan for dealing with the adverse effects of tourism, the Department has techniques that enables it to manage visitor impacts in natural areas. These techniques include:

- Modify the type of use and visitor behaviour;
- Modify the timing of use;
- Modify visitor expectations;
- Increase the resistance of the resource; and
- Limit use of the whole area (DoC 1994a: 10)

For example, the installation of signs warning mountain-bikers to reduce speed in the residential areas can potentially modify visitor behaviour. The sustainability of the Walkway would also be increased by installing more toilet facilities along its length. While the Department has already introduced timing restrictions on mountain-biking on the northern end of the Walkway, it may be that some form of quota system needs to be imposed that limits use to the whole area in the future.

The analysis of the sustainability of the Queen Charlotte Walkway has indicated that steps must be taken now to prevent or reduce the adverse effects to the Queen Charlotte district. The likely alternative is that DoC, or its successor, will be forced to mitigate the adverse effects of visitor growth on the Walkway, with varying degrees of success.

6.3. Conclusion

While the evaluation of the 'sustainability' of the Queen Charlotte Walkway is enlightening, it is important to remember that this term is subjective and can be used to support a variety of arguments and beliefs. However, the sustainable tourism framework used in this chapter to analyse the Walkway takes into account environmental values, while examining the implications of this tourism development on social, community and political structures. This holistic approach is intended to identify the impacts of the Walkway on the environment in its widest sense.

The adverse tourism impacts in this case study have wider implications. The Queen Charlotte Walkway is a product of New Zealand's institutional arrangements for tourism management. Consequently, the management dilemmas associated with this Walkway are directly related to the inherent weaknesses in these national institutional arrangements. Chapter Seven re-evaluated these arrangements in light of the issues raised on the Queen Charlotte Walkway development. These findings are used to anticipate the future of sustainable tourism in New Zealand's protected natural areas.

CHAPTER SEVEN - *Conclusion*

This thesis has explored issues relating to the impacts of tourism-related activities on the natural environment. More specifically, it has investigated the current institutional arrangements for tourism management in New Zealand and their implications for the achievement of sustainable tourism development in the conservation estate.

7.1. **Research Aim and Objectives**

The following research question was posed at the beginning of the thesis:

Can conservation and recreation goals be reconciled in New Zealand's conservation estate using sustainable approaches to tourism development?

This research question was pursued with the aim of contributing to planning for sustainable tourism products in New Zealand's conservation estate. In order to achieve this aim, issues relating to the conflict between 'protection' and 'visitor use' in protected natural areas have been examined.

This has been primarily undertaken through an examination of the planning and decision-making context of the Queen Charlotte Walkway development in the Marlborough Sounds. This approach has enabled the effectiveness of the institutional arrangements for tourism management to be assessed at a site-specific level. It has been established that due to a number of inherent weaknesses in the institutional arrangements for dealing with tourism and its effects, some developments are occurring that may fail to achieve an appropriate balance between 'protection' and 'visitor use' (in other words, conservation and recreation).

7.2. Key Findings

Chapter Two investigated issues relating to the concept of sustainability. In this chapter it was established that while the tourism industry is reliant on an attractive and healthy environment, tourism activities can adversely impact upon aspects of this environment. Consequently, there is increasing global support for more sustainable forms of tourism development. However, there are a number of significant barriers that prevent the achievement of sustainability in this multidimensional industry. For instance, the carrying capacity approach to planning, although considered by many commentators to be essential for the achievement of sustainable development, is difficult to measure and implement.

Chapter Three investigated the institutional arrangements for tourism management in New Zealand. It was established that the recent trend of devolution of key regulatory functions from central government to territorial authorities has created significant gaps in national tourism policy. This has resulted in a 'free for all' approach to the marketing and development of tourism nation-wide.

One difficulty is that while central government has retained a low-key regulatory role in tourism, it is primarily involved in this industry through the funding of the market-led, quasi-independent New Zealand Tourism Board. This Board engages in aggressive marketing campaigns in order to secure a slice of the global tourism market for New Zealand. However, this approach by-passes crucial questions of limits to tourism growth in both a biophysical and socio-economic sense. As a consequence, a number of agencies and organisations are required to deal with the down-stream effects of increasing tourism in New Zealand without a clear central strategy for managing the effects of this growth.

Chapter Four explored the consequences of the current institutional approach to tourism management in New Zealand, particularly pertaining to tourism in this country's protected natural areas. It was established that there is a considerable tension between providing for visitor use in these areas and protecting their intrinsic values for conservation purposes,

especially in the light of increasing demand for tourism experiences in natural areas. This management dilemma is further exacerbated by current legislation which protects the rights of New Zealanders and overseas tourists to visit New Zealand's protected natural areas freely and equitably. Consequently, many people are seeking new places to 'escape' from the crowds associated with the most popular destinations in the conservation estate.

Chapter Five introduced a case study in order to explore these issues at a site-specific context. The Queen Charlotte Walkway is a new tourism development in the conservation estate, that was initially developed and marketed in order to divert visitors from the more popular Abel Tasman Coastal Track. The crowded conditions in the Abel Tasman National Park have long been a cause of concern for the agencies responsible for its management. However, this thesis has established that the attempts to shift visitors from the Abel Tasman to Queen Charlotte tracks have been largely unsuccessful. Since the diversion policy was implemented almost a decade ago, both tracks have grown considerably in popularity. This policy 'failure' illustrates the limited options open to tourism management agencies to deal with tourism growth in the absence of provisions for regulatory management of visitors to the conservation estate. It also indicates the inherent weaknesses of New Zealand's fragmented institutional arrangements for the management of tourism and its effects on the environment. Consequently, on-site management approaches are the most appropriate techniques available to environmental managers.

Chapter Five established that the concept of sustainable tourism was insufficiently explored in the institutional context in which the Queen Charlotte Walkway was developed. The issues pertaining to sustainable tourism on the walkway were expanded on in Chapter Six. This chapter identified that the growing popularity of this attraction is potentially threatening a number of key aspects of sustainability. However, while tourism growth cannot be dealt with at its 'source', this case study has indicated that there are a number of ways in which the effects of this growth can be managed more effectively at a site-specific level.

7.3. Conclusions and Suggestions for Improving Practice

The examination of general issues relating to sustainable tourism indicated that this is a flawed concept that contains a significant internal conflict. This conflict was illustrated in the assessment framework used to evaluate the sustainability of the Queen Charlotte Walkway. The framework demonstrated that the two categories of sustainability - site-specific and institutional elements - are driven by opposing values. The site-specific elements are driven by the need to limit visitor numbers within minimum ecological and social thresholds, whereas the institutional elements, usually the instigators of development, are driven by commercial considerations and often require higher visitor numbers than are desirable on the site-specific side of the framework. Consequently, this generates management impacts that must be dealt with in the institutional context.

However, the institutional arrangements for tourism management in New Zealand tend to reinforce the conservation - development conflict contained in the assessment framework. For example, this conflict is internalised in the Department of Conservation's mandate, illustrating a flaw in current centralised planning arrangements. Consequently, these arrangements often fail to provide guidance for sustainable tourism development in protected natural areas.

The case study of the Queen Charlotte Walkway was undertaken to assess the effectiveness of New Zealand's institutional arrangements for tourism management at a site-specific level. This study established that these arrangements are struggling to provide adequate protection for the biophysical and socio-economic environments affected by tourism growth. In other words, the conservation - development conflict is unresolved. While the consequences of this conflict are currently incipient, there is potential for major adverse consequences in the future, as tourism demand for 'natural' experiences increases, and the conflict

In returning to the research question of this thesis, it appears that conservation and recreation goals can be reconciled in New Zealand's conservation estate on the proviso that the inherent conflict within sustainable approaches to tourism development are recognised and provided for at the institutional level. With respect to the issues highlighted in this thesis, a number of changes in tourism management practices are now suggested. These suggestions are directed at changes at the political, planning, management and resourcing levels.

7.3.1. Political Level

While political level suggestions are relevant to the management of tourism-related activities and their effects, they are purely theoretical in the current political climate.

- The provision of more funding for those agencies that deal with the site-specific aspects of tourism growth; and
- The division of DoC's recreation and conservation roles in order to reduce the current 'visitor use' versus 'protection' conflict.

7.3.2. Planning Level

Planning level suggestions are at least achievable in theory: they suggest changes in the planning processes relating to tourism developments in the conservation estate, in order to more closely reconcile recreation and conservation goals in these areas.

- The thorough investigation of potential biophysical and socio-economic impacts on new tourist destinations prior to their development;
- The development of techniques that can qualitatively and quantitatively identify appropriate levels of track usage, rather than relying on factors such as accommodation as the 'controlling factor' of visitor growth; and

- The thorough investigation of possible forms of regulatory control on visitor numbers that can be implemented in the future. On the Queen Charlotte Walkway these include stronger restrictions on mountain-biking or some form of general quota system.

7.3.3. Management Level

Management level suggestions are more realistic: they propose some practical changes that can be made by the tourism management agencies and organisations involved with the Queen Charlotte Walkway.

- Improvement in infrastructure including more toilet facilities and signage that incorporates hygienic information and community concerns; and
- The dispensation of environmental and hygienic information for visitors during their transport to the Walkway entrance.

7.3.4. Resourcing Level

Resourcing level suggestions are made in order to improve the collective knowledge regarding the state of the Queen Charlotte district's biophysical and socio-economic environment.

- The expansion of walkway databases beyond DoC's on-going collaboration of track-use data and visitor surveys. For instance, there is a significant knowledge gap concerning on-going community sustainability; and
- The expansion of existing Marlborough District Council water quality databases to an on-going programme of testing along the Walkway.

7.4. The Future

The inadequacies in tourism planning and management illustrated in the Queen Charlotte Walkway case study arise primarily from weaknesses in the institutional arrangements for tourism. In the current political climate, tourism tends to be seen as a source of revenue and its potential adverse effects are largely overlooked. Central government has indicated its support for tourism by funding and encouraging the New Zealand Tourism Board's marketing activity. Conversely, the Department of Conservation, which plays a crucial role in managing tourism effects, has limited funds and central government support to deal with the down-stream environmental and social consequences of this growth.

Consequently, the Queen Charlotte Walkway is essentially a 'sign of the times'. It is certainly contributing much-needed revenue to the local economy and in that respect is a positive development. In a sense, the development of the Queen Charlotte Walkway was inevitable; it was simply an opportunity waiting to happen. If the Department of Conservation had not become involved in its development, the infrastructure would not be in place for the current levels of use and the Walkway would have been the product of a process far messier and more *ad hoc* than the semblance of planning that did occur.

The shortcomings of the Queen Charlotte Walkway development have indicated that while the lack of strategic direction for tourism management in New Zealand can encourage innovation, it has significant weaknesses as a process. For example, institutional responsibilities for tourism management are unclear and therefore key aspects of sustainability are not being investigated. Furthermore, trade-offs between recreation and conservation goals are being made in a fragmented manner without the aid of strategic planning.

Due to these institutional problems, it seems likely that at some point in the future, the increasing 'visitor use' versus 'protection' conflict in the Queen Charlotte area may force the Department of Conservation or its successor to divert visitors to some new destination.

This process has serious implications for an individual's right to experience solitude in the diminishing number of empty places in New Zealand's natural environment:

“[Solitude] is the only condition that at times can sustain the individual against and beyond his or her society. In prior times people could turn to the monastery or wilderness. When socially it becomes impossible to visit the monastery and technically impossible to visit the wilderness then humans may well lose their individual and collective well-being and sanity. This is one of the most serious questions of freedom and access in our time” (Potton 1994).

Notwithstanding this issue, it is important to acknowledge that, ultimately, the conservation estate is being used for the purpose it was set up for. It is clear that the Government of the late 1800s has been hugely successful in its attempts to make New Zealand “*attractive to the tourists of the future*” by reserving all the “*choicest scenery... and other places of public interest*”.¹ It is also clear that the New Zealanders of a century ago could not possibly conceive of the technology and modes of transport that have shrunk the world into a ‘global village’. As natural areas world-wide continue to become more notable for their scarcity and crowds than their emptiness, it is likely that Potton’s concept of solitude in the wilderness will become a vague memory for our future generations of the next century and beyond. Nevertheless, this study has indicated that we can and should take positive steps to protect the quality of the visitor experience in the natural environment.

¹ New Zealand Graphic 1895 cited in Park 1995: 368.

Appendices

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APPENDIX I - Section 6 of the Conservation Act 1987

The functions of the Department of Conservation are set out in section 6 of the Conservation Act 1987. They include a responsibility:

- (a) To manage all land, and all other natural and historic resources for conservation purposes, both land held under the Department, and all other land and natural and historic resources which owners agree with the Minister should be managed by the Department.
- (b) To preserve as far as practicable all native freshwater fisheries, and protect recreational freshwater fisheries and freshwater habitats, and to advocate conservation of natural and historic resources generally.
- (c) To promote the benefits of present and future generations of conservation of natural and historic resources.
- (d) To prepare, provide, disseminate, promote and publicise educational and promotional material relating to conservation.
- (e) **To foster the use of natural and historic resources for recreation and allow their use for tourism, to the extent that the use of any natural or historic resource for recreation or tourism is not inconsistent with conservation.**
- (f) To advise the Minister on matters relating to any of those functions or conservation generally.
- (g) Every other function conferred on it by any other enactment.

APPENDIX II - New Zealand Statutes Relevant to Tourism Planning

Statutes that protect the natural and historic values of the conservation estate:

National Parks Act 1980 - Promotes the management of national parks to preserve in perpetuity their intrinsic values. These values include their natural state; indigenous flora and fauna; sites and objects of archaeological and historical value; and soil, waste and forests.

Reserves Act 1977 - Promotes the protection of representative landscapes which give New Zealand its distinctive character, while recognising the rights of visitors to enjoy most categories of protected areas. Describes how land is acquired for reserves, how reserves are classified and how they should be managed for recreation, wildlife, flora and fauna, amenity, and special features of value.

Wildlife Act 1953 - Promotes the protection and control of undomesticated animals and birds; the authorisation of the taking or killing of protected wildlife for certain purposes; the establishment of wildlife sanctuaries, refuges, management reserves and wildlife districts.

Marine Reserves Act 1971 - Provides for the setting up and management of areas of the sea and foreshore as marine reserves for the purpose of preserving them in their natural state as the habitat of marine life for scientific study.

New Zealand Walkways Act 1990 - Designed to provide a legal means of walking access to and/or through public and private land, while protecting the rights of land-owners.

Statutes that guide the management of visitor safety and risk management:

Resource Management Act 1991 - Provides guidelines on whether visitor facilities and services can be provided. Sets out provisions to follow when applying for land and water use and discharge consents. Land use consents must be obtained from the territorial local authority before any new visitor facility can be provided.

Building Act 1991 - Establishes the Building regulations and the Building Code. The Building regulations describe the process for territorial local authorities to issue building consents. The Building Code ensures that building and structures meet their intended purpose, are safe, sanitary and have proper fire exits.

Occupiers' Liability Act 1962 - Establishes DoC's responsibility to ensure visitors to the areas it manages are safe from harm. What is reasonable depends on the circumstances.

Health and Safety in Employment Act 1993 - Establishes DoC's responsibility to ensure the safety of staff, contractors and the public in the workplace .

(After DoC & NZ Conservation Authority 1995; DoC 1996; McDermott 1998).

APPENDIX III - Growth in Visitor Numbers on the Abel Tasman and Queen Charlotte Tracks

Figure 9 (*Comparison of Abel Tasman and Queen Charlotte visitor numbers*) is not based on absolute visitor numbers to each track. Since the data used in this graph is was collected at five sites along each track, it stands to reason that a large number of visitors will have been recorded more than once as they move past the track counters installed by the Department of Conservation. In order to compensate for this, an average of the total has been calculated.

However, it is important to stress the weaknesses of this approach to data analysis. Not all visitors walk or mountain-bike the entire length of the Abel Tasman and Queen Charlotte tracks. Many are day-visitors, who travel to these areas by boat or car, visit a small section of the track and leave without spending a night in the area. This is reflected in the fact that day-visitors are estimated to be contributing to the greatest amount of growth on the Abel Tasman Coastal Track (Clough *pers comm* 1999). By using site averages to indicate visitor growth, these day-visitors are not apparent in the data. Also, due to the coastal positioning of both tracks, visitors are able to access the tracks from at a large number of entry and exit points. Consequently, some people visit unconnected sections of the track, missing sections they do not wish to travel on. These people also are not easily accounted for in the data analysis.

Despite these difficulties, the estimation of site-averages was the most appropriate approach to analysing visitor numbers on both tracks. The following process was applied to the raw data:

1.0. Track Averages for each Year

The **track average** for each year was calculated using the following formula (this does not apply to the years that are missing data for some sites):

$$\text{Track average} = \frac{\text{Recorded yearly total}}{\Sigma \# \text{ sites}}$$

Example

$$\begin{aligned} \text{Queen Charlotte 1993 track average} &= \frac{19269}{5} \\ &= 3854 \end{aligned}$$

2.0. Calibrated Averages

Some of the sites on both tracks were not installed with track counters until a few years after the monitoring programmes began. Therefore, the visitor numbers had to be estimated at these sites. The years that include estimated site values have been indicated by an asterix. The following process was used to estimate the site numbers when data was not available:

2.1. The Site Average

The site average indicates the average number of visitors to each site over the number of years the track counters have been in place.

$$\text{Site average} = \frac{\text{Site total}}{\Sigma \# \text{ yrs data collected}}$$

Example

$$\begin{aligned} \text{Davies Bay average} &= \frac{53176}{8} \\ &= 6647 \end{aligned}$$

2.2. The Site Percentage

This indicates the percentage of visitors that pass each site in relation to the other sites along the track. In other words, this gives an estimation of the relative popularity of the various stretches of track.

$$\text{Site \%} = \frac{\text{Site average}}{\sum \text{site averages for track}} \times 100$$

Example

$$\begin{aligned} \text{Davies Bay \%} &= \frac{6644}{24255} \times 100 \\ &= 27.4 \% \end{aligned}$$

2.3. The Calibrated Yearly Averages

The site percentage enables the calibrated yearly averages to be calculated. The missing visitor numbers were calculated using the estimated site percentages, as each site varies in popularity. This approach ensures a more accurate estimation of the visitor numbers at each site. The following process was followed:

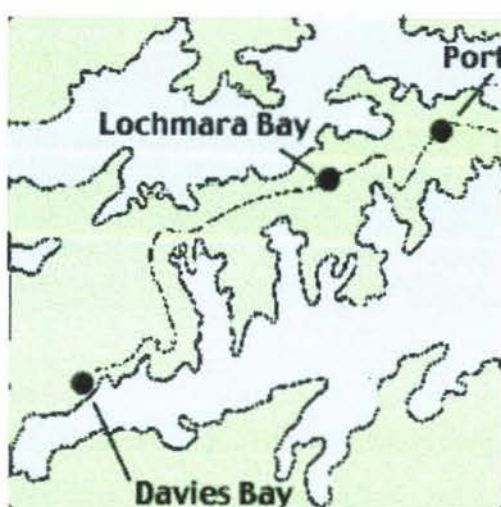
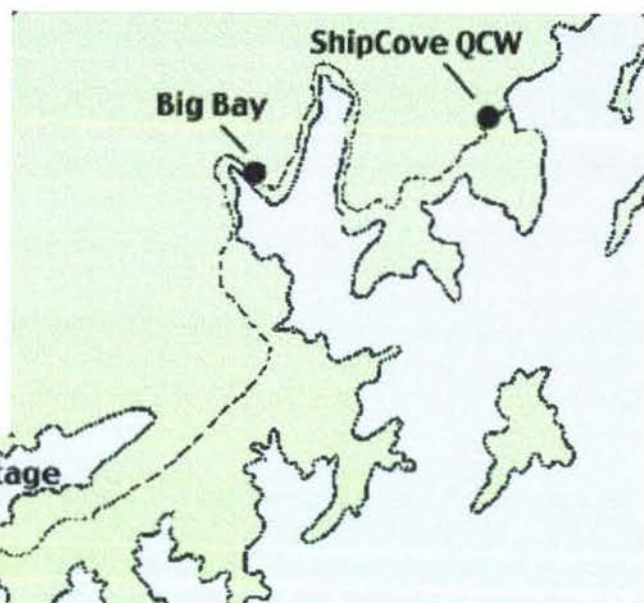
$$\text{Walkway calibrated averages} = \frac{\text{yearly total} / \sum \text{recorded site \%}'s \times 100}{\sum \# \text{ sites}}$$

Example

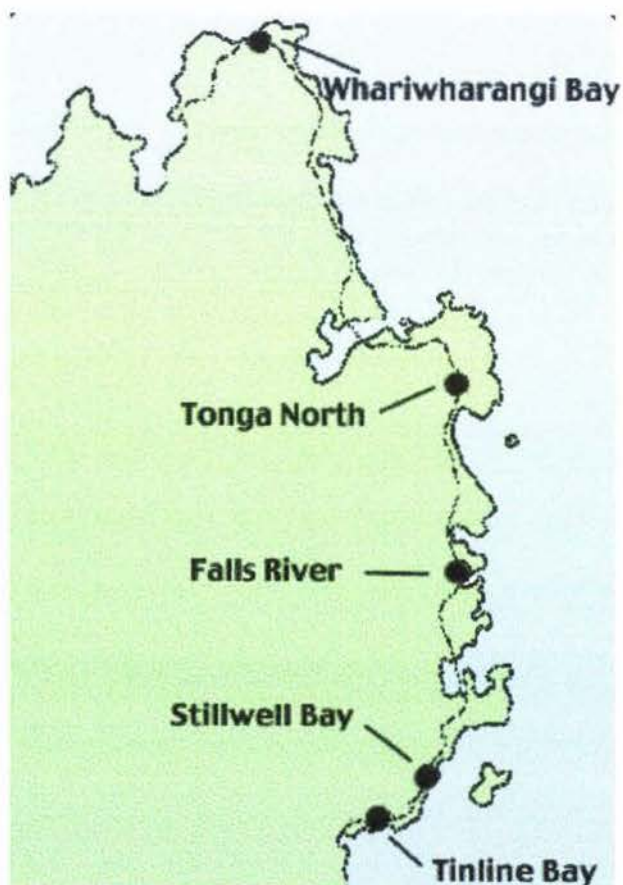
$$\begin{aligned} \text{QC calibrated average for 1990} &= \frac{4209 / 42.5 \times 100}{5} \\ &= 1981 \end{aligned}$$

2.5. Track Counter Locations

**Location of Track Counters
on the
Queen Charlotte Walkway**



**Location of Track Counters on the
Abel Tasman Coastal Track**



Maps not to scale

Source: Clough pers comm 1999.

QUEEN CHARLOTTE DATA

	1990	1991	1992	1993	1994	1995	1996	1997	TOTAL	AVERAGE %	
DB	3355	4849	3918	8266	9735	5062	7044	10943	53176	6647	27.4
LB	854	986	1920	1881	2867	3593	6297	10815	29216	3652	15.1
PG			676	1577	2050	2433	3817	5324	15876	2646	10.9
BB			1022	2159	2601	5445	11568	9908	32706	5451	22.5
SC				5386	3627	4654	6850	8778	29295	5859	24.2
Yearly total	4209	5835	7536	19269	20880	21187	35576	45768			
Walkway average	1981*	2746*	1986*	3854	4176	4238	7115	9154			
Highest value	3355	4849	3918	8266	9735	5445	11568	10943			

* Calibrated values

DB = Davies Bay
 LB = Lockmara Bay
 PG = Portage (Torea)
 BB = Big Bay
 SC = QCW Ship Cove

WB = Whariwharangi Bay
 TN = Tonga North
 FR = Falls River
 SB = Stillwell Bay
 TB = Tinline Bay

ABEL TASMAN DATA

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	TOTAL	AVERAGE %	
WB			8063	8620	8112	8889	8614	8224	7059	7182	64763	8096	6.4
TN			12861	9549	11010	16337	14533	19628	17295	13619	114832	14354	11.3
FR	18367	21462	22861	20867	23204	26774	29262	25353	23908	25304	197533	24691	19.4
SB	21144	23939	24868	24848	24401	27228	30781	34539	46700	33343	246708	30838	24.4
TB	30162	30995	31782	35012	46611	42709	52214	52759	63773	69922	394782	49349	38.8
Yearly total	69673	76396	100435	98896	113338	121937	135404	140503	158735	149370			
Track average	16890*	18520*	20087	19781	22668	24387	27081	28112	31747	29874			
Highest value	30162	30995	31782	35012	46611	42709	52214	52759	63773	69922			

APPENDIX IV - Methodology for Visitor Interviews

This appendix outlines the methodology used in the interview process with the visitors on the Abel Tasman and Queen Charlotte tracks. These interviews recorded the visitors' perceptions of their experience and recorded any changes they would like to see. 8 visitors were interviewed on each of the tracks. The Abel Tasman interviews were carried out in April 1998 and the Queen Charlotte interviews were carried out in April 1999.

1.0. The Interview Process

The interview process was similar to that used with the community, outlined in Appendix VIII. The visitor interviews also followed an informal, 'conversational' format. However, a check-list of issues to cover was not used in this instance. Instead, broad generic questions were posed in order to gauge the interviewee's perception of their experience on each track. A comparison question was also posed to those visitors that had been on both the Abel Tasman and Queen Charlotte tracks

2.0. The Interview Content

Each interview was introduced in a similar way to the following statement:

"I'm interested in what you like and dislike about your experience on this track. I am speaking to a few visitors to the area as part of my thesis which deals with aspects of New Zealand's natural environment".

The interviews then followed no strict pattern. However, the following questions were posed:

- What do you like about this track?
- What don't you like about this track?
- How did you hear about this track?
- Have you visited the (Abel Tasman/Queen Charlotte) track?
- If so, how do they compare?

These questions were not designed to elicit specific responses to any particular issue. Instead, they were intended to 'scope' visitor opinion on the issues that they felt were important.

APPENDIX V - Methodology for Community Interviews

This appendix outlines the methodology used in the interview process with members of the community adjacent to the Queen Charlotte Walkway. The location of the community in relation to the walkway is illustrated in Figure 10 (page 125). These interviews recorded the community members' perceptions of the growth in visitor use on the Queen Charlotte Walkway and the implications of increasing tourism for the community's future. 12 community members were interviewed in this process. Their identities have been kept confidential and nom de plumes have been used for the purposes of writing the report.

1.0. The Interview Process

The aim of the interview process was to avoid leading the interviewees, or using language that could create barriers or expectations between the interviewer and the interviewee. Consequently, the interviews were carried out in an informal, 'conversational' format that was designed to elicit spontaneous information from the interviewees, rather than information shaped by leading interview questions.

Questions were typically posed "what do you think about... what are the good things about... what don't you like about...". Open answers were probed, in order to evoke the basis of the interviewee's concerns, such as the impact of user-impacts on the environment and on the community. This probing was not designed to lead to specific answers, but rather to lead the interviewee to elucidate on answers already given.

In order to get consistent coverage of the issues relating to growth on the walkway from all community members, a check-list was designed that included a range of issues. Once the draft schedule/checklist was designed, one community interview was carried out. The results from this interview were analysed in order to modify the schedule if necessary, and then the rest of the interviews were carried out with a revised schedule.

2.0. The Interview Content

When designing the interview schedule, the findings of Mathieson and Wall (1984 *cited in* New Zealand Tourism and Publicity Department 1988: 15) were relevant, as they suggested three sets of factors that together influence the tolerance of communities to tourism development:

1. The degree of divergence between the characteristics of hosts and visitors. The more pronounced the divergence, the more pronounced are the impacts;
2. The ratio of visitors to residents. This influences the capacity of destinations to “physically and psychologically” absorb tourists; and
3. The rate, scale and seasonality of tourist development.

Consequently, these issues were explored in the interviews, by asking community members about their opinions regarding the type of people they perceived to be using the walkway, the numbers of visitors and the rate of change in visitor numbers, particularly in the summer season. Each interview was introduced in a similar way to the following statement:

“I’m interested in what you like and dislike about living/staying here. I am speaking to a few people in the area as part of my thesis which deals with aspects of New Zealand’s natural environment”.

The interviews then followed no strict pattern. However, the following questions were posed:

- What do you like about living here?
- What don’t you like about living here?
- What have you noticed about the use of the Queen Charlotte Walkway?
- What are the good things about it?
- What don’t you like about it?

These questions were designed to elicit responses to the following issues:

- the growth in visitors (what, when, who)
- the visitors (type, number, behaviour)
- environmental effects (infrastructure, rubbish, toilets, camping, water, fire)
- any involvement in the track development involvement
- impacts on lifestyle (community values, atmosphere of area)
- future of the walkway (what they would like to see changed or done differently)

If these issues were not covered in the course of the interview, they were specifically introduced into the conversation. Finally, the interviewee's history with the community was established:

- How long have you been coming/living here?
- How often?
- When (time of year, season)?

APPENDIX VI - Methodology for Commercial Operator Interviews

This appendix outlines the methodology used in the interview process with the operators of commercial accommodation and transport businesses associated with the Queen Charlotte Walkway. These interviews, conducted in April 1999, recorded the commercial operators' perceptions of the growth in visitor use on the Queen Charlotte Walkway and the implications of increasing tourism for the future of their businesses. 8 commercial operators were interviewed in this process. Their identities have been kept confidential and nom de plumes have been used for the purposes of writing the report.

1.0. The Interview Process

The interview process was identical to that used with the community interviews. This is outlined in Appendix VIII. The commercial interviews also followed an informal, 'conversational' format using a check-list to ensure all issues were covered. This process was designed to elicit spontaneous information from the interviewees, rather than information shaped by leading interview questions.

2.0. The Interview Content

Each interview was introduced in a similar way to the following statement:

"I'm interested in what you like and dislike about running a business here. I am speaking to a few businesses in the area as part of my thesis which deals with aspects of New Zealand's natural environment".

The interviews then followed no strict pattern. However, the following questions were posed:

- What do you like about this area?
- What don't you like about this area?
- What have you noticed about the use of the Queen Charlotte Walkway?
- What are the good things about it?
- What don't you like about it?

These questions were designed to elicit responses to the following issues:

- the growth in visitors (what, when, who)
- the visitors (type, number, behaviour)
- environmental effects (infrastructure, rubbish, toilets, camping, water, fire)
- walkway development - their initial involvement
- their initial expectations for the walkway development
- current involvement with DoC or other operators regarding the walkway
- future regarding use of the walkway (what they would like to see changed or done differently)

If these issues were not covered in the course of the interview, they were specifically introduced into the conversation. Finally, the interviewee's history with the Queen Charlotte area was established:

- how old is this business?
- how long has you owned or been involved with this business?

APPENDIX VII - Results of Visitor Interviews on the Abel Tasman Coastal Track

Positive Aspects of the Abel Tasman Coastal Track

- Beautiful track, better than the Wangapeka and Heaphy tracks. Great swimming.
- great coastal views combined with bush, birds and swimming.
- Very well maintained, good facilities.
- Easy track - I am running it!
- accessible location, the bush (I love tree ferns!) and golden sandy beaches. Wilderness on inland track is very beautiful
- easy track
- bush and beach - I've done it five times.
- Easier and more scenic than the St James, Kepler and Milford tracks
- The best track in New Zealand.
- lovely coastal, forest walk. Scenically beautiful. Track is excellent, well signed.
- Easy track for first tramp alone

Negative Aspects of the Abel Tasman Coastal Track

- The *giardia* factor is a very big disadvantage as carrying liquids can be arduous.
- During winter no provision for warm showers must be a big disadvantage. No cooking equipment and drinkable water a big minus.
- Often busier than State Highway One! Not a wilderness experience.
- Difficult to get accommodation in huts if you arrive late.
- Lots of people, always meeting people coming the other way
- Can't drink the water - don't like boiling it.
- Too many people in the huts. I had to camp.

Source of Information About the Track

- Friends told me at home (UK)
- Other backpackers
- Lonely Planet travel guide and word of mouth recommendation
- Local knowledge
- Always known (NZer)
- Lonely planet, friends

Comparison with Queen Charlotte Walkway

(two people)

- Queen Charlotte is a similar level of difficulty, beautiful, but lots of ridge walking instead of beaches.
- Didn't like Queen Charlotte as much - muddy track and beaches not as nice.

APPENDIX VIII - Results of Visitor Interviews on the Queen Charlotte Walkway

Positive Aspects of the Queen Charlotte Walkway

- great track, beautiful scenery
- Really good that packs can be transported - makes it much nicer
- I like the mountain-bikes - I'll do it next time on a bike
- Easy hike, beautiful scenery
- The bikers make the track interesting - they are nice people
- Keep the track open for bikers - it is a quiet track.
- Both bikers and walkers should be allowed to use the track
- likes mountain-biking, they add to atmosphere and character of track.

Negative Aspects of the Queen Charlotte Walkway

- heaps of mud because of the mountain-biking - don't like this aspect of the track
- worried about being run over - too much of a worry. Some bikers are impolite, don't give way.
- increased erosion [due to biking] is obvious.
- The bikers go too fast, often in big groups
- One bike nearly pushed me off the track
- Should ban the bikes
- bikes should only be allowed one day a week or something
- Some don't slow down. Others are very nice. Should limit their numbers
- the toilets are smelly
- I don't like the toilets - but I know [DoC] can't do any better - too hard to build.

Source of Information About the Track

- Lonely Planet travel guide
- word of mouth from backpackers in Auckland
- Heard about it last year (NZer)
- Lonely planet, friends at home (Germany)

Comparison with Abel Tasman Coastal Track

(four people)

- more hills, colder - maybe the time of year I'm walking
- not as many people here, I like this
- the accommodation is better than Abel Tasman
- I tell people to do both, they are quite different. I like Abel Tasman better, the beaches are nicer.
- I am going to do the Abel Tasman after this.

APPENDIX IX - Results of Community Interviews

Positive and Negative Aspects of Living in the Queen Charlotte Community:

- **Positive Aspects** - No noises, lights. Quiet. Birds. No time-frame or schedule (*Timms *pers comm* 1999). Lots! Really like that it is away from hassle of big cities. All interests are here - loves hunting (*Walker *pers comm* 1999). The area - beautiful spot. Enjoy own company (*Stewart *pers comm* 1999). Untouched bush, bird life, no road, beautiful scenery (*Langford *pers comm* 1999). Get away from it all, the quietness (*Boyce *pers comm* 1999). Peace, serenity, the last frontier, the company! (*Algie *pers comm* 1999). Close to nature, no cars, no stress (*Hazel *pers comm* 1999).
- **Negative Aspects** - Hills - don't like climbing them (*Timms *pers comm* 1999). More of a worry - if some emergency happens is very isolated. Always takes more care than if in town (*Walker *pers comm* 1999). Don't want to become too 'soundsy' - need time in town sometimes to refuel (*Boyce *pers comm* 1999).

Issues Relating to Visitor Growth on the Queen Charlotte Walkway:

- **When did this occur?** - When track first officially opened - about 4-5 years ago (*Timms *pers comm* 1999). Major growth has occurred in the last year (*Walker *pers comm* 1999). Last couple of years it has really grown (*Stewart *pers comm* 1999). Has always seemed about the same - no growth (*Anderson *pers comm* 1999).
- **Nature of growth** - The season has extended - it is now continuous between Labour day and Easter. Used to only be concentrated around holidays (*Timms *pers comm* 1999). Has grown from one or two people a day to more than on *Walker's footpath in Christchurch (*Walker *pers comm* 1999). More and more people all the time (*Walker *pers comm* 1999). Lots more people walking on the track (*Luigi *pers comm* 1999).

Increase in very large groups of 20 and over, both walking and on mountain-bikes (*Algie *pers comm* 1999).

- **Demographics** - Lots of older people are doing the track (*Timms *pers comm* 1999). The demographics of the visitors has changed - there are now less Asians, more Americans, Germans, Swedes. Mostly younger people (*Anderson *pers comm* 1999). Day trippers increasing, lots more overseas people (*Stewart *pers comm* 1999). Lots more overseas people (*Luigi *pers comm* 1999). More older New Zealanders (*Stewart *pers comm* 1999).

Positive and Negative Aspects of Mountain-bikes on the Queen Charlotte Walkway

- **Speed** - Don't like mountain-bikes. Tear track up, trying to get from A to B as fast as possible, how can they see anything? (*Timms *pers comm* 1999). Track is for walking on - should not have to worry about traffic. There are lots of sealed roads for biking on (*Anderson *pers comm* 1999). They go far too fast through settlement. Worried about elderly people, safety (*Walker *pers comm* 1999). Don't like bikers - too fast. What do they see? (*Stewart *pers comm* 1999). The mountain-bikes go too fast - one hit *Luigi's horse (*Luigi *pers comm* 1999).
- **Safety** - Mountain-bikes go too fast, don't see people (or scenery). Gave elderly mother huge fright (*Anderson *pers comm* 1999). Apprehensive about mountain-bikes - could be dangerous (*Langford *pers comm* 1999). Bikes could hit children and elderly people (*Luigi *pers comm* 1999). Don't like the bikes - too fast, unsafe for children and elderly people (*Boyce *pers comm* 1999). Dislike having to constantly move out of the way for bikers - they always come quietly up from behind (*Hazel *pers comm* 1999). Never used to have to move out of mountain-bikers' way all the time - very annoying (*Algie *pers comm* 1999).

- **Damage** - Strongly dislike mountain-bikes and farm bikes on track, although mountain-bikes do more damage - thinner wheel (*Anderson *pers comm* 1999). Because mountain-bikes are restricted to winter season, make track extremely muddy. Cause drainage problem (*Anderson *pers comm* 1999). Make track muddy in winter (*Algie *pers comm* 1999). The bikes make the track really muddy - track is for walking on (*Luigi *pers comm* 1999). Don't like bikes - are damaging track, worse than walkers because all weight is on wheel (*Algie *pers comm* 1999). Dislike mountain-bikes - their thin wheels cause greater damage to the walkway than walkers (*Hazel *pers comm* 1999). Problems associated with mountain-biking in the winter season, makes the walkway extremely muddy and causes drainage problems (*Hazel *pers comm* 1999).
- **Conflict** - Bike use currently incompatible with walkers (*Algie *pers comm* 1999). Too many bikers - makes it unpleasant for walkers - track has been taken from walkers (*Hazel *pers comm* 1999).
- **Positive comments** - Don't mind the mountain-bikers - track is for everyone (*Walker *pers comm* 1999). Despite problems, the cyclists are very nice, polite people. Can understand why they like to do it - fun (*Boyce *pers comm* 1999).
- **Future** - Should stop mountain-bikes from using track (*Luigi *pers comm* 1999). Bikes should be banned from track (*Anderson *pers comm* 1999). Should be limit on bike use - quota system (*Algie *pers comm* 1999). Should introduce quota system for bikes (*Timms *pers comm* 1999). Need quota system for bikes (*Hazel *pers comm* 1999).

Environmental Concerns Due to Walkway Use

- **Toilets** - Toilet facilities very poor (*Timms *pers comm* 1999). Need more toilets (*Stewart *pers comm* 1999). Not enough toilets (*Langford *pers comm* 1999). Have seen toilet paper in bush, although not all that often (*Anderson *pers comm* 1999). Not enough toilets - see toilet paper in the bush (*Luigi *pers comm* 1999). Need more toilets

- saw faeces and toilet paper on neighbours lawn. Not acceptable (*Algie *pers comm* 1999). Not enough toilets on the track - angry about risk to water supply (*Hazel *pers comm* 1999).

- **Rubbish** - More rubbish than there used to be (*Stewart *pers comm* 1999). See lots of rubbish left by walkers. Always picking it up (*Anderson *pers comm* 1999). Noticed more rubbish - no bins, so track users (and renters) discard rubbish on track (*Timms *pers comm* 1999). Noticed a bit more rubbish on the track (*Walker *pers comm* 1999). Queen Charlotte is much better (in terms of pollution) than Abel Tasman, where have seen sanitary pads, nappies in bush. Hope this doesn't happen here (*Anderson *pers comm* 1999). Very little litter, due to good behaviour of most track users (*Algie *pers comm* 1999).
- **Fire risk** - Barbecue point (now resolved, as campsite closed) used to be fire risk, as visitors would leave rubbish, fire burning when they left (*Timms *pers comm* 1999). Worry about fire risk related to more people coming here (*Anderson *pers comm* 1999).
- **Water quality** - very worried about hygiene related to tourism - would be very sad to stop drinking straight from streams (*Algie *pers comm* 1999). Angry that behaviour of tourists is threatening water supply - not enough toilets (*Hazel *pers comm* 1999).

DoC - Track Maintenance

- DoC machinery used to open track seems to have caused erosion - more slips where machine has been. Should be done by hand (*Timms *pers comm* 1999). No engineering input with slipwork - cowboy mentality. Fixed too soon after slips for entirely commercial reasons (*Algie *pers comm* 1999). DoC fixed tracks after slips due to commercial demand - used larger machine than necessary - rebenched track, cut trees *Algie had planted and mature trees in reserve (*Algie *pers comm* 1999).

- *Timms used to do voluntary maintenance on track. Has now given up, as waste of time, not appreciated. DoC does not do nearly enough maintenance (*Timms *pers comm* 1999). DoC is littering the area - has tossed away broken bridge down bank, half covered by earthworks (*Algie *pers comm* 1999).
- Liked Barbecue Point campsite, was only used as overflow. DoC should reinstate it (*Boyce *pers comm* 1999). Walkway is in good overall condition considering the clay soil (*Hazel *pers comm* 1999). Track has been muddy for years - local clay causes drainage problems (*Algie *pers comm* 1999).

Consequences of General Growth in Tourism in Queen Charlotte Area

- **Renters** - Two types of growth in Queen Charlotte - rental visitors bring more rowdy element, developed hand-in-hand with growth in track users (*Algie *pers comm* 1999). Dislike holiday-makers - behaviour of people who have no commitment to the maintenance of the local environment (*Algie *pers comm* 1999). Types of holiday people are changing - they are noisy. Have no idea what to do with rubbish (*Stewart *pers comm* 1999). Should be restrictions/regulations relating to property owners dumping rubbish (*Langford *pers comm* 1999). Renters inconsiderate, noisy, don't care about place. Have changed the Inlet's atmosphere (*Timms *pers comm* 1999). Area is more noisy than it used to be (*Stewart *pers comm* 1999). Unhappy about the rental people as they are often extremely noisy, leave rubbish lying around and don't care about the area and the community (*Hazel *pers comm* 1999).
- **Environmental issues** - Noise, litter, light pollution - starlight being diminished due to resorts' lights that they leave on all night (*Algie *pers comm* 1999). Problem with too many freely roaming dogs in summer (*Algie *pers comm* 1999). Wekas and other birdlife vanished this summer (*Algie *pers comm* 1999). Spreading of weeds along track - residents dumping weeds off their properties. (*Algie *pers comm* 1999).

- **Fish stocks** - Very concerned about the drop in fish numbers - every jetty should have a sign showing fishing regulations as *Walker sees lots of dead undersized fish lying around (*Walker *pers comm* 1999). Very sad that Sounds is fished out (*Langford *pers comm* 1999). The drop in fish numbers is connected with tourism - too many greedy people - see people with heaps of fish which they don't use - lots of waste (*Hazel *pers comm* 1999).

Future of the Walkway

- **Regulatory Management** - Should be a charge for all walkers on track - this could be used to maintain track. Growth will continue (*Timms *pers comm* 1999). Problem with taxpayers paying for overseas tourists to use track. Should be charged (*Anderson *pers comm* 1999). Track users should be charged. Maybe boats could collect it (*Stewart *pers comm* 1999). Maybe Cougar could collect money before dropping off people at Ship Cove (*Timms *pers comm* 1999). Maybe Cougar could collect 'tax' before dropping off people at Ship Cove (*Anderson *pers comm* 1999). A track charge could be collected by the commercial transport boats as the visitors were dropped to Ship Cove (*Hazel *pers comm* 1999).
- **Business levies** - [Charging businesses] is fair, as businesses such as Cougar are making all the money - they should pay for track to be maintained as they benefit from it (*Anderson *pers comm* 1999). Businesses that profit from the track should put something back into it - seems fair (*Walker *pers comm* 1999). Money for track has to come from somewhere - those businesses that profit from the walkway should contribute towards its maintenance - includes Picton backpackers and other businesses in town (*Hazel *pers comm* 1999).
- **Sustainability** - Apprehensive about track growth and publicity. Level of use okay now, but future? Walking tracks that are publicised should provide facilities (*Langford *pers comm* 1999). Track is coping with current volume but will not in future (*Algie *pers comm* 1999). Should instate quota system for all walkers and bikers using track (*Hazel *pers comm* 1999).
- **Planning** - Need proper planing for volume of people using track - particularly toilets, campsites (lots of freedom camping) (*Algie *pers comm* 1999). When slips occur, DoC should signpost them for bikers (*Stewart *pers comm* 1999). Need to monitor tourism growth (*Langford *pers comm* 1999).

APPENDIX X - Results of Commercial Operator Interviews

Positive Aspects About Queen Charlotte Area

The visitors - they have chosen to come here. Are nice people - no crime. Also, enjoy own company (*Corbett *pers comm* 1999). Natural environment, bush, isolation, changeable surroundings, bird-life, sea. Holistic lifestyle (*Solomon *pers comm* 1999).

Positive Aspects About Queen Charlotte Walkway

Track has huge potential, lovely place, can really work (*McDougal *pers comm* 1999). Natural, take it as it comes, marvellous asset (*Ruby *pers comm* 1999). The walkway won the 1998 New Zealand Tourism Board tourism award despite the slips (*Corbett *pers comm* 1999).

Aspects Relating to Visitor Growth

- One half of visitors to business are north Americans, one quarter Australian, one eight Aucklanders, no South Islanders for whole summer! (*McDougal *pers comm* 1999).
- Longer season, has consistently grown over past five years (*Boyce *pers comm* 1999). Have really noticed growth in walkers this year. However, walkers are only 10% of their business (*Jamison *pers comm* 1999). Grown a lot - for example, in early March had 100 mountain-bikers in three rainy days (*Solomon *pers comm* 1999).
- Track counter numbers are misleading because of movement between bays (*Ruby *pers comm* 1999).

Visitor Behaviour

- Walkers usually come from Tongariro Crossing and on their way to Abel Tasman. Otherwise, don't want to go to Abel Tasman as they have heard it is too crowded (*Hayward *pers comm* 1999).

- The engineering needed on the track is rubbish - people should take responsibility for their own safety - everyone pays ACC. Should not look for scapegoats (*Ruby *pers comm* 1999).
- Walkers now are more regimented - only stop at 'designated' places - follow guidebooks, brochures regarding stops etc. (*Timms *pers comm* 1999).

Environmental Concerns due to Walkway Use

- **Toilets** - Would like to see more toilets, track markers etc. - but understand this is difficult (*Ruby *pers comm* 1999 Resort). Should be more toilets, the more the better (*Solomon *pers comm* 1999). People always use *Corbett's toilets - don't pay. This is a real problem (*Corbett *pers comm* 1999). *Corbett offered DoC to build a toilet, but they declined because of difficulties in getting a consent (*Corbett *pers comm* 1999).
- **Rubbish** - Very tidy track, hardly any rubbish (*McDougal *pers comm* 1999). People use the resort's rubbish bins - *Corbett must discard of it at resort's cost (*Corbett *pers comm* 1999). DoC gives *Solomon rubbish bags and takes them away occasionally (*Solomon *pers comm* 1999).
- **Water quality** - Water is a concern. Tell people to drink out of fast moving streams (*McDougal *pers comm* 1999). Worried about *giardia*, warn walkers to be hygienic (*Boyce *pers comm* 1999). Water hygiene is a big concern (*Solomon *pers comm* 1999). Not enough drinkable water places for walkers, these places need to be marked on DoC brochure (*Solomon *pers comm* 1999). Worried about *giardia* - big risk for business. Health inspector from the Council said their water was okay, could advise visitors to boil it for safety's sake if they wished to (*Corbett *pers comm* 1999).
- **Sustainability** - Accommodation may not be able to keep up with demand on walkway - will lead to bad publicity by way of word of mouth (*McDougal *pers comm* 1999). Concerned with mountain-bikers: shouldn't be using track as too many walkers, and are

too quiet - safety risk (*Solomon *pers comm* 1999). Can walkway sustain mountain-bikers during bad weather? This is doubtful - have seen a lot of mountain-biking damage on the track (*Solomon *pers comm* 1999).

Department of Conservation

- Good relationship with DoC - they are doing what they can with their resources (*Hayward *pers comm* 1999). Very good relationship with DoC (*Boyce *pers comm* 1999). Picton DoC office is really good, helpful, but lack funds (*Ruby *pers comm* 1999).
- Hardly any contact with DoC - ring them if walkers tell of slips, scraggy, gorsy patches on track (*Jamison *pers comm* 1999). Feel that DoC is swayed by money - i.e. some businesses get preferential treatment (*Corbett *pers comm* 1999).

1998 Winter Slips

- DoC only had \$1,500 in walkway kitty when slips occurred, businesses provided \$30,000 to fix the track damage (*Boyce *pers comm* 1999). Businesses know that if they need to do something on the walkway, must do it out of own pocket (*Ruby *pers comm* 1999). Businesses paid for slips to be fixed - *Boyce started process rolling (*Corbett *pers comm* 1999).
- Slip money should come out of Earthquake and War Damage account, not operators' pockets (*Ruby *pers comm* 1999).

Future of the Walkway

- **Regulatory management** - Visitor numbers should be controlled - don't want the Cabanas - people come here because it is empty (*Hayward *pers comm* 1999). Don't want too many people on the track - commercial businesses should have a license/quota

regarding the amount of people they can put on the track. Currently no limit (*Boyce *pers comm* 1999).

- Don't want to pay levees on the track as businesses look after it at their own expense (*Corbett *pers comm* 1999).
- All operators should have their water and sewage tested for resource consents to operate (*Hayward *pers comm* 1999).
- Sewage pollution must be controlled - don't want to ruin what we have (*Hayward *pers comm* 1999). *Hayward feels that the Marlborough District Council picks on small operators and lets the large operators off (regarding pollution problem) (*Hayward *pers comm* 1999).

APPENDIX XI - Methodology for Visual Track Analysis

The physical impacts of visitor use on the Queen Charlotte Walkway were assessed using a subjective form of analysis. This form of analysis was based on the work of Simmons and Cessford (1989) who carried out a physical impact study on the Saint James Walkway. Their study involved two forms of analysis to establish the impacts of visitor use on the walkway and the surrounding environment:

1. Objective and subjective monitoring of track condition
2. Investigation of soil properties and trampling effects

Objective Approach

An objective approach to impact assessment should obtain precise measurements in change in track profile parameters (Simmons and Cessford 1989). Consequently, this approach was carried out over an extended amount of time in order to establish the rate of change on the Saint James Walkway profile. This established that track widening and deepening are the main manifestation of user-induced change in track condition (Simmons & Cessford 1989: 55).

It was not logistically possible to adopt an objective approach to impact assessment on the Queen Charlotte Walkway. The time-frame of this study was insufficient to measure change in track profile over time. Therefore, a subjective approach to impact assessment was adopted.

Subjective Approach

In this approach, Simmons and Cessford adopted a systematic track-condition rating programme for different sections of the walkway. This rating programme observed track

condition and user behaviour in these places, as well as a subjective interpretation of the photographic record. It was found that the changes in track profile on the Saint James Walkway resulted from a number of user-induced impacts. At any place on the walkway, such changes could be due to any one or a combination of:

- loss of upper organic soil and litter horizons;
- compaction of underlying mineral soil horizons;
- exposure of tree roots and rocks;
- loss of existing and adjacent vegetation cover;
- development of wet/boggy areas due to poor drainage;
- 'multiple tracking' of walkers around wet/boggy areas or obstructions; or
- development of erosion channels and surfaces due to increased run-off.

Consequently, Simmons and Cessford (1989: 57) argued that subjective recognition of these factors allowed the general state of track condition to be assessed. Moreover, it was argued that this approach should identify which management actions should take place to prevent further undesirable changes.

Table 6 "*Track damage due to trampling and mountain-biking effects*" (page 129) evaluates the condition of four different sections of the Queen Charlotte Walkway. These sections were ranked according to the level of user-induced changes that are observed to have occurred. The locations of the designated sections, which each cover roughly one to two kilometres, are indicated on Figure 10 (page 125).

The frequency of user-impacts was visually evaluated on each designated section of walkway. This provided an overall impression of the user-impacts on the general track condition. The assessment looked for any one or a combination of the impacts listed on Table 6. These impacts were ranked according to the frequency they were observed to have occurred at along each designated stretch of walkway. The following assessment criteria were adopted:

Indicator	✓	✓✓	✓✓✓
Erosion of soil horizons	Usually within track margins	Often beyond track margins	Often well beyond track margins
Exposure of roots & rocks	Few (<19) observances	Common (20 - 39) observances	Very common (>40) observances
Loss of vegetation cover	Usually within track margins	Often beyond track margins	Often well beyond track margins
Dvlpmt of wet/boggy areas	Some muddy areas, usually dry	Impeded ponding common	Extensive ponding, signs of slumping
Dvlpmt of erosion channels due to increased run-off	Few (<9) observances	Common (10 - 19) observances	Very common (>20) observances
Mountain-biking damage	Few (<19) observances	Common (20 - 39) observances	Very common (>40) observances
'Multiple tracking' of walkers	Few (<4) observances	Common (5 - 9) observances	Very common (>10) observances

Clearly there are inherent weaknesses with this approach to physical impact evaluation. Since it is a purely subjective form of analysis, the results are more open to interpretation. This assessment did not include any evidence of the walkway's previous condition, which would have clarified the impacts of visitor-use over time. However, in the absence of this information, the subjective analysis has provided an insight into track condition on the Queen Charlotte Walkway.



Typical example of 'multi-tracking' damage caused by visitor use on the QCW

APPENDIX XII - Methodology for Visual Campsite Analysis

The physical impacts of visitor use on Department of Conservation campsites along the Queen Charlotte Walkway were assessed using a subjective form of analysis. This form of analysis is similar to the process used to as evaluate physical impact on the walkway, which is outlined in Appendix XI.

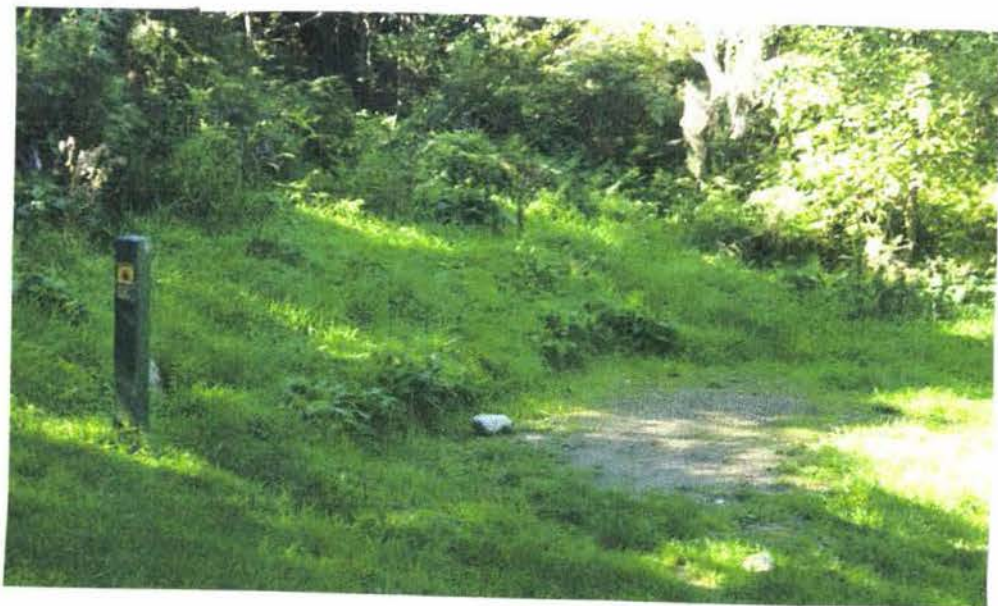
Using this subjective approach, the criteria for assessment were adopted from a study of the impacts of camping on DoC tracks by McQueen *et al* (1991). This study identified the following impacts as a result of camping in natural areas:

- vegetation degradation;
- soil compaction and erosion;
- habitat degradation;
- absence of seedlings;
- decline in soil fauna;
- a decrease in native species diversity;
- an increase presence of weeds;
- a presence of bare ground;
- damage to trees; and
- removal of woody vegetation and litter.

Table 7 "*Damage to campsites*" evaluates the condition of four campsites along the Queen Charlotte Walkway. The locations of these campsites are indicated on Figure 10 (page 125). The user-impacts on each campsite were ranked according to the overall impression of its condition. The assessment looked for any one or a combination of the impacts listed on Table 7. These impacts were ranked according to the frequency they were observed to have occurred at each of the four designated DoC campsites. The following criteria were used to measure this:

Indicator	✓	✓✓	✓✓✓
damage to surrounding vegetation	Usually within campsite margins	Often beyond campsite	Often well beyond campsite margins
bare ground	Usually within campsite margins	Often beyond campsite	Often well beyond campsite margins
soil compaction and erosion	Usually within campsite margins	Often beyond campsite	Often well beyond campsite margins
exotic weeds	Few (<4) observances	Common (5 -9) observances	Very common (>10) observances
introduced animal pests	Few (<4) observances	Common (5 -9) observances	Very common (>10) observances
rubbish and sewage pollution	Few (<4) observances	Common (5 -9) observances	Very common (>10) observances

Clearly there are inherent weaknesses with this approach to physical impact evaluation, as discussed in Appendix XII. However, in the absence of any record of the campsites' previous conditions, this form of analysis has provided an insight into campsite condition on the Queen Charlotte Walkway.



Typical example of bare ground in a DoC campsite on the QCW

APPENDIX XIII - Evidence of Lack of Toilet Facilities on the Queen Charlotte Walkway

This appendix includes photographic evidence of the environmental implications of a lack of toilet facilities on the Queen Charlotte Walkway.

At one convenient resting place along the walkway, at least an hour's walk from toilet facilities in either direction, there is clear evidence of a small track leading into the bush behind a bench seat.



This track branches out in several places and at each end point the remains of toilet paper and, in one instance tampons, were found. Due to the physical evidence, it is clear that this stop is used by a large number of visitors to the walkway.

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