Visitor Perspectives of Ecotourism in the Maldives

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ABSTRACT

Ecotourism is a popular form of alternative tourism that is combined with elements of sustainable tourism. Spread of ecotourism in the world since the 1980s coincided with a tourism industry boom in the Maldives.

The Maldives has been unable to embrace ecotourism widely because of controversial issues within tourism (e.g. sensitivity to balance nature alongside rapid developments). A lack of recognition of the importance of ecotourism and a knowledge gap about the potential of ecotourism as a diversified tourism product are some key reasons why ecotourism is under-developed in the Maldives. However, continued debates and extensive research in ecotourism have produced some significant outcomes that eliminate the misconceptions that exist about general ecotourism. It is evident that several coastal and island destinations have successfully embraced ecotourism with minimal disturbance to the environment. To some extent, all forms of tourism have an impact on the environment. Not all tourism development is guided by best practice to restrain damage to the environment. Preservation of the environment is central to the economic prosperity of some small island nations such as the Maldives.

This research examines the demand and perception of ecotourism by analysing nature-based tourism experiences in the Maldives. A quantitative survey is employed in eleven resort operations that target the international tourist population on holiday. Several of these operations offer ecotourism-related experiences together with lesser ecotourism-oriented experiences, yet nature-based, tourism experiences. This research addresses the factors that contribute to visitor holiday experiences, purpose of visit, information delivery about environmental/ecotourism education, tourist satisfaction, and environmental concerns about the Maldives and environment in a global context. In particular, visitor environmental values are examined using the New Environmental Paradigm (NEP) scale.

The core results indicate that it is important to recognise the potential that the Maldives’ natural assets have for ecotourism development, especially the diverse marine resources. Most visitors to the Maldives considered the destination to be an ecotourism destination, felt that they had experienced ecotourism and were satisfied with their holiday experience. These factors suggest that a niche market in ecotourism can be tapped to diversify the Maldives’ current tourism markets.
As a mechanism to establish ecotourism, this research suggests the implementation of an environmentally-holistic, strategic planning approach, assessing, strengthening and producing environmental/ecotourism education/information for hosts, guests and tourism stakeholders; and the minimisation of infrastructure development while maximising commercial and community benefits. Most importantly, continuous monitoring and evaluation of conservation management is vital for successful ecotourism development, especially in remote areas where international tourism could contribute to conservation and bring positive outcomes for community development. This research concludes that with knowledge enhancement, ecotourism could play a pragmatic role in advocating conservation and resource sustainability if it is appropriately adapted to the context.

Finally, the findings from the NEP endorse the fact that visitors have a strong concern for the environment. The rationale of the current study is that with the dynamic evolution of tourism, visitors tend towards an ecocentric worldview. This implies that there is a latent market for ecotourism experiences in the Maldives.
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LIST OF ABBREVIATIONS

Co2 .......................................................... Carbon dioxide
EC .......................................................... Environmental Concern
ECOSOC .................................................. Economic and Social Council
EPPA ....................................................... Environment Preservation and Protection Act
GEB .......................................................... Global Measure of Ecological Behaviour
GEC .......................................................... Global Environment Change
IUCN ....................................................... International Union for the Conservation of Nature
MHHE ......................... Ministry of Home Affairs Housing and Environment, Maldives
MOT .......................................................... Ministry of Tourism, Maldives
MOTCA ........................... Ministry of Tourism and Civil Aviation, Maldives
MPA .......................................................... Marine Protected Area
MTPB ....................................................... Maldives Tourism Promotion Board
NEP .......................................................... New Environmental Paradigm
NEAP ....................................................... Nature and Ecotourism Accreditation Programme
NGO ........................................................ Non Governmental Organization
SIDS ....................................................... Small Island Developing States
SPSS ........................................................ Statistical Package for Social Sciences
UK ........................................................... United Kingdom
UN ........................................................... United Nations
USA ........................................................ United States of America
WTO ........................................................ World Tourism Organization
WWF ....................................................... World Wide Fund for Nature
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Chapter 1  Introduction

1.1.  Tourism in the Maldives

The Maldives (refer figure 1.1) is a low-lying archipelago with 298 square kilometres of land area spread across a vast body of water close to south-west India (Buckley 2003) of which 80% of the land area is less than one metre above mean sea level (Price, Roberts & Hawkins 1998). The Maldives archipelago comprises of 1190 islands clustered into twenty six atolls that are part of the largest group of islands in the vast submarine mountain range of the Chagos-Laccadive Plateau (McGinley 2007). Of these islands, about ninety one islands had been developed as tourist resorts by 2007 (MOTCA 2007a).

The physical features of this small island nation of the Maldives give it a unique environmental resource base that is vulnerable to social, economic and environmental stress. This combined with developmental constraints, makes it imperative that there is continuous monitoring of sustainable tourism development. Indeed, the Maldives continues to be one of the world’s most exclusive and popular tourist destinations for Western and Asian sunseekers (Ismail 2006).

FIGURE 1.1 Geographic location of the Maldives
1.1.1. Tourism’s inception in the Maldives

The commencement of tourism in the Maldives in 1972 was initially a gloomy period overshadowed by unplanned, unregulated activities that delivered negative impacts to the environment (MOT 2005). The early tourist segments to the Maldives were mainly Italians engaged in “consumptive” use of wildlife recreation which affected “focal species” in the “local ecosystem” Duffus and Dearden (1990: 216). Some of their activities included catching fish with spear guns or using dynamite, taking coral from the coral reefs, or purchasing shark fins, and turtle skeletons as souvenirs. The German tourists who followed conveyed their concerns about these activities and their impact on the ecosystem to the Maldivian authorities (Jamal & Lagiewski 2006). Subsequently, operators reversed these damaging trends, resulting in organised activities and protection of the ecosystem.

Although tourism first established itself in the Maldives in the 1970s, traditionally self-employment such as fishing in the Maldives had been the country’s main source of income until the transformation of the tourism industry began in the early 1980’s. Over the last three decades, the Maldives’ tourism industry has continued to strengthen and develop its position in international markets to compete against similar destinations (Ismail 2006). Subsequently, the increasing flow of tourist arrivals and tourism revenue plays a major role in shaping the country’s socio-economic and environmental progress with the exception of the period following the 2004 tsunami impacts, which had a serious impact on economic growth.

1.1.2. Tourism growth in the Maldives

During 2006 tourism contribution stood at 35.3% of the Maldives’ gross domestic product (GDP). In 2007, there was record growth tourist arrivals, with over 600,000 (MOTCA 2007b; MOTCA 2007c). Recent policy decisions have resulted in nationwide tourism development projects in all atolls including regions hitherto undeveloped in tourism, with a total industry bed capacity of 33,000 projected till 2011 (MOTCA 2007b). At the end 2007, the total industry bed capacity was 19,418 (MOTCA 2007c) which means an increment of 58.5% is expected in a span of four years. The Maldives Government believes that this increase will reduce income inequalities, bring further employment and improve income opportunities. However, Brown, Turner, Hameed and Bateman (1997) believe that while there are regulated and restrictive environmental policies, expanding the tourism sector will have an impact on the island’s environment. They assert that this environment may have already reached its carrying capacity. According to Detlefsen, Sapiro, and Schwartz (2005), potential development should not threaten the environmental (i.e. cause beach or soil erosion, harm mangroves or coral reefs, pollute coastal
waters or endanger protected species). Continued vigilance is required to develop sustainable
tourism which may bring long term ecotourism opportunities that could be explored. Similarly,
Higham, Carr and Gale (2001) affirm that ecotourism experiences can be fostered by providing
high quality experiences and meaningful conservation.

Until 2003, when tourist cruising to all atolls was regulated and nationwide tourism expansion
policies were put in place, tourism development in the Maldives was restricted to enclave tourism
for socio-cultural, religious and environmental reasons (Ghosh, Siddique & Gabbay 2003; MOT
2005; Jamal & Lagiewski 2006). The Maldives relies primarily on tourism to drive the country’s
further economic development. Although according to Lew (2001) the Maldives is well-known as
an ecotourism destination, Buckley (2003) however states that the destination has significantly
deteriorated due to sewage disposal resulting tourism developments in the fragile environment.
Not only tourism development, nationwide infrastructural developments are significant in recent
years that could elicit environmental factors. Ecotourism is thought to exist in the Maldives
although on a relatively small-scale (Buckley 2003; Lew 2001), and at a fairly immature level. Only
a few tourism operators are involved in offering nature-based ecotourism activities as tourist
attractions. One reason for this may be that the Maldives is promoted as a tropical beach holiday
destination with a major diving and surfing component (Buckley 2003) including honeymoon
segments. Although, the ecotourism aspects of nature, landscape and flora and fauna of the
Maldives is depicted on most resort websites and the Maldives' promotional brochures, this
research finds that adequate attention has not been given to ecotourism experiences as compared
with the amount of attention given to existing recreational or adventure tourism activities offered
by resorts. Tourists who visit the Maldives are essentially confined to the luxurious settings and
activities of the enclave island resorts, except for a few hours of island hopping to neighbouring
islands (Ghosh et al. 2003).

1.2. Introduction to Ecotourism

The early school of thoughts on ecotourism accepted the concept as a viable tourism
development tool with a symbiosis between humans and nature (Laarman & Durst 1987 in
Fennell 2003; Ceballos-Lascuráin 1980 in Blamey 2001; Budowski 1976). However, since its
formal recognition in the 1980's, ecotourism has become a frequently debated tourism concept in
the last two decades of tourism history (Weaver & Lawton 2007; Wearing & Neil 1999; Honey
1999; Wight 1994). Its theoretical relevance and practicable application has been contested widely
within subfields of tourism research. Ecotourism and nature tourism are faced with dichotomies
and overlaps which make both types of tourism difficult to define and distinguish from each
other (Boyd & Hall 2005; Beeton 1998; McKercher 1998). The diversity of nature tourism is a broad spectrum that makes it hard to distinguish ecotourism but the categorisation of specific ecotourism experiences within nature has helped to identify ecotourism as a sub-sector of nature tourism.

Ecotourism arose from changes in behaviour and attitudes among suppliers and tourists. Poon (1994) indicates that there is a growth in the number of ‘new’ tourists who are more demanding, independent, well-educated and more experienced compared to the ‘old’ travellers. The birth of the ‘new’ tourist is associated with the environmental movements during the 1970s and 1980s, which came about as a resulted of the detrimental effects of the increase in socio-economic and industrialised developments that had on the environment (Weaver 1993). These movements led to the acceptance of ‘alternative tourism’ forms (e.g. ‘appropriate’, ‘eco’, ‘soft’, ‘responsible’, ‘people to people’, ‘controlled’, ‘small-scale’, ‘cottage’, and ‘green tourism’) (Fennell 1999: 9) during the 1980s to 1990s (Krippendorf 1986). Consequently ‘ecotourism’ was formally recognised in 2002 by the United Nations (UN).

Alternative and ecotourism forms of tourism are considered to be more benign forms of tourism compared to the traditional ‘mass tourism’ (Lück 2003). The concept of ecotourism came into existence due to the negative effects of mass tourism that has degraded natural resources (Haas 2002). Emphasise be placed here that though both alternative and ecotourism forms of tourism may have similar features, these are two different concepts. Attention to alternative tourism was given in early 1980s, which is described as small-scale practices and potential activities that better suite to small islands local environment and circumstances (Weaver 1995). Alternative tourism is specifically recognised as ‘appropriate’, ‘green’, ‘soft’, ‘sustainable’ and ‘eco’ (Weaver 1995: 595) but is not necessarily synonymous with ecotourism. In general, ecotourism is developed as a form of environmentally friendly tourism that should minimise adverse environmental impacts on resources and coexist in harmony with man and nature. Ecotourism is viewed as a sustainable alternative means of tourism for those interested to experience remote and exotic natural areas (Haas 2002). Importantly, sustainable tourism is embedded in ecotourism. In this research, sustainability is given a low profile by visitor experience in the Maldives, hence its importance is not addressed in an extensive manner in this study but it is explained in the literature review (refer section 2.6.3) as a significant part of ecotourism component. Consequently, it is vital to brief sustainable tourism in relation to ecotourism to inform the reader so not to allow space to combine these interrelated but different concepts.
The concept of sustainability originated from environmentalism that grew in the 1970s, subsequently sustainable tourism development was rooted in the late 1980s from the environmental prominence (Liu 2003). As stated in Quebec Declaration on Ecotourism, ecotourism embraces and addresses the three core principles of sustainability (i.e. social, economic and environmental goals) that reflects the larger objective of sustainable tourism (Wight 2002; Wood 2002). It is essential that these three sustainable aspects in ecotourism are monitored effectively to maintain quality in ecotourism destinations and operations (Vereczi 2007). According to Wight (2002), any role of ecotourism contribution to sustainable tourism is likely to be beneficial where tourism certainly is only part of the whole idea of sustainable development and ecotourism is part of sustainable tourism. Weaver (2006: 193) regards ecotourism as ‘the conscience of sustainable tourism’ because ecotourism is the only high profiled tourism sector that widely exercises prerequisites of environmental and socio-economic sustainable practices. Accordingly, advocacies of sustainable tourism has informed on ‘the interrelationships between tourism, the environment and the local community, the need for a long-term perspective in both development planning and resource conservation and a broader view in managing tourism to include the needs of all stakeholder groups’ (Liu 2003: 471-472).

Achieving truly sustainable ecotourism is considered a major challenge that requires cooperation between tourism industry stakeholders such as government, tourism operators, tourists and local people. To sustain ecotourism without adversely affecting the natural and cultural environment, precautions needs to be undertaken to manage and practice ecotourism sustainably (Vereczi 2007; Wight 2002). It can be done to ensure that ecotourism operations and destinations practice sustainable tourism conservation measures in order to minimise resource degradation by adapting to protect natural and cultural resources.

The concept of ecotourism receives considerable criticism as a potential tool for conservation and education because of the misuse of ‘eco’ labels in marketing. This has created a lack of confidence in the concept of ecotourism in the travel and tourism (Shaw & Williams 2002; Fennell 1999; Wight 1994). However, several researchers also advocate on the subsequent benefits that ecotourism has for conservation and education as being main tourism elements to protect natural resources while helping the community and guests to build awareness of the environment (Butcher 2007; Cater 2004; Bridgewater 2002; Page & Dowling 2002). Ecotourism continuously faces strenuous challenges to achieve best possible practice, especially in destinations that have limited resource bases (Halpenny 2001). It is debatable that ecotourists are interested to learn new experiences while demanding for pristine environments and that equally they gain satisfaction from experiences in modified natural environments (Croy & Høgh 2003; Weaver 2001). This may be because modified natural settings are less likely to embrace...
ecotourism in its entirety. Furthermore, the demand for unspoilt environments, education and interpretation and other factors like tourist motivations, perceptions, values, attitudes and accessibility of destinations, contribute to visitors’ satisfaction (Fennell 2003; Croy & Høgh 2003; Higham et al. 2001)

The key strengths for developing ecotourism in the Maldives can be based on the tourism and environmental policies advocated in the sustainable development of infrastructure on land for resort development (e.g. environment impact assessment). During the 1990s, positive measures were undertaken at the national level in the Maldives to recognise the importance of conservation. This arose from the need for nature-based tourist attractions and conservation of fisheries (refer section 2.10.3.1). Timothy and Boyd (2003: 46) claim “protected areas and/or relatively untouched regions are important places to observe natural heritage”. Protected areas can be popularised in marketing campaigns to create motivation for the tourist in order to influence travel decisions to the destination (Timothy & Boyd 2003) while the tourists obtain memorable images and information contributing to “tourist gaze” Urry (1990: 95) in such special sites. Therefore, to maintain the quality of tourist environments, concrete and detailed measures to strengthen ecotourism protection, preservation, and education, learning and research experiences should be strictly enforced while monitoring ecotourism sites for human encroachment and other impacts.

1.3. The Research problem

This study examines visitors’ demand for and perceptions of ecotourism experiences in the Maldives. Through a survey and data analyses of visitor demand and perceptions, the research investigates the potential development of ecotourism resources (e.g. activities, experiences and attractions) at the destination. It provides an in-depth understanding of tourist interests in ecotourism experiences in the Maldives and developing a tourist profile. Furthermore, visitors’ participation and experiences in ecotourism activities are analysed to understand their environmental ethics and values according to the New Environmental Paradigm (NEP) variables.

In terms of added value, the natural environment of the Maldives is central to continued tourism product development. Higham et al. (2001: 35) observe that ecotourism operations provide:

“commercial visitor experiences, generates employment, and add economic value to the conservation estate and other natural areas/resources, while contributing to conservation and generally maintaining low impact experiences in natural areas”.
In the Maldives, the capability to formalise ‘ecotourism’ as a business operation is negligible, although a range of sustainable tourism measures are being undertaken by the government and tourism industry stakeholders. Therefore, the key objective of this research is to draw an in-depth understanding of visitors’ demands and the perceptions of their ecotourism experiences in the Maldives, especially among international tourists.

1.4. Research approach

The Maldives is an established tourist destination and a few of the country’s operators offer ecotourism-based nature products. As the nature of tourism is evolving in a globalised travel market, it is becoming increasingly important to understand visitors’ demands, perspectives and needs so as to sustain and enhance a destination. Hence, the main objective of this research is to:

Analyse the visitor demand for ecotourism in the Maldives thus contributing to an understanding of future market issues.

It is likely that the increase in tourist arrivals in the Maldives could tap into a niche market in ecotourism, thereby increasing the destination’s market diversity. Hence, this research asks these questions with the goal of answering the research objective:

1. What are visitors’ demands for nature tourism experiences in the Maldives?
2. What are visitors’ perspectives of nature tourism experiences in the Maldives?

Ecotourism experiences in this research are considered in relation to the tourists’ interests and participation at nature or marine biodiversity settings in the Maldives. This research examines visitors’ relationships with ecotourism resources, conservation/preservation, education and learning elements in existing tourism products, and examines visitors’ environmental values. Visitor perspectives uncovered in this study suggest that there is a potential market niche market for nature-based ecotourism in the Maldives.

This research uses a quantitative visitor survey in selected resorts. A mix of qualitative and quantitative questions in the questionnaire helped to address the research questions. Due to the nature of the Maldives geographically segregated islands and the country’s widespread ecotourism component, the survey was administered in selected resorts. It included both operators who were ecotourism-oriented than those that offered relatively less ecotourism-oriented experiences. It is
difficult to define these resorts as complete ecotourism operators with the exception that they offer some ecotourism oriented products and experiences to the visitors. Where necessary, additional information for this research was obtained from government archives, non government organisations, and tourism industry management (resorts) through e-mails, fax, telephone conversations and the internet.

1.5. Thesis structure

This thesis is organised into six chapters. The visitors’ demands for and perspectives of ecotourism in the Maldives is examined as a subset of nature tourism and complemented by an analyses of visitors’ environmental values using the NEP scale.

Chapter One has provided an introduction to the thesis covering geographic information about the Maldives and background information about the country’s tourism industry. This chapter has also presented an introduction to the ecotourism concept, research problem, and the research approach and thesis structure of this study.

Chapter Two provides a synopsis of the ecotourism literature. It also consists of several other important sections which are described here in order of priority. Firstly, the relationship between nature-based tourism and ecotourism is explained. Secondly, a section on ecotourism definitions, key ecotourism issues, ecotourism evolution, ecotourism principles, ecotourism typologies and ecotourism market segmentation are explained. Thirdly, a section on coastal and island destinations provides an overview, with examples of the nature of ecotourism, ecotourism resources, product and activities in the Maldives are explored. In addition, resource conservation and ecotourism accreditation are discussed. Finally, the NEP as a measure to study visitors’ environmental values is addressed.

Chapter Three presents an in-depth discussion of the method employed in this research. Specific details are given in about: the study’s aims and objectives and survey design. The ethics approval, survey questions are described and issues such as biases and survey validity, questionnaire pre-testing, sampling method, the participation rate of resorts, survey implementation, data analyses, research limitations are all addressed.

Chapter Four reports the detailed findings on all of the responses received from the postal questionnaire survey. The data and results are reported in three main sections. The data from
visitors’ holiday experiences in the Maldives (Section A of the questionnaire) provides results on visitor’s demand for and perception of ecotourism experiences. The data from visitors’ opinions on the global environment (Section B of the questionnaire) generated results that relate to the environmental values of visitors in a global context. Additionally, the data from the visitor profile (Section C of the questionnaire) provides the demographic characteristics of visitors to the Maldives.

Chapter Five presents a discussion of the findings. This chapter analyses the key findings for the two objectives of visitor demand and perspectives of ecotourism experiences in the Maldives, in relation to the literature presented in Chapter Two and highlights the outcomes and issues that arise. Furthermore, the chapter addresses key themes that have emerged from the results, including the visitor profile, visitors’ experiences and demand perceptions and the NEP scale.

The final and concluding chapter, Chapter Six presents an overview of this study, outlines the research objectives, and concisely revisits the research objectives in terms of ecotourism resources and associated issues in the Maldives. Drawing upon the literature review, the results and discussion chapters, recommendations are suggested and further research directions are presented in relation to the future development of ecotourism in the Maldives. The following chapter presents ecotourism literature prepared for this study.
Chapter 2    Literature Review

2.1. Introduction

The main focus of this chapter is to review the existing literature on the concepts of ecotourism as a subset of nature-based tourism. Ecotourism has been growing alongside global tourism, which is fundamentally a Western concept (Cater 2006; Halpenny 2001). The increasing concerns about the environment are reflected in the rapidly growing interest in ‘healthy and enlightening tourism experiences’ associated with evolving tourism trends and their impact on the fragile environment (Cater 2004; McKercher 1998).

Although ecotourism shares some broad characteristics with nature and culture-based tourism, the scope for this research is limited to the nature-based aspects of ecotourism. This means it is important to understand the connection between ecotourism and nature tourism. As ecotourism is encompassed in nature-based tourism, this chapter begins with a brief explanation of the diverse scope of nature-based tourism that leads to a discussion of ecotourism. This chapter discusses the key issues and principles of ecotourism and its typologies based on motivation, perception and market segmentations. The development of ecotourism, particularly in a coastal and island context, is illustrated with relevant examples. The attributes of the New Environmental Paradigm (NEP) are discussed – this paradigm is the basis of the tourist perception and behaviour analyses in this research. Although there may be other similar approaches that can be used to measure green environmental values like the Environmental Concern (EC) scale or the General Measure of Ecological Behaviour (GEB) (Lück 2003), this research employs the NEP because it is one of the frequently used scales to measure environmental concerns and its application is growing in tourism studies (Lück 2003; Stern, Dietz & Guangnano 1995).

2.2. Nature tourism and ecotourism

In conjunction with the maturing tourism sector, nature-based tourism has emerged as a distinct type of tourism (Boyd & Hall 2005). Page and Dowling (2002) write that nature-based tourism comprises the dimensions of viewing nature, observation and environmental interpretations that are synonymous with ecotourism. This is because it aims to protect natural areas but nature
tourism can also become mass tourism in some natural areas like national parks. While this is a tourism experience in a nature-based environmental setting, according to Boyd and Hall (2005: 273) nature-based tourism takes place in;

“alpine and sub-Arctic regions, areas formally set aside with protected areas or national park status, islands, coastal and marine spaces, and has emerged as a type or umbrella label for more specific subtypes like ecotourism, wildlife tourism and peripheral areas tourism”.

Although ‘eco’ and ‘nature’ aspects reveal a combination of similar features, it is important to focus on certain key attributes that could help to identify the dichotomy of eco and nature tourism. Buckley (2003) is convinced that ecotourism is a form of nature-based tourism but he observes three areas of controversial issues in both types of tourism. They include:

1. The extent of modification in natural environment,
2. The distance between tourism activity and the natural environment and,
3. The distinction between natural and cultural environments.

These issues could be due to the difficulties of overlap between nature, ecotourism and other forms of tourism activities. Although ecotourism is understood to be a subset of nature-based tourism, an overlap to categorize the nature of ecotourism activities clearly exists. This may be because nature-based tourism is a diverse form of tourism (Boyd & Hall 2005; McKercher 1998). For example, nature tourism visits often constitute of education, recreation, adventure and natural history (cited in Page & Dowling 2002 in Laarman & Durst 1987).

Ecotourism can be distinguished from nature tourism in that the former covers conservation, enhancement of the environment, commitment to nature and social responsibility (Fennell 2003; Orams 2001; Brown et al. 1997). Beeton (1998) concedes that not all nature-based tourism can be regarded as ecotourism. It may comprise many activities that are common in other forms of tourism and differentiated by the fundamental philosophy of educational components (e.g. photography combined with information, sightseeing, bushwalking, camping, wildflower viewing, bird watching, wildlife viewing, night walks, special interest scientific tours and adventure based tours such as cross-country skiing, white water rafting and mountaineering are considered as ecotourism activities). Despite that, ecotourism is inseparable from nature and would lose its appeal if separated from nature. It is distinguishable from nature-based tourism because it dependents on specific imperative elements like education, ethical values, conservation, and sustainability. It also differs from nature-based tourism because it is more complex to achieve ecotourism, in terms of resource utilisation, policy and planning, management, operations and marketing (Fennell 2003). Therefore, it is understood that ecotourism occurs in an unspoilt natural setting that special interest groups travel to. There they take part in recreation and
experience a learning element based on nature.

2.3. **Defining ecotourism**

The literature review for this research identifies several definitions of ecotourism - some of these are highlighted in table 2.1. One of the first formal ecotourism definitions is found in the works of Ceballos-Lascurain (Blamey 2001) who coined the word ‘ecotourism’ in the early 1980s (Fennell 2003; Blamey 2001; Higham et al. 2001). Another early reference to ecotourism is found in Laarman and Durst’s 1987 working paper series (Fennell 2003: 20) which defines ecotourism as nature tourism. These earlier definitions easily relate to nature and culture-based tourism. Recent definitions of ecotourism such as the International Union for the Conservation of Nature (IUCN) 1996 definition and Honey’s 1999 definition (see Table 2.1) underline the importance of education, conservation, socio-economic progress and sustainability through ecotourism.

**TABLE 2.1 Definitions of ecotourism**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Ecotourism Definitions</th>
</tr>
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<tbody>
<tr>
<td><strong>Cited in Blamey (2001: 05)</strong></td>
<td>“Travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas” by Ceballos-Lascurain, H in 1980.</td>
</tr>
<tr>
<td><strong>Cited in Fennell (2003: 20)</strong></td>
<td>“Traveller is drawn to a destination because of his or her interest in one or more features of that destination’s natural history” in which visitors would participate in “education, recreation and adventurous activities” by Laarman and Durst in 1987.</td>
</tr>
<tr>
<td><strong>Honey (1999: 25)</strong></td>
<td>“Ecotourism is travel to fragile, pristine and unusually protected areas that strives to be low impact and (usually) small scale. It helps educate the traveller; provides funds for conservation; directly benefits the economic development and political empowerment of local communities; fosters respect for different cultures and for human rights.”</td>
</tr>
<tr>
<td><strong>Cited in (Wood 2002:09 &amp; TTA 2005:07)</strong></td>
<td>“...environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features – both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socioeconomic involvement of local populations” by (IUCN) in 1996.</td>
</tr>
</tbody>
</table>

Almost all ecotourism definitions reveal the links between cultural features and unspoiled natural attractions (Page & Dowling 2002). Wearing and Neil (1999) suggest that ecotourism is referred to as being small-scale, low-key and sensitively developed high-priced tourism that minimises the impacts that may take place on a destination. Cater (2004) criticises that limiting ecotourism to a small-scale is irrational because large-scale nature-based tourism can also be accommodated by adhering to sustainable requirements. Thus the concept of ecotourism is faced with some challenging key issues and these are highlighted in Section 2.4.
2.4. **Key issues in ecotourism**

Some early tourism writers have made substantial contributions to discussions on ecotourism-related environmental issues and impacts. Budowski (1976), identifies three different tourism relationships with environment conservation; 1. Conflict, 2. Coexistence, and 3. Symbiosis. He believes that an expansion in tourism results in unavoidable damage to resources with conflicts resulting from the coexistence of nature and people. Yet he also believes that there is the potential for symbiosis or a mutually beneficial relationship. In order to reduce environmental impacts Fennell (2003 cited in Krippendorf 1977) emphasises the importance of 1. Planning, 2. Dispersion of tourists, 3. Tourism development, and 4. Over-use and misuse of resources resulting in diminished value and attractiveness. Cohen (1978) speculates that instead of improving tourism development for aesthetic appeal, modern tourism is responsible for adverse damage.

Writers like McElroy (2002) highlight the destructive influence of mass tourism practices in some small ‘successful’ island destinations where island policy makers embrace economic benefits at the expense of biocultural diversity. While mass tourism is usually incompatible with conserving the diversity, productivity and beauty of coral reefs (Price et al. 1998) in low-lying islands, Bermuda is an example of a successful mass and alternative tourism destination standing strong on its sustainable identity (di Castri, McElroy, Sheldon and Balaji 2002). This indicates that community, industry and authorities have the capacity to favourably influence the transformation of a destination or to minimise the impact of tourists and tourism development. Some of the key ecotourism issues are now briefly discussed in relation to environmental aspects that may be relevant to the future marketing of ecotourism destinations.

2.4.1. **Environment and global warming**

Global warming resulting from climatic changes has become a sensitive issue of concern for everyone because of the inherent dangers it poses to existence. It is widely believed that natural areas in all climatic zones are affected by global warming, and this is detrimental to the continuation of ecotourism itself (Coventry 2007). Gössling (2007) predicts that ecotourism has an uncertain future due to the poor quality of the environment and the extinction of species resulting from ‘Global Environment Change’ (GEC) which is not only a threat to the survival of ecotourism but a global threat to all beings. The current tourist trends indicate that tourists take multiple short holidays and these result in increased mobility of tourists which leads to high ecological costs (Grenier 2002). This means that increased tourist mobility incurs more tourism,
and more tourists are associated with more energy consumption. Tourism mobility over long distances has come about through urbanisation, technology, various communication and transportation systems, and industrialisation in several destinations. It results in increased energy consumption and high pollution levels that place fragile ecosystems under enormous pressure (Grenier 2002). Therefore, tourism is expected to contribute to global warming and to other forms of pollution. In contrast, the emergence of ecotourism is the outcome of lopsided growth in the socio-physical consumption structure and yet it preaches conservation if rightly managed. The socio-physical consumption structure here means the extension of socio-economic development needs in a country (e.g. land/lagoon reclamation for building infrastructures & housing) resulting from population growth. This subsequently requires, increase in energy consumption effecting the environment and global warming.

According to Halpenny (2001), coastal and island destinations are faced with extreme challenges in ecotourism product consumption and ecotourism attractions, despite exacerbated natural disasters (e.g. storms, hurricanes, earthquakes and tsunamis). For examples, Montserrat in the Caribbean which has the latent potential to thrive as an ecotourism destination witnessed an economic down turn due to a volcanic eruption in 1997 (Fennell 2003; Weaver 1995). Similarly the Maldives is threatened by the rise in global sea-levels, coral bleaching and climate change due to global warming (Cater & Cater 2007; TTA 2007; Price et al. 1998; Chalker 1994). It experienced gross tourism devastation from the 2004 Asian tsunami (Ismail 2006). Natural disasters have long-term effects on a tourism sector and national economy, especially for those people who are highly dependent on delicate island tourism destinations. Drastic external factors (e.g. epidemics, political instability in neighbouring countries or source markets, and global financial/economic crisis) may hamper the future marketing of ecotourism destinations, in that customer travel confidence has to be rebuilt constantly depending on the speed with which a destination recovers.

2.4.2. Ecotourism travel

Reliable and convenient access to remote destinations without undermining the resource capacity of a fragile environment is an imperative concern that exists in several coastal and island destinations. National airlines, building airports, facilitating and managing the entire infrastructure in island destinations for tourism development involves enormous capital investment that also determines the type of tourism market that prevails (Halpenny 2001). It is paradoxical that to access their favourite remote destinations, ecotourism visitors have to make use of aviation transport, which uses significant amounts of carbon emissions (Coventry 2007). The main source
markets mostly depend on long-haul travel to reach remote coastal and island destinations. Ostensibly, this is why Higham and Lück (2007) support the idea of ecotourists ultimately remaining at home or close to home but this may not be realistic.

Higham and Lück (2007) confirm that air travel is the most destructive form of transportation to the environment and it contributes extensively to global warming. Their findings highlight the negative impact of arriving at a remote destination by air transport, which impacts on the quality of a region’s natural beauty. Other forms of impacts, like large numbers of tourist yachts and cruise ships dumping waste in the Caribbean and the Pacific seas in peripheral areas may also impact on compromised areas (McElroy 2002). Consequently, to compensate for eco-friendly activities in the tourism industry, some airlines like Ansett Australia (Ansett ceased its airline operations in March 2002 (Ansett 2009)) and LTU International Airways, Germany - although not ecotourism specialists - have launched sustainable environment actions (Higham & Lück 2007; Lück 2003) which have created significant product values in environmentally friendly marketing. However, at a global level:

“The negotiations that had led to the Kyoto accord were among the finest moments in the life of AOSIS [Alliance of Small Island States]. Our [AOSISs’] active participation and campaigning for a reduction in greenhouse gas emissions was amply rewarded” by H.E. Maumoon Abdul Gayoom, President of the Republic of Maldives (Gayoom 2007: 6).

Indeed, extensive use of fossil fuels has become a global threat to humankind which is destroying nature and wildlife. This is why the world critically needs to cut down on emissions (including those from tourism and other activities) until a more sustainable or a renewable form of energy is found.

2.4.3. Misinterpretation of ecoproduct

Sometimes the marketing of an ecotourism product is misinterpreted and this can mislead visitors about a destination (Halpenny 2001; McKercher 1998). Likewise, Fennell (2003), highlights a market study case undertaken in Alberta and British Columbia in Canada where some ecotourism operators have modified, repackaged, and ‘mass’ produced ecotourism experiences to tourists. In this case, the ecotourism activities offered are nature-oriented adventures like hiking, rafting, canoeing, cycling, kayaking and horseback riding, which except for wildlife viewing - are less educational activities (Fennell 2003). Such repackaging could prevail in situations where destination marketing organisations or tourism operators are preoccupied with marketing their ventures and not concentrating on quality product development (Ayala 1995).
The prefix ‘eco’ in selling ecotourism products is recognised as a powerful marketing tool that creates images and experiences to tap into a niche market sector within nature tourism (ITTA 2005; Beeton 1998; McKercher 1998; Wight 1994). However, the labelling of an ecoproduct should not be unrealistic and devalued. For instance, product proliferation in tempting advertisements that promote ecotourism experiences with ‘eco’ labels like “green, ecologically friendly, ecotour, ecotravel, ecovacation, eco(ad)ventures, ecocruise, ecosafari, ecoexpedition and ecotourism” confuses and discredits the notion of ecotourism (Wearing & Neil 1999; McKercher 1998; Wight 1994: 41-42). The argument is that the tourism industry assigns labels as a means to place market and sell products for visitor experiences (Boyd & Hall 2005). This is ultimately a profit-oriented practice by operators who are often not devoted to environmental practices. Several researchers note the importance of understanding the ecotourism market as a unique niche market (Page & Dowling 2002; Halpenny 2001). To establish a niche ecotourism market, it is important to concentrate on a high quality affordable product, as misconceptions can cause deterioration in a destination’s ecotourism image of a destination and misrepresent the essence of ecotourism to potential tourists.

2.4.4. Nature and culture as ecoproducts

The dual notion of ecotourism versus living space in Western thinking has sometimes resulted in management conflicts arising from the expulsion of native dwellers from protected areas for the purpose of ecotourism development (Hammit & Symmonds 2001). This process underlies concepts of ‘ethnocentrism’ (Cater 2004: 492). Based on the original notion that resources are a ‘tragedy of the commons’ (Hardin 1968 cited in Price et al. 1998: 103), nature-culture repercussions tend to represent the misappropriation of ecotourism commodification (Cater 2004) in an environment of open access to resources where conservation becomes important to control resource use. Complexity in nature-culture relationships that relate to resource allocation may result in the disintegration of the social mechanisms that affect the marketing of an area (Cater 2004). To control ecotourism in developed countries while avoiding conflict of interest of loss over protected areas; the area of land required for protection is normally purchased by the government or a conservation organisation before protection policies and regulations are implemented (Hammit & Symmonds 2001). This is one reason why ecotourism affixes financial values to natural resources affecting its product price. These resource values of a destination increase by the designation of an area as a national or international heritage area. Compensation over potential income generation from resources of traditional economic activities (e.g. forestry, agriculture, fishing, farming and mining) is given in most developed countries but in the
developing world of Africa, Asia and Latin America, the areas used for tourism have minimal protection (Hammit & Symmonds 2001). This may be because other developmental priorities take precedence over ecotourism as a result of long-term financial constraints to maintain and conserve protected areas.

Conflicts of interest between tourism and communities in island destinations have occurred over access routes, consumption fishing and freshwater, boat moorings, expulsion of natives for ecotourism land preservation and not valuing native culture and traditions (Honey 1999). Some Indian Ocean islands such as Madagascar, Mauritius and Seychelles are faced with nature/culture relational degradations (e.g. trading rare reef species, sand mining, mangrove destruction, erosion, siltation and unplanned urbanisation, deforestation, loss of natural vegetation over sugarculture and endangered native plant species) (McElroy 2002). In a marketing context, unattractive symbiotic relationships in nature/culture can result in a failure to attract ecotourists subsequently ecotourism businesses seeks other advantageous locations (Cater 2004). Cater (2004) and Wight (1994) advocate that public interest in profit-making from the environment and the conservation of ecotourism resources should be viewed as the complementary or supplementary integration of sustainable market products. Based on ecotourism demand, effective marketing can be applied to manage and sustain resources for visitor use and for communities to consolidate revenues for conservation. To solve similar issues, achieving benefits from natural-cultural resources to local communities is an integral element of ecotourism which can be possible through realisation of community partnerships with ecotourism stakeholders. Mechanisms to achieve benefits is challenging but possible with participatory planning, enterprise development, micro loan programmes, hospitality skills training etcetera (Halpenny 2001).

2.4.5. Potential market failure in ecotourism operations

In terms of ecotourism operations from a marketing perspective, McKercher (1998) and Cater (2004) observe that a lack of business strategy, inefficient operations, business and social isolation, capital constraints and small-scale business are the basic problems of ecotourism competency. It is the general consensus that nature-based ecotourism enterprises typically cater to small special interest groups where mostly the environmental setting is usually in a remote or a displaced location. Although only a minimum infrastructure is required to operate viable ecotourism businesses (Higham & Lück 2007), there is a tendency for operational costs to be very high due to seasonality, sustainable low-environmental impact practices, high-quality personal services including educative information and interpretation, and severe price competition among several similar business with small gross revenues (McKercher 1998). Wearing and Neil (1999) state that
price is a significant factor to control demand in the limited number of ecotourism destinations. Even though ecotourism is a growing market, the capacity for an ecotourism business to survive in the long-term has resulted in market failure. This may be due to poorly marketed techniques, poor-quality products and inadequate ecotourism market research. However, according to McKercher (1998), these trends are changing as several experienced agencies are emerging with the potential business drive to succeed in nature, adventure and eco-travel experiences. Wearing and Neil (1999) juxtapose that the rapid growth of ecotourism over mass tourism has become a concern, as mass product operators are increasingly marketing to offer environmentally stimulating experiences where they have little understanding of the products. Hence, that the expansion of the ecotourism market, is overridden by other forms of tourism that complicate the true spirit of ecotourism.

2.4.6. Increased tourist visitation

Ecotourism and nature together certainly bring to mind thoughts of possible environmental impacts and the inability to support pristine natural environments. There should be a limit to the expansion of tourism, as ecotourism has a value and its tolerable level of sustainability in an ecosystem could be limited. For example, the amount of use (i.e. jet-boaters, canoeists) and users of resources varies (Fennell 2003). Orbasli (2000: 164) advocates a key long-term solution to restricting the number of tourists in a destination is to use resources sustainably in order to remain comparatively unspoiled and ‘exclusive’. Briguglio and Briguglio (2002) fear that a visitor flow reduction policy may not work in highly tourism dependent economies. Instead they should favour reducing social and environmental damage through preventive and corrective measures (e.g. impact assessments, improved monitoring, and providing government incentives to operators on pollution reduction) including management strategies in ecotourism operations (Orams 1995).

Ecotourism can also have direct and indirect impacts on surrounding areas. In terms of direct impact, an increasing number of visitors would affect carrying capacity and jeopardise sustainability while demanding increased facilities and services. With conservation and protection, ecotourism could affect land prices, accommodation and local housing (Hammit & Symmonds 2001). Furthermore, certain ecosystems (i.e. coastal zones and islands) are more vulnerable to high tourism densities in relation to population and land area, and these can also be highly seasonal (Briguglio & Briguglio 2002; Coccossis 1996). The indirect impacts of ecotourism in coastal/island areas exist from the need for infrastructure development in fragile environments and a lower level of access in coastal areas as compared to inland regions (Hammit & Symmonds
Overall, in fiscal terms it is largely believed that due to the small number of special interest ecotourism operations, the economic impact on a destination is likely to have little influence on traditionally-established industries like forestry or mining. At a larger scale, it should be accepted that it is the entire growth in the tourism industry and the growth of non-tourism related industries such as industrialised activities that has widely affects the natural resource endeavours (Weaver 2001). Bridgewater (2002) advocates that by considering the values and beliefs of societies, various issues can be scaled down scaled and prioritised selectively. Hence, there is a need to strongly address and practice low-impact sustainable approaches of ecotourism in keeping with nature. The essence of the ecotourism sector is ascribed in its main principles which have also evolved as the sector has matured.

### 2.5. Evolution of ecotourism

Research finds that the etymology of ecotourism has been subject to confusion in its infancy, encompassing complexities, uncertainties and ambiguities (Weaver 2001). The occurrence of ecotourism as a concept of responsible tourism was initially identified in the work of ‘Hetzer 1965’ as having four fundamental pillars (Fennell 2003: 18 cited in Blamey 2001: 05). They are:

1. To minimise environmental impacts,
2. To respect host cultures,
3. To maximise economic benefits to the natives and,
4. To maximise tourist satisfaction.

The early ecotourism literature revolved around the above four components. The birth of ecotourism stemmed from environmental movements during the 1970s to 1980s that gained momentum among industry, governments, conservationists, researchers, tourists and the public (Higham & Lück 2007; Honey 1999). According to Weaver (1993) ecotourism originally emerged during the 1980s as a form of nature-based ‘alternative tourism’ arising from unbalanced developments in environmental, economic and socio-cultural structures.

“Most …<alternative tourism>… initiatives are small. Schumacher coined the inimitable phrase ‘small is beautiful’, but small can also be insignificant, and whilst many alternative tourism initiatives may be well meaning and fulfil the JPS criteria (Just, Participatory, Sustainable), they are unfortunately merely a ‘drop in the ocean’. Even of the number of such projects increased dramatically it is not likely they could increase enough to cater for the scale of today’s demand for holidays. And of course, if they did would no longer would be small – and no longer beautiful – or JPS” (Wheat 1994: 2)
As is generally accepted, alternative tourism and ecotourism are synonymous with a variety of tourism strategies such as ‘appropriate’, ‘eco’, ‘soft’, ‘responsible’, ‘low impact’, ‘people to people’, ‘controlled’, ‘small-scale’, ‘cottage/resort’, and ‘green’ tourism (Fennell 1999; cited in Weaver 1991 in Conference Report 1990). The use of such expressions without clear and concise understanding could impact on the environment of a destination (Shaw & Williams 2002). The rhetorical use of ‘eco’ labels in ecotourism products can have the potential to create confusion for consumers as well as misunderstanding of ecotourism concepts by ecotourism operators (Shaw & Williams 2002; Fennell 1999; Wight 1994).

After two decades, the importance of ecotourism was internationally recognised under Agenda 21 of the United Nations Economic and Social Council (ECOSOC) to mark the International Year of Ecotourism in 2002 (Cater 2004; Weaver 1993). Much global attention is now being given to ecotourism. The thinking on ecotourism is not clear and there remain inconsistencies and debates over the concepts of ecotourism used by tourism researchers (Page & Dowling 2002; Beeton 1998; Orams 1995). Researchers (Page & Dowling 2002; Orams 2001; Halpenny 2001; Chalker 1994) find that ecotourism is a rapidly growing sector within tourism, which is the world’s largest economic industry. According to the World Tourism Organisation’s (WTO) declaration, ecotourism accounted for nearly 20% of the global tourism market in the 1990s (Wight 2001). The growth in ecotourism is said to be ensured by the ‘consumptive’ use of social and ecological resources over the importance of an ‘anthropocentric’ approach for tourism users and providers (Fennell 2003: 18; Duffus & Dearden 1990: 216) as against an ‘ecocentric’ approach (Page & Dowling 2002: 4). Other factors that lead to the growth of this sector are considered to be the global interest in environmental matters, indulgence in outdoor experience and a desire for healthy and active lifestyles (McKercher 1998). The growth of the ecotourism sector is extensively influenced by the highly-developed countries of the West and industrialised countries, where social awareness of the environment has trended towards preservation of natural resources (Cater 2004; McKercher 1998).

2.6. Principle areas of ecotourism

In recent years, discussion about ecotourism has focused on three core areas (Weaver 2004;

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1 Anthropocentric means the human-centred world view that humans are the planet’s most important species who are in charge of the rest of nature. It assumes the earth has an unlimited supply of resources to which we gain access through use of science and technology (Page & Dowling 2002: 4)

2 Ecocentric means the nature-centred world view that humans believe that it is useful to recognise biodiversity as a vital element of earth for all life. They believe that nature exists for all of earth’s species and humans are not apart from or in charge of the rest of nature (Page & Dowling 2002: 4)
Orams 2001; Beeton 1998; Blamey 1997):

1. Primary focus on natural attractions,
2. Focus on educational or learning opportunities and,

Some researchers like Page & Dowling (2002) and Dowling (1996) suggest that there are five core principle areas fundamental to ecotourism and to the above list they add:

4. Local benefits to the local communities and,
5. Tourist satisfaction.

However, as there is a general consensus about the first three main ecotourism principles, these are briefly explained below. In terms of quality of product, the first three core principles of ecotourism should be the basis for a quality ecotourism product in any destination while the other two elements are regarded as desirable in all forms of tourism products in a destination (Dowling 1996).

### 2.6.1. Focus on natural attractions

The first ecotourism principle focuses on natural attraction which is the very basis of tourism endeavours. Weaver (2004) states that in placing products from a destination’s resource base, some highly demanding attractions from a wider ecosystem such as desert, tropical rain forest, flora and fauna may be chosen, without providing a special status for these components. Notably, Salvat and Pailhe (2002: 213), argue that the diversity of the environment differs for people and tourists at all levels:

“…from geomorphology of islands and their coral reefs, to the culture of the inhabitants and their links with the larger world, to the different aspects of mass tourism and ecotourism”.

Most importantly, tourists visiting natural attractions on an island or at coastal destinations could initially be attracted by a diverse range of tourism spaces such as air, beach, landscape (such as seascape and reefscape), and tropical tourism elements (such as climate, coconut trees, white sandy beaches and coral reefs). According to Salvat and Pailhe (2002) Polynesia’s ‘ecotourism’ is rarely mentioned in its promotional brochures yet it offers a wide range of nature-based tourism activities (e.g. diving and fishing) including some of ecotourism significance (e.g. snorkelling, whale sighting, glass bottom boat excursions, black pearl farm visits and shark feeding). This suggests that in some small island destinations, the representation of ecotourism products remains relatively insignificant or inseparable from a wide range of nature-based activities.
2.6.2. **Focus on educational or learning opportunities**

The second core area of ecotourism relates to a quest educational or learning motive. Ecotourism is stressed with the element of education, learning or appreciation about nature, which is the basis of an ecotourism product (Weaver 2001; Orams 2001). Education or learning mediums can be facilitated through a range of information mediums such as signage, visitor centres, tour guides, interpretation and guidebooks. These mediums do not indicate that the visitors would understand the preferred information. This is why it becomes important for site managers to create a setting, undertake interpretation and deliver information in a way that would maximises visitor satisfaction and enjoyment expectations (Weaver 2004; Blamey 2001). Some ecotourists ignore interpretation techniques and prefer to self-indulge in observing the environment (Weaver 2001). For successful ecotourism operations, the effective delivery of information and interpretation are considered imperative (Weaver 2004). The education component remains subjective because of the existence of appreciative experiences over learning centred experiences (Orams 2001; Weaver 2001). Therefore, this account for the ambiguities associated with concepts of ecotourism, which largely depends on tourist interests.

2.6.3. **Focus on sustainability**

Sustainability is the final core area in ecotourism and it is the most vague and controversial principle in relation to the three major areas (Weaver 2004). Sustainability in tourism systems in terms of tourism contributions is complex (Page & Dowling 2002) because of various human activities that affect environmental degradation. This is why, for ecological reasons, preservation and conservation is of utmost important for long-term sustainability (Harrison 2001; Higham et al. 2001). Cater (2004) warns that while ecotourism is sustainable tourism, not all sustainable tourism is ecotourism. Chalker (1994) emphasises that not only ecotourism but all tourism should be sustainable. Ecotourism comprises the essential classic ‘trinity’ elements of sustainability that includes enhancing and protecting environmental, social and economic criteria (Cater 2004: 486; Page & Dowling 2002). Sustainability in tourism is universally accepted as maximising socio-cultural and economic significance while mitigating its negative effects through appropriate tourism development. Bridgewater (2002: 299) states that:

“Tourism is about being human, linking people with nature and culture, providing people with enriching experiences. Along the way, tourism can be a force for conservation, for sustainable development and for directly improving the lot of people. There is a major role for ecology and human interaction, through linking biological and cultural diversity, in providing the experiences of tourism”.

22
This implies that any type of environment has to be linked to people, so that positive ecological functions (e.g. awareness creation, conservation research, education, training and monitoring) can be integrated among tourism stakeholders to achieve harmonisation within a balanced ecological system. Therefore, sustainability can be accomplished if it is socially determined by all stakeholders to achieve a critical understanding between people and places for ecological reasons so as to safeguard resources for the future.

2.7. **Ecotourist typologies and characteristics**

Subsequent to the tremendous growth in the tourism industry, the demand for tourist experiences has continued to grow. The nature of tourism experiences is differentiated by identifying types of tourists and grouping them in order to better understand them and cater for their requirements. It is difficult to define an ‘ecotourist’, as the profile of ecotourists differs in different destinations but they do comprise certain visitor characteristics (Page & Dowling 2002; Beeton 1998).

Fennell’s (2003), profile tourist types according to their characteristics, interests, motivations, preferences, tastes, needs and demography. In the early 1990s when ecotourism became global, researchers like Kusler (1991), Lindberg (1991) and Ryel and Grasse (1991) produced broadly classified ecotourism typological characteristics by attaching identities like ‘do-it-yourself ecotourists’, ‘hard-core nature tourists’ and ‘born ecotourists’. These can be used to establish the nature of an ecotourist but they need to be simplified to develop ecotourist groupings for ecotourism markets (Page & Dowling 2002). Subsequently, Boyd and Hall (2005: 274) argue that with the exception of ‘special-interest travellers’, normally tourists do not classify themselves within a particular type of tourist typology because many of them engage in ‘sub-experiences’ that relate to nature, eco, cultural, adventure and resort tourism. For these reasons it is also important to know what a tourist aims to achieve from ecotourism travel. According to Page and Dowling (2002: 92) ‘ecotourists’ are generally distinguishable from mass tourists based on ‘travel, planning, and level of novelty’. In order to identify the broad spectrum of ecotourism characteristics, Weaver and Lawton (2002) developed a cluster analysis illustrated in figure 2.1.
The two dimensions of ‘hard’ and ‘soft’ ecotourists comprise the main segment of ecotourists: whereas ecotourists who are not classified in these two areas appear to be associated with mass tourism (Weaver 2006; Weaver & Lawton 2002). Their study clearly establishes the nature of ecotourism travellers and their pursuits. This can be used by ecotourism operators in coastal and island destinations on a related context although it may differ in different destinations. As cited in Fennell (2003 in Laarman and Durst 1987), the first reference to the ‘hard’ and ‘soft’ aspects of a physical experience including cultural interest was through eco/nature tourism. Scientists engaging in ‘hard’ ecotourism want to gain ‘dedicated’ or ‘specialist’ tourism experiences compared with a ‘casual’ visitor (Cater 2004; Fennell 2003). Some ‘hard’ tourists keenly undertake rigorous physical hardships or ‘difficulties’ with a strong ethical consideration to enjoy their tourism experience (Fennell 2003; Weaver & Lawton 2002; Orams 2001). If most of a tourist trip is spent on ecotourism activities, one is considered as a ‘hard ecotourist’ whereas a ‘soft ecotourist’ mostly spends part of their holiday on an ecotourism activity while also enjoying some comfort from the travel experience (Weaver 2006; Orams 2001; Beeton 1998). On the ecotourism continuum, ecotourists - assisted by ecotourism industry - should move from ‘passive’ to ‘active’ contributors in promoting sustainability of ‘eco-attractions’. This would result in more responsible and desirable ecotourism (Orams 1995: 05).

Page and Dowling (2002) find that ecotourists are older tourists compared to other types of tourists. Their age fluctuates from youth to retired, between twenty to fifty-five years plus. They are more educated with high income levels, have more leisure time and disposable income, are affluent and used to technology, are serious ‘special interest’ travellers focused to gain from their experience, they organise their trip in advance, and they are mostly female (Page & Dowling 2002;
Profilling tourists helps operators and destination marketing, planning organisations to clearly address areas of uncertainty such as the evolving nature of ecotourism and its user’s ethical responsibility in values and behaviours (Fennell 2003). Profiling ecotourism typologies enables destination and service providers to understand and equip themselves better to deliver a rewarding, quality experience to tourists and to build the ecotourism image of a destination. However, tourist profiles could play a major role in helping us to understand tourist trends, including the motivations of potential visitors to a destination.

### 2.7.1. Visitors’ motivations for ecotourism

In any locality tourism depends on the quality of its environmental assets (e.g. natural, social or cultural resources) which are key visitor determinants in choosing a destination (Coccossis 1996). Gaining enjoyment and learning from the natural environment is a growing phenomenon for tourist motivation (Croy & Høgh 2003). The motivation to make a travel decision is not only limited to factors that relate to mindset and desire to experience but is also significantly influenced by a destination’s price, accessibility, security and safety. It is also the push to please the inner senses (physiological and psychological) that is fundamental to tourist travel decisions (Fennell 2003). McKercher (1998: 111) suggests that even today, Plog’s (1974) psychographic profile of ‘allocentric’ and ‘near-allocentric’ visitors identifies visitors who have similar travel motivations within the parameters of adventure, ecotourism and nature tourism as adventurous travellers who seek change and want an authentic tourism experience. Specialist ecotourists are firmly motivated by a pure form of responsible, educative, interpretive-oriented tourism and create minimal damage in an area (Higham & Lück 2007; Page & Dowling 2002; Beeton 1998; White 1994). This trend appears to be relating to the increasing global awareness of environmental impacts and the psychological desire for distinctive experiences.

Ayala (2002) believes the mass tourism phenomenon of sun and beach product in the 1970s to 1980s has significantly reversed tourists’ motivation. Ayala (2002) identifies an emerging trend of potential tourists to using their leisure time more productively in alternative and responsible forms of tourism. In contrast, Weaver (2001) recognises that although the influence of mass tourism can be greater than ecotourism, ecotourism has the opportunity to strengthen mass product through ‘green’ diversification, sustainability and environmental awareness. Urry (1990) suggests that the collective tourist ‘gaze’ of the mass tourism boom appears to have decreased and that there is now a preference for romantic tourist gaze demonstrated through ‘green’
tourism. It can be related to ecotourism. Rather than being fascinated by beach holidays, ecotourists have a growing tendency to seek experiences through understanding, exploring, and learning from nature, history and cultures with a responsible attitude (Page & Dowling 2002). This shift is likely to result from well-educated, Western affluent societies whose people have the financial means to travel in their increased free time. Briguglio and Bruggio (2002) state that civic awareness in Western societies enable environmental protection among the natives of remote destinations during their visits. Therefore, the nature of environmental factors and issues relates to a growing tendency for learning and conservation motives that contribute to ecotourism experiences.

2.7.2. Visitor experiences and perception of ecotourism

The ecotourist experience is a complex one shaped through the tourist’s demand and supply perspectives as well as the service provider. In an ecotourism context, the development of a tourism experience for the ecotourism market is fundamental to the ecotourist who is the targeted product user (Page & Dowling 2002). Page and Dowling (2002: 97) state that:

“… recognising that the tourist interaction with nature, the environment and other sources of stimulation (e.g. wildlife viewing) is an element of the very product or service which the consumer wishes to experience, is necessary in attempts to classify the ecotourist as a distinct type. But even attempting to investigate the ecotourist as a distinctive type of tourist is problematic…”

McKercher (1998) notes that the decisions that relate to ecotourists’ perception of sustainable products, ethical activities and the effects on local communities are key determinants in purchasing nature-based products. Indeed, ecotourism is about encountering people and places within delicate nature. Hence, a number of factors can tarnish the tourist experience including personal feelings and attitude towards a visit (e.g. overcrowding and increased consumption of tourism resources) (Fennell 2003). Similarly, Eagles and Higgins (1998: 36) observes:

“The number of people desiring to experience nature through travel is increasing. Ecotourists are primarily interested in learning about nature firsthand. They want to see, feel and experience wilderness. While it is the job of the ecotourist industry to provide the services, programs and sites to fulfill this need, it is also important to understand the social, environmental and business implications of this growing sub-sector”.

Ecotourists’ perceptions and the outcomes of their experiences are constantly evaluated by themselves and the industry to see whether expectations have been satisfied. It is necessary to understand the complexity of elements in ecotourism experiences and perceptions that also constitute satisfaction, experiential, visitor safety and political stability, and accurate information
about ecotourism destinations including marketing (Page & Dowling 2002). Since ecotourism is a highly evolving sector, tourist experiences can also sometimes be affected by pricing, length of stay, quality of product, financial and environmental constraints and several other aspects. Operators need to study circumstances where products need to be highly attractive in terms of money, time and location (Wilson, Horn, Sampson, Doherty, Becken & Hart 2006). Tourist experience and perception of attractiveness is an important area that can be understood through market segmentation.

2.8. Market segmentation

In the field of tourism, market segmentation is a concomitant step towards marketing. According to Beeton (1998: 122), “market segmentation is a term used to describe groups of customers by their needs, characters or behaviour”. Wight (2001) asserts that ecotourism markets are dynamic but not homogenous and it is difficult to segment the ecotourism market at a global level. As tourists are not homogeneous in their demands, needs and expectations, it is crucial to understand the overall travel market by selectively concentrating on market segments in order to channel ecotourism products and activities to the right type of visitors. Market segmentation in ecotourism could also help with policy decisions on product and promotional development, and such information may unleash the debates inherent in ecotourism experiences (Higham & Carr 2002). Hall and Page (1999) indicate that tourism demand as a fundamental concept has to study tourism activities, especially based on the ‘where, why and what’ of tourists. This is why target marketing for particular segments need to be based on the characteristics of visitor typologies (refer section 2.7).

Both Fennell (2003) and Page and Dowling (2002) advocates relatively similar concepts of target marketing that are critical to understanding ecotourism visitors. They are:

1. Geographic – details on geographic area/location;
2. Demographic – details on age, sex, religions and ethnicity;
3. Psychographic – details on lifestyles, attitudes, values, and personalities and;
4. Perceived benefits – includes analyses of incentives received and the costs avoided by tourists.

Ecotourism is a subset of nature tourism, and these essential marketing attributes needs to be part of successful marketing strategies. Page and Dowling (2002: 252) affirms:

“In a tourism context, marketing differs from other products because tourism is a service industry, where the intangibility, quality of delivery and evaluation of experiences are difficult to visualise and
envision. The heterogeneity (i.e. diversity), perishability (i.e. a tour cannot be stored and resold at a different time) and intangibility of ecotourism services make marketing a challenge when combined with two other key problems: the customer must travel to the product/resource base to consume it; and the ecotourism activity (holiday) over which the operator has little influence”.

In comparison to the perishability issue existing in non-tourism products, tourism products and markets principally depend on seasonality while the flexibility of tour alterations may also exist based on suitable arrangements with operators. However, as in other forms of tourism, to establish market segmentation in ecotourism becomes necessary to attract the right ecotourist. Ryel and Grasse (1991) recognise that attracting ecotourists towards biodiversity, cultural diversity and unique geography is partly reliant on infrastructure such as accommodation, transport and new services that can support ecotourism (Wearing & Neil 1999). This will attract the right sort of ‘born ecotourist’ and ‘made ecotourist’. This concept can be co-integrated into the environmental assets of coastal and island destinations where a niche ecotourism market could become part of the rapidly growing tourism spectrum. Consequently, such a strategy would minimise impacts of built environments and visitation to enhance and sustain areas.

2.9. Ecotourism as a sustainable niche market

Ecotourism is one of the fastest growing segments of the global tourism industry and it represents a niche market for tourists interested in observing environment and nature (TTA 2005; Page & Dowling 2002; Wood 2002). McKercher (1998: 109) affirms that the ecotourism market is rapidly expanding from a niche market to become ‘allocentric’, to a mainstream activity which is a combination of ‘near-allocentric’ to ‘midcentric’ visitors. The demand for ecotourism is not only made up of ‘ecocentric’ segments but also of anthropocentric tourists (Zografos & Allcroft 2007). In order to promote a destination, first and foremost it is necessary to identify the ecotourism activities and products that can be offered to the tourists.

Several researchers reveal that initial visitor satisfaction led by ‘word of mouth’ can work as a powerful marketing tool that helps to increase tourist interest and demand (Higham & Lück 2007; Weaver & Lawton 2002; Beeton 1998). This implies that satisfaction in tourism experiences can act as a strong distributional chain to create demand but this can have a negative impact if there are compromises in product delivery. Wight (1994) is certain that there is marketplace demand for environmentally-sensitive products, programmes and education. McKercher (1998) argues that ecotourists have become more mainstream because they are now more interested in recreational activities and not only educational or adventure trips. Generally, it appears that the dominant mainstream markets travel for leisure, although they might participate to a lesser degree
According to Ryel and Grasse (1991), the main criteria for effective ecotourism marketing are tourist’s attraction to the destination (biodiversity, unique geography and cultural history) and the tourism infrastructure to maintain the industry. While special status protected areas are mostly chosen for ecotourism visits, various natural sites offer potential ecotourism experiences (Weaver 2004). Considering the uniqueness of natural areas, selected sites in the Maldives could be explored that have potential to be recognized as World Heritage sites (refer table 2.3).

Wearing and Neil (1999) establish a best method for ecotourism marketing. Enterprises should be holistic, and work with communities and other voluntary organisations. When considering a niche ecotourism market development, these requirements may become necessary to attract the right type of consumers. Although the origins of ecotourism markets are not clear, anecdotal evidence shows that market demand is centred in Northern Europe (Eagles & Higgins 1998). The dominant source markets in ecotourism are from United States of America (USA), United Kingdom (UK), Germany, Canada, France, Australia, The Netherlands, Sweden, Austria, New Zealand, Norway, and Denmark (Wight 2001; Eagles & Higgins 1998). Japan including, Northern America, Southern Europe and industrialised Asian countries are growing ecotourism markets (Wight 2001; Eagles & Higgins 1998). According to TIES (2007) more than two-thirds of USA and Australian travellers and 90% of UK tourists consider active protection of the environment. This indicates that most developed countries are the key source markets in ecotourism sector. With the shift towards responsible tourism trends, remote and exotic destinations could take advantage by motivating tourists through sustainable environmental standards.

2.10. Ecotourism development in coastal and island destinations

The late 20th century witnessed tourists’ preferences for sun, sand and sea locations in coastal and island destinations. These environments share related characteristics of challenge and opportunity that can drive their ecotourism prospects. According to di Castri et al. (2002: 139):

“Islands are certainly parts of the coastal zones, but their peculiarities, from an ecological and a cultural point of view, the immense attraction that they hold for tourists and the power of their imaginaire even on distant people of all ages, deserve special treatment… While coastal zones are, generally speaking, the areas of the world most widely open to cultural interchange and economic trade, islands tend to be characterised as closed, remote, distant and resistant to change”
Despite their small size, scarce resources, and acute vulnerability from internal and external influences, ecotourism offers potential for socio-economic development in island and coastal areas. Halpenny (2001) observes that unlike in the developed countries, during the 1960s to 1970s ecotourism in coastal and island destinations was limited, unevenly distributed and accounted for only a fragment of global international tourism. Conversely, ecotourism has rapidly grown in coastal and island tourism destinations especially in the past three decades (Halpenny 2001). Table 2.2 presents a synopsis of ecotourism growth in the coastal and island destinations of selected regions.

**TABLE 2.2 The growth of ecotourism in selected island and coastal destinations 1995 – 1999**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Indian Ocean and Africa</td>
<td>Seychelles, Mauritius, Madagascar, Zanzibar, Ghana, Red Sea</td>
<td>Moderate Increase</td>
</tr>
<tr>
<td>2. South East Asia</td>
<td>Bali, Lombok, Sulawesi, Komodo, Sulu Sea, Cebu</td>
<td>Increasing</td>
</tr>
<tr>
<td>3. Australia/New Zealand</td>
<td>Great Barrier Reef, Western Australia</td>
<td>Increasing</td>
</tr>
<tr>
<td>4. Pacific</td>
<td>Fiji, Solomon Islands, Papua New Guinea, Hawaii, Midway, Micronesia, Palau, Samoa, Vancouver Island, Alaska, Russia’s eastern coast</td>
<td>Increasing</td>
</tr>
<tr>
<td>5. Caribbean</td>
<td>Dominica, St Lucia, Nevis, Trinidad, Florida Keys, Texas Coast, Southern Quintana Roo coast, Mexico; Bay Islands, Honduras; Meso-American Reef, Belize; Kuna Yala, Panama; Bahamas, Guyana, Suriname</td>
<td>Moderate Increase</td>
</tr>
</tbody>
</table>

Source: Adopted from Halpenny (2001: 238)

The remote and unique attributes of island and coastal regions as highlighted in table 2.2 makes them attractive ecotourism destinations. Although ecotourism has rapidly increased in these areas, this segment faces immense challenges because of its characteristics. This means it is unlike mainstream mass tourism, in which most operators look for profit maximisation. Weaver (2004: 185) explains the ironical fact that private owners in possession of small, manageable ecotourism ventures are likely to have financial support to develop high quality ecotourism products, employ environmentally qualified staff, and apply sophisticated technologies to receive visitor satisfaction. It is essential that these property owners share and expand their ecotourism experiences and knowledge with the broader spectrum (e.g. alternative tourism providers, protected area managers, local communities, environmental Non Governmental Organizations (NGOs) and other stakeholders).

According to Weaver (2004), potential settings for natural tourism in microstates include mountainous interiors, peripheral islands, less developed sections of coastline (e.g. mangroves,
sand dunes and estuaries), modified rural spaces, extensive interior wetlands and coral reefs. Islands may be small, limiting and competing for environmental space for diversified products but their ‘natural endowments’ have bountiful potential (Conway 2004: 189; Halpenny 2001). The ‘natural endowments’ including unique features of a remote, laid-back lifestyle and precious species created potential ecotourism opportunities for tourism operators who apply the principles of conservation awareness. Spatial limitations on islands are favourable in the context of small-scale ecotourism development (Halpenny 2001). Weaver (1993) asserts that comprehensive ecotourism is possible when an entire jurisdiction at the state or dependency level is focused on ecotourism and its allied activities which Weaver (2004: 177) states is “an uncommon option usually found in micro states”. Possibly Weaver (1993) may be suggesting this relates to his Caribbean example in ecotourism and its allied cultural and historical activities that have maintained a relatively marginal position due to its primary ‘3S’ (i.e. sun, sea and sand) product and cruising image.

A comprehensive ecotourism function may be relatively difficult to apply to an entire country. However, there are several exemplary ecotourism locations in some coastal and island tourism destinations. Buckley (2003; 240-241) confirms that the practice of “big ecotourism is possible but currently rare” while successful models of commercial ecotourism enterprises follow ecotourism principles in places such as reef and beach resorts in Australia and the Maldives. Venues in Samoa and Dominica have developed active ecotourism programmes (Buckley 2003; Halpenny 2001; Weaver 1993). Yet promotion of ecotourism in destinations like Dominica and Dominican Republic faces a challenge to balance its mainstream mass tourism from cruise ships with special interest ecotourists (Briguglio & Briguglio 2002; Halpenny 2001). Hence, there are difficulties in separating genuine ecotourism experiential visitors from mass tourists, especially if visitations are made to ecotourism attractions in relatively sizeable numbers.

Other destinations like Fiji and the Bahamas treat ecotourism as a complementary product to their primary or mainstream/conventional tourism product (Halpenny 2001; Weaver 1993). Halpenny (2001) is of the view that the availability of complementary products alongside ecotourism experiences in some locations in these islands draws tourists to participate in additional activities and to extend their stay thus leading to increased spending. Clearly, the availability of additional activities and products increases tourism revenues. For ecotourism to succeed as a primary product or as part of a mainstream/conventional product, coastal and island destinations always face challenges to integrate effective strategies of sustainable ecotourism so as to synchronize tourist experiences within socio-cultural, economic and environments. Therefore, ecotourism plays an important role in setting sustainable standards to afford long-term protection.
Further, strengthening supply-side of a tourism destination requires focusing on multiple aspects of ecotourism product development. It includes strategic planning, stringent/continuous enforcement on resource management, monitoring and conservation of protected areas, developing viewing facilities, safety standards and minimum infrastructure, permissible low energy activities, visitor management, transportation links, island trails, design and delivery of educational ecotourism information (i.e. guided books/maps/signs/online information, training of locals in nature guiding and interpreters) (Higham & Carr 2002; Wight 2002; Higham et al. 2001; Weaver 2004; 2001; Rajasuriya, Zahir, Muley, Subramanian, Venkataraman, Wafár, Khan, & Whittingham 2000). Strengthening on similar areas for ecotourism product development has strong relevance to the Maldives.

2.10.1. Ecotourism as a subset of nature tourism in the Maldives

In general, there is little academic tourism research on the Maldives despite it gaining popularity in coastal island 3S tourism in later part of the 20th century. Specific literature on ecotourism in the Maldives’ is scarce and sketchy. It is limited to a few statements made by a small number of tourism researchers evident in Cater & Cater (2007), Buckley (2003), Halpenny (2001) and Lew (2001). This is likely to be because there are no formalised or licensed ecotourism operations/attractions/activities in the country. Conversely, researchers often address the environmental issues in the Maldives (Shakir 2007; Ali 2002; Rajasuriya et al. 2000; Price et al. 1998; Brown et al. 1997; Pernetta 1992). It is crucial to foster sustainable ecotourism development because environment is the main tourism asset of the destination. It is important to note here that the TTMP (2007: 31) mentions that since the implementation of the Maldives Second Tourism Master Plan (1996-2005) and given consideration to its unique natural attributes, continuous efforts are being made to seek ‘branding’ the Maldives as a ‘premium ecotourism destination’. However, the tourism master plan contains no concrete details about this.

2.10.2. Potential ecotourism product and activities

In the Maldives, “nature based tourism has led to a beneficial shift in the use of natural resources from primary exploitive use to non-exploitive uses” (Detlefsen et al. 2005; 34). Since the 1980s, the Maldives had transitioned from a subsistence fishing economy to a tourism-led economy. Buckley (2003) asserts that the Maldives and Australia have modelled successful ecotourism reef and beach resorts while Price et al. (1998) describe that these destinations appeal to specialist
groups, such as divers, ecotourists and travellers seeking remoteness. Ecotourism in reference to the Maldives is related to the emergence of a few ‘boutique eco-resorts’ (King 2001) within the ethos of ‘small is beautiful’ (Schumacher 1973). Most are ‘environmentally friendly’ or ‘eco-friendly’ resorts but not ‘ecologically’ based resorts (MOT 2005).

“Eco-resorts are where the tourist is offered the whole eco-experience. Not only is the sightseeing eco-friendly, but their accommodation, transport and cooking methods are also eco-friendly. Using solar heating, having bio-toilets, and using transport systems more efficiently are all eco-friendly examples put to use to reduce the effect of people on the environment… Many note that it is difficult to achieve total eco-practices in application” (Croy & Høgh 2003: 83-85).

Several resorts in the Maldives are promoted as environmentally friendly resorts largely due to sustainable measures regulated by the Ministry of Tourism and Civil Aviation to minimise the environmental impacts from tourism resort development. Some self-regulatory environmental measures (e.g. corporate plans, voluntary environmental management systems) are also undertaken by responsible tourism operators which include solar heating, recycling water, bio-toilets and to an extent the use of local food products. The Maldives including Sri Lanka are significant ecotourism destinations offering scuba-diving, snorkelling, dive safaris, and reef tours as major activities in the coral atoll destination (Lew 2001). Small sails (which are practically extinct now) and cruise boats are potential ecotourism activities that ease access to marine environments (MOT 2005). Cater and Cater (2007) believe that the Maldives is a potential marine ecotourism setting with wildlife viewing and the largest diversity of corals in the Indian Ocean with over 1000 species of fish and approximately 200 coral species (UNEP 2005; Price et al. 1998). Whale watching in the Maldives is relatively untapped commercially and limited to a few operators. This activity could capitalise on the diversity of marine wildlife, encourage conservation and environmental awareness (Detlefsen et al. 2005) that are of potential ecotourism attraction.

2.10.3. Potential ecotourism resources

Despite the widely accepted notion that the Maldives has a narrow resource base, its marine environment is conducive to attracting international tourism (Cater & Cater 2007; MOT 2005; Detlefsen et al. 2005; Sathiendrakumar & Tisdell 1990). There is also a ‘sameness’ in the Maldivian tourism product in most resorts (MOT 2005) which limits the novel experience of product diversity and activities. Instead of occupying an ‘ecological bubble’ (Cohen 1972:172) within nature-based resorts at the destination, there are other potential ecotourism attractions where ecotourism could be sustainably directed while strongly adhering to ecotourism principles.
Since nature is the ‘natural capital’\(^3\) (Butcher 2007; Tacconi 2000) of the destination, it is critical that a balance should be met to protect its use while maximising its benefits safely.

### 2.10.3.1. Marine Protected Areas (MPAs)

Since 1\(^{st}\) October 1995 the Maldives has officially designated twenty-five Marine Protected Areas (MPAs) under the Environment Preservation and Protection Act (EPPA) 4/93 administered by the Ministry of Home Affairs, Housing and Environment (MHHE) (UNEP 2007; UNEP 2005). (A list of these MPAs with its location is given in appendix B). These sites are recognised for biodiversity conservation and healthy coral reef conservation in relation to two major industries: tourism and fisheries (UNEP 2007) and most importantly their recognition resulted from recreational diving (Buckley 2003; Rajasuriya et al. 2000). The MPAs are known to have significant biological, physical, aesthetic, and recreational values (UNEP 2005) and fourteen of these twenty-five MPAs are popular dive sites for shark-watch diving (UNEP 2007).

"The protection of reef sharks in the Maldives is another illustration of how tourism can be a major tool for the conservation of protected areas. It also shows that tourism can raise the environmental awareness of residents and visitors. After a survey in 1992 estimated that dive operations focusing on reef sharks generated about 100 times more revenue than the shark fishery, objectives were set to protect important dive sites, conserve biodiversity and achieve the sustainable development of tourism by prohibiting certain damaging activities. Tourist divers were used as a resource to monitor and report on law breakers, deliberate or otherwise. This created awareness among locals of the importance of protecting the shark and its environment, and illegal mining and garbage dumping stopped in these areas"\(^4\) (IUCN 2007: 01-02)

Annually about 20% of visitors to the country are divers who come to see reefs, dive spots, and MPAs (UNEP 2005). These MPAs are not actively managed in relation to conservation and are faced with threats such as over-fishing, anchor damage, coral mining, diver damage, and there are no restrictions on the number of visitors (Rajasuriya et al. 2000). The Maldives is listed as one of the ‘at risk’ destinations in the context of general tourism (Gössling & Hall 2005), where marine biodiversity loss is threatened in the short-term future (Gössling 2007; Gössling & Hall 2005). The ‘at risk’ here is indicated as the evolution of tourism industry within a destination considering its scale of problems to understand the processes of Global Environmental Change (G.E.C) (Gössling & Hall 2005). Gössling (2007) suggests that environmental resources (e.g. species diversity & landscapes) are at risk and is threatened by G.E.C. This is likely to harm future

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\(^3\) Natural capital refers to biophysical and geophysical processes and the results of these processes such as fish in the sea, timber in the forests, oil in the ground where the relationship of these are linked to human needs over the long term (Butcher 2007; Tacconi 2000)
potential ecotourism opportunities in the Maldives, if the ecosystem lacks timely appropriate measures to manage environmental resources. More seriously, the Maldives has no means of recycling and due to its geographic condition most of the waste is dumped into the sea posing an enormous threat to the marine environment (Price et al. 1998; Sathiendrakumar & Tisdell 1990).

Although in the Maldives, marine conservation issues have been extensively addressed in the past, they receive minimal attention due to factors such as insufficient capabilities in institutions, training and research, or conflict with social and cultural values (Price et al. 1998; Pernetta 1992), underdeveloped environmental legislation/regulations and lack of environmental inspection and enforcement capacity (UNEP 2005; Price et al. 1998). For better conservation of resources and to foster sustainable ecotourism in such areas, it is necessary that authorities undertake detailed and adequate measures/plans to regularly monitor and manage protection of resources rather than simply ratifying areas as national MPAs. Since nature tourism plays a principal role in supporting the national economy, active emphasis must prevent environmental risks, mitigate pollution and resource depletion, and expand the country’s MPA network to protect its precious ecological system (UNEP 2005).

2.10.3.2. *Wildlife in the Maldives*

The ornithology of the Maldives has been described by a few authors, with more recent studies based on seabirds associated with tuna fisheries (Anderson & Baldock 2001). Bird nesting in some ecologically sensitive areas is a common phenomenon that needs to be extensively studied and conserved. Under EPPA 4/93, commencing from 1996, twenty-two bird species, six different types of turtles, eight different types of marine animals are protected. These include endangered and endemic species (MTPB 2008b: UNEP 2007). In total, 167 bird species have been identified in the islands (Anderson & Baldock 2001). Some islands in the archipelago are habitats for roosting, foraging and nesting colonies of certain birds like Great Frigatebirds (Fregata minor) (Weimerskirch, Le Corre, Marsac, Barbraud, Tostain & Chastel 2006). Hithaadhoo in Gaafu Alifu Atoll is the largest Frigatebird nesting site in the Maldives. The atoll is an ecologically unique island with marine and terrestrial ecosystems, endemic vegetation, an avian population, and geological formation (UNEP 2007; Weimerskirch et al. 2006; UNEP 2005).

The Maldives also has a number of mangroves and swamp forests distributed across the country. These are mostly diverse, abundant and extensive in southern atolls with the exception of the two northern atolls of Shaviyani and Haa Dhaalu (UNEP 2005). Mangroves are ecologically
important sink tanks to absorb carbon dioxide but these are not adequately protected in the Maldives (Bluepeace 2008). There is lack of adequate research and information on the Maldives’ mangroves which are threatened by development, garbage dumping and coastal erosion. From the limited information documented, thirteen species of mangrove habitats and other plants are recorded in the Maldives (UNEP 2005 in Untawale & Jagtap 1991). Since the inception of EPPA in 1993, only five sites have been officially designated as protected habitats as of now as shown in table 2.3.

### TABLE 2.3 Designated Protected Areas in Islands

<table>
<thead>
<tr>
<th>Date of designation</th>
<th>Location / site</th>
<th>Ecological significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th June 2004</td>
<td>Eidhigalihi Kulhi site in Hithadhoo (Seenu Atoll)</td>
<td>Significant bird habitat with mangrove habitats</td>
</tr>
<tr>
<td>14th June 2006</td>
<td>Olhugiri (Baa Atoll) and surrounding environment including its reefs and lagoons</td>
<td>It is the natural habitat of the protected sea bird, Great Frigate. The island is a breeding site for turtles and natural habit of the mangroves</td>
</tr>
<tr>
<td>14th June 2006</td>
<td>Hithaadhoo (Gaafu Alifu Atoll) and surrounding environment including its reefs and lagoons</td>
<td>It is the natural habitat of the protected Lesser Frigate Bird</td>
</tr>
<tr>
<td>14th June 2006</td>
<td>Hurasdho (Alifu Atoll) and surrounding environment including its reefs and lagoons</td>
<td>Has unique geomorphologic formation and a fragile environment</td>
</tr>
<tr>
<td>14th June 2006</td>
<td>Mangrove habitat in Huraa (Kaafu Atoll)</td>
<td>Have a variety of trees and other living organisms. The mangrove area is also an educational and nature sport of students and tourists</td>
</tr>
</tbody>
</table>

Adopted from (MEEW 2008; Bluepeace 2008)

Two of these islands are inhabited while the rest are uninhabited. Such sites have the potential to offer ecotourism attractions. Bringing tourism closer to these sensitive areas would ensure a flow of tourism revenue direct to the community that lives or neighbours such sites. Chafe (2007) strongly believes that part of true ecotourism is to ensure genuine returns to local community. Benefits of ecotourism in a community can be made potential in many ways; such as tour operators and accommodation to provide skills training and jobs, small-scale community entrepreneurship (e.g. local production & ownership of food or crafts), promotion of indigenous knowledge, material and labour, and to maintain a local identity (Chafe 2007; Haas 2002). All these are possible tourism benefits that could be brought in parallel with ecotourism which can support to empower and strengthen economic equity in the community.

Yet it is crucial that the sites are conserved and managed appropriately where guests and hosts could learn about valuing nature while contributing to saving the atolls’ natural resources. Currently, these are ‘special status’ protected areas as described in (Weaver 2004), a fact visitors
are often not aware of. Similar sites have the potential to be recognised as World Heritage natural areas of the Maldives. Conservation and management of a World Heritage site is done with a view to sustainable development (UNESCO 2008). According to Hillary, Kokkonen and Max (2002), under potential lists of World Heritage nominations in the Indian Ocean, there was biogeographic knowledge received about the Maldives. Yet it was not ranked or prioritised in the list because of lack of information and expertise available from the destination (Hillary et al. 2002). This is why there is a need to study and explore the Maldives’ for potential opportunities in enlisting as a World Heritage site.

To make the industry more dynamic, Ministry of Tourism (MOT 2005) suggests new conceptual developments such as ‘marine park, whale and dolphin watching programs, herbariums and botanical gardens, coral gardens and pockets of conservation zones’. Therefore there is an opportunity to develop these in line with ecotourism principles that can achieve product and market diversification with strategic integrations between stakeholders. The Maldives is home to twenty-one diverse species of whales and dolphins (cetaceans) including blue whales - the largest animals on the earth (MRC 2008). Whale and dolphin watching and botanical gardens tours are currently offered in some resort operations. A coral garden has been developed in Banyan Tree Maldives (Vabbinfaru in Kaafu Atoll) and Angsana Resort and Spa Maldives (Ihuru in Kaafu Atoll). Organic farming has been developed in Sonevafushi Resort and Spa (Kunfunadhoo in Baa Atoll), popular ecotourism and eco-friendly resorts (Angsana 2007; Banyan Tree 2007 & Soneva 2007). In 2005, the Maldives established a marine museum in Male’ (MRC 2007). Although not of world standard, it is a significant achievement in natural resource management and education.

2.10.4. Environmentally - friendly practices

Recognising tourism as a major source of nation-building, the Maldives and its tourism partners practice several sustainable tourism development measures to minimise environmental degradation including social contribution. For example, Sonevafushi Resort in collaboration with local NGOs supports the Maldivian community with environmental and social projects such as environmental education, observation of green turtle nesting, tree planting, free ophthalmic treatments, and sponsoring the Maldivian Cultural Centre (Soneva 2007). More importantly, out of the ninety-one tourist resorts in the Maldives (MOTCA 2007a), only a few tourism operators are known to have embraced internationally recognised benchmarking for greener and environmental certifications. This includes Coco Palm Dhunikolhu (one of the resorts that
rejected participation in this survey) and One and Only Maldives at Reethi Rah, which is currently listed in the Green Globe 21⁴ (Green Globe 2007).

In order to create environmental consciousness and in recognition of best environmental performances and practices, the Maldivian government annually presents the Green Resort Award and Green Leaf Award. Integration of environmentally responsible tourism projects can ease ecological impacts from tourism development (MOT 2005):

“Given the small margin our island ecosystem has for adaptation, the Maldives has taken many practical measures for the protection of our fragile environment. Our coral reefs have protected us from the ferocious waves of the Indian Ocean for centuries, and we believe that they represent the most reliable form of coastal defence against sea-level rise. Although Maldivians had always used coral stone for building, we have banned coral mining from house reefs and introduced incentives to promote the use of other construction materials. Also, a number of locations have been designated "marine protected areas" and, certain marine species as "endangered". The leading economic sectors of the country, fishing and tourism, which are dependent on the natural environment, have responded strongly to the Government’s call to employ sustainable practices” by Gayoom (1997).

Environmental awareness is increasing in the Maldives. Environmental and green responsibilities in the country are recognised by the Maldivian government and industry stakeholders and early environmental education takes place at primary schools (Detlefsen et al. 2005; Price et al. 1998). Nevertheless, more desirable and progress-oriented aspects of ecotourism principles; environmental education, conservation and sustainability of resource use need to be strengthened and continued vigorously at the national political level not only in tourism development but also in public sector developments to achieve positive results.

2.11. Protected areas, preservation and conservation

To maintain a balance in the ecological system it becomes necessary to instigate a mechanism to protect, preserve and conserve resources. This is mainly because “ecotourism typically (although not exclusively) takes place in environments that are fragile, finite and valued primarily for conservation”, where tourism competes to utilise the natural resources incompatibly (Higham & Lück 2002: 120). According to Page and Dowling (2002:4) conservation is an ‘ecocentric’ concept that recognises the fact that resources are limited and must not be misused or abused. Therefore resource users must protect ecosystems from human activities, rehabilitate or restore degraded ecosystems, only use resources sustainably and take responsibility for environmental damage.

⁴ Green Globe 21 is the global benchmarking, certification and improvement system for sustainable travel and tourism. It is based on Agenda 21 principles of Sustainable Development endorsed by the United Nations Earth Summit in Rio de Janeiro in 1992 (Lück 2002b).
Environmental conservation issues came to public attention as a result of the Rio Earth Summit in 1992, Agenda 21, and the United Nations’ Programme of Action (POA) for the sustainable development of Small Island Developing States (SIDS) (Cater 2004; Weaver 1993). SIDS was formalized in Barbados in 1994. It advocates an action plan identifying tourism and environment management principles for sustainable tourism development in SIDS at national, regional and international levels to harmonious cultural and natural endowments in tourism development (Conway 2004). According to Wight (1994), resource conservation and tourism development are dependent on responsible and compatible actions. Some successful examples of this are now presented.

In relation to protection, preservation and conservation, successful projects have been launched in coastal and island ecotourism destinations. These three approaches are essential to the long-term sustainability of an ecotourism destination. Some early ecotourism destinations have proactively followed good ecotourism practices while others still struggle to remain ecotourism destinations without strengthening preventive and corrective measures as theorised by Briguglio and Briguglio (2002). Two popular ecotourism destinations are briefly outlined here incorporating their significant challenges and weaknesses. One example is the Cousin Island, Seychelles which has implemented successful ecotourism practices. The other is the Galapagos archipelago which is known to be the ‘birthplace of eco-tourism’ (Tyler 2002: 01). Refer appendix C for a brief outline of some significant features in terms of ecotourism status in Cousin Island in the Seychelles and the Galapagos of Ecuador.

The Seychelles and the Galapagos Islands share similar ecological processes although there are differences of timescale in policy implementation and operational management in sustaining the destinations. Today, the stress and environmental impacts on the resources of the Galapagos Islands are caused by the invasion by an increased number of visitors and natives, misuse of resources to achieve economic benefits, and the ignorance of Ecuadorian authorities in protecting natural resources. This has resulted in irreversible damage to the Galapagos as an ecotourism destination (Grenier 2002). Hence, as per the concepts of Higham and Lück (2007), in the Galapagos Islands, the ecotourism sustainability goal is compromised by the short-term interests of socio-economic development. In contrast, despite some similarities and differences, the Seychelles continues to strengthen its ecotourism management policies followed by conventional 3S tourism, with the exception of only a few islands that have ecotourism potential.

It is emphasised here that ecotourists travel to captivating natural areas to pursue learning as a
key motivation. Once an ecotourism attraction is environmentally degraded in a destination, visitors may not demand to visit the same destination because of a change in their perception (Beeton 1998; Blamey 1997). In relation to the concept of Budowski (1976) (refer section 2.4), the Cousin Island represents an exemplary setting for stakeholder coexistence with resource integration where the theories of Fennell (2003 cited in Krippindorf 1977) fit.

Balancing economic and environmental realities is complicated by the rapid development in tourism markets and entrepreneurship (Shah 2002). However, to capture the interest of the tourist in ecotourism destinations; protection, preservation and conservation also need to sustain natural resources. To mitigate the environmental damage to natural resources it is equally important to support environmentally friendly practices and the guidance of tourists, operators, community and the authorities.

2.12. **Ecotourism accreditation and ethics**

Ecotourism accreditation and certification programmes can be of immense benefit to stakeholders in the ecotourism sector. More specifically, accreditation schemes (e.g. Green Globe 21 and Nature and Ecotourism Accreditation Programme (NEAP) of Australia) are standard guidelines adopted by responsible businesses/communities for sustainable operations. It is important that formation and adherence to such programmes are supported by tourism industry sectors (e.g. Ecotourism Association of Australia (EAA)) and at national level (e.g. Ecotourism Australia Board). Ecotourism Australia (2003: 03) reports that:

> “Nature tourism and ecotourism accreditation provides industry, protected area managers and consumers with an assurance that a nature tourism or ecotourism product will be delivered with a commitment to best practice environmental management and the provision of quality experiences”.

Accreditation programmes provide quality tourism experiences, training opportunities and recognition and a marketing identity for the product can be achieved by the operator including the visitor (Page & Dowling 2002). Undertaking similar programmes can increase appropriate environmental practices in awareness, behaviour, management and responsibility over natural resources by the community and other agencies (Beeton 1998). According to Weaver (2004), if there is an absence of educational, accreditation and certification schemes that ensures adherence to the three core principles (i.e. natural attraction, education and sustainability), then a destination is termed to be engaged in pro-ecotourism. This is because most microstates primarily follow 3S tourism while nature-based ecotourism activities are a marginal component of their products.
However, acceptance by regulating authorities of national ecotourism accreditation in the industry (local, regional and national) needs to be developed as a continuous process by offering incentives and valuing the best professional practices in the area.

Furthermore, from an ethics-based perspective, ecotourists are becoming more environmentally aware than other tourists because they tend to undertake creative travel pursuits close to nature (Butcher 2005; Lück 2003). In this regard, several businesses, governments and other agencies have developed tourism codes of ethics with environmental principles explicating responsible behaviour for stakeholders (Wight 1994) and tourists. Francesco Frangialli, Secretary General of the World Tourism Organization (WTO) confirms that their adoption of a Global Code of Ethics in 1999 aims to bring greater awareness among tourism stakeholders of conservation of natural cultural environments while respecting communities and protecting the rights of tourists and service providers (Frangialli 2001). Since ecotourism products are usually placed in non-renewable resources (Wearing & Neil 1999), it is imperative that accreditation schemes and ethical codes consolidate to maintain such areas in their natural conditions. It is also important that these principles are shared and respected by all stakeholders in tourism, as ecotourism has to be tackled responsibly within the complex situation of natural resource consumption in order to ensure environment and cultural integrity. Lück (2002a) argues that although often ecotourism suggests small-scale operations, major mass tourism players like LTU (Germany’s second largest charter carrier) and TUI (Europe’s largest package tour operator) have a socially responsible code of conduct to contribute to the betterment of the environment and host communities in the destinations, and have received internationally recognised awards in conservation for this.

Cater (2004) highlights that although operators are rewarded for good practices, penalising them for bad practices is not easy due to the interests of powerful market forces. Implementation and practices of such schemes and codes may differ from place to place but the borderline is to accelerate minimal environment impacts and offer valued experiences through ecotourism activities rather than have tourism becoming a threat to prosperity. McKercher (1998) also notes that passing knowledge to clients about a destination provides a successful method in marketing an ecotourism operation. Therefore, it is critical to perpetrate a balance between environmentally responsible behaviours in order to bring benefits from ecotourism experiences and alleviating ecotourism impacts to achieve considerable global market prosperity. The following section examines the role of the New Environment Paradigm (NEP) scale in measuring the environmental values of visitors at nature tourism areas.
2.13. New Environmental Paradigm (NEP)

The development of the New Environmental Paradigm (NEP) scale dates back to Dunlap and Van Liere (1978) and its application in a tourism context has been embraced by a number of researchers in recent decades. The NEP scale is used in this study as it is a well tested and well documented standard measure of general environmental concern (Lück 2003; Higham et al. 2001; Jurowski et al. 1995). This scale has been used across a number of different populations (e.g. rural/urban population and tourists) and to explore a range of environmental related topics (e.g. tourism, ecotourism, conservation and waste reduction).

The initial NEP-scaled study applied in tourism research after Dunlap and Van Liere (1978) was the Uysal, Jurowski, Noe and McDonald’s (1994) US Virgin Islands study. It produced empirical evidence that demographic characteristics relate to environmental concerns of tourist behaviour. Stern et al. (1995) studied the links between attitudes and behaviour for a US sample, while Furman (1998) found NEP to be useful to explore Turkish environmental attitudes. Corral-Verdugo and Armendariz (2000) studied environmental beliefs at a Mexican community in Hermosillo city and concurrently Ryan’s (2000) study focused on Australian tourists and their interests in wildlife-based tourism attractions.

Furthermore, the application of NEP scale was carried by Higham et al. (2001) to profile and distinguish the environmental values of visitors to New Zealand ecotourism operations which are identical to Uysal et al. (1994). They identified three main dimensions of environmental values in visitors such as ‘balance of nature’, ‘human nature’ and ‘limits to growth’. Chung and Poon (2001) studied environmental attitude and household waste management practices in urban/rural areas in China. Niefer, da Silva and Amend (2003) applied the NEP to the environmental consciousness of visitors to Superagüi National Park in Brazil. Lück (2003) compared various studies previously done using the NEP scale and applied the NEP in New Zealand ecotourism dolphin tour areas. Lee and Moscardo (2005) explored the conservation benefits of environmental management practices and nature experiences at the ecotourism resort of Kingfisher Bay Resort and Village Australia. Finally, Sandve (2007) used the NEP scale to study skiers’ environmental attitudes and behaviours at Queenstown/Wanaka in New Zealand. These studies have established links between environmental values, the NEP and ecotourism. In general, the scale has used environmental values to demonstrate the characteristics of environmentally concerned visitors that enable to profile ecotourists. However, environmentally concerned visitors who held environmental values may not necessarily be categorised as ecotourists but may
be of potential ecotourists who may have a general environmental world view that could allow differentiating the tourists based on their environmental values.

The NEP is a set of reflections on tourist behaviours which can be used to understand them better. This research intends to apply the twelve NEP variables that have been used in Higham et al. (2001) to describe the environmental values and attitudes of visitors as originally developed by Dunlap and Van Liere (1978). The factor analyses of these twelve items concludes that three dimensions exist ‘balance of nature’, ‘man over nature’ and ‘limits to growth’ (Higham et al. 2001; Albrecht, Bultena, Hoiberg & Nowak 1982). According to Higham et al. (2001; 10) “…values influence the attitudes that tourists may hold towards specific objects and situations, as well as expectations, decision-making processes, purchase choices and on-site behaviours”. The original twelve items of Dunlap and Van Liere’s (1978) study and the logical arrangements of these items with some minor changes in expressions by Higham et al. (2001) are shown in table 2.4.

**TABLE 2.4 The Twelve items of NEP scale**

<table>
<thead>
<tr>
<th>Dunlap and Van Liere’s (1978) study</th>
<th>Higham et al’s (2001) study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We are approaching the limit of the number of people the earth can support</td>
<td>The balance of nature is very delicate and easily upset</td>
</tr>
<tr>
<td>2. The balance of nature is very delicate and easily upset</td>
<td>We are approaching the limit of the number of people the earth can support</td>
</tr>
<tr>
<td>3. Humans have the right to modify the natural environment to suit their needs</td>
<td>To maintain a healthy economy, we will have to develop a ‘steady state’ economy where industrial growth is controlled</td>
</tr>
<tr>
<td>4. Mankind was created to rule over the rest of the nature</td>
<td>Humans must live in harmony with nature in order to survive</td>
</tr>
<tr>
<td>5. When humans interfere with nature, it often produces disastrous results</td>
<td>Humankind is severely abusing the environment</td>
</tr>
<tr>
<td>6. Plants and animals exist primarily to be used by humans</td>
<td>When humans interfere with nature, it often produces disastrous results</td>
</tr>
<tr>
<td>7. To maintain a healthy economy, we will have to develop a “steady state” economy where industrial growth is controlled</td>
<td>Plants and animals exist primarily to be used by humans</td>
</tr>
<tr>
<td>8. Humans must live in harmony with nature in order to survive</td>
<td>Humans have the right to modify the natural environment to suit their needs</td>
</tr>
<tr>
<td>9. The earth is like a spaceship with only limited room and resources</td>
<td>Humans were created to rule over the rest of the nature</td>
</tr>
<tr>
<td>10. Humans need not adopt to the natural environment because they can remake it to suit their needs</td>
<td>The earth has limited room and resources</td>
</tr>
<tr>
<td>11. There are limits to growth beyond which our industrialised society cannot expand</td>
<td>Humans need not adopt to the natural environment because they can remake it to suit their needs</td>
</tr>
<tr>
<td>12. Mankind is severely abusing the environment</td>
<td>There are limits to growth beyond which our industrialised society cannot expand</td>
</tr>
</tbody>
</table>

*Source: Dunlap and Van Liere (1978) and Higham et al. (2001)*

The historical application of the NEP suggests that the NEP scale is the most frequently used measure of environmental concerns (Higham et al. 2001; Stern et al. 1995)). This scale was
developed as a representation of the need for a shift in the anthropocentric world view Dominant Social Paradigm (DSP) to an eccocentric world view New Environmental Paradigm (NEP) (Dunlap & Van Liere 1978). In 2000, Dunlap et al. reviewed the predictive validity and use of the scale and created an updated and slightly longer version (15 items) called the New Ecological Paradigm Scales (NEPS) (Zografos & Allcroft 2007; Lee & Moscardo 2005; Lück 2003). The original 10-item of the NEP scale was used in this updated study. The original NEP version has been found to have predictive power with regard to actual environmental behaviour, good reliability and validity (Lück 2003). Environmental values present a more realistic set of values and beliefs that are accepted by the people as those values that connect the humans and their natural environment. This representation is viewed as a continuum ranging from pure anthropocentric to pure biocentric and eccocentric values (Zografos & Allcroft 2007; Lück 2003; Higham et al. 2001; Dunlap & Van Liere 1978). Anthropocentric environmental values means nature has value mainly in its use for the continuation and improvement of human life and society which is a dominant Western world view (Zografos & Allcroft 2007; Lück 2003; Page & Dowling 2002; Fennell 1999). Conversely, biocentric and eccocentric values recognise an intrinsic value in all forms of life including natural systems that grants them equal rights to exist (Zografos & Allcroft 2007; Lück 2003; Page & Dowling 2002; Fennell 1999). The quote below visualised environmental problems several decades earlier to the focus on the recent global environmental:

“the evolution of a land ethic is an intellectual as well as an emotional process. Conservation is paved with good intentions which prove to be futile, or even dangerous, because they are devoid of critical understanding either of the land, or of economic land-use… by and large our present problem is one of attitudes and implements” (cited in Bridgewater 2002: 304 in Leopold 1949).

A shift to a new paradigm is required in order to develop new attitudes, refine tools, link adaptive management, develop partnerships among stakeholders, develop a land/seascape focus and use environmental networks to provide better tourism experiences (Bridgewater 2002). Wood (2002) indicates of suggestions that environmental values in particular are highly influential in the conceptual development of ecotourism. Similarly, environmental values are important for ecotourism travel choice and behaviour, and that ecotourist life style characteristics could be significant to obtain a better insight into those values (Lück 2002b). Therefore, in relation to human attitudes, the NEP scale is said to measure beliefs about human kind’s dominance and harmony with nature at a moderately successful level, and it could also possibly help to differentiate the visitation of ecotourists and mass tourists in a destination (Fennell 2003; Jurowski, Muzaffer, Williams & Noe 1995).

However, there is significant debate and uncertainty over the type of multi-dimensional variables
(e.g. values, attitudes, beliefs and behaviour) that are measurable using the NEP (Zografos & Allcroft 2007; Lee & Moscardo 2005; Lück 2003). The NEP can also be used as a value-based form of marketing in tourism. As a motivational factor, it is important to identify consumer values in relation to site visitor behaviours and this is a potential market segmentation tool researched in tourism (Higham et al. 2001). NEP variables inform visitor characteristics, and together with demographic data assist in the development of an ecotourism profile of the visitor market in this study.

2.14. Summary

Ecotourism is a subset of nature tourism that is rapidly growing as a special interest form of tourism. Ecotourism is the result of global concern for the environment that arose in the 1970s due to unbalanced developments in the developed world. It has now become a special niche market in tourism. Although ecotourism takes place within the setting of nature, it is distinguishable from nature tourism by certain characteristics such as natural attraction, educational experiences, conservation and sustainability, and contribution to community. For example, the Maldives government has undertaken some positive measures to minimise environmental impacts and exploitations. These include marine protected areas, environmental impact assessment for developments in resorts, prohibition of coral mining and export of certain marine products, a ban on turtle catching, listing endangered species, launching the Green Resort Awards and environmental education in primary schools (TTMP 2007; Detlefsen et al. 2005; UNEP 2005). The objective should be continuous management and monitoring of such measures and review where necessary. Successful application of ecotourism is a challenge because of the numerous difficulties involved in practising it as a concept to achieve symbiosis in the co-existence of nature and humans.

Ecotourism is a significant challenge in fragile island destinations with limited resources where the dominant Western market’s satisfaction is a priority. The source market of ecotourism mainly flows through several miles of carbon footprints from the developed world to sensitive nature areas of the remote underdeveloped world. This is why, it is important to know the travel motivations and behaviours of tourists in order to deliver and achieve best environmental practices by guests and hosts, so that the natural assets that ecotourism is so dependent on are less impacted. As an environmental value-based measure, the NEP is a significant indicator that has been adopted universally to understand the values, attitude and behaviours of people. It is used to differentiate visitors such as ecotourists or mass tourists to a destination (Fennell 2003;
Jurowski et al. 1995). Gössling (2007) fears that ‘Global Environment Change’ (GEC) will affect environmental resources through species degradation leading to disappearance of ecotourism. However, other researchers are inspired by the concept of ecotourism, stating that “the goal of ecotourism is a sound and worthy one” which will meet the challenges to sustain and protect the natural environment (Page & Dowling 2002; Orams 2001: 33). It is not an impossible concept to achieve as long as ecotourism guidelines are set within an ‘operable ecotourism framework’ regardless of ecotourism definitions (Buckley 1994: 662).

The next chapter presents the methodology of this research.
Chapter 3 Methodology

3.1. Introduction

As explained in the literature review chapter, ecotourism industry has experienced rapidly increasing growth rates over the past two decades. This growth also brings a number of challenges for planners and managers (Lück 2003). These challenges include managing and preserving resource bases in a sustainable manner for present and future use. Both the tourism industry and academia are still searching for a common definition and some researchers suggest that a practically operable framework (Buckley 1994) could be more useful for stakeholders. This chapter presents an explanation of the methodology applied in this research.

3.2. Revisiting aims and objectives

The present study aims to gain a better understanding of participants’ holiday experiences through visitor demand and perspectives that could develop the ecotourism potential in the Maldives. Particularly, a survey was undertaken in eleven resorts located in North Kaafu Atoll, South Kaafu Atoll, South Alifu Atoll, North Alifu Atoll and Baa Atoll. In order to analyse the visitor demand for ecotourism in the Maldives thus contributing to an understanding of future market issues the following objectives were set:

1. What are visitors’ demands for nature tourism experiences in the Maldives?
2. What are visitors’ perspectives of nature tourism experiences in the Maldives?

By analyzing the above objectives, it was expected that gaining a better understanding of a niche market in ecotourism could help to diversify current tourism products and markets. The Maldives has been popularised as a 3S holiday destination for the European markets. Europe is a major source market for ecotourism globally (Wight 2001; Eagles & Higgins 1998) and with the current trend of extensive regional tourism expansion in the Maldives (MOTCA 2007), it is important to explore the ability to diversify products to tap into ecotourism as a potential niche market. The destination has a competitive advantage in nature-based tourism (Ismail 2006) that could characterise ecotourism holiday experiences through sustainable facilitation, access and provision of information about potential ecotourism experiences at the destination not limiting to resort holidays. This is likely to create a demand-driven product/market segment. Another aspect of the survey method used here was to examine current visitor perspectives to the destination. The
survey was primarily developed to provide quantitative data addressing about visitor’s perception of ecotourism in the Maldives.

Furthermore, the New Environmental Paradigm (NEP) scale adopted by Higham et al. (2001) was used to analyse the data. The NEP was originally developed by Dunlap and Van Liere in 1978. The scale was used in this research to measure the extent that people agreed with a new environmental world view. The NEP scale has been reviewed and tested by various researchers, tourism and non-tourism academicians in the past. As outlined in the literature review, the NEP is a universally accepted scale that can be used to measure environmental values. However, according to Lück (2003), this scale is employed in a tourism context in only a few studies and most use modified NEP scales. This scale employs the unmodified original 12 items of Dunlap and Van Liere in 1978. The following sections outline the process of survey design, ethics approval, and questionnaire design, the sampling method, survey implementation, data analysis and research limitations.

3.3. **Overview of survey design**

In order to achieve a better understanding of visitor perspectives and demand, a questionnaire was designed and implemented to administer the survey. The type of questionnaire used in this project is called a self-administered postal survey (Finn, Elliott-White & Walton 2000). The questionnaire (refer appendix D) developed for this research was administered in all the eleven resort operations. This facilitated the ability to draw comparisons between the responses (Veal 1992) of participants. The application of the same questionnaire was aggregated to use the results in a generalised form to “produce standardisation and control” (Finn et al. 2000: 91). As suggested in Finn et al. (2000) the questionnaire was designed with necessary questions and instructions that had relevance to the research area. The first page of the questionnaire included a covering letter explaining the purpose of the survey, presenting a definition of ecotourism, an incentive (prize draw) for participating in the survey, participant confidentiality information and other relevant information. With the exception of Meeru Island Resort, which requested that information about the prize draw be removed to maintain client confidentiality the prize draw was included in all questionnaires distributed. This was done to increase the response rate. The actual length of the questionnaire was both sides of two A4 sheets including the covering letter all enclosed with a self-addressed envelope.
The survey questionnaire was designed to be completed within five minutes. Instructions were given that to complete it on site; and return it to the operation’s reception staff in the enclosed self-addressed envelopes after sealing it by tourists themselves. An additional choice of taking the questionnaire away from the reception area to fill the form was given but it was discouraged as the visitors were not provided with post paid self-addressed envelopes. This was done for the convenience of the staff involved and tourists. Many resorts do not have post boxes but operate a co-mail service delivered through their Male’ based office. For this reason the arrangements to collect the completed forms was specifically stated to be at the reception area where key operational staff were assigned to forward the forms to the Maldives Tourism Promotion Board (MTPB). The researcher herself collected most of the forms except the survey packages from four resorts received through international courier as well as collection directly from three operation head offices in Male’.

The types of questions used were mainly closed responses in addition to some open-ended questions where necessary. Although closed response questions have the advantage to be answered quickly, comparisons drawn easily and data analysed and quantified (Saunders et al. 2003; Finn et al. 2002; Veal 1992), they limit explanations and make it difficult to validate a context (Lück 2003) or respondents may be compelled to an answer in a particular way (Finn et al. 2002). Therefore, seven open-ended questions were used to interpret deeper meanings from responses.

Moreover, the research combined the use of scale, category, quantity closed/open response questions and opinion response questions. Five point likert-scale questions were used to measure demand and perception, where one indicated ‘strongly disagree’ and five ‘strongly agree’ responses. Category questions were designed in such a way that responses were mostly selected to fit one category or in some questions several responses were available (e.g. activities). Selection of a single response in category questions included questions about gender, age, education, employment and holiday characteristics (e.g. purpose of visit). An open quantity question was asked to examine the amount spent on ecotourism experiences in the Maldives. In several instances, a response option of ‘other’ category was used to ensure an extensive response set (Saunders et al. 2003) which was manually analysed.

Ethical approval was sought for the survey design and planning process as discussed in Section 3.4.
3.4. Ethics approval

It is a critical requirement adhered to by the University of Otago’s educational policy that “any research involving human participants is conducted in accordance with the highest ethical standards” to promote ethical practices in human research and teaching practices (Ethical Policy 2007:1). During early 2007, the University altered its ethical procedures for ethical clearance “depending on the nature of research conducted” in “Category A or B applications” (Duval 2007:2). This means that Category A applications which had been accepted for evaluation and approved at departmental level had to be submitted to the University Ethics Committee for approval, especially if the fieldwork or data collection was being conducted overseas. According to Ethical Policy (2007:1) category A research occurred if:

“…any information about an individual who may be identifiable from the data once it has been recorded in some lasting and usable format, or from any completed research (Note: this does not include information such as names, addresses, telephone numbers, or other contact details needed for a limited time for practical purposes but which is unlinked from research data and destroyed once the details are no longer needed)”. 

In this research, personal information was requested on a voluntary basis only for the purpose of the prize draw. This was done to increase the response rate. After the prize winners were identified and informed, the information was discarded and not used for any other purpose, as the data collected for this survey was mainly used in aggregated form.

The research proposal involved implementing a survey among human participants overseas (The Maldives). Therefore, an ethics application (refer appendix E) was submitted on 6th July 2007 to the University of Otago ‘HUMAN Ethics Committee’ under Category A for Ethical Approval of a Research or Teaching Proposal involving Human Participants. Furthermore, ethical consideration for this project was processed through the formal direction of the Tourism Ethics Committee, Division of Commerce in School of Business.

The Ethical approval for the project was granted in two stages. At the initial stage, the ethics clearance was received on 30th July 2007 indicating the need to clarify the nature of the non-financial support provided by the MTPB. This was clarified to the University of Otago Ethics Committee through email communication by submitting a supporting letter from MTPB (refer appendix F) on their role of support in this survey. The final ethics approval confirmation was granted on 18th September 2007. Finally, the research proposal was approved by the Academic Committee, Academic Services at the University of Otago.
3.5. Description of the questions

At the survey design stage, it was important that the survey questions flowed easily and logically (Babbie 2004; Finn et al. 2002; Veal 1992) taking into consideration the fact that the participants in this survey were on holiday. This is why the questionnaire was designed with a mixed approach (Sarantakos 1998). The flow of the questionnaire shifted from specific (destination-related) questions to general (global environment-related) questions and finally concluded with personal questions. The global-environment related questions were also considered to be more complex questions; these were placed in the middle of the survey as respondents tended to feel confident by this stage.

To execute a survey, prior consultation of literature review is essential to undertake careful design and implementation of the questionnaire (Finn et al. 2002). Considering their research methods, the questionnaire was mainly divided into three sections comprising a total of 20 questions. All questions were compiled based on key past academic research including researcher self-designed questions that related to this research. Research by Purdie (2006), Lück (2003), Higham et al. (2001) and Dunlap and Van Liere (1978) were referred to, and appropriate questions drawn from their work and altered where necessary to apply to this research. Information from resort websites also helped to establish framework with which to understand promotion of the product and visitor expectations - this information was linked into questionnaire design.

Section A of the questionnaire

Section A investigated visitors’ holiday experiences in the Maldives. It comprised a maximum of 11 questions in one section, which covered various queries on the destination. These included number of previous visits, primary purpose or motivation to visit, activities experienced, consideration of the Maldives as an ecotourism destination, examples of ecotourism destinations, satisfaction, likes and dislikes. A fixed category question (Q3) was expected to determine which activities visitors thought were ecotourism and non- ecotourism experiences. Question (Q6) adopted a likert-scaled response approach similar to that used by Lück (2003) and Higham et al. (2001) which indicated the level of agreement used within the five statements. Question 9 asked respondents about their personal opinion of ways to improve their holiday. Finally questions (Q10 and Q11) asked about respondents’ expenditure on ecotourism experiences. The prime purpose of section A was to learn about tourists’ understanding of the destination as it related to their experiences. As a note, the researcher’s self-designed questions included in this section were questions 2, 3, 4, 5, 9, 10 and 11.
Section B of the questionnaire

Section B presented two questions. Question (Q12) included a likert scale question on the NEP, which featured the original 12 elements implemented by Dunlap and Van Liere (1978) and further studied by Higham et al. (2001). This question examined visitors’ values and attitudes to the environment. Finally, question (Q13) referred from Higham et al. (2001) investigated specified environmental problems resulted that resulted from human interventions. Overall this section was expected to identify respondents’ concern for the global environment.

Section C of the questionnaire

Section C was the final part of the questionnaire. It was designed to determine a visitor profile for the destination. This section asked mainly demographic questions about nationality, country of residence, gender, age, education level, and employment status. Most questions were single response questions including an additional ‘other’ category to accommodate participants potential responses if they were not covered by the options provided. A final open-ended question was included on membership at a nature/environment related club or society. This was expected to identify participants’ contribution to the environment. Since some of these questions were sensitive and participants’ address was also required for the prize draw (Finn et al. 2002), this section was incorporated at the end of the questionnaire.

Section C provided a visitor profile of the operations surveyed. A comparison of the profiles between different operations produced evidence of similar characteristics as the originating source markets of world ecotourism visitors. This valuable insight suggested that the survey would increase understanding of the nature of demand for ecotourism experiences in the Maldives. This part of the questionnaire mainly referred to Purdie (2006), Lück (2003) and Higham et al. (2001).

3.6. Bias and validity

Veal (1992) indicates that the use of open-ended questions can provide rich information which otherwise may not be revealed within the hidden codes of a quantitative survey. Moderate use of open-ended questions was necessary to obtain additional insights into some responses, although with the nature of multiple responses involved it was time-consuming to identify similar and likely responses for analyses. As an overall measure during the questionnaire design phase, the aim was to avoid leading questions (Finn et al. 2002) but this was not possible in all
circumstances. For example, the perception of ecotourism is largely considered to be subjective and varies among different people and different destinations including the Maldives.

Subsequently, after the pre-test stage, a brief definition of ecotourism was provided in the covering letter of the questionnaire. The definition was from the International Union for Conservation of Natural resources (IUCN), now the World Conservation Union (WCU). It defines ecotourism as:

“... environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features - both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socioeconomic involvement of local populations” (IUCN 1996 in Wood 2002: 09).

The definition was used to ensure more clarity for the participant as to how ecotourism was defined for the purpose of this survey. Efforts were made to frame questions in an unbiased manner without asserting the researcher’s opinion or without ambiguity and with clarity and presenting questions in layman’s language (Babbie 2004; Saunders et al. 2003). It should be noted that because responses were likely to be multi-cultural responses, there was the possibility of miscomprehension. Indeed, an incident was experienced during the pre-test phase which highlighted the need for simplicity in question formation. Despite this, it was noted during data entry stage that a few respondents made comments on the complexity of a few questions. Consequently, non-native English speakers of Asian origin mostly tend to respond to fixed category questions and avoided open-ended questions.

3.7. Pre-testing of the questionnaire

The questionnaire was pre-tested from 6th July 2007 to 15th July 2007. A staff/peer review process at the departmental level was undertaken during the pre-test stage and this was incorporated into survey design. The questionnaire was pre-tested with fifteen participants, twelve of whom provided feedbacks. These included three senior tourism lecturers and seven postgraduate tourism colleagues at the University of Otago and two friends outside the tourism department. Considering these feedbacks and comments, several alterations were made to the questionnaire until the final version was produced for printing.

A few additional changes were also made in the translation stage when the questionnaire was translated from English to Italian language. The process of allowing external suggestions for improvement and validity in structuring the questionnaire helped significantly to rectify clarity,
wordings, order of questions, response options, format, layout and understanding of questions and instructions in the questionnaire (Finn et al. 2002; Saunders et al. 2003).

The questionnaire was pre-tested only in English, although it was decided that to translate the questionnaire into Italian language would improve the response rate. This is because Italy is a major source market for the Maldives. As this decision was made at a late stage there was not enough time and associated financial constraints hindered to pre-test the survey in any other language except English. Factors like lack of time, finance and administrative difficulties also prevented from undertaking a pre-test on a sample of expected participants which needed researcher’s physical presence at the survey destination. However, an Italian translation was finally progressed with the generous assistance of an Italian, PhD student (Mr. Paulo Mura) at the Department of Tourism, University of Otago while he was in Greece for his fieldwork. Therefore, the quality of the translation was of high quality and of academic level. The translations were completed by third week of November 2007.

As noted because of timeframes, only the English version of the questionnaire was pre-tested. Most suggested changes were made, keeping in mind that research participants’ feedback could also lead to biases (Babbie 2004). Feedback from the pre-test process was accumulated and changes were made to the final questionnaire following discussions with supervisors’ recommendations. After the pre-test survey corrections, the questionnaire was forwarded to the Ministry of Planning and National Development (MPND), Maldives on 17th July 2007 for approval to conduct the survey in the Maldives. This permission (refer appendix G) was granted on 24th July 2007.

3.8. Sampling method

Convenience sampling was useful in this project because before and after the initial email (refer section 3.9), resort operations were approached through external links with colleagues, professional connections and friends. According to Antonius (2003) data collected using this method cannot be representative. While it may offer an informative range of opinions from the selected population it does not provide information about the proportions of these opinions in that population. Finn et al. (2002) argues that visitor surveys fall into convenience samples because only those visitors available to the researcher at a given time and period are likely to be surveyed. It was not possible to survey the whole population of each and every tourist in all resort operations. As a result, a non-probability sampling technique (Finn et al. 2002) called
convenience sampling (Antonius 2003; Finn et al. 2002) based on accepted participation by resort operations was applied in this research.

The sample population represented all international tourists above the age of 18 years where this survey was administrated. The sample target was selected tourist resort operations. In each of the operations, a minimum sample population size was selected so as not to over burden management with the assistance required to conduct a student postal survey. By applying this technique, an adequate sample return was achieved and this justified the sampling method. An overall survey return of 48.86% is reasonable with a total return of 236 survey forms as against 483 forms distributed. Only one form was recorded as unusable return. Table 3.1 shows the sample size of forms distributed for each resort and consequent deliveries of the survey packages.

### Table 3.1 Delivery of survey forms

<table>
<thead>
<tr>
<th>Name of resort operations</th>
<th>Location</th>
<th>No. of survey forms</th>
<th>Survey pre-notification letter drop off</th>
<th>Survey drop off at resorts’ Male’ head offices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Baros Maldives</td>
<td>North Kaafu Atoll</td>
<td>30</td>
<td>01/08/07</td>
<td>25/08/07</td>
</tr>
<tr>
<td>2. Coco Palm Boduhithi</td>
<td>North Kaafu Atoll</td>
<td>35</td>
<td>02/08/07</td>
<td>25/08/07</td>
</tr>
<tr>
<td>3. Full Moon Maldives</td>
<td>North Kaafu Atoll</td>
<td>30</td>
<td>01/08/07</td>
<td>25/08/07</td>
</tr>
<tr>
<td>4. Holiday Island</td>
<td>South Alifu Atoll</td>
<td>35</td>
<td>01/08/07</td>
<td>25/08/07</td>
</tr>
<tr>
<td>5. Kuramathi Tourist Resort</td>
<td>North Alifu Atoll</td>
<td>30</td>
<td>01/08/07</td>
<td>25/08/07</td>
</tr>
<tr>
<td>6. Lily Beach Resort</td>
<td>South Alifu Atoll</td>
<td>30</td>
<td>01/08/07</td>
<td>25/08/07</td>
</tr>
<tr>
<td>7. Meeru Island Resort</td>
<td>North Kaafu Atoll</td>
<td>30</td>
<td>20/08/07</td>
<td>03/08/07</td>
</tr>
<tr>
<td>8. Olhuveli Beach &amp; Spa Resort</td>
<td>South Kaafu Atoll</td>
<td>30</td>
<td>01/08/07</td>
<td>25/08/07</td>
</tr>
<tr>
<td>9. Reethi Beach Resort</td>
<td>Baa Atoll</td>
<td>30</td>
<td>01/08/07</td>
<td>27/08/07</td>
</tr>
<tr>
<td>10. Royal Island Resort &amp; Spa</td>
<td>Baa Atoll</td>
<td>35</td>
<td>01/08/07</td>
<td>25/08/07</td>
</tr>
<tr>
<td>11. Thulhaagiri Island Resort</td>
<td>North Kaafu Atoll</td>
<td>30</td>
<td>01/08/07</td>
<td>25/08/07</td>
</tr>
</tbody>
</table>

### 3.9 Resort participants

There are a total of 90 registered tourist resorts currently in the Maldives. Only a few of them offer ecotourism-related activities, whereas all offer nature-based tourism. As explained in the literature review, it was difficult to identify ecotourism activities within the parameters of the nature products on offer. The most interesting aspect was, even though a few operations consider some of their activities to be ecotourism, they are not promoted as ecotourism. This possibility underlies the fact that such operations are not fully-fledged ecotourism operations or their product is mainly dependent on 3S tourism. The ideas advocated to supplementing and complimenting the limited role of ecotourism through destinations’ mainstream tourism (Cater 2004; Wight 1994) can be implied in the Maldives. Operators within the initial sample target were
chosen to implement the survey as some of them provided similar products while others had a slightly different product in terms of nature-based activities.

An initial resort sample of twenty two operators was contacted about this survey through email and international telephone. These operations were selected on the basis that they offered ecotourism-related products and nature-based products. An ecotourism-related product here means an activity or product on offer that may be of educational or conservational value to the tourist. This approach balanced and enhanced the diversity of the sample based on the nature of the product offered. (Refer appendix H for a summary table on resort sample set regarding the nature-based and likely ecotourism-related products on offer in these operations). However, it was not possible to maintain this balance, as several operators refused to co-operate in the survey. A larger resort sample was chosen, assuming that some operations may not commit to participate in the survey. Some of these operations were considered to have significant scope in ecotourism products but rejected the survey because of management policies. Most of these operations were under foreign management and recognised as internationally-branded chain resorts. Meanwhile, other alternative operations were chosen, although these operations may not have catered for specific ecotourism-related products in their environment as they mostly concentrated on nature-based recreational activities, relaxation and honeymoon holidays.

Subsequently, a total of thirteen operations signalled that they would co-operate in the survey after initial e-mail contact. Later, two resort operations failed to conduct the survey effectively. Managers of all these operations were also contacted through international telephone conversation. The smaller number of operations in the survey made it easier to meet the financial and time constraints needed to implement the survey. However, the eleven operations (figure 3.1) still provided meaningful data. The surveyed operations in the figure are marked in black font.

The intention of the survey administered in tourist operations was to present a sample of tourists interested in potential ecotourism in the Maldives. The information gathered may contribute to the limited diversity of tourism products in the country and foster a new tourism product that could be effectively organised by island communities. Academic published work on the Maldives’ ecotourism significance is almost unavailable. Some researchers briefly link ecotourism to the Maldives, and many raise the importance of environmental issues in the destination (refer section 2.10.1). This study was accompanied by an in-depth internet search using keywords like ‘Maldives + ecotourism’ in various search engines (mostly Google web and Yahoo.com). This confirmed that there are only a few businesses engaged in offering ecotourism-related activities in the Maldives, while none of these operations were recognized as complete ecotourism operations.
FIGURE 3.1  Map showing surveyed tourist resort operations

Source: Modified from (MTPB 2008b; UNDP 2008)
3.10. Visitor survey

The visitor survey was closely monitored and supervised. An intensive monitoring of survey processes was undertaken at regular intervals using emails, faxes, international phone calls which were later followed by the researcher’s field work at the survey destination. The survey was a quantitative examination of international tourists to the Maldives holidaying in island resorts. It provided three types of valuable data; firstly, user perspectives and opinions, secondly, user profiles and thirdly, visitor origins to the destination (Veal 1992). Questions about user perspectives and opinions generated responses on nature-based ecotourism at a destination level and about values that related to the environment at a global level. In this research, the term destination covers those operations where an on-site survey is undertaken.

3.11. Survey implementation

Before the implementation of the survey, initial rapport (Finn et al. 2002) was built with operators rather than opting to directly ask them to participate in this survey. First, they were asked to forward a forecast of their source markets conducive to the survey period. Some operators replied immediately while others refused to cooperate, stating that this information was confidential or unavailable. The collection of this information was used in the allocation of English or Italian survey forms to the operations.

Telephone requests to each operator, email reminders and follow-ups were repeatedly forwarded to resort operators during the survey period. As suggested in Finn et al. (2002) this boosted the response rate. Once replies were received, the operators in the initial sample list were approached with a pre-notification email letter (refer appendix I) explaining the nature of the planned survey. This email was forwarded to twenty two resort operators of which thirteen agreed to allow their clients to participate in the survey. After the survey forms were couriered to these thirteen operations, one operator refused to conduct the survey to protect the privacy of guests and another operation failed to undertake the survey as its resort manager was overseas due to illness. Therefore, the survey was actually administered in eleven resort operations. Taking these limitations into consideration the number of survey forms distribution was increased to 83 and the duration of the survey extended by three weeks to increase the return rate.

Operations that responded well who were flexible were requested to continue the survey by distributing additional survey forms. Subsequently, just one operation needed extra time outside the initial survey deadline. The table 3.2 shows the extended sample distribution of the survey.
### TABLE 3.2 Extension of the survey and distribution of survey forms

<table>
<thead>
<tr>
<th>Name of resort operations</th>
<th>Location</th>
<th>Survey drop off at resorts’ Male’ based head offices</th>
<th>No. of survey forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fullmoon Maldives</td>
<td>North Kaafu Atoll</td>
<td>1st – 3rd Oct 07</td>
<td>15 English</td>
</tr>
<tr>
<td>2. Kuramathi Tourist Resort</td>
<td>North Alifu Atoll</td>
<td>1st – 3rd Oct 07</td>
<td>15 English &amp; 5 Italian</td>
</tr>
<tr>
<td>3. Meeru Island Resort</td>
<td>North Kaafu Atoll</td>
<td>1st – 3rd Oct 07</td>
<td>20 English</td>
</tr>
<tr>
<td>4. Olhuveli Beach &amp; Spa Resort</td>
<td>South Kaafu Atoll</td>
<td>1st – 3rd Oct 07</td>
<td>15 English</td>
</tr>
</tbody>
</table>

Of the above four resorts, the survey form package sent to Meeru Island Resort was returned as none of the forms were filled out. Therefore, these forms were removed at data entry stage but considered to have been used for distribution. Forty-one returned forms were received during the extended survey period. The decision to extend the survey was made with prior consultation with the supervisor just before the researcher’s departure for field work in the Maldives from 24th September to 13th October 2007. The researcher’s presence during this period provided her with an opportunity to visit participating resorts, to ensure prompt distribution of survey forms, and to oversee the whole survey process and collect survey forms.

The researcher thoroughly thought through the logistics of conducting the survey process in order to minimize the possible functional hindrances that may affect resort operators in survey administration. Except for operations where the survey was extended, each operator was only requested to distribute a minimum number of questionnaires (thirty to thirty-five forms on an average) to their clients and to deliver completed forms to the MTPB in the self-addressed envelope provided. This meant that an operator was not too overburdened with a large number of sample distributions.

The survey was administered in parallel duration in all eleven operations in the sample except in a few operations where it was extended. There was a rationale for the researcher not being on site at all of the resort operations surveyed. When a postal survey is administered, direct disturbances to visitors from a third party are negligible through the distribution of a questionnaire by operations staff. As indicated in Purdie (2006), a similar approach attempted to gain uniformity by comparing questionnaire responses among participant operations. Besides, as the resort operations were widely scattered; financial, time and accessibility constrains were reduced by this approach. Such an approach was faster and inexpensive as the survey was completed by the visitors themselves (Babbie 2004; Veal 1992).

The data collection period for this survey was 26th August to 31st October 2007. For the tourism industry in the Maldives, this period is currently regarded as the start of the moderate high season.
This was especially so in 2007 which experienced record growths in tourism following the impact of the 2004 tsunami. In the recent years, the lower season has become shorter (May to July). Although the period August to October may not be considered a peak season, it was an active tourism period in which to collect reliable data when operational staff were not overloaded with peak season responsibilities. This was one of the reasons that a reasonable sample size was achieved in most resorts.

This approach ensured that the data collection process was consistent and straightforward at all operations as there was a single site entry or departure point. This means that the visitors were directly cared for by the resort they had booked into. However, it has to be noted that although each operation offered unique visitor experiences, the survey administration also tended to differ marginally among the operations. This was identified even at the earliest stage of survey implementation as a few of the operations were happy to administer the survey immediately by distributing the questionnaires to visitors at their own expenses, some others responded to repeated requests while few others backed off due to differences in management policies. This could possibly be due to the scale and characteristics of businesses which in general varied between operators.

During the survey period, the process of data collection was monitored by the researcher through emails or international telephone conversation every seven to ten days, to check on survey administration procedures. Through this time it was noted that some resorts directly requested guests to fill out the forms while others placed the survey forms in an area (e.g. front office/reception/arrival rooms) accessible to guests and the survey poster was displayed on guest notice boards. These procedures were as per the instructions given in the survey guidelines. In one instance, it was also clear from a few operators that they had to ignore the Italian forms as there were no or very few Italian guests in their accommodation. Most Italians were booked into resort operations which that did not want to participate in the survey. Therefore the Italian forms may have been under utilised in this survey.

3.12. Quantitative data analyses

The data from 236 valid survey form returns was analysed using Statistical Package for Social Sciences (SPSS) version 13.0. For all open-ended questions (Q4, Q5, Q8, Q9, Q10, Q11, and Q13), manual listings were taken before the analyses. Questions (Q4 and Q5) included sub questions. All of these responses were inputted in an Excel work sheet and repetitive responses
were counted. As a first step, simple descriptive frequency analyses were made for all of the responses of each question. This was later used to draw detailed analyses on specific variables or questions.

To improve the quality of data entry and accuracy, each survey form was given a code that was later entered into the SPSS data entry file (Coakes 2005). This helped to identify any possible mistakes made during and after the data cleaning process. Before the final data entry and analyses process, a SPSS data entry file was created with the help of the supervisor and further professional guidance from the Tourism Department and Student Information Technology services. On completion of data entry, a dry run of frequency analyses for all the closed-ended responses was made which was later improved with recoding for some questions. This process allowed for checking any missing responses or errors.

The results of this survey were generally measured using frequency and descriptive analyses depending on the type of variables used in the questionnaire. Quantitative variables feature numerical values to explain results while qualitative variables are characterised by non-numerical expressions (Antonius 2003). The variables used in this survey combined a mixture of qualitative and quantitative observations where specific SPSS functions were exercised to generate the results.

In Section A (refer section 4.3), the responses were analysed using frequency distribution and descriptive analyses as most of the questions were qualitative variables (nominal data). Questions 4 and 6 in this section were assessed using mean and median including a chi-square test to find significant relationships among both the questions and then to draw inferences about the wider scaled categories (Argyrous 1997). The likert scaled question 6 used an ordinal level of measurement which was quantitative. The numerical data for question 10 was quantitatively measured using Excel work sheets. The results in Section B (refer section 4.4) of the questionnaire were processed using mean, factor analyses with Eigen and Variance values for question 12 which comprised the 12 NEP variables. Factor analyses help to reduce a large number of data variables into smaller groups that eases the ability to summarise essential information (Coakes 2005). The final part of the questionnaire, Section C (refer section 4.2), was mostly drawn from frequency and descriptive analysis. In this section, the results from question 17 were explained using mean and median values, which are sophisticated and accurately represent measures of central tendency distribution (Antonius 2003). Question 18 and 19 were evaluated using cross tabulation to illustrate statistical association between categorical variables
(Antonius 2003; Argyrous 1997). Results for the remaining questions were generated through frequency and descriptive analyses.

Some similar open-ended responses were not alike but closely related. This data were categorised into themed groups that were associated most closely with it. These data outputs were managed by compressing and sorting the data, which were later used for frequency and descriptive analyses. Although the open-ended responses were not directly coded into the SPSS file, this approach generated meaningful and comprehensible information.

3.13. **Research limitations**

All possible attempts were made to undertake systematic empirical research processes in survey design, plan, administration and logistics but several research limitations needed to be considered when generalising the aggregated results. Out of the twenty-two operations approached for the survey, eleven refused to participate in this survey and two failed to carry out the survey, a factor that was crucial to the success of the research. In addition the capability to supplement the current research with other information to achieve accuracy (Smith & Deemer 2000) was narrow because a similar study undertaken in the destination was not available. Such a study could have established comparisons and parameters in ecotourism demand/perception. During the field visit, the researcher’s ill health meant that there were disruptions to the field work but her presence at the destination was vital and necessary to oversee the data collection process. The key research limitations experienced in the survey are explained here.

Firstly, the administration differences and characteristics of the product offered between the operations might have affected the nature of the data collected. Every operation was provided with clear guidelines about how to administer the survey (refer appendix J). As the survey applied a self-administrative method, it is difficult to determine the precise adherence to this guideline or staff bias, although some resorts acknowledged the process they undertook during the period of the survey. For example, two of the operators placed the questionnaires in their guest rooms, although this was not instructed in the guidelines. Another operator began distributing the questionnaires much earlier than the finalised survey date. Hence, this represented as limitations in this study, as the researcher had no direct control over the data collection approach despite clear communication with the operators.
Secondly, often some of the resorts did not reply to phone calls/emails or were unavailable which delayed the survey’s progress. In some operations, the staff involved changed without notice, which meant that it took considerable time to find out the status of the survey. It was an intense stage to repeatedly request and to remind the staff in charge about the survey. This approach of monitoring was continued and ensured the implementation and progress of the survey’s administration, including a check on how many survey forms had been received from the tourists.

Thirdly, the survey period coincided with the commencement of a moderate peak season in the tourism industry including the month of Ramazaan which resulted in several local staff taking leave in most resorts. Therefore, it could be possible that giving priority to a student survey would be less important for them. These reasons were given by two resort operations during a telephone conversation when they declined to participate in this survey.

Fourthly, the same questionnaire was administered in all operations to allow comparisons of results between the operations. However it is possible that the questionnaire may have been more relevant to some operations than others. Additional operations were chosen for the survey because some of the more suitable operations that were selected did not participate due to their internal management regimes. Therefore, visitors who were having a relaxed, honeymoon or wellness type of holiday experience in the Maldives may have responded poorly to the questionnaire as some questions may have been less relevant to their experiences. Such tourism experiences were mostly confined to a single resort island holidays, rather than creating visitor opportunities at distant atolls of that may have had potential for nature-based ecotourism-related experience.

Fifthly, in attempting to reduce the limitations of visitor representation, the questionnaire used English and Italian despite the difficulties of finding a suitable Italian translator. Furthermore, like most other student research this study had budget, time and logistical constraints such as pilot testing, travelling to all of the resort islands and direct survey enumeration for tourists.

Finally, a postal survey may have a number of limitations that related to the method of administration. These could have included the lack of social-exchange between interviewer and interviewee, no opportunities for further probing of question responses, not knowing whether the questionnaire was being filled out by the right person, and responses not being independent/spontaneous (Babbie 2004; Finn et al. 2002). Yet the survey approach proved to be a useful research tool (Babbie 2004; Finn et al. 2002). Against all these limitations, significant data
was collected, the operators will have access to the study results via email on its completion and the researchers’ physical absence at survey sites removed any disturbance to the holidaying tourists and the resort operations.

3.14. Summary

This research used a quantitative survey for nine weeks during August - October 2007. The data obtained was later compiled and analysed using SPSS Version 13 and Excel work sheets in November and December 2007. The nature of the postal survey adhered meant continuous follow-ups and intensive monitoring of survey processes at regular intervals through emails, faxes, international phone calls and during the researcher’s field work.

The overall survey was conducted successfully with a response return of 48.86% (n=236) among eleven tourist resort operations in the Maldives. The decision of a few important operations not to participate in this survey was unavoidable. Although new insights into this research may have possibly been gained that could have made a significant difference to the results obtained in this study ensuing their relatively ecotourism characteristic tourism products. All the necessary procedures were followed to implement this survey under supervisory and ethical guidance and permissions. The results and identified key themes of the survey will be presented in the next chapter.
Chapter 4  Results

4.1.  Introduction

Much of the research carried out in the field of ecotourism over the past 20 years has characterised, segmented and profiled ecotourism users (Weaver & Lawton 2007; Zografos & Allcroft 2007; Fennell 2003; Page & Dowling 2002; Higham et al. 2001; Orams 2001; Wight 2001; Beeton 1998; McKercher 1998 and Kuslar 1991). The main purpose of these studies was to understand the nature of special interest segments like ecotourists.

As noted earlier in Chapter 3, the research objectives are reviewed here to gather the results obtained from the quantitative research method applied in this project. The main focus of these research questions is to gain an understanding of a potential niche market within the nature-based tourism sector of the Maldives that could support to diversify into an ecotourism segment.

1. What are visitors’ demands for nature tourism experiences in the Maldives?
2. What are visitors’ perspectives of nature tourism experiences in the Maldives?

This chapter documents this study’s findings from an empirical quantitative survey (n=236) undertaken in the Maldives from 26th August to 31st October 2007. The data and results presented here are taken from the postal questionnaire applied in this research (refer appendix D). The results obtained from Section C of the questionnaire present the demographic characteristic of visitors to the destination. The data from Section C and Section A of the questionnaire is analysed to address the two objectives of visitor demand and perspectives of ecotourism experiences in the Maldives. The data from Section B of the questionnaire is used to describe the environmental values of visitors in a global context which can be compared to the research of Higham et al. (2001). The results presented in this chapter are organised in the following order:

1. Visitor holiday experience in the Maldives (Section A of the questionnaire)
2. Visitor opinion on the global environment (Section B of the questionnaire)
3. Demographic profile (Section C of the questionnaire)

4.2.  Demographic profile

65
This section presents the data from Section C of the questionnaire and the results are summarised to present a demographic profile.

4.2.1. Nationality

Table 4.1 clearly portrays the nationality of visitors to the Maldives. The survey data indicates that the international source markets are dominated by British (43.6%, n=103), Italian (18.2%, n=43) and German (16.1%, n=38) markets, a finding that is backed up by October 2007 statistics from the Ministry of Tourism and Civil Aviation, Maldives. The original statistics during the period on visitor arrival number reports the following nationalities: British (n=11,332), Italian (n=7,912) and German (n=7,450), with a market share of 18.9%, 17.7% and 10.8% respectively (MOTCA 2007a). Other important source destinations of visitors to the resorts surveyed in this study were the Austrian, Chinese and African markets. When these results are compiled into the major source markets the destination, the relative importance of each market to the Maldives clearly emerges in terms of natural environment as a key tourism product.

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. British</td>
<td>103</td>
<td>43.6</td>
</tr>
<tr>
<td>2. Italian</td>
<td>43</td>
<td>18.2</td>
</tr>
<tr>
<td>3. German</td>
<td>38</td>
<td>16.1</td>
</tr>
<tr>
<td>4. Other Europe</td>
<td>17</td>
<td>7.2</td>
</tr>
<tr>
<td>5. Other Asia</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>6. Austrian</td>
<td>7</td>
<td>3.0</td>
</tr>
<tr>
<td>7. Chinese</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td>8. Africa</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>9. Americas</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>10. Australasia</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>11. Middle East</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>236</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The European markets emerge as the most significant market segment (85.1%, n=201) and this is the main market contributor to the destination (Ismail 2006). In comparison concerted marketing efforts in Asian markets including China (5.9%, n=14) could increase the popularity of the Maldives. These results do not entirely present visitors as being totally ‘hard’ ecotourists (Weaver & Lawton 2002) because their purpose of visit to the Maldives (refer section 4.3.2) is frequently not ecotourism but a large percent of them engaged in nature-based tourism activities (refer section 4.3.3). This indicates that the sub-samples within the mainstream segment to the destination are predominantly ‘soft’ ecotourists (Weaver & Lawton 2002: 272). As Europe generates the key ecotourism markets, the increased growth trend in this segment could be used
to diversify Maldivian nature-tourism products towards an ecotourism concept. No significant
difference exists when nationality is compared with country of residence of these visitors, as most
visitors reside in the country of their nationality (97.5%, n=230).

4.2.2. Gender and age

TABLE 4.2 Gender of visitors

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>127</td>
<td>53.8</td>
</tr>
<tr>
<td>Females</td>
<td>105</td>
<td>44.5</td>
</tr>
<tr>
<td>No response</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>236</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The gender balance in table 4.2 identifies that there was a majority of males (53.8%, n=127) over
female (44.5%, n=105) respondents to the survey representing a sub-sample of tourists to the
Maldives.

TABLE 4.3 Age distribution of visitors to the Maldives

<table>
<thead>
<tr>
<th>Age category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 - 24</td>
<td>16</td>
<td>6.8</td>
</tr>
<tr>
<td>25 - 34</td>
<td>127</td>
<td>53.8</td>
</tr>
<tr>
<td>35 - 44</td>
<td>44</td>
<td>18.6</td>
</tr>
<tr>
<td>45 - 54</td>
<td>31</td>
<td>13.1</td>
</tr>
<tr>
<td>55 - 64</td>
<td>12</td>
<td>5.1</td>
</tr>
<tr>
<td>65 - 74</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>No response</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>236</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The most significant proportion of visitors to the resorts in the Maldives was aged between their
late 20s and early 50s. This data set determines mean=2.58 and median=2, which infers that the
mean age lies across the ages of (25-44 years), where as the median age is predominated by the
25-34 age category. The last two categories of retirement age groups (55-74 years) are relatively
less well-represented and comprised 5.9% (n=14) visitors. The literature review (refer section 2.7)
indicatives that the phenomena of the mature ecotourism visitor is a trend globally. This is
relatively prominent in the case of the Maldives, with a few eco/nature tourism visitors (8.9%,
n=21) of which (n=14) visitors being adults in the 25-54 age group.
4.2.3. Employment and educational status

### TABLE 4.4 Employment status of visitors to the Maldives

<table>
<thead>
<tr>
<th>Employment Category</th>
<th>Current Sample</th>
<th>Higham et al. (2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Employed full time</td>
<td>157</td>
<td>66.5</td>
</tr>
<tr>
<td>Employed part time</td>
<td>10</td>
<td>4.2</td>
</tr>
<tr>
<td>Self-employed</td>
<td>34</td>
<td>14.4</td>
</tr>
<tr>
<td>Homemaker</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Retired</td>
<td>6</td>
<td>2.5</td>
</tr>
<tr>
<td>Student</td>
<td>11</td>
<td>4.7</td>
</tr>
<tr>
<td>Currently unemployed</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>No response</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Total</td>
<td>236</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Visitor respondents confirm the predominance of full-time employed visitors (66.5%, n=157) on holiday in the Maldives. This is a similar result to the study by Higham et al. (2001) with (40%, n=387) full-time employed visitors at New Zealand attractions. The visitor self-employed category (14.4%, n=34) is the second highest proportion and this represents a significant total sample in the Maldives. In contrast in Higham et al. (2001), it was the homemaker category (n=208, 21.5%) that was significant next to the full-time employed visitors.

### TABLE 4.5 Educational status of visitors to the Maldives

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>School education</td>
<td>69</td>
<td>29.2</td>
</tr>
<tr>
<td>Vocational education</td>
<td>31</td>
<td>13.1</td>
</tr>
<tr>
<td>Bachelors education</td>
<td>80</td>
<td>33.9</td>
</tr>
<tr>
<td>Masters/Doctoral degree</td>
<td>38</td>
<td>16.1</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>No response</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>Total</td>
<td>236</td>
<td>100.0</td>
</tr>
</tbody>
</table>

All survey respondents were well-educated. Almost half (50%) have a university degree that included bachelors (33.9%, n=80), masters and doctoral qualifications (16.1%, n=38). Over a quarter of visitors had school education (29.2%, n=69) – they could find the destination expensive if their capacity to earn a reasonable income is low. The others category include professional certificate (3), education (2), diploma (2), and licence (1). A cross-tabulation analysis for employment and education level on the current sample was processed. All the subcategories of employment levels were recoded as ‘others’ alongside the predominant category of full-time employment. The results showed $X^2 (10, n=236) = 0.000, p < .05$ that there is a marked relationship between employment and education.
4.2.4. Membership in environmental organisations

A significantly small sample of respondents identified themselves as members of nature or environment organisation (8.5%, n=20) while (89%, n=210) were non-members and (2.5%, n=6) did not response to the question. The visitors who were members in an environment or nature-related organisation mentioned a variety of 16 different organisations around the world, including those that might be active in their home country. Of those, the two main organizations were Green Peace (1.3%, n=3) and World Wide Fund for Nature (1.7%, n=4) as shown in table 4.6. The category other members had a count of nine visitors - a few (1.7%, n=4) included the names of the organisations in abbreviated forms and these were not very clear. There were also another (1.7%, n=4) respondents who stated that they belonged to an environment group but did not identify the name of their organisation.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Wide Fund for Nature</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Green Peace</td>
<td>3</td>
<td>1.3</td>
</tr>
<tr>
<td>Other members</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>Members but organization unidentified</td>
<td>4</td>
<td>1.7</td>
</tr>
<tr>
<td>Non members</td>
<td>210</td>
<td>89.0</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>236</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.5. Summary

A variety of demographic data were presented in the above sections. The typical respondent was well-educated and originated from a European country: the majority were males. Mostly, their age levels ranged between mid 20s to early 50s and they were actively employed. This is unlike typical ecotourists who are older than the general population of tourists depending on the type of ecotourism activity engaged in a destination (Gössling 2007). It is also a fact that the sample showed a marginal number of visitors engaged with environment or nature organisations. Conversely, the visitor profile is of importance as it may influence visitor demand and perception towards travel decisions that explains from the following section.

4.3. Visitor holiday experience in the Maldives

In section A of the questionnaire, respondents were asked about their general holiday experiences and the activities they had participated in. The focus was to see whether they felt they had encountered any ecotourism experiences in the destination. The results from the data informed
two objectives of this research; visitor demand and perspectives of ecotourism experiences in the Maldives. The findings presented here are collected from the survey of eleven resorts that allowed their clients to participate in this research. The key tourism products of these resorts were mostly nature-based adventure/recreation, sun/beach, including wedding/honeymoon and spa/wellness. A few operators also indirectly engaged in ecotourism-related activities within a nature-oriented setting. For readers’ clarity, the survey questions are re-stated in the following sections.

4.3.1. Visit to the Maldives

As an opening question to the survey, visitors were asked about the status of their visit to the Maldives:

Question 1: Is this your first visit to the Maldives? 1. YES 2. NO (Please tick only one)
If NO how many times have you visited the Maldives before? ------------------

Question 1 examines the number of visits made by the visitor to highlight their interest in choosing the Maldives as a holiday destination. The results indicates that 78.8% (n=186) were visiting the Maldives for the first time and 21.2% (n=50) had visited the Maldives before the survey. It was also noted that 4.7% (n=11) and 5.1% (n=12) made one to two visits respectively 4.7% (n=11) made three to six visits and 3% (n=7) of visitors had made more than seven previous visits to the destination. A tourist study carried out during 2004 in the Maldives reported 18% repeat visitors with some visits of more than four-five times (MOT 2004). This trend certainly reflects a growing number of repeated visitors.

4.3.2. Primary purpose of visit

The question on primary purpose of visit to the Maldives was asked to help better understand the main reason behind visitors’ motivation to holiday in the destination.

Question 2: What is the primary purpose of this visit? (Please tick only one)
   a) Wedding/Honeymoon  b) Spa/Health/Wellness  c) Ecotourism/Nature Tourism
   d) Sun/Beach  e) Adventure/Recreation  f) Business/Conference
   g) Others (please specify)------------------------------------------
The data received for the above question is reported in table 4.7. It presents five main types of tourism purposes based on respondents’ visits.

**TABLE 4.7 Primary purpose of visit to the Maldives**

<table>
<thead>
<tr>
<th>Primary Purposes</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wedding/Honeymoon</td>
<td>98</td>
<td>41.5</td>
</tr>
<tr>
<td>Sun/Beach</td>
<td>81</td>
<td>34.3</td>
</tr>
<tr>
<td>Eco/Nature</td>
<td>21</td>
<td>8.9</td>
</tr>
<tr>
<td>Adventure/Recreation</td>
<td>18</td>
<td>7.6</td>
</tr>
<tr>
<td>Spa/Health/Wellness</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td>Others</td>
<td>13</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>236</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

A maximum number of 41.5% (n=98) visitors primarily visited for a wedding/honeymoon holiday followed by sun/beach (34.3%, n=81) holiday. Wedding and honeymoon includes celebration of anniversaries within a fabricated native cultural atmosphere in the resort operation. The researcher observed this during the field work. One of the resorts organised a customary wedding ceremony for a British couple on a the sunset beach setting with traditional dance music combined with conventional costumes for the bride and groom, followed by a selection of western and local gastronomy. It is clear from the results of this study that the Maldives undoubtedly continues to be attractive as a honeymoon destination. However, this result also has generated new pathways demonstrating that there were some visitors who had chosen the destination for its eco/nature tourism (8.9%, n=21) aspects irrespective of the Maldives being a honeymoon destination with mainstream sun/beach tourism. Travel decisions were also based on the purpose of visit specifically on adventure/recreation (7.6%, n=18) and spa/health/wellness tourism (2.1%, n=5). In the other category (5.5%, n=13), the most notable inclusions were diving (n=9) preceded by relaxation holiday (n=2), snorkelling (n=1), and birthday celebrations (n=1) as purpose of visit.

**4.3.3. Activities experienced by the visitors in the Maldives**

Question 3 provides a list of predetermined activities that are mostly offered in the Maldives’ resort operations. This question aimed to understand whether any of the listed activities experienced by visitors are of ecotourism relevance to them.
**Question 3:** What are the nature-related activities that you experienced during this stay in the Maldives? (Please tick as many as applicable).

<table>
<thead>
<tr>
<th>Activities</th>
<th>Tick activities experienced</th>
<th>Is it an ecotourism experience for you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Scuba Diving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Surfing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Snorkelling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Swimming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Scenic flights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Scenic boat cruising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Submarine touring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Wildlife viewing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Dolphin watching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) Whale watching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Shark watching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) Bird watching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m) Turtle nesting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n) Fishing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o) Learning about flora &amp; fauna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>p) Learning about native herbs &amp; plants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q) Conservation projects e.g. tree planting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>r) Visited marine museum in Male’ city</td>
<td></td>
<td></td>
</tr>
<tr>
<td>s) Visited mangroves/wet lands in another island (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t) Visited marine protected areas (specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u) Others (specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results from this question determine which of the activities were experienced by the respondents and which of the activities experienced by respondents they consider to be ecotourism experiences. Similarly, the results were obtained in two divisions; which is presented with visitor activity highlights and visitor activity low lights, focused towards nature-based activities where visitors were suggested that their experiences had an ecotourism perception. The central element of this question was to identify which type of activities had the potential for ecotourism within the nature-based tourism products and whether such activities are recognisable, acceptable or perceived as ecotourism by the leisure holidaymaker. These factors are clearly explained in tables 4.8 and 4.9.
The top 10 activities identified by visitors are presented in table 4.8. The table highlights the most popular nature-based experiences which many respondents perceived as having an ecotourism element. Snorkelling (89.4%, n=211) and swimming (88.1%, n=208) are extremely popular nature activities experienced and there was a strong consensus that they are regarded as ecotourism among most visitors. The popularity of these activities could be high because they are very accessible for visitors and the visitors do not have to pay to participate in them in some resorts. It is understood from visitor comments that some visitors used their own snorkelling gears although the charges for snorkelling are moderate in general. This survey shows that dolphin watching (37.3%, n=88) and wildlife viewing (35.6%, n=84) were much enjoyed by visitors compared to scuba diving (28.8%, n=68), even though the Maldives has been known as a popular dive destination secondary only to honeymoon holidays. Furthermore, scenic boat cruising (27.5%, n=65), fishing (22.9%, n=54), bird watching (20.3%, n=48), shark watching (19.9%, n=47) and learning about flora and fauna (17.8%, n=42) are significantly popular activities visitors have experienced.

The above activities experienced by the visitors were recognised as ecotourism activities by a significant number of them. An increased number of visitors responded that snorkelling, (41.5%, n=98) swimming (22%, n=52), wildlife viewing (19.9%, n=47) scuba diving (16.9%, n=40), and dolphin watching (16.5%, n=39) were ecotourism activities for them. Although the response returns for learning about flora and fauna (14%, n=33), bird watching (11%, n=26), shark watching (7.6%, n=18), scenic boat cruising (6.4%, n=15) and fishing (5.5%, n=13) were moderate, they were well represented as significant ecotourism activities. There were also several additional activities that generated a comparatively low sample response rate.

### Table 4.8: Nature versus ecotourism experiences – Visitor activity highlights

<table>
<thead>
<tr>
<th>Activities</th>
<th>Nature activities experienced</th>
<th>It is an Ecotourism activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Snorkelling</td>
<td>211</td>
<td>89.4</td>
</tr>
<tr>
<td>Swimming</td>
<td>208</td>
<td>88.1</td>
</tr>
<tr>
<td>Dolphin watching</td>
<td>88</td>
<td>37.3</td>
</tr>
<tr>
<td>Wildlife viewing</td>
<td>84</td>
<td>35.6</td>
</tr>
<tr>
<td>Scuba diving</td>
<td>68</td>
<td>28.8</td>
</tr>
<tr>
<td>Scenic boat cruising</td>
<td>65</td>
<td>27.5</td>
</tr>
<tr>
<td>Fishing</td>
<td>54</td>
<td>22.9</td>
</tr>
<tr>
<td>Bird watching</td>
<td>48</td>
<td>20.3</td>
</tr>
<tr>
<td>Shark watching</td>
<td>47</td>
<td>19.9</td>
</tr>
<tr>
<td>Learning about flora &amp; fauna</td>
<td>42</td>
<td>17.8</td>
</tr>
</tbody>
</table>

*Totals do not add to 100 due to non-responses and multiple responses*
TABLE 4.9 Nature versus ecotourism experiences – Visitor activity low lights

<table>
<thead>
<tr>
<th>Nature Activities experienced</th>
<th>It is an Ecotourism activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activities</td>
<td>Frequency</td>
</tr>
<tr>
<td>Scenic flights</td>
<td>26</td>
</tr>
<tr>
<td>Surfing</td>
<td>22</td>
</tr>
<tr>
<td>Turtle nesting</td>
<td>15</td>
</tr>
<tr>
<td>Learning about native herbs &amp; plants</td>
<td>15</td>
</tr>
<tr>
<td>Whale watching</td>
<td>8</td>
</tr>
<tr>
<td>Conservation projects</td>
<td>5</td>
</tr>
<tr>
<td>Visited marine museum in Male’ city</td>
<td>5</td>
</tr>
<tr>
<td>Visited marine protected areas</td>
<td>5</td>
</tr>
<tr>
<td>Visited mangroves/wetlands in another island</td>
<td>3</td>
</tr>
<tr>
<td>Other*</td>
<td>7</td>
</tr>
</tbody>
</table>

Totals do not add to 100 due to non-responses and multiple responses

The activities that comprised ‘nature versus ecotourism experiences of visitor activity low lights’ (table 4.9) suggest a relatively lower level of active participation compared with other activities. On the continuum of visitor experiences of nature activities, some activities are fairly moderately represented, like scenic flights (11%, n=26), surfing (9.3%, n=22), turtle nesting (6.4%, n=15), and learning about native herbs and plants (6.4%, n=15). Nature activities like whale watching (3.4%, n=8), conservation projects (2.1%, n=5), visits to the marine museum in Male’ city (2.1%, n=5), visits to marine protected areas (2.1%, n=5), visits to mangroves/wetlands at another island (1.3%, n=3) and other nature activities experienced (2.9%, n=7) were marginally insignificantly represented. Details of other nature activities experienced by visitors were stated as visit to ‘Robinson Crusoe’ styled ‘deserted islands’ (n=3) ‘island hopping’ (n=1), kite surfing (n=1), ‘a day with a family from Maldives’ (n=1) and a visit to ‘Maamigilli village’ (n=1).

Similarly, responses reported in relation to whether the visitors perceived the same nature-based activities in table 4.9 as ecotourism-related activity were insignificant with a very low response rate. This suggests that only a few visitors considered these activities to be ecotourism-oriented. The key reasons for insignificant responses to under-participation in these activities are explained in section 5.4 of the Chapter Five. Visitor activity low lights for ecotourism activities included scenic flights (2.1%, n=5), surfing (3%, n=7), turtle nesting (3.8%, n=9), learning about native herbs and plants (3.4%, n=8), whale watching (1.7%, n=4), conservation projects (1.7%, n=4), visits to the marine museum in male’ city (1.3, n=3), visits to marine protected areas (0.8%, n=2), visits to mangroves/wetlands in another island (1.3%, n=3) and other ecotourism activities experienced was (1.2%, n=3). It is interesting to note that a few visitors experienced the tourism product away from the tourist resort operation. Two respondents, who had visited Marine Protected Areas (MPAs) specified that they had experienced ‘Madivaru Island’, ‘Banana Reef and HP Reef’ but did not state that they perceived these to be ecotourism-related activities. These
three areas visited are MPAs. Another two respondents, who had visited mangroves/wetlands in another island, specified that they had experienced ecotourism in the places they visited: ‘Medhufinolhu in Baa Atoll’ and ‘Thohdhu Island’. Details of other ecotourism activities experienced by the visitors were stated as visit to ‘Robinson Crusoe’ styled ‘deserted islands’ (n=1) ‘a day with a family from Maldives’ (n=1) and a visit to ‘Maamigilli village’ (n=1).

Furthermore, a cross-tabulation of all of the activities disaggregated by nationality was generated. This examined whether any relationship existed between nature-based or ecotourism activities and visitors nationality. The results produced statistically significant relationships for seven activities in nature-based experiences and only four activities for ecotourism experiences. The significant relationships for nature activities are:

- a. Snorkelling - $X^2$ (11, n=236) = 0.000, p< .05,
- b. Swimming - $X^2$ (11, n=236) = 0.000, p< .05.
- c. Wildlife viewing - $X^2$ (11, n=236) = 0.075, p< .05.
- d. Learning about native flora & fauna - $X^2$ (11, n=236) = 0.014, p< .05.
- e. Conservation projects - $X^2$ (11, n=236) = 0.001, p< .05.
- f. Visits to marine museum in Male’ city - $X^2$ (11, n=236) = 0.000, p< .05.
- g. Visits to mangroves/wetlands - $X^2$ (11, n=236) = 0.049, p< .05.

The cross-tabulation of the above activities with nationality illustrates that the key markets engaged in most activities are British, Italian and German. Other markets are not included here due to the minor distribution of varied markets. By nationality, those that experienced snorkelling were experienced by 45.5% (n=96) British, 16.1% (n=34) Italians and 17.5% (n=37) Germans. Swimming 46.6% (n=97) British, 15.9% (n=33) Italians and 16.3% (n=34) Germans. Some 51.2% (n=43) British, 22.6% (n=19) Italians and 14.3% (n=12) Germans experienced wildlife viewing. Of the visitors who learnt about native flora and fauna 18.6% (n=8) were British, 32.6% (n=14) Italians and 25.6% (n=11) Germans. Conservation projects, visit to marine museum in Male’ city and visits to mangroves/wetlands in another island produced statistically significant relationships alongside the total number of responses but the visitor participation in these activities was widely scattered among fewer markets with relatively fewer responses.

In terms of nationality, the significant relationships for the ecotourism activities experienced by visitors were:

1. Scuba diving - $X^2$ (11, n=236) = 0.093, p< .05,
2. Surfing - $X^2$ (11, n=236) = 0.088, p< .05.
3. Visit to marine museum in Male’ city - $X^2$ (11, n=236) = 0.000, p< .05.
4. Visited mangroves/wet lands - $X^2 (11, n=236) = 0.014, p< .05$.

Amongst the above four activities, 24.4% (n=10) of British, 17.1% (n=7) of Italians and 24.4% (n=10) of Germans perceived scuba diving as an ecotourism experience. Surfing, visits to the marine museum and visits to mangroves/wetlands had a marginal response return although it was interesting to note that these three activities were statistically significant for both nature-based and ecotourism activities.

One reason for a relatively poor sample return in the identification of ecotourism activities could be due to the possibility that some visitors were not being able to fully comprehend this question. Another reason could be that this question was extensive with an exhaustive list of 20 activities incorporating an ‘other’ category to include ‘other potential activities’ that may not have been covered in the questionnaire and were offered by the tourist operations. Some respondents ticked both sides marked for the activities in the question inconsistently (i.e. activities experienced and is it an ecotourism activity for you) without having experienced the activity itself. Either response was considered invalid at the data entry stage. It is also considered that having part of the question (Q3) written vertically in the questionnaire may have been difficult for the respondents to read this particular question. Despite recording poor response participation in some activities, statistically significant relationships were observed in certain activities disaggregated to nationality.

### 4.3.4. Consideration of the Maldives to be an ecotourism destination

A fixed category, Question 4 was asked to find out about whether or not visitors considered the Maldives to be an ecotourism destination or not. This question with a ‘yes’ or ‘no’ answer was consequently asked to explain visitors’ reasons for either considering or not considering the Maldives as an ecotourism destination.

**Question 4: Do you consider the Maldives to be an ecotourism destination?**

1. YES 2. NO

1) If YES please explain why?---------------------------------------------------------------
2) If NO please explain why not?-------------------------------------------------------------

<table>
<thead>
<tr>
<th>Visitor Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>175</td>
<td>74.2</td>
</tr>
<tr>
<td>No</td>
<td>43</td>
<td>18.2</td>
</tr>
<tr>
<td>No response</td>
<td>18</td>
<td>7.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>236</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
The frequency analyses in table 4.10 indicates that nearly three-quarters (74.2%, n=175) of the total sample considered the Maldives to be an ecotourism destination, which is a surprisingly high sample rate. This suggests that it would be possible to foster a demand for ecotourism among visitors. While (18.2%, n=43) visitors gave a negative response, the non-response rate was (7.6%, n=18). In rare instances, some people responded with both yes and no and expressed their concern about the delicate environment and the impact of tourism as detrimental factors for ecotourism but for tourism in general. Stated below is a reason expressed by one of the visitors who indicated their perspective of ecotourism in the resort they stayed at:

_The staff at Reethi resort kept it clean. There are no jet skis or other petrol-operated sports leisure equipment other than sight seeing boats which could cause pollution and disturb marine life. The resort acknowledge(s) and encourage(s) guests not to waste water/litter areas/ waste electricity and give advice on how to respect marine life when diving / snorkelling, such information can be found in the literature in your room._

Nevertheless, to determine why visitors would consider the Maldives to be (or not to be) an ecotourism destination a follow up two sub-category open-ended question made up Question 4: ‘Do you consider the Maldives to be an ecotourism destination? Yes/No. If yes please explain why? If no please explain why not?’ The data collected for both questions are shown in the table 4.11. This part of the question was analysed by making a manual listing using Excel work sheets, where a frequency of similar and related responses was identified in different sub groups under the main three themes of environmental factors, social factors and activities.

**TABLE 4.11 Reasons* for the Maldives to be or not to be an ecotourism destination**

<table>
<thead>
<tr>
<th>Reasons for considering the Maldives to be an ecotourism destination</th>
<th>Frequency</th>
<th>Percent</th>
<th>Reasons for not considering the Maldives to be an ecotourism destination</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Preservation/conservation/protecton of nature</td>
<td>135</td>
<td>29</td>
<td>a. Direct tourism impact on environment</td>
<td>40</td>
<td>13</td>
</tr>
<tr>
<td>b. Beautiful &amp; uncontaminated beach/sea/water/nature</td>
<td>28</td>
<td>17.9</td>
<td>b. Tourism imports (increased food miles/carbon emissions)</td>
<td>11</td>
<td>26.8</td>
</tr>
<tr>
<td>c. Information/advice/respect on environment offered</td>
<td>27</td>
<td>17.3</td>
<td>c. Modernisation of island tourism</td>
<td>9</td>
<td>22.0</td>
</tr>
<tr>
<td>d. Marine and wild life attractions</td>
<td>22</td>
<td>14.3</td>
<td>d. No adequate environmental/ecotourism information</td>
<td>7</td>
<td>17.1</td>
</tr>
<tr>
<td>e. Nature relatively undisturbed by humans</td>
<td>20</td>
<td>12.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Coral reef</td>
<td>15</td>
<td>9.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Flora &amp; fauna</td>
<td>13</td>
<td>8.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Minimised pollution</td>
<td>8</td>
<td>5.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social factors</td>
<td>18</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>14</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

*Totals do not add to 100 due to non-responses and multiple responses
Each of the above themes presents subcategories of items that visitors most commonly responded to. The results infer that environment is a dominant factor. It emerges that natural resource preservation, natural attractions, information on environment including the destination’s wildlife attractions comes under the umbrella of environmental factors (n=135) as a dominant theme. These environmental factors are mainly considered by visitors who think of the Maldives as an ecotourism destination. This finding is quite similar to the core areas of ecotourism identified by key authors shown in table 4.12.

**TABLE 4.12 Principle areas of ecotourism**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Principle areas of ecotourism</th>
<th>Visitor reasons for ecotourism in the Maldives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Focus on educational &amp; learning opportunities</td>
<td>Information/advice/respect on environment offered</td>
</tr>
<tr>
<td></td>
<td>3. Managing environmental, economic and socio-cultural sustainability</td>
<td>Preservation/conservation/protection of nature, nature relatively undisturbed by humans and minimised pollution</td>
</tr>
</tbody>
</table>

It is clear that the responses derived from the current sample are closely associated with the concepts advocated by the authors. This is clearly explained in table 4.12 by matching the corresponding principle areas of ecotourism with the given visitor reasons for ecotourism in the Maldives as perceived by the leisure holiday maker.

Identifying additional reasons why the Maldives is thought to be an ecotourism destination, visitor responses on social factors varied and activities offered in the destination remained on the lower end by (n=18) and (n=14) respectively. It is noteworthy to mention some of these reasons. Social factors such as ‘locals in harmony with nature and environment’, ‘cultural acceptance of tourism’, ‘friendly locals and resort staff’, ‘simple and conservative’ and finally ‘governments’ adherence to environmental protection laws’ are some of them. Some visitors thought activities they experienced were important reasons for considering the Maldives as an ecotourism destination; these activities included such as ‘snorkelling, diving’ and other ‘marine life activities’.

On the other hand, (n=40) visitors considered several environmental factors as a key reason not to consider the Maldives as an ecotourism destination. The subcategories in this theme were broadly split among direct tourism impact (31.7%, n=13), tourism imports (26.8%, n=11),
modernisation of tourism (22%, n=9) and no adequate information on environment or ecotourism (17.1%, n=7). Some reasons stressed by the visitors for not considering the Maldives as an ecotourism destination include:

‘The definition does not apply. I see that quite some resources have been taken to protect nature from a too mass impact of ‘mass tourism’, but ecotourism goes further. Promotion of conservation in an active way is missing or not feasible enough’.

‘Too many poorly educated tourists damage the corals by standing on them and collecting pieces of the ecosystem. The resorts should be required to educate guests against doing this’.

It is difficult to generalise the above statements to the destination but they can provide contextual insights into the specific operation the visitor experienced. However, the overall visitor sample (n=40) of not considering ecotourism for this question was small as compared with the (n=135) explained above. Yet, visitors identified several important environmental issues that needed immediate attention. The number of responses on social factors and activities for not considering the Maldives to be an ecotourism destination remained marginal with only (n=4) and (n=7). In terms of the number of visitors over activities, only seven respondents mentioned that they did not consider the Maldives to be an ecotourism destination. Some of the reasons are quote as:

‘Lots of uneco boats and over usage of electricity’;

‘No specific educational information or activities relating to ecological matters…’;

‘The islands and the tourism resorts are for a visitor with short time in the Maldives not an ecotourism environment’;

‘Because they did not suggest us ecotourist activities. Even Maldives could be an ecotourist destination if they had ecotourist activities’;

‘Not enough species’;

‘The island is devoted to pleasure and relaxation. There are wonderful flora, fauna, corals but you need see neither’;

‘Majority of the tourists consider it a place for sea-and beach holiday’;

These statements points out to the absence of an educational component with sufficient information on the destination. Visitors are often not informed of specific ecotourism activities because most operations that offer a mainstream leisure and beach holiday product do not want to label nature activities as ecotourism although they provide some activities that may have potential as ecotourism products and some visitors would perceive these activities as ecotourism.
Certainly, it is observed that there is potential for nature-based ecotourism activities that need to embrace exploration of marine life activities rather than limited land-based nature activities.

In conclusion, the overall results indicate that most visitors favoured the Maldives to be an ecotourism destination.

4.3.5. Examples of ecotourism destinations

Respondents were asked to provide two examples of a place they thought was an ecotourism destination. The purpose of the question was to provide the researcher with an understanding of how visitors identified an ecotourism destination.

*Question 5: Please give two examples of a place that you think is an ecotourism destination.*

1. ------------------ 2. ------------------

The above question allowed tourists to think beyond their holiday in the Maldives and about their previous experiences. It reported numerous examples of ecotourism destinations on a global context. Responses were categorised into three main themes in table 4.13: countries with specific ecotourism destinations, ecotourism environments and environmental actions or characteristics.

**TABLE 4.13 Categorisation of ecotourism themes**

<table>
<thead>
<tr>
<th>Countries and ecotourism locations (no of responses)</th>
<th>Ecotourism environments</th>
<th>Environmental actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maldives – (n=30)</td>
<td>1. Beach/Sea</td>
<td>1. Breeding &amp; feeding of baby turtles and to release them to sea as soon as they are big</td>
</tr>
<tr>
<td>2. Australia – (n=21)</td>
<td>2. Coral reefs/coral caves</td>
<td>2. Breeding new palms on the island by not taking away falling coconuts</td>
</tr>
<tr>
<td>5. America – (n=15)</td>
<td>5. Himalayas</td>
<td>5. Make everything from re-newable products</td>
</tr>
<tr>
<td>7. Thailand – (n=10)</td>
<td>7. National Natural Parks (mountain/aquariums)</td>
<td>7. To solve litter &amp; rubbish problem</td>
</tr>
<tr>
<td>8. United Kingdom – (n=9)</td>
<td>8. North/South Poles</td>
<td>8. Travel using sustainable fuels</td>
</tr>
<tr>
<td>9. Mauritius – (n=8)</td>
<td>9. Rainforests</td>
<td></td>
</tr>
<tr>
<td>10. Sri Lanka – (n=7)</td>
<td>10. Safaris</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Turtles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12. Uninhabited islands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13. Wildlife reserves</td>
<td></td>
</tr>
</tbody>
</table>

A total of 52 destinations were recorded out of which the top 10 world ecotourism destinations as perceived by visitors in this study are shown in table 4.13. The Maldives and Australia are at the top of the ecotourism destination list with a response rate of 18.9% (n=30) and 13.2%
Some of them have more specifically mentioned names of popular ecotourism locations within a destination. Visitors mentioned 11 different locations for the Maldives that included the resorts they stayed at, which may have had relatively fewer ecotourism activities but visitors experienced ecotourism alongside the destination’s nature tourism during their holiday. Four ecotourism locations were commonly referred to in Australia: the Great Barrier Reef, Cairns Coral Sea, Daintree Rainforest and Ningaloo Reef. Africa’s common ecotourism locations (the national parks, Serengiti Park, safari and wildlife) and the Galapagos Islands were rated as the second most popular ecotourism countries with 11.3% (n=18) respectively. America with 9.43% responses ranked as the third most popular country for ecotourism with six locations such as the Amazon rainforests, Patagonia, Alaska, Florida, Isle Royale of Lake Surewar, and Yosemite. Countries like the Seychelles (6.3%, n=10), Thailand (6.3%, n=10), the United Kingdom (5.7%, n=9), Mauritius (5%, n=8) and Sri Lanka (4%, n=7) rated at the bottom of the top 10 ecotourism destinations.

During the data entry procedure, it was found that some visitors did not clearly understand the question and responded by stating ecotourism environments and actions perceived to them. Since it was an open-ended question, it became useful to distinguish such comments and compile them as a separate category. A total response of 19.5% (n=31) for ecotourism environments and 5.7% (n=9) for environmental actions with an invalid response rate of 5.7% (n=9) was recorded. The environmental actions should be undertaken to maximise visitor satisfaction in a manner that would be enjoyable (Weaver 2004; Blamey 2001), while actions included environmental awareness programmes, and explanation of environmental behaviour to visitors (Frangialli 2001; Blamey 2001; Beeton 1998; Wight 1994) where coexistence with resource integration (Fennell 2003 cited in Krippindorf 1977) balancing of economic and environmental realities (Shah 2002) should be carried simultaneously to achieve sustainability in ecotourism.

4.3.6. Visitor opinions on the Maldives

Question 6 (refer appendix D) combined selected ecotourism elements to examine visitors’ responses towards valuing the experiences they had in the destination. The first statement on sustainability was a general question while the rest were specifically about the destination. The scales in table 4.14 were calculated by summing together the responses for first two scales and the last two scales together for ease in interpretation of the results. The first two scales (ie.1=strongly disagree + 2=mildly disagree) are explained as disagreements and the last two scales (ie.4=mildly agree + 5=strongly agree) are explained as agreements by the visitors to the statements in question.
TABLE 4.14 Visitor opinion on agree/disagree statements

<table>
<thead>
<tr>
<th>Statements</th>
<th>1+2</th>
<th>3</th>
<th>4+5</th>
<th>n</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I prefer a sustainably managed place when choosing a holiday destination</td>
<td>10.6</td>
<td>27.5</td>
<td>55.9</td>
<td>94.1</td>
<td>3.7</td>
<td>4.0</td>
</tr>
<tr>
<td>b. I am interested in learning more about ecotourism experiences in the Maldives</td>
<td>11.9</td>
<td>26.7</td>
<td>58.1</td>
<td>96.6</td>
<td>3.7</td>
<td>4.0</td>
</tr>
<tr>
<td>c. I felt I had an ecotourism experience while in the Maldives</td>
<td>13.5</td>
<td>25.4</td>
<td>57.2</td>
<td>96.2</td>
<td>3.7</td>
<td>4.0</td>
</tr>
<tr>
<td>d. I was adequately informed about environmental issues/and or environmentally responsible behaviour at my accommodation</td>
<td>29.7</td>
<td>19.9</td>
<td>47.0</td>
<td>96.6</td>
<td>3.3</td>
<td>3.0</td>
</tr>
<tr>
<td>e. The accommodation staff/guide provided information about ecotourism experiences in the Maldives</td>
<td>37.8</td>
<td>23.3</td>
<td>36.0</td>
<td>97.0</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>f. I had an undisturbed nature experience in the Maldives</td>
<td>16.9</td>
<td>15.3</td>
<td>64.9</td>
<td>97.0</td>
<td>3.8</td>
<td>4.0</td>
</tr>
</tbody>
</table>

1='strongly disagree', 2='mildly disagree', 3='neutral', 4='mildly agree', 5='strongly agree'
Table does not add to 100 due to non-responses and multiple responses

In total, 55.9% (n=132) of visitors agreed that they preferred a sustainably-managed place as a holiday destination. Quite significantly, 58.1% (n=137) visitors agreed that they were interested in learning more about ecotourism experiences while 57.2% (n=135) felt they had experienced an ecotourism in the Maldives. This suggests the strong ecotourism potential of the destination. In total 47% (n=111) of visitors agreed with a statement that adequate information had been provided about environmental issues/and responsible behaviour at their tourist accommodation, while 29.7% (n=70) did not agree that they had enough information. The results also indicate a closely balanced trend towards visitors who agreed (36%, n=85) and disagreed (37.8%, n=89) that they had adequate information from operation staff about ecotourism experiences in the Maldives. Finally, a high number of visitors 64.9% (n=153) agreed that they had an undisturbed nature experience at the destination.

The mean values when rounded off indicate that the results hover around the scale of ‘neutral’ for just two statements;

1. I was adequately informed about environmental issues/and or environmentally responsible behaviour at my accommodation. Mean=3.3
2. The accommodation staff/guide provided information about ecotourism experiences in the Maldives. Mean=3.0

As for the remainder of the statements, the mean values are mostly placed on the mildly agree scale of 4. Two median values (3 and 4) are noted for the statements, which is similar to the mean values as the means varied in-between. This suggests that there is a stronger positive consensus for all of the statements except those two former statements mentioned.

For all of the statements, a chi-square test for relationship was performed alongside Question 4 (i.e. Do you consider the Maldives to be an ecotourism destination?). This aimed to explore the
relationship that may have existed between the statements about where or not visitors considered the Maldives to be an ecotourism destination. Consequently, the Pearson chi-square test demonstrated a strong relationship for the following three statements:

1. I prefer a sustainably-managed place when choosing a holiday destination;
   \[ X^2 (8, n=222) = 0.007, p< .05. \]
2. I felt I had an ecotourism experience while in the Maldives;
   \[ X^2 (8, n=227) = 0.000, p< .05. \]
3. The accommodation staff/guide provided information about ecotourism experiences in the Maldives;
   \[ X^2 (8, n=229) = 0.005, p< .05. \]

Thus, these three statements have statistically significant relatedness of the Maldives to be considered as an ecotourism destination. Most tourists perceived there to be ecotourism potential in the Maldives despite their main purpose of visit being different. The other three statements did not uncover a significant relationship.

### 4.3.7. Visitor satisfaction

Question 7 explored whether or not the visitors were satisfied with their general holiday experience.

**Question 7: Are you satisfied with your general holiday experience on this visit to the Maldives?**  
1. YES  
2. NO

The results of the visitor satisfaction question show that 97% (n=229) of visitors confirmed affirmatively that they were satisfied with their general holiday experience. This is a gainful reward for Maldivian tourism stakeholders. Only 1.3% (n=3) were not satisfied with their general holiday experience and 1.7% (n=4) of visitors did not respond to this question.

### 4.3.7.1. What visitors liked and disliked most in the Maldives

To understand further why visitors enjoyed a satisfying holiday experience or not, two additional open-ended questions were subsequently posed about the likes and dislikes of their holiday experience:

**Question 8: During your holiday experience in the Maldives;**

1. Please state what you liked most ...........................................................
Table 4.15 reveals the outcomes of these questions, showing the highlights of what visitors liked the most. Table 4.16 shows what they disliked most in the destination. The responses received by the visitors on what they liked the most were categorized into six major themes.

**TABLE 4.15 Factors most liked by visitors**

<table>
<thead>
<tr>
<th>Visitors liked most</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Environmental factors or nature</td>
<td>161</td>
<td>71.2</td>
</tr>
<tr>
<td>2. Serenity</td>
<td>56</td>
<td>24.8</td>
</tr>
<tr>
<td>3. Activities</td>
<td>49</td>
<td>21.7</td>
</tr>
<tr>
<td>4. Social factors</td>
<td>39</td>
<td>17.3</td>
</tr>
<tr>
<td>5. Quality of service</td>
<td>33</td>
<td>14.6</td>
</tr>
<tr>
<td>6. Climate</td>
<td>18</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Percents & totals exceed 100 due to non-responses and multiple responses

The elements in these six themes appear to be commonly liked by the visitors. Of all the categories, environmental factor (also considered to be nature) was dominant with 71.2% (n=161). It was followed by serenity 24.8% (n=56), activities 21.7% (n=49), social factors 17.3% (n=39), quality of service 14.6% (n=33) and climate 8% (n=18). The following quote from a visitor reflects most responses:

*‘The naturalness of the environment, the possibility of being far from everyday stress’*

This emphasizes the attractiveness in environmental factors (i.e. beautiful and clear underwater world – e.g. sea/ocean/water/coral/reefs/), wildlife or marine life (e.g. birds/animals/fish/turtles/sharks/dolphins) and scenery or landscape (e.g. islands/plants/vegetation/sun). This suggests that the attractive quality of environmental assets such as nature (Coccossis 1996) in the destination is a key motivation for travel decisions and contributes to visitor satisfaction. In general the things that the visitors liked the most in the destination are highlighted below in their own words:

*‘Peace, tranquillity and a co-existing way of living with the natural habitat and wildlife’,*

*‘Being able to dive and see the underwater world in a way I haven’t before’*

*‘Environment and quality of service at the resort’*

*‘Sea and beach, friendly Maldivian people and hotel staff’ and,*
The above statements given by different visitors cover all of the themes identified in table 4.15. The responses for the theme serenity included peace, quietness, privacy and relaxation. During the holiday, visitors admitted to having a profound interest in enjoying certain nature-based activities with a response rate of 21.7% (n=49). These activities included ‘diving’, ‘snorkelling’, ‘swimming’, ‘boat cruise’, ‘shark’ and ‘dolphin’ watching. Almost 17.3% (n=39) of visitors expressed that they liked the friendly staff and local people themed in this study as a social factor. During their holiday experience, quality of service was liked by 14.6% (n=33) visitors while 8% (n=18) stated that they liked the destination’s climate. Although climate can be described as part of the environment and as a nature factor, it is generated as a separate theme because of the relatively significant response rate.

The total number of visitors who responded to what they liked most (95.8%. n=226) far exceeded those that responded to the question on what they disliked the most (75.8%. n=179) during their holiday in the Maldives. Visitor responses to what they disliked the most in the destination were broadly categorised into two themes: management controllable factors and management uncontrollable factors. The management controllable factors were divided into five main categories such as ‘poor quality’ of services (17.9%, n=32), ‘unhygienic’ conditions (8.9%, n=16), ‘over priced’ destination (7.8%, n=14), ‘pollution’ (7.8%, n=14) and irresponsible ‘behaviour of tourists’ (3.9%, n=7) in relation to the environment.

<table>
<thead>
<tr>
<th>Management controllable factors</th>
<th>No.</th>
<th>Percent</th>
<th>Management uncontrollable factors</th>
<th>No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Poor quality of services</td>
<td>32</td>
<td>17.9</td>
<td>1. Climate</td>
<td>31</td>
<td>17.3</td>
</tr>
<tr>
<td>2. Unhygienic conditions</td>
<td>16</td>
<td>8.9</td>
<td>2. Pollution</td>
<td>27</td>
<td>15.1</td>
</tr>
<tr>
<td>3. Over priced destination</td>
<td>14</td>
<td>7.8</td>
<td>3. Behaviour of natives</td>
<td>8</td>
<td>4.5</td>
</tr>
<tr>
<td>4. Pollution</td>
<td>14</td>
<td>7.8</td>
<td>4. Coral bleaching</td>
<td>6</td>
<td>3.4</td>
</tr>
<tr>
<td>5. Behaviour of tourist</td>
<td>7</td>
<td>3.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percentages do not add to 100 due to non-responses and multiple responses

Under the management controllable factors, the poor quality of services category mainly covered ‘food’ and ‘accommodation’ services rendered in the operation. Visitors also disliked unhygienic conditions and discomforts such as being bitten by bugs or mosquitoes including increased use of pesticides in the resort. Visitors also disliked experiencing overpricing when the prices of ‘food’, ‘drinks’ and ‘activities’ in their operation were high and disliked ‘increased prices’ of ‘food’ and other ‘items in Male’.
Noted here are a few statements made by some visitors about what they disliked most in the Maldives. These include ‘Standard of service could be much better, room for improvement’, ‘Food over priced and not very good sea food, very disappointing’, ‘Towels and laundry was unchanged too often, twice daily’, ‘Mosquitoes, loud music’ and ‘Inconsiderate divers who touch corals’. It is not surprising to note that some of these dislikes are related to suggested improvements made by the respondents to improve their holiday in the Maldives (refer section 4.3.8).

Importing of food items and other luxury infrastructure and services add to the cost of the product in the destination. Resort operations heavy dependence on imported food and other items to satisfy the needs of tourists cause high revenue leakages (Yahya, Parameswaran, Ahmed & Sebastian 2005; WTO 2004; King 2001) resulting from the ownership and resource control by non-residents a situation that is common in coastal and island destinations. During 2000, to cater for tourist comfort, about 80% of tourist items were imported to the Maldives including food, beverages, diving and water sports equipment, bed linen, and vehicles (MOT 2003). Import dependency in the Maldives is the result of resource constraints in the country (Yahya et al. 2005) and it creates high costs for the tourists and the resort operators.

Pollution is suggested as both a management controllable and uncontrollable factor. Visitors indicated a dislike towards the increased number of noisy ‘sea planes’, ‘jet skis’ and ‘speed boats’, ‘loud music’ which could disturb marine animals, ‘frequent laundry’, and ‘smoke from the restaurant’, as factors that could be controlled at management level. In the Maldives “speedboats and jet skis pose hazard to bathers, divers and marine life such as turtles, and are also noisy” (Price et al. 1998: 253) that could effect tourism diversification. The jet boats could bring negative ecological effects from the waves, noise and turmoil created by their motors and other unrestricted water based-activities could produce concerns about the sustainability and safety of flora and fauna (Croy & Høgh 2003; Orams 1995).

Factors disliked by visitors such as ‘weather’ changes (17.3%, n=31), ‘pollution’ (15.6%, n=27), ‘behaviour of natives’ (4.5%, n=8) and ‘coral bleaching’ (3.4%, n=6) are recognised as management uncontrollable factors. A few visitors also disliked the impact that the behaviour of other tourists had on the environment where fish feeding, killing of little animals, touching corals and dumping rubbish can be stopped by the management through spreading education and respect for the ecosystem. A number of ambiguous responses (19.6%, n=35) are noted where most visitors stated ‘nothing’ or ‘none of it’, which describes they did not dislike anything.
Comments in the survey about external sources of rubbish landing on resort beaches and cases of pollution created by construction sites at neighbouring islands are developmental practices that management cannot controllable. In addition, the global environmental impacts that arise from human-made interventions that have lead to global warming result such as ‘coral bleaching’, ‘pollution’, and ‘weather’ changes cannot be controlled at management level. Yet these are referred to in visitor responses as what they disliked most in the Maldives. Related statements of what visitors disliked under uncontrollable factors included ‘Bad weather and rain’, ‘The construction of the airport in the island in front of us’, ‘Large amounts of sea plans bringing and taking people to and from island’, ‘The Maldivians do not take care enough of their environment’ and ‘Dead corals’. To develop ecotourism, such issues are an enormous threat to the marine environment of coastal and island destination (Cater & Cater 2007; TTA 2007; McElroy 2002; Halpenny 2001; Rajasuriya et al. 2000; Chalker 1994; Sathiendrakumar & Tisdell 1990) where there needs to be an active emphasise on protection and conservation for sustainability in order to prevent further environmental stress to the ecological system (UNEP 2005; Fennell 2003; Higham et al. 2001; Harrison 2001; Orams 1995).

4.3.8. Important things to do to improve the holiday

The following question was asked to identify the most important thing that visitors would want to improve on during their holiday in the Maldives.

Question 9: Please indicate one important thing that the Maldives tourism industry could do to improve your holiday?

The Question 9 asked visitors to indicate one important thing that could be done to improve their holiday and the responses received were multiple. Alarmingly, the results also reflect on the results interpreted for Question 8. Six important themes are identified from visitor responses and these are reported in table 4.17.

<table>
<thead>
<tr>
<th>Important things to do</th>
<th>No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide more information on environment</td>
<td>27</td>
<td>18.6</td>
</tr>
<tr>
<td>2. Provide better services and infrastructure</td>
<td>24</td>
<td>16.6</td>
</tr>
<tr>
<td>3. Maintain reasonable prices</td>
<td>15</td>
<td>10.3</td>
</tr>
<tr>
<td>4. Preserve nature and environment</td>
<td>15</td>
<td>10.3</td>
</tr>
<tr>
<td>5. Improve and or increase environment/eco friendly activities</td>
<td>14</td>
<td>9.7</td>
</tr>
<tr>
<td>6. Improve pollution and waste disposal</td>
<td>14</td>
<td>9.7</td>
</tr>
</tbody>
</table>

Totals do not add to 100 due to non-responses and multiple responses
Nearly a quarter of visitors (18.6%, n=27) mentioned that providing information is a key aspect to improve their holiday. Quotes given about the need to improve include ‘Information on tourism impact’, ‘Tours were not guided or explained when on trips’, ‘Raise awareness of ecotourism’ and ‘Wildlife, sealife talks e.g. natural trail etcetera’. Other areas of holiday improvement suggested by visitors were the need to provide better services and infrastructure (16.6%, n=24), the need to maintain reasonable prices (10.3%, n=15), the need to preserve nature and environment (10.3%, n=15), to improve and or increase activities (9.7%, n=14) and finally to improve pollution and waste disposal (9.7%, n=14).

Most specifically, a lack of information and better services, unreasonable prices and pollution were observed as significant issues that were disliked by tourists in Question 8. These were repeated in Question 9 as important areas suggested for improvement which could possibly make a difference in a future holiday experience. This indicates that the tourism industry should look into visitors’ negative experiences and implement adequate corrective measures to improve visitors’ general holiday.

4.3.9. Amount spent on ecotourism experiences

The survey enquired about the amount of money spent on ecotourism experiences by visitors (Question 10). These results however very ambiguous as many them had included the total expenditure for their trip.

*Question 10: How much did you spend on ecotourism experiences in the Maldives? (e.g marine life observation)*

*Please specify US$ or Euro Amount = ---------------- Not Applicable*

The amount spent reported ranged from a minimum of US$6 to a maximum of US$40,000 which may be for the whole period of holiday or expenditure on some activities that visitors participated in. Since the visitor responses on the amount spent on ecotourism fluctuated widely, a clear picture of spending was not gained. However, the following broad category of expenditure on ecotourism experiences is grouped in figure 4.1.
Among the responses received, 33.1% (n=40) of visitors stated that they spent less than US$100 on ecotourism experiences in the Maldives. The most common expenditure rates identified by visitors were between US$50 - US$100 while US$60 was the average expenditure for category one. A maximum of 37.2% (n=45) of people spent between US$101 - US$500 on ecotourism activities while they spent an average of US$258 on category two. The third category indicates that 10.7% (n=13) visitors spent amounts ranging between US$501 - US$1000 where an average spend was US$811. The final category of expenditure shows that 14% (n=17) of visitors maintained spending rates between US$1001 - US$7500 with an average spend of US$3156. Although this average spend is almost equivalent to the Maldives Birds and Cetaceans tour cruise offered by Rockjumper rated as US$3150 per person (Rockjumper 2007), it does not indicate that any visitor had undertaken a similar ecotourism tour in the Maldives. The Rockjumper Birding Tours of South Africa is a professional guiding team that offers ecotourism experiences in the Maldives for small groups of 12 people for eight-day cruising trips (Rockjumper 2007).

Seven visitors stated the amount they spent on ecotourism in Euros which was converted\(^5\) to United States (US) dollars to maintain consistency using the X-rates (2007) currency calculator. Some 34.7% (n=42) of visitors said that any spending on ecotourism did not apply to them. To generate the spending patterns explained above, the lowest and highest extreme amounts were removed to maintain data consistency. Yet it was found that due to the wide gaps and variation between the data, the results of this question may not be significantly adequate for further discussion. Consequently, a further question explains the reasons why some visitors did not spend on ecotourism experiences.

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\(^5\) Conversion of 1 Euro is equivalent to US$1.47 dated Dec 2007
4.3.10. Reasons for not spending on ecotourism experiences

The following question was asked to understand the reasons visitors did not spend on ecotourism experiences.

*Question 11: If you did not spend anything on ecotourism experiences in the Maldives, please explain why not?*

Figure 4.2 describes some key reasons why visitors did not spend any money on ecotourism experiences in the Maldives. The responses given were very straightforward and are grouped under five key reasons.

![Figure 4.2 No expenditure on ecotourism](image)

A visitor sample of 34.8% (n=24) stated that the main reason for not spending was that they were allowed to ‘access nature, wildlife and some activities free-of-charge’ in tourist operations. Some visitors mentioned that it was due to their ‘all inclusive prepaid package’ (17.4%, n=12), while other reasons for not spending included a ‘different purpose of visit’ (15.9%, n=11), ‘lack of information’ (14.5%, n=10) and ‘no ecotourism activities’ (11.6%, n=8) offered.

4.3.11. Summary

The majority of respondents were visiting the Maldives for the first time and a vast majority described their primary purpose of visit as wedding/honeymoon holiday. In general, a high number of visitors (74.2%, n=175) thought of the Maldives as an ecotourism destination and
were highly satisfied with their overall experience. Tourists also considered that they had encountered ecotourism experiences through the nature tourism product in the destination. Activities such as snorkelling, swimming, wildlife viewing, scuba diving, dolphin watching and learning flora and fauna and bird watching were considered to have provided ecotourism experiences.

Visitors rated factors such as nature and environment, serenity and activities very highly, yet most disliked quality of service, pollution and climate. At the time of the survey it was the monsoon season and weather conditions were generally viewed as having affected their holiday. When asked specifically, the majority of respondents indicated that the Maldives tourism industry could make possible improvements in their holiday by providing more information on the environment and ecotourism, better services and infrastructure. Most visitors indicated that free access to nature and environment activities within the resort operation or in the area surrounding the operation meant they did not need to spend on ecotourism-related activities.

4.4. **Global environment**

This section comprises data drawn from Section B of the questionnaire which describes the environmental values of visitors in a global context. The results given here present the opinions of visitors on the global environment. Two main questions were used in this section. Question 12 encompassed the 12 New Environmental Paradigm (NEP) variables on a five point likert scale and Question 13 sought opinions from visitors about the most serious human-made environmental problems. These questions were then compared with the ecotourism study of Higham et al. (2001).

4.4.1. **Analyses of New Environmental Paradigm (NEP) variables**

Question 12 employs the 12 NEP variables which is shown in table 4.18. The list in the questionnaire can be used to assess visitors’ behaviour and values in pro-environmental actions. NEP scale is a useful instrument in tourism research. The results identify a set of global environmental values specifically perceived by tourists at the Maldives. Table 4.18 shows tourists’ perceptions in relation to the application of these values. Environmental values are a continuum of people’s accepted values that bond people with their natural environment and they can range from anthropocentric, biocentric and to ecocentric in perception (Dunlap & Van Liere 1978; Higham et al. 2001; Lück 2003). However, it is out of the scope of this study to describe all such research with the exception of making a contribution and comparison with Higham et al’s (2001)
study. This use of the NEP in this study allows for this comparison and applied the logical order of all the 12 NEP items with Higham et al. (2001) (refer to Table 2.4).

A high response rate is achieved for each of the variables. From the frequency data set, the results confirm that respondents have a high degree of concern for the global environment through responses to the variables such as ‘humans must live in harmony with nature in order to survive’ (mean=4.38), ‘humankind is severely abusing the environment’ (mean=4.28), the balance of nature is very delicate and easily upset’ (mean=20) and ‘the earth has limited room and resources’ (mean=4.20). This is highlighted in Table 4.18. The higher mean scores represent greater acceptance of the NEP variable. Similarly, the acceptance of the variable, balance of nature, in this study is significantly correlated with the results obtained in Higham et al. (2001).

**TABLE 4.18 Frequency to describe the environmental values of visitors**

<table>
<thead>
<tr>
<th>NEP Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>No.</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humans must live in harmony with nature in order to survive</td>
<td>7</td>
<td>11</td>
<td>15</td>
<td>50</td>
<td>145</td>
<td>228</td>
<td>4.38</td>
<td>1.02</td>
</tr>
<tr>
<td>Humankind is severely abusing the environment</td>
<td>8</td>
<td>4</td>
<td>29</td>
<td>60</td>
<td>123</td>
<td>224</td>
<td>4.28</td>
<td>1.00</td>
</tr>
<tr>
<td>The balance of nature is very delicate and easily upset</td>
<td>5</td>
<td>17</td>
<td>28</td>
<td>55</td>
<td>122</td>
<td>227</td>
<td>4.20</td>
<td>1.06</td>
</tr>
<tr>
<td>The earth has limited room and resources</td>
<td>15</td>
<td>9</td>
<td>23</td>
<td>46</td>
<td>131</td>
<td>224</td>
<td>4.20</td>
<td>1.19</td>
</tr>
<tr>
<td>When humans interfere with nature, it often produces disastrous results</td>
<td>8</td>
<td>16</td>
<td>37</td>
<td>73</td>
<td>92</td>
<td>226</td>
<td>4.00</td>
<td>1.09</td>
</tr>
<tr>
<td>To maintain a healthy economy, we will have to develop a ‘steady state’ economy where industrial growth is controlled</td>
<td>9</td>
<td>14</td>
<td>54</td>
<td>68</td>
<td>81</td>
<td>226</td>
<td>3.88</td>
<td>1.09</td>
</tr>
<tr>
<td>We are approaching the limit of the number of people the earth can support</td>
<td>9</td>
<td>23</td>
<td>59</td>
<td>66</td>
<td>68</td>
<td>225</td>
<td>3.72</td>
<td>1.12</td>
</tr>
<tr>
<td>There are limits to growth beyond which our industrialised society cannot expand</td>
<td>13</td>
<td>23</td>
<td>66</td>
<td>56</td>
<td>61</td>
<td>219</td>
<td>3.59</td>
<td>1.17</td>
</tr>
<tr>
<td>Humans have the right to modify the natural environment to suit their needs</td>
<td>77</td>
<td>58</td>
<td>49</td>
<td>27</td>
<td>12</td>
<td>223</td>
<td>2.28</td>
<td>1.21</td>
</tr>
<tr>
<td>Humans need not adopt to the natural environment because they can remake it to suit their needs</td>
<td>90</td>
<td>56</td>
<td>37</td>
<td>23</td>
<td>15</td>
<td>221</td>
<td>2.17</td>
<td>1.26</td>
</tr>
<tr>
<td>Plants and animals exist primarily to be used by humans</td>
<td>88</td>
<td>52</td>
<td>53</td>
<td>19</td>
<td>12</td>
<td>224</td>
<td>2.17</td>
<td>1.20</td>
</tr>
<tr>
<td>Humans were created to rule over the rest of the nature</td>
<td>122</td>
<td>44</td>
<td>30</td>
<td>15</td>
<td>14</td>
<td>225</td>
<td>1.19</td>
<td>1.23</td>
</tr>
</tbody>
</table>

1 = ‘strongly disagree’, 2 = ‘mildly disagree’, 3 = ‘neutral’, 4 = ‘mildly agree’, 5 = ‘strongly agree’
Totals do not add to 100 due to non-responses and multiple responses
M = Mean, SD = Standard Deviation

For interpretation of the mean values in both studies, the means were calculated by adding the average mean for each of the 12 items and then dividing by five. In this manner, the respondents showed an overall mean of 2.8 in Higham et al’s (2001) study and 2.6 for the current study. Higham et al’s (2001) study is representative and supports the idea of the NEP relatively more than the current visitor sample because it had a higher number of respondents. In terms of the
explanations given in Lück (2003), both of the above studies indicate that low visitor agreement with the NEP variables results in a lower overall mean.

The mean of both studies is further evaluated with the data collected for submission as discussed in Chapter Four. The mean comparison of both studies generated some interesting values of concern for the environment. The highest means achieved in both the studies are shown in table 4.19.

**TABLE 4.19 Frequency of highest mean values in NEP**

<table>
<thead>
<tr>
<th>NEP Variables</th>
<th>Higham et al. (2001) Mean</th>
<th>NEP Variables</th>
<th>Current Study Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Humans must live in harmony with nature in order to survive</td>
<td>4.55</td>
<td>a) Humans must live in harmony with nature in order to survive</td>
<td>4.38</td>
</tr>
<tr>
<td>b) The balance of nature is very delicate and easily upset</td>
<td>4.45</td>
<td>b) Humankind is severely abusing the environment</td>
<td>4.28</td>
</tr>
<tr>
<td>c) Humankind is severely abusing the environment</td>
<td>4.36</td>
<td>c) The balance of nature is very delicate and easily upset</td>
<td>4.20</td>
</tr>
<tr>
<td>d) The earth has limited room and resources</td>
<td>4.36</td>
<td>d) The earth has limited room and resources</td>
<td>4.20</td>
</tr>
<tr>
<td>e) When humans interfere with nature, it often produces disastrous results</td>
<td>4.22</td>
<td>e) When humans interfere with nature, it often produces disastrous results</td>
<td>4.00</td>
</tr>
</tbody>
</table>

The highest mean produced in both studies suggest that the same environmental concerns are highlighted amongst visitors who travelled to New Zealand in 2001 as well as tourists to the Maldives in 2007. From the current sample, it is shown that the variable ‘Humankind is severely abusing the environment’ has shifted forward, indicating stress on environment over ‘the balance of nature’. Both data sets confirm a high degree of concern for the global environment. In general, Higham et al’s (2001) study shows a higher level of approval for the NEP variables compared to the current visitor sample because it had a higher number of respondents and targeted specific ecotourism operations. The Higham et al’s (2001) study was undertaken in twelve ecotourism operations throughout New Zealand where respondents mainly originated from New Zealand, United Kingdom, United States, Germany and Australia. Whereas the current study employed a general sample of tourism operations and reports majority of visitor respondents originated from United Kingdom, Italy and Germany (refer section 4.2). With relevance to Lück (2003), both studies show that visitors’ environmental awareness has increased over the past two decades.

To confirm the results further, a factor analyses is reported in table 4.20. The factor solution incorporated the same 12 items of the NEP scale, although Higham et al. (2001) applied nine of the 12 variables. Therefore, the results cannot be directly compared. As suggested by Coakes
(2005) on factor analyses\(^6\), the variables in this data set were normally distributed, accept for some missing values which were replaced with the mean of each of the items that enhanced the solution. Rotated Factor Matrix with Varimax rotation (Coakes 2005) was chosen in factor analyses to reduce the number of complex variables that were dual factor loadings of values greater than .3. Consequently improved interpretation produced all loadings acceptable to this analyses which is compared with Higham et al. (2001).

**TABLE 4.20 Factor analyses of NEP variables**

<table>
<thead>
<tr>
<th>NEP Variables</th>
<th>Factor 1. Balance of nature</th>
<th>Factor 2. Humans over nature</th>
<th>Factor 3. Limits to growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) The balance of nature is very delicate and easily upset</td>
<td>0.689</td>
<td>0.567</td>
<td></td>
</tr>
<tr>
<td>b) We are approaching the limit of the number of people the earth can support</td>
<td>0.586</td>
<td>0.787</td>
<td></td>
</tr>
<tr>
<td>c) To maintain a healthy economy, we will have to develop a ‘steady state’ economy where industrial growth is controlled</td>
<td>0.637</td>
<td>0.809</td>
<td></td>
</tr>
<tr>
<td>d) Humans must live in harmony with nature in order to survive</td>
<td>0.511</td>
<td>0.705</td>
<td></td>
</tr>
<tr>
<td>e) Humankind is severely abusing the environment</td>
<td>0.743</td>
<td>0.637</td>
<td></td>
</tr>
<tr>
<td>f) When humans interfere with nature, it often produces disastrous results</td>
<td>0.803</td>
<td>0.627</td>
<td></td>
</tr>
<tr>
<td>g) Plants and animals exist primarily to be used by humans</td>
<td>0.829</td>
<td>0.634</td>
<td></td>
</tr>
<tr>
<td>h) Humans have the right to modify the natural environment to suit their needs</td>
<td>0.633</td>
<td>0.693</td>
<td></td>
</tr>
<tr>
<td>i) Humans were created to rule over the rest of the nature</td>
<td>0.819</td>
<td>0.804</td>
<td></td>
</tr>
<tr>
<td>j) The earth has limited room and resources</td>
<td>0.523</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k) Humans need not adopt to the natural environment because they can remake it to suit their needs</td>
<td>0.463</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l) There are limits to growth beyond which our industrialised society cannot expand</td>
<td>0.464</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Eigen value**

<table>
<thead>
<tr>
<th></th>
<th>3.227</th>
<th>4.457</th>
<th>1.307</th>
<th>1.697</th>
<th>0.938</th>
<th>0.935</th>
</tr>
</thead>
</table>

**Variance explained**

<table>
<thead>
<tr>
<th></th>
<th>35.9</th>
<th>37.141</th>
<th>14.5</th>
<th>14.142</th>
<th>10.4</th>
<th>7.792</th>
</tr>
</thead>
</table>

With the application of all 12 items in factor analyses, the current study identified two main factor dimensions (i.e. Balance of nature and Humans over nature) underlying the environmental values unlike the three main factor dimensions of ‘Balance of nature’, ‘Humans over nature’ and ‘Limits to growth’ recognised in Higham et al. (2001) (refer table 4.20). They eliminated three

\(^6\) During the factor analyses the examination of the correlation matrix indicated reasonable correlations above .3, Kaiser-Meyer-Olkin Measure of Sampling Adequacy as .847 (suitability above .6) and all measures of anti-image correlation matrix were between .789 and .909 (suitability above .5). The process of factor analyses suggests that this data set was suitable for factoring. This factor analyses applied Principal Axis Factoring (PAF) method (Coakes 2005).
items from the original set of 12 items in factor loading. Those three items were ‘The balance of nature is very delicate and easily upset’, ‘There are limits to growth beyond which our industrialised society cannot expand’ and ‘Humans need not adopt to the natural environmental because they can remake it to suit their needs’. The significant relatedness of both studies represents closer values in some factors although the order of the NEP variables over visitor responses to the environment dramatically differed.

Factor 1 (i.e. balance of nature) in this study includes eight variables, which included the factor 1 (i.e. Balance of nature) and factor 3 (i.e. Limits to growth) of Higham et al. (2001). The factor loadings in Higham et al. (2001) for ‘Balance of nature’ were between 0.511 - 0.803 whereas in this study they are between 0.464 - 0.705. This suggests a stronger ecocentric view held by most participants, explaining the variance for balanced nature (37.141%) including restricted growth and reduced environmental impact.

Factor 2 (i.e. Humans over nature) in this study comprised a total of four variables of which three variables are the same as those of Higham et al. (2001). The opinions were statistically observed with the closer relatedness of Eigen and variance values in both studies. The factor loadings in Higham et al. (2001) for ‘Humans over nature’ were between 0.633 - 0.829 whereas in the current study they are between 0.463 - 0.804. Humans over nature has a variance of 14.142%. Except for factor 3 (i.e. Limits to growth), factor analyses resulted in no significant representation of factor loadings in the current sample.

Finally, the factor loading for ‘Limits to growth’ in Higham et al. (2001) was between 0.787 - 0.809. No factor loading was determined for this current study due to the low sample number in comparison with Higham et al. (2001). The loadings for the first two factors suggest a stronger ecocentric view held by most participants explaining variance (37.141%) for balanced nature including restricted growth and reduced environmental impact.

The result obtained in table 4.20 for the current sample produced two factor relationship variables in contrast to the three factors in Higham et al. (2001). This could be due to a smaller sample size of 236 in this study as compared to 967 in Higham et al. (2001). Another reason could be that Higham et al. (2001) conducted the study specific to ecotourism operations whereas the current study comprises mixed operations that all involve nature-based tourism including relatively fewer ecotourism-related activities. Lück (2003) reveals that five studies were found with two to five factor dimensions, which indicates that the current sample is within the acceptable range of dimensions with two factor loadings. It is also clear from this analysis that
although NEP values are widely accepted, with the environmental awareness consequent to environmental concerns resulting from 20\textsuperscript{th} century industrialization, existence of an anthropocentric view still prevails.

4.4.2. Human – made environmental problem

Question 13 was designed with reference to Higham et al. (2001) in order to compliment the NEP variables. The results in table 4.21 show that visitors had a significant concern for the global environment.

Question 13: What do you consider to be the most serious human-made environmental problem in the world?

The findings suggest that almost all of the 79.7\% (n=188) tourists blamed human interventions with nature as a serious threat to the global environmental problem.

<table>
<thead>
<tr>
<th>Environmental problems</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pollution</td>
<td>68</td>
<td>36.2</td>
</tr>
<tr>
<td>2. Co2 emissions</td>
<td>41</td>
<td>21.8</td>
</tr>
<tr>
<td>3. Global warming</td>
<td>34</td>
<td>18.1</td>
</tr>
<tr>
<td>4. Deforestation</td>
<td>23</td>
<td>12.2</td>
</tr>
<tr>
<td>5. Exploitation of natural resources</td>
<td>23</td>
<td>12.2</td>
</tr>
<tr>
<td>6. Rubbish/waste</td>
<td>19</td>
<td>10.1</td>
</tr>
<tr>
<td>7. Climate change</td>
<td>11</td>
<td>5.9</td>
</tr>
<tr>
<td>8. Damage to ozone layer</td>
<td>8</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Percentage totals do not add to 100 due to non- responses & multiple responses

Table 4.21 illustrates the most common eight issues of global environmental concern that emerged in the results. The data entry process identified that most responses returned for this question were multiple in nature, so every measure was undertaken to include all the responses given by each participant in the appropriate group of items. A total of 79.7\% (n=188) visitors responded to this question, which is closer to the 89.9\% visitor articulation of human-induced environmental change reported in Higham et al. (2001). The results find that ‘pollution’ (36.2\%, n=68) is the principal serious human-made environmental problem. Other problems of significant concern are ‘Co2 emissions’ (21.8\%, n=41), ‘global warming’ (34\%, n=18.1), ‘deforestation’ (12.2\%, n=23), ‘exploitation of natural resources’ (23\%, n=12.2), ‘rubbish/waste’ (10.1\%, n=19), ‘climate change’ (5.9\%, n=11) and ‘damage to ozone layer’ (4.3\%, n=8).
Some striking responses to the survey are quoted here where opinions are voiced that are related to the key issues identified in the table. Visitors’ quotes like ‘Extinction of animals like white tigers, white rhinos, elephants etc curbed by humans killing them for tourist gifts’ describe the serious impact of tourism on the environment. ‘Destruction of the nature because of tourism - pollution - to build house and other without considering the nature’ suggest that some respondents consider that tourism has been commercialised at the expense of nature which is ultimately destroying the wilderness to accommodate humans for their leisure and pleasure. It is also noted that some responses stressed that a better level of education, information and awareness could help to minimise the serious environmental abuses caused by human interventions. Quotes such as ‘Atmospheric pollution, environmental abuses; all this is caused by a scarce environmental education’ and ‘Education in lot of countries without thinking about environmental problems’ highlight the role of education in society to create awareness to mitigate environmental impacts.

Therefore, ecotourism operators, managers and planners can play a responsible role by educating and informing visitors about the respectful protection, preservation and conservation of the environment, while they enjoy and learn through ecotourism-based activities. As stated by a tourist in the survey ‘I believe that men are responsible for the environmental disequilibrium’, it is clearly recognised that the cause of environmental destruction is human-made interventions. This could be combated through education by restricting or finding alternative means to industrial growth in order to reduce environmental impact to achieve a balance with nature.

4.4.3. **Summary**

The results of this study indicate that most visitors are gravely concerned about the human impact on the environment. The NEP variables show the universal desire of visitors to harmonise human life with nature although humans were created to rule over nature. Concurrently, building a controlled steady economy within modified settings has become a challenge in the 21st century and is important for the survival and preservation of limited resources for the future.

The respondents in this study overtly present ecocentric values about the preservation of the environment and the balance of nature. Although a large number of visitors expressed serious concern for environment, the extent that they could best practice mitigating environment imbalances is questionable because of the anthropocentric views held by some visitors. Implementation of stringent environmental protection measurers and continuous adherence to them globally to sustain resources from environmental threats is a major challenge. However,
such factors are vital for a vulnerable destination like the Maldives if it is to sustain an ecotourism sector. Overall, the findings of this research uncover that the Maldives remains a mainstream tropical holiday destination for honeymooners. Untapped opportunities for ecotourism activities prevail in some operations and in other parts of the Maldives because of its natural attractiveness, a factor that is in great demanded and perceived by the visitors.

The following chapter discusses these results in more details.
Chapter 5  Discussion

5.1. Introduction

Ecotourism as a niche product has had enthralled a prominent position within tourism sector and tourism literature has addressed a wide variety of ecotourism topics since last 20 years (Weaver & Lawton 2007; Zeppel 2006; Fennell 2003; Page & Dowling 2002; Weaver 2001; Buckley 2001; Higham et al. 2001; Lück 2003; Wearing & Neil 1999; Orams 1995).

This chapter anchors the research results of this study within the context of nature-based ecotourism resources in the Maldives in order to gain an understanding of visitors’ demand for and perception of ecotourism which are the core of this research. In principal, the discussion will analyse the two research objectives as stated previously:

1. What are visitors’ demands for nature tourism experiences in the Maldives?
2. What are visitors’ perspectives of nature tourism experiences in the Maldives?

This chapter discusses the key findings of this research in relation to the literature presented in Chapter Two and highlights a number of outcomes and issues. Visitors to the Maldives are mainly a part of the mainstream international inbound tourist market to the destination. However, a few ecotourists also visit with the primary purpose to experience eco/nature-based tourism in the destination. The profiles of these visitors also suggested that they had the traits of a typical ecotourist. The demand for ecotourism experiences is assessed by identifying a variety of visitor activities experienced by visitors. Their perspectives and values are drawn out to examine and understand the association of ecotourism with nature-based holiday experiences. Potential ecotourism attractions and the destination’s resources will be discussed in the following sections. Furthermore, the chapter discusses key themes that have emerged from the results including visitor profile, visitor experiences and demand perceptions and the New Environmental Paradigm (NEP) scale on a global context.
5.2. Visitor profiling

Ecotourists are not a homogenous group (Wight 2001). This is not surprising because the typical mainstream visitors to the destination, although not restricted to ecotourists (refer table 4.7), were well-educated with university or vocational qualifications (refer table 4.5). This suggests that they have a better income and therefore greater capacity to travel. They originated from key ecotourism source markets that are ‘Eurocentric’ such as Britain, Italy Germany and other European countries (Weaver & Lawton 2007: 1172; Cater 2004, Wight 2001; Beeton 1998) (refer table 4.1). The majority of visitors to the Maldives were males, unlike the dominance of female ecotourists as described in Wight (2001) and Beeton (1998) (refer table 4.2). The age of most visitors to the destination ranged between mid-twenties to early fifties (refer table 4.3). There is no updated national statistics giving breakdown of visitor distribution by age or gender but MOT (2004) describes that the majority of the visitor age groups were between mid-twenties to mid-thirties with 7% less females than males among the respondents. It also reports that the age distribution remained the same between genders during the 2004 visitor survey in the Maldives (MOT 2004). However, these results may not be sufficient to complement the current findings because of the gap in the survey period and the inconsistency of age categories used in the national survey and the current survey.

The current survey show most visitors were in active employment (refer table 4.4) with good income levels. This corresponds to the studies in Page and Dowling (2002), Wight (2001), Beeton (1998) and McKercher (1998). Most visitors to the destination fitted into the category of ‘soft’ ecotourism spectrum (Weaver & Lawton 2002: 272) as highlighted in the literature review, section 2.7. In juxtaposition with Weaver (2006) and Beeton (1998), the results on tourist spending identify visitors as ‘soft’ ecotourists, as they spend part of their holiday on ecotourism associated activities while enjoying comfortable travel experiences. Most were on all-inclusive prepaid holiday packages with predetermined services and facilities. Partially rejecting Page and Dowling's (2002) findings, these ‘soft’ ecotourists were fascinated by beach holidays and had a growing tendency to seek experiences through understanding, exploring and learning from nature with a responsible attitude. This is why when interacting with nature-based tourism most of these ‘soft’ visitors to the Maldives also engaged in ‘sub-experiences’ of nature, eco, cultural, adventure and resort tourism experiences (Boyd & Hall 2005: 274). Consequently, visitors may have possibly influenced their responses by the ecotourism definition given in the survey questionnaire (refer appendix D) that has allowed a benchmark to assess visitor tourism experiences towards ecotourism elements. However, the benefit of providing the definition rests to guide and direct visitor clarity on the survey objectives. Despite this, a key ecotourism element like sustainability is
missing in visitor experiences. It is likely that visitors may have not focused on this term in the
definition as it is not exactly stated so, instead sustainability is referred to as “promotes
conservation” and “low negative visitor impact”. Nevertheless, it is fascinating to understand that
there were ‘soft’ ecotourists on a prepaid beach holiday to the Maldives.

The sample showed that a marginal number of 8.5% (n=20) visitors were engaged in
environment or nature organisations (refer section 4.2.4). This small segment of the survey
sample deviates away from the other participants who identified as a more distinct ecotourism
segment. It is difficult to deduce the factors of their central motivation because of the smaller
number of (8.9%, n=21) primary purpose eco/nature tourism visitors to the destination (refer
table 4.7). However, several sub-sample themes have emerged in the open-ended questions (refer
sections 4.3.4, 4.3.7.1 and 4.3.10) that indicative that nature is a basis of motivation whatever
their primary purpose of visit was (refer section 4.3.2). Unspoilt nature is often equated with
having significant market demand in the growth of ecotourism (Holden & Sparrowhawk 2002).
For different types of tourists, a tourism experience is comprised of diverse activities and market
segmentation invariably distinguishes ecotourism experiences in visitor profiles (Zografos &
Allcroft 2007). A large part of the Maldives’ natural environment may be untouched and unspoilt
by human intervention, but increasingly this environment is being utilised as a form of tourism
business asset to accentuate the diversification of tourism products and market segmentations
including rapid infrastructural developments (e.g. land/lagoon reclamation for housing) in non-
resort islands. Despite the Maldives being a mainstream resort holiday destination specialising in
honeymoon and diver segments, a closer association with environmental interests and values is
reflected in the visitor profile to the destination found in this study. Such visitors were mainly
active members from Green Peace and World Wide Fund for Nature (WWF).

Segmenting visitors by their interest in a destination’s natural attributes based on environmental
values can create a novel ecotourism market (Zografos & Allcroft 2007; Lück 2003; Higham et al.
2001). In fact, Wood (2002) suggests that environmental values are highly influential in the
development of ecotourism concepts. Therefore, the findings of this study suggest that there are
sub-segments within the mainstream holidaymaker groups to the Maldives. This can create an
opportunity to procure momentum from nature-based activities by targeting and developing
ecotourist segments if approached carefully with ecotourism principles (refer appendix A). The
specialist ‘hard’ ecotourists (refer figure 2.1) who are responsible, educative, interpretive-oriented
tourism and create minimum damage (Higham & Lück 2007; Page & Dowling 2002; Beeton 1998;
Wight 1994) are not present in the destination profile in this study (refer section 4.2.1) because
the sample visitors stayed at comfortable resorts, unlike other under-developed and potential locations/tours which needs further exploration on the possibility of ecotourism development.

5.3. **Visitor experiences and perception**

The vast majority of visitors stated that their primary purpose of visit to the Maldives was for a wedding/honeymoon holiday. Despite this, a high number of visitors (74.2%, n=175) perceived the Maldives to be an ecotourism destination. This suggests that the Maldives can potentially be fostered as an ecotourism destination. This study finds that only a few of the reef and beach resorts in the Maldives are marketed as ‘ecotourism destinations’ (Buckley 2003: 241). These ecotourism operations, combined with various nature tourism products on offer, contribute to environmental education and conservation. The active contribution of ecotourism operations to improve the natural environment is described as ‘better or more positive, responsible’ or otherwise termed as ‘worse or more exploitive and irresponsible’ by Orams (2001; 1995). Many (n=135) visitors considered environmental factors (refer table 4.11) in the destination as the principle reasons that they regarded the Maldives as an ecotourism destination. According to visitor experiences, this study confirms that the preservation of natural resources; natural attractions including wildlife, and information on the environment at the destination are the most important environmental factors and a destination’s environment is a dominant theme if it is considered to be an ecotourism destination.

The results returned on Question 4: ‘Do you consider the Maldives to be an ecotourism destination?’ found that ‘environment’ was a dominant theme when the Maldives is considered to be an ecotourism destination (refer section 4.3.4). This is a major characteristic of ecotourism spectrum that are advocated in Weaver (2004), Beeton (1998), Blamey (1997) and Dowling (1996). The research findings match within the three main principle areas governed in ecotourism (refer table 4.12). The primarily focus is on the natural attractions described by visitors as ‘beautiful and uncontaminated beach/sea/water/nature, marine and wild life attractions, coral reef and flora and fauna’. Secondly, the focus on education and learning opportunities includes ‘information/advice/respect on environment offered within the destination’. Thirdly, visitors’ reason for managing environmental, economic and socio-cultural sustainability includes ‘preservation/conservation/protection of nature, nature relatively undisturbed by humans and minimised pollution’ according to visitors. Social factors such as ‘locals in harmony with nature and environment’, ‘cultural acceptance of tourism’, ‘friendly locals and resort staff’, ‘simple and conservative’ and finally ‘governments’ adherence to environmental protection laws’ are some of
the positive reasons perceived by visitors which makes them consider the destination to be an ecotourism destination. The experiences were self-derived by survey respondents.

Among several destinations identified by visitors, a maximum of (18.9%, n=30) visitors claim that the Maldives were at the top of the ecotourism destination list (refer table 4.13). This clearly indicates visitor perception and future potential demand. On asking specific statements of opinion on agree/disagree scales about the destination, (55.9%, n=132) of the visitors preferred a sustainably-managed place as a holiday destination, (58.1%, n=137) visitors were interested in learning more about ecotourism experiences, (57.2%, n=135) felt they had an ecotourism experience in the Maldives, (47%, n=111) said they had adequate information about environmental issues and responsible behaviour at the tourist accommodation, (36%, n=85) had adequate information from the operation staff about ecotourism experiences in the Maldives and (64.9%, n=153) agreed to having an undisturbed nature experience in the destination (refer section 4.3.6). A chi-square test performed on these statements describes the statistically significant relationship between the Maldives to be an ecotourism destination and visitor perception. Visitor perception has certainly invoked a strong demand for ecotourism which generated strong relationships in the following three statements out of the five statements asked in Question 6;

1. I prefer a sustainably managed place when choosing a holiday destination;
   \[ X^2 (8, n=222) = 0.007, p< .05. \]
2. I felt I had an ecotourism experience while in the Maldives;
   \[ X^2 (8, n=227) = 0.000, p< .05. \]
3. The accommodation staff/guide provided information about ecotourism experiences in the Maldives;
   \[ X^2 (8, n=229) = 0.005, p< .05. \]

This means that visitor perceptions in relation to these three statements are significantly stronger compared to other statements used in Question 6 (refer appendix D) of the questionnaire. However, visitors’ results suggesting that ‘the accommodation staff/guide provided information about ecotourism experiences in the Maldives’ differs from the tourist operation’s website information researched in this study because there are only a few operations that directly promote their businesses as ecotourism where as many others offer less ecotourism-oriented nature activities. It is possible that visitors’ association with nature or environment-based experiences have considerable relevance in how they perceived ecotourism.
5.4. Visitor demand for ecotourism attractions and activities

In section 4.3.3 of the survey instrument, tourists considered having encountered ecotourism experiences from the nature tourism product in the destination either through self-participation or observation in attractions and activities. A high number of (97%, n=229) visitors were satisfied with their overall experience in the destination (refer section 4.3.7). This is certainly reflected in the large number of visitors surveyed in the tourist resorts who considered the Maldives to be an ecotourism destination that gave greater satisfaction in the predominant environmental factors and related activities. Other researchers have noted that a high level of visitor satisfaction is obtained through ecotourism experiences in highly modified areas (Chirgwin & Hughes 1997) whereas these research findings suggest that the notion of enclave resort tourism in the Maldives is a suitable example. Increased level of satisfaction and consideration of several activities as ecotourism are important components that can relate to demand creation. Such a demand for ecotourism in the destination is evident from the ecotourism related nature-based attractions and activities.

Consequently, as explained in the literature review (refer section 2.2), it is fairly difficult to distinguish nature activities from ecotourism because of varying definitions and an overlap in the literature between ecotourism concepts. Another main reason is that the Maldives do not practice marketing and managing for ecotourism as a destination. Despite this, visitor results in this research describe potential ecotourism significance in the destination. To distinguish ecotourism activities, the common themes identified in various definitions are concurrently emphasised with the main themes in this survey being natural attraction, education and sustainability or conservation. The availability of information about the practice of ecotourism in the destination was extremely limited. This is why the visitor experience and perception to classify ecotourism activities experienced in the Maldives seemed to be based on general experiences, that were not advertised as ecotourism but also contained experiences of nature shown in table 5.1 (while reading table 5.1 reference should also be made to tables 4.8 and 4.9 in section 4.3.3).

| TABLE 5.1 Visitor classification of nature activities offering qualities of ecotourism in the Maldives |
|----------------------------------------------------------|-------------|-----------|
| Ecotourism Activities                      | Frequency | Percent  |
| a) Snorkelling                                | 98         | 41.5     |
| b) Swimming                                  | 52         | 22.0     |
| c) Wildlife viewing                          | 47         | 19.9     |
| d) Scuba diving                              | 40         | 16.9     |
| e) Dolphin watching                         | 39         | 16.5     |
| f) Learning about flora & fauna              | 33         | 14.0     |
| g) Bird watching                            | 26         | 11.0     |
| h) Shark watching                            | 18         | 7.6      |
The range of nature activities available is considered to have provided ecotourism experiences to visitors at the destination. The typical ecotourism activities that have a strong element of ecotourism, in ascending order are identified as snorkelling, swimming, wildlife viewing, scuba diving, dolphin watching, learning about flora and fauna, bird watching, shark watching, turtle nesting, learning about herbs and plants, whale watching, conservation projects, marine museums, mangroves/wetlands and protected areas. Activities less commonly associated with ecotourism, such as surfing, and consumptive and mechanised activities (including tours conducted by boats/aircraft) such as fishing, scenic boat cruising and scenic flights (Higham & Dickey 2007), are relatively less prominent in most wildlife ecotourism activities but these are also more widely accepted as ecotourism activities compared to the activities that are given at the bottom of table 5.1.

The reasons that some of the common ecotourism-related and potential ecotourism activities have a lower participation rate are explained here. Turtle sighting in the Maldives is a seasonal activity with nesting occurring mostly during January to March and hatching during April to May in various locations of tropical beaches (TimesOnline 2007). It is possible that the low number of visitor experiences of turtle nesting is a result of the survey period which did not coincide with the seasons. The activity of learning about native herbs and plants is offered only in two resorts where this study was undertaken, hence the poor response rate. Surfing is generally offered in most of the operations and is connected with the adventurous tourist rather than the honeymoon or relaxation visitors. Scenic flights are offered as an exclusive aerial viewing activity and are likely to have an educational component but tourists are regularly transferred by sea planes if the resort operation is distanced to access by boat from Male’ International Airport. Although whale watching is a global multi-million dollar activity (Detlefsen et al. 2005; Lück 2003), only a few operators offer this in the Maldives as a commercial activity. Whale watching is highly seasonal and lacks local professional operators in the field despite diverse marine species of cetaceans in the Maldives (refer sections 2.10.2). With the exception of a few ecotourism resorts, conservation
projects in most operations are undertaken on an ad hoc basis to mark special occasions like the World Environment Day, World Biodiversity Day or World Tourism Day.

A visit to Male’ city is organised by resorts that are located within a few miles from the city. Guided sight-seeing tours cover set places that include shopping for a specified time limit of mostly half a day. If visitors are not well informed about the important site-seeing locations in Male’, it is possible they could miss out on the recently established marine museum (refer section 2.10.3.2). Although small, it is a symbol of the Maldives’s marine resources and traditional lifestyle. Another reason for low the visitor trend to the marine museum is that some resort operations discontinued visitor excursions to Male’ due to safety reasons. An explosion was detonated on 29th September 2008 at a heritage park in the city which was commonly frequented by tourists and twelve tourists were injured (BBC 2007). Among them was one couple who stayed in Baros Maldives where this survey was implemented and the survey period coincided with this unfortunate event.

Given the interest of tourists and operators, the potential for nature-guided tours could be explored to develop organised trips to mangroves and wetlands, which are unique to some parts of the northern and southern regions of the Maldives. Currently, organised and safe accessibility to such locations is hindered due to an inadequate transportation system. Marine Protected Areas (MPAs) (refer section 2.10.3.1) are popular dive locations but these need be adequately promoted, marketed and informed to the non-diver markets too. Similarly, visitors are not informed of other designated protected islands (refer table 2.3). It is not surprising that 16.9% (n=40) of visitors have experienced and considered diving to be an ecotourism activity (refer table 4.8) in the Maldives but only two visitors stated that they had visited MPAs in the Maldives, in particular, ‘Madivaru’ and ‘Banana Reef and HP Reef’ (refer section 4.3.3). It is not clear which ‘Madivaru’ the visitor was referring to because the same name is given to five islands in four different regions. They are ‘Madivaru’ in Kaafu Atoll, Lhaviyani Atoll, Alifu Alifu Atoll, Alifu Dhaalu Atoll and ‘Madivaru’ Finolhu in Alifu Alifu Atoll. It appears that the first visitor was referring to an uninhabited island called ‘Madivaru’ in Alifu Alifu Atoll, which is very near to the Kuramathi Tourist Resort where the visitor stayed. Indeed, the ‘Madivaru’ in Alifu Alifu Atoll is a MPA in the Maldives. The second visitor went to both Banana Reef and HP Reef, which are both MPAs located in the north of Malé’ Atoll (refer appendix B). This visitor stayed in Full Moon Maldives where the protected sites are a few hours boat ride from the resort. Visitor participation in any of these activities is related to the visitor’s interests, affordability, availability, safety and accessibility of the location.
It has to be emphasised that due to the geographical dispersion of the Maldives across wide oceans, visits to marine activities and attractions, or the resort operations themselves has to be by sea transport or sea planes. Therefore, ‘mechanised accessibility to tourism experiences’ does not infer that an experience is a lesser ecotourism experience, as long as such experiences offer value-based education, unspoilt nature, conservation and sustainable motives that minimise impacts on an area.

However, it is debatable whether activities like scuba diving, snorkelling and fishing are ecotourism activities due to the significant adverse impacts they have on marine environments such as reef ecosystems (Cater & Cater 2007; Orams 2001; Price et al. 1998). These are widely offered tourist activities. Such activities can also be considered ecotourism if offered with appropriate guidance and information with limits on the number of visitors in a particular area. Fishing as a tourist activity is again controversial because it can be recreational, ‘extractive’ (Weaver & Lawton 2007) and ‘consumptive’ (Duffus & Dearden 1990) while catch and release of fish is also practised or can conflict with other economic activities such as fishing. Weaver and Lawton (2007) believes fishing do not qualify as an ecotourism activity. Price et al. (1998) note that in the Maldives, tourists undertake limited fishing for groper, snapper and barracuda, which are important fishery species. Free access and convenient proximity to nature and environmental activities within the operation or at the surrounding area of the operation do not encourage visitors to spend on ecotourism-related activities, except if they are of high interest or where necessary (refer section 4.3.10).

Across the sample, wide variations do not exist in terms of the type of activities or product experienced by visitors (refer table 4.8). This is because there is a ‘sameness’ (MOT 2005) in the Maldivian tourism product (refer section 2.10.3). Although all operations provided similar nature-based products and activities, there were fewer differences in the focus of the experience and attractions with a fewer number of distinctive products despite an abundance of marine life diversity. In terms of the scale and size of the operations, the resorts that participated in this research were a mixture of very small to large operations (refer appendix H). This matches with scaled variations found in New Zealand ecotourism studies (Higham & Lück 2007) and product diversity in experiences, activities and attractions (Higham & Dickey 2007; Purdie 2006; Salvat & Pailhe 2002).
5.4.1. Environment – a predominant factor

The recognition of the predominance of environment and nature are characteristics of ecotourism demand in coastal and island destination studies (Higham & Dickey 2007; Purdie 2006; Weaver 2004; Buckley 2003; Shah 2002; Halpenny 2001; Weaver 1993). Despite the significance of nature tourism and related marine attractions in the Maldives, remarkably little is practised as ecotourism. This is because of institutional weaknesses and lack of ecotourism policies, planning and strategies, lack of ecotourism accreditation and certification schemes, and inadequate management systems to guide and enhance knowledge development within tourism sector. However, the existing policies on tourism sustainability have relevance as a key basis for ecotourism development. Yet, this research finds that some self-regulating resort operators offer strong elements of ecotourism products as part of their nature tourism product.

Environment as a dominant theme and several sub-samples related to nature activities and environmental factors were frequently identified in this study. This result supports the notion that the general scope of nature-based tourism in the Maldives can be diversified to enhance ecotourism. However, the samples show differences in the visitor in visitors’ classifications of nature activities and the qualities of ecotourism product in the Maldives. This information is generated from visitor activity highlights and lowlights (refer section 4.3.3). A combination of differences and similarities are identified among the factors most liked and disliked by visitors (refer section 4.3.7.1). The factors most liked by visitors (refer table 4.15) are described under the themes of environment, serenity, activities, social factors, quality of service and climate. The factors most disliked by visitors (refer table 4.16) are described under two main sub-themes: management controllable (i.e. poor quality of service, unhygienic conditions, over priced destination, pollution and behaviour of tourist) and management uncontrollable (i.e. climate, pollution, behaviour of natives & coral bleaching). A destination places high importance on supplying attractions and products from its wider ecosystem resource base (Weaver 2004). This indicates that although different operations provide sameness in the product there could be distinctive experiences which yield varying perceptions from visitors. Similar to Purdie’s (2006) study, results in this current study indicate that environmental experience forms the basis of visitor demand and perception in a destination. The diversity in experiences and resources available in the destination should be regarded as an opportunity to strengthen and foster added value in ecotourism-related products.
5.4.2. Improvement in visitor holiday

When asked specifically, the majority of respondents indicated that their holiday in the Maldives could be improved in a number of ways. In order of importance these improvement ideas included: providing more information on the environment and ecotourism, better services and infrastructure, maintaining reasonable prices, preserving the natural environment, improving or increasing environment-related activities and improving pollution and waste disposal (refer table 4.17). Across several sub-samples, the current study finds that education and information is emphasised by visitors. For example, 58.1% (n=137) of visitors to the destination were interested in learning more about ecotourism experiences, 29.7% (n=70) of the visitors did not receive adequate information about environmental issues/and responsible behaviour at their tourist accommodation, 37.8% (n=89) visitors did not receive adequate information from operation staff about ecotourism experiences in the Maldives (refer table 4.14) and 17.1% (n=7) thought that they were not provided with adequate information on environment or ecotourism (refer table 4.11). This last factor is one of the important things that the Maldives’ tourism industry could do to improve their visitors’ holiday experiences. Several visitors also commented about the lack of information and interpretation during guided tours run by their accommodation.

Effective delivery of education and interpretation of information about the environment is important for tourists to gain a better understanding of the environment and to become more conscious of environmental behaviour in tourists (Weaver 2004; Lück 2002; Higham & Carr 2002; Blamey 2001). Often, operators are the first point of contact for visitors to the Maldives. They can directly interact with visitors and facilitate successful learning experiences for the visitors. To achieve long-term environmental benefits, educational experiences can foster an understanding of nature and improve visitor behaviour to help minimise tourist impacts (Buckley 2003; Higham & Carr 2002). Environmental education is commonly practised to some extent in most operations where this study was undertaken, yet it was not satisfactory for some of the tourists, which is why they have felt inadequate educational interpretation during their holiday. It is notable that while some tourists may prefer self-appreciative nature experiences, the availability of learning experiences is importantly one of the main features of a successful ecotourism destination.

Environmental information or sustainable tourism programmes focused for the visitors are undertaken at the tourist operations on an ad hoc basis. Where this research was undertaken, there was less information on the websites about environmental education programmes. According to recent studies, ecotourism operators do not deliver effective of environmental learning opportunities in their marketing campaigns (Price 2003). For instance, the sustainable
practices and credentials of Caribbean and Latin America ecolodges were not included on their websites (Lai & Shafer 2005) - this is very often a similar case with the presentation of information on operators’ websites in the Maldives. Such issues should be addressed to achieve a competitive advantage in the marketplace (Weaver & Lawton 2007). Immediate attention should be given to those issues identified by visitors as areas where their holiday could be improved (refer table 4.17), irrespective of whether or not the visitors consider the Maldives as an ecotourism destination (refer table 4.10). Although the Maldives and Australia are clearly at the top of the list of ecotourism destinations (refer table 4.13) perceived by visitors in this study, Buckley (2003) argues that such destinations cannot be considered as ecotourism destinations unless the operations contribute to conservation in proportion to their size. This is a fairly reasonable argument in order to sustain ecotourism. As explained in section 2.11, the Maldives can model the concepts of ecotourism combined with 3S tourism in the Seychelles (Shah 2002) using preventive measures and learning from the delayed corrective measures from the Galapagos experience (Fennell 2003; Briguglio & Briguglio 2002; Grenier 2002) to develop and achieve success in sustainable ecotourism tourism. Already the Maldives is heading forward as a successful role model in sustainable tourism. The Maldives accommodates to satisfy the sustainable tourism development principles that benefit the private sector (e.g. regulation of environmental issues, environment impact assessments, environment protection and preservation Act of Maldives and declaration of MPAs) (Ali 2002). Nevertheless there is an urgency that similar measures need to be applied at house-hold level and other developmental areas to root in a nationalised culture for sustainable development that will enhance the overall quality of the destination. Sustaining quality eco standards in tourism products is a challenge but tackling the challenges could be reduced if there is integrity and co-operation among the government, community and tourism stakeholders.

5.5. The New Environmental Paradigm (NEP)

The NEP scale was explained in detail in Chapter Three. It was observed that the NEP scale has been applied and tested in a few tourism studies. NEP research indicates that it is a valid and reliable measure (Lück 2003). The key element from the NEP study within this research is that it establishes links between environmental values, NEP and ecotourism. This is confirmed from the factor analyses and the mean analyses for both studies (refer section 4.4.1). The dominance of the eccocentric view is present for most of the variables and this clearly determines the values and attitudes of tourists towards the environment. Undoubtedly, the highest acceptance of the NEP was shown by Europeans as this corresponds with the largest demographic segment in this study (refer table 4.1). Since there is a general increase in the awareness of the environment amongst tourists, it cannot be assumed that the lower number of eco/nature tourists (8.9%, n=21) to the
Maldives (refer table 4.7), most of whom said that they were members of nature or environment groups (i.e. World Wide Fund for Nature and Green Peace) would only be of concern for the environment (refer table 4.6).

The response analysis for Question 13 (refer section 4.4.2) is reproduced to compliment the results of NEP variables. The results reveal that 79.9% of visitors were significantly concerned by the global human-made interventions to the environmental. They suggest various serious issues, including ‘pollution’ (36.2%, n=68), ‘Co2 emissions’ (21.8%, n=41), ‘global warming’ (18.1%, n=34), ‘deforestation’ (12.2%, n=23), ‘exploitation of natural resources’ (12.2%, n=23), ‘rubbish’/ ‘waste’ (10.1%, n=19), ‘climate change’ (5.9%, n=11) and ‘damage to the ozone layer’ (4.3%, n=8) (refer table 4.21). Some of these key global issues are of great concern for visitors to the Maldives. The various samples of this research, show that visitors have included direct ‘tourism impact on environment’ (31.7%, n=13), ‘tourism imports including food miles and carbon emissions’ (26.8%, n=11), ‘modernisation of island tourism’ (26.8%, n=9), (refer table 4.11) ‘pollution’ (7.8%, n=14 and 15.1%, n=27), ‘climate’ (17.3%, n=31), ‘coral bleaching’ (3.4%, n=6) behaviour of natives (4.5%, n=8) and behaviour of tourists (3.9%, n=7) (refer table 4.16) all of which are directly related to human-made interventions to nature whether through tourism or non-tourism activities. NEP values are again reflected where visitors indicated ‘preserve nature and environment’ (10.3%, n=15), improve and or increase environment friendly activities’ (9.7%, n=14), ‘improve pollution and waste disposal’ (9.7%, n=14) (refer table 4.17), and ‘I prefer a sustainably managed place when choosing a holiday destination’ (55.9%, n=132) (refer section 4.3.6). The results conclude that the notion of the NEP scale is relevant to describe the characteristics of visitors’ environmental values to the Maldives and these are very closely associated with ecotourism elements irrespective of the large mainstream market in the Maldives.

5.6. Summary

Across different visitor samples, this research finds some generic themes and issues that are hybrids of nature and ecotourism. These include visitor focus on elements like nature-based attractions and activities, environmental conservation, environmental information, climatic conditions and tourism impacts. Visitors had considerably high satisfaction levels with their general holiday experiences, which is inclusive of the relatively similar experiences received at various operations. However, it could be inappropriate to label the Maldives as a total ecotourism destination based on visitors’ high satisfaction level and highly likable experiences of nature only, although 74.2% (n=175) indicated that they considered the Maldives as an ecotourism destination.
An apparent lack of appreciation, knowledge of potential ecotourism as a diversified tourism product and less priority to develop ecotourism in the Maldives by the state government and tourism industry stakeholders is one of the reasons that ecotourism has not achieved prominence. This research indicates strategic planning, assessing and strengthen environmental education for hosts and guests, information and knowledgeable guides/interpretation, minimal infrastructure development, maximising commercial and community benefits, and continuous resource management, monitoring and evaluation, as crucial for successful ecotourism development. This is especially so in remote areas where international tourism could contribute to conservation and positive changes in community life.

The current use of NEP-applied research strongly endorses the environmental values by the visitors. The results of the NEP in both Higham et al’s (2001) and the current study confirm that visitors have moved from an anthropocentric to an ecocentric worldview, which therefore implies a latent market for ecotourism experiences in the Maldives that can be fostered. Overall, the discussion, and results clearly indicate the significant potential demand for ecotourism in the Maldives, strongly supported by the visitor perceptions of the destination. Therefore, it is apparent from the core findings that, with the existence of natural capital as a national tourism asset, the Maldivian tourism have the potential to develop an ecotourism direction based on nature tourism experiences and the visitor profiles of this study. Although the visitor’s considered the Maldives to be an ecotourism destination in the broad sense, providing resources that could be adapted to the ecotourism market is essential.

The final chapter summarises how the objectives of this research were met. It also draws conclusions and recommendations relating to this project and to areas of future research.
Chapter 6  Recommendations and Conclusion

“The future we seek is one where biodiversity contributes to the wonders of our lives, and the proper management of natural resources provides sustained economic benefit” by H.E. Maumoon Abdul Gayoom, President of the Republic of Maldives (Gayoom 2007: 7).

6.1.  Introduction

In this chapter the key research objectives are addressed in terms of ecotourism resources with a focus on the key results and conclusions. This is followed by the presentation of several recommendations which would be potentially beneficial to the future development of ecotourism in the Maldives’ tourism sector and some suggestions about areas for future research in ecotourism.

This research presents data on visitors’ demand and perceptions of ecotourism experiences from their holiday experiences of the Maldivian tourism product. As a primary step, the research identified the directions in which the Maldivian ecotourism product could be developed given that nature-based tourism is already a driving force in the Maldives. This research found that a number of tourists consider the Maldives to be an ecotourism destination and have experienced ecotourism there, but may not realise how effectively these experiences reflect themselves due to the primary component of mainstream tourism and its associated recreational products (e.g. beach, diving and honeymoon). Therefore, to gain maximum advantage from potential ecotourism business the tourism industry needs to have a thorough understanding of current markets as well as seeking a niche segment for eco-attractions (Wilson et al. 2006). Ecotourism attractions such as Marine Protected Areas (MPAs), coral ecosystems, marine wildlife, nesting of marine turtles, whale and dolphin watching, bird sanctuary islands and atoll cruising have significant ecotourism potential if they are developed in a desirable manner. In the Maldives, there are relatively few operators offering direct ecotourism experiences compared to other similar destinations but this research highlights the scope for such experiences and the potential ecotourism resources that could be further explored and adapted using ecotourism principles.

This research investigated visitors’ demands and perspective of ecotourism experiences in the Maldives. The study described the destination’s ecotourism characteristics and certain ecotourism traits in visitor profiles that complement ecotourism concepts. The nature-based attributes of the Maldives provide an ideal setting which has latent potential in ecotourism development.
Furthermore, as the literature review suggests, ecotourism has significant ability not only to meet suitable or minimum standards of environmental protection, but to ensure best practice standards because of its dependence on the environment and tourism planners and managers’ obligations to maintain a healthy environment. This is why ecotourism fits with future development aspirations for the Maldives. Meeting development and conservation challenges ahead is not an impossible task if all of the Maldives’ tourism stakeholders participate to protect the islands’ ecologically sensitive resources for the future and their sustainable use within a practicable framework. This is achievable with the successful application of ecotourism principles (Weaver 2004; Briguglio & Briguglio 2002; Wood 2002; Page & Dowling 2002; Orams 2001, 1995; Beeton 1998; Blamey 1997; Dowling 1996; Buckley 1994).

The world tourism industry in general is growing with a relatively fast-growing marine ecotourism segment (Garrod & Wilson 2005). Tourism in the Maldives has been found to have a diverse supply of marine attractions in terms of its marine resources (Cater and Cater 2007; UNEP 2005; Lew 2001; Price et al. 1998) and this current study reveals the significance of the demand for ecotourism in the destination. Despite the potential of the Maldives as an ecotourism destination, some crucial factors like inadequate tourism research and human resources, lack of ecotourism accreditation, institutional capability, lack of conservation management and environmental enforcement, and unfocused branding or ecotourism promotion (TTMP 2007, UNEP 2005; Rajasuriya et al. 2000; Pernetta 1992; Price et al. 1998) hamper the Maldives ability to adapt to ecotourism. This research also found that only a few operators specialise in ecotourism-based nature activities.

6.2. Revisiting the key research objectives

In order to address the key research objectives, the research questions were:

1. What are visitors’ demands for nature tourism experiences in the Maldives?
2. What are visitors’ perspectives of nature tourism experiences in the Maldives?

This research has addressed visitor demand and perspectives of ecotourism from via empirical survey of visitors to the destination, primarily through an evaluation of the nature-based experiences offered in the Maldives’ tourism resort sector. The key research objectives and issues that relate to the Maldives ecotourism resources are discussed in the following sections.
6.2.1. Visitor demand on the Maldives ecotourism resources

The Maldives has a rich natural resource base; particularly its seascapes, marine environments with marine mammals, coral reefs, coral caves, and geographical distinctiveness as an island archipelago, warm temperate climate and serenity. These are key attractions for several thousand visitors every year (refer section 4.3.7.1). The marine environment of the destination represents a significant element of ecotourism, most notably varied fish species, flora and fauna, extensive coral reefs, sharks, dolphins, whales, rare species of birds and turtles and inland ecological environments such as island vegetation, wetlands and mangroves (refer sections 2.10.3.1, 2.10.3.2, 4.3.7.1 & table 4.11). Coral gardens and the cultivation of native plants and herbs are gradually being given importance by some operations (refer section 2.10.3.2). These ‘natural endowments’ (Conway 2004: 189) can potentially provide ecotourism opportunities for ‘non-consumptive’ and ‘non-exploitive’ use (Detlefsen et al. 2005; Duffus & Dearden 1990). The features of nature, and the formation and shapes of the islands differ inter-regionally. Access to resources for ecotourism use should harmonise both conservation and education for guests and hosts. Successful ecotourism can be achieved if sustainable ecotourism principles are adopted more responsibly by all stakeholders (Orams 2001).

Already successful models of commercial ecotourism enterprises are found in some resort destinations within the Maldives (Buckley 2003). From the resorts’ websites information collected for this study identified three operations that directly promote their business or product as ecotourism. The foci of ecotourism visitor experiences in these operations are observation, conservation advocacy, science and research, interpretation, visitor education, and raising public awareness as advocated in Higham and Carr (2003). An additional aspect of ecotourism in these operations is their contribution to the society (refer section 2.10.4), which is also a feature of community ecotourism. Most of the operations surveyed in this study primarily offer a general nature-based tourism product themed with environmentally friendly and responsible tourism that is in harmony with nature. Although they do not promote their products directly as ecotourism, most of them implement environmental and socially sustainable practises at an operational level largely because of government regulations and a philosophy of co-operative responsibility. The island resort settings in the Maldives are extensively modified, which may contradict the notion of ecotourism. This is why a soft ecotourism spectrum (Orams 2001) is more applicable in these resort operations. There are also other remote undeveloped areas of the destination, which are unmodified natural settings (refer table 2.3) where potential hard or specialist ecotourists (Orams 2001) who cause minimal damages could be targeted in educational ecotours. Such settings may
require minimal infrastructural modifications to manage and develop access for tourists. As Higham and Carr (2003: 23) note:

“Ecotourism operations need not be restricted to unmodified, undeveloped, sensitive or pristine environments”.

On the other hand, there are many ecotourism destinations that are significantly modified (Butler 2001; Lawton & Weaver 2001). Now that the Maldives has been opened up for extensive tourism development, along the lines of Higham et al. (2001), its remote potential ecotourism areas could be fostered to develop appropriately, and to offer opportunities for commercial and community benefit. An approach to Maldivian community participation in conservation, decision making and management could create partnerships among government agencies, local communities and other resource users (Robinson 2001). Much research advocates that the fragile environment may impose specific limits to development (Weaver 2004; McElroy 2002; Halpenny 2001; Weaver 1993) yet ecotourism is advantageous as it can bring sustainability, potentially deliver limited economic development based on the environment and enhance cultural values through conservation (Butcher 2007). This indicates that there is the possibility for opportunity cost (e.g. educational and monetary contribution from ecotours for conservation and the community) in ecotourism in the Maldives. Another key reason for ecotourism development in remote local areas is to bring economic development for self-empowerment, to end corrupt control by local government officials and to protect species in the area, which is possible with knowledge enhancement. To guide a community in ecotourism development, tourism education is important; ecotourism characteristics, its operation, benefits and costs could help build community confidence levels and create motivation to care for and respect local resources.

6.2.2. Visitor perspectives on the Maldives ecotourism resources

The presumption that the Maldives is already considered to be an ecotourism destination by 74.2% (n=175) of visitors surveyed in this study is relatively fair. Although the standard resort developments are highly modified settings they exhibit sustainable and ecological criteria to ensure greater satisfaction for visitors (Chirgwin & Hughes 1997). However, whether this is ‘proportional to the size of the operation’ (Buckley 2003) is questionable. Visitors in this survey experienced self-derived ecotourism experiences in the nature setting of the destination. It may not be possible to have a total ecotourism experience without linking all of the allied sectors through comprehensive strategies at a national policy level. However, as Buckley (1994) noted an operable framework contextual to the sensitivity of the environment could be workable. Owing to the fact that a larger degree of attention is given to the sustainability and environmental
friendliness of some self-sufficient, regulated and responsible resort operations in this study, it appears that Buckley’s (2003) claim cannot be rejected. Weaver (2004) notes that it is paradoxical that some owners are financially more able to support and manage high-quality ecotourism experiences, which is why a strategically operable framework is necessary if the Maldives is to diversify on the ecotourism spectrum.

The Maldives’ natural environment is the key reason visitors consider it as a destination where there is ecotourism (refer section 5.3), and it is also the main resource for potential ecotourism. Environmental impacts of ecotourism can be both negative and positive (Croy and Høgh 2003). Ecotourism activities and the motivations of visitors are strongly linked to nature and the survey results show subcategories of visitor concerns about direct tourism impact (31.7%, n=13), tourism imports (26.8%=11), the modernisation of tourism (22%, n=9) and no adequate environment/ecotourism information (17.1%, n=7). These factors are a variety of reasons (n=40) not to consider the Maldives as an ecotourism destination (refer table 4.11). These are key reasons why some visitors do not consider the Maldives to be an ecotourism destination. Negative environmental impacts would affect visitor perspectives and demand to visit a destination, as highlighted in section 6.3.1.

With the absence of adherence to the three core principles (refer section 2.6) in 3S tourism (Weaver 2004), the other central features of the pro-ecotourism argument are to balance profit and conservation (McKercher 1998) and provide economic resources for conservation (Shah 2002; Buckley 1994). Like any industry, tourism has its positive and negative sides, which can bring potential threats to environments as well as conservation management benefits from tourism contributions. Effective education initiatives in ecotourism businesses should be planned with feedback mechanisms to tailor both the nature of the activity and visitor markets (Purdie 2006). The key finding of this study is that ecotourism in the Maldives could be practicable as a tool for environmental education and sustainability in protection, preservation and conservation of resources. The research participants may not have been aware of the concept of ecotourism in detail but they considered the Maldives to be an ecotourism destination - a consistent, positive finding strongly represented and confirmed by the majority of the visitors.
6.3. **Environmental and ecotourism challenges**

As explained in the literature review (refer section 2.10.3.1), the Maldives has definite potential to offer a wide variety of marine resources, including marine wildlife and Marine Protected Areas (MPAs) as ecotourism attractions. Currently such areas in the Maldives lack an adequate management system due to professional, financial and capacity constraints. However, an environment management system is expected to be introduced to every tourist resort soon by the Ministry of Home Affairs and Housing and Environment as a regulatory measure which will be recognised in destination service listings (TTMP 2007). This could create an environmental information path for the visitor assisting in market diversification for special interest travel and in particular for ecotourism. In terms of developing ecotourism product in the destination, it is important to capitalise on the strengths of marine environmental attractions and activities including conservation and education of such resources.

The concept of natural capital (refer section 2.10.3) strongly advocates how things should be both implicitly and explicitly in ecotourism as sustainable development for the developing countries (Butcher 2007; Fennell 2003; Honey 1999). As a growing small island tourism destination, the Maldives is continually challenged to maintain a balance between its natural capital and not to over-exploit resources for tourism development. There are also some positive environmental benefits from ecotourism that include conservation, restoration of natural environments and environmental education of the local community and guests. The role of tourism growth has long been recognised as grounds for sustainable development and many such policies are integrated in different areas of tourism development in the Maldives but these needs to be strengthened, monitored, evaluated and well-managed in detail to minimise tourism impacts. Preventive and corrective measures (Briguglio & Briguglio 2002) have to be cautious and continuous to achieve successful ecotourism without compromising short-term ecotourism sustainability goals for socio-economic benefits (Higham & Lück 2007).

6.3.1. **Global environmental concerns and ecotourism in the Maldives**

As highlighted in the literature review and visitor survey findings, the destination is certainly vulnerable to environmental threats such as global sea level rises, climatic change, coral bleaching and natural catastrophes like the 2004 Asian tsunami. In the past, these have impacted on tourism and while the industry has proved to be resilient, these factors are constant threats. To mitigate environmental impacts, operations have undertaken environmental measures (e.g. improvement in sewage treatment and pollution controls) mainly arising from adaptation of tourism...
development legislation (Buckley 2003) in the Maldives. These impacts are controlled at a national level, but the threats from natural disasters and global emissions are unavoidable and they require joint actions at international and national levels.

The Maldives do not significantly contribute to carbon emissions within the country but encouraging long-haul tourism contributes through aviation emissions. Aviation is the most destructive form of global warming (Higham & Lück 2007). Thus Global Environment Change (GEC) (Gössling 2007) is a compromised and complicated factor in the long-term health and quality of the environment that could degrade not only ecotourism attributes but all types of tourism in the Maldives and elsewhere. This does not mean that the solution is for ecotourists to remain at home. A clear and detailed agenda to reduce carbon footprints from airborne tourism could be beneficial to maintain a healthy environment for the future by reducing or limiting the number of unproductive/unprofitable flight movements in/out of the Maldives. However, care should be taken that these factors could cause an economic downturn for a country that heavily relies on tourism, and result in plummeting tourism revenues, unemployment and the negation of current tourism development policies. Conversely, the Maldives could progressively initiate such an agenda to set an example, which could be advantageous for building an ecotourism brand and image, and in marketing the destination in future.

6.4. **Recommendations**

Ecotourism could potentially set a higher standard for the general Maldivian tourism industry based on the fundamental blocks of sustainable tourism development, which are already adapted in the Maldives. The sustainable environmental and tourism guidelines can complement ecotourism development. With relevance to the current study, it is likely that an ecotourism market could be tapped in the Maldives. However, the ecotourism products, activities and experiences are limited in the tourism industry because the key tourism stakeholders are not sufficiently knowledgeable about ecotourism nor are there any specific ecotourism policies. Establishment and identification of complementary ecotourism products and experiences in the Maldives could add value to the current mainstream market.

It is crucial that ecotourism product development, within or away from resort operations, requires strengthening the supply-side of a tourism destination (refer section 2.10). Particularly, ecotourism knowledge enhancement should not be limited to local communities and guests but to all stakeholders. Managers and planners should undertake adequate impact assessment and planning for ecotourism so that it does not undermine natural capital (refer section 2.10.3)
In tourism diversification, activities that pose a threat to the long-term sustainability of the environment should be minimised or ceased until suitable alternatives are found. Alternative eco-friendly and complementary activities need be explored to attract ecotourism visitors. This would benefit the entire society and protect sensitive resources. Increased numbers of motor-powered sea planes, jet skis and engine boats are certainly playing an important role by facilitating accessibility in domestic waters but they are also a significant disturbance to marine life and may tarnish possible branding or images incompatible with ecotourism. Concurrently, as a model destination, increased carbon footprints from airborne tourism into the country should be decreased strategically by reducing the number of flight movements in and out of the country and consequently targeting an ecotourism market that could possibly assist in building an ecotourism brand for the destination.

In order to embark on ecotourism development, it is essential to concentrate on continuous improvements in the environmentally-sensitive, nature-based tourism experience or product offered to visitors which could be incorporated into the destination’s tourism promotion and national sustainable development goals. For example, in the Maldives, activities like dumping are prohibited. Stringent enforcement is required where adherence to regulations is weak. Yet a national importation and production ban on plastic bags and an establishment of a garbage recycle system could prevent further damage to coral reefs. The development of ecotourism could largely reflect the interests of tourism stakeholders who could form an ecotourism advisory consultation group to capitalise on the diversification of resources while aiming for conservation and sustainability. This would possibly encourage future vision, research, environmental lobbying, networking and discussions for marketing activities.

The possibility to encourage communities’ participation to conserve potential ecotourism development areas could be made into innovative exercise. Tourism-related authorities at a national level could study and explore the conservation of potential World Heritage sites in the Maldives taking into account the unique marine ecosystem (refer 2.10.3.2). Such a project could ensure community involvement by bringing symbiosis of resource protection through conservation efforts (UNESCO 2008). Funding for conservation could be mobilised through tourist visits that should bring monetary benefits to the local community as well as a motive to protect resources that are attractive to the visitor. Such a venture should be supplemented by adequate tourism supervision, research, knowledge and information for Maldives’ communities and guests. Additionally, with professional guidance, it is possible to maintain community atoll websites with details on tourism attractions, information and services – this is currently missing in the Maldives. In a similar aspect, successful initiatives elsewhere such as the formation of
industry ecotourism association and accreditation programmes such as Nature and Ecotourism Accreditation Programme (NEAP) could effectively guide concept and information delivery for stakeholders and communities (refer section 2.12).

6.5. **Future research**

Future research is important for destination managers and business entrepreneurs prior to embarking on a new product. It is advisable to analyse the risk factor of an investment as much as the possible yield gained from profit or loss. Research on the economic implications of providing ecotourism as an effective way to diversify tourism products is important for small island developing states that are heavily dependent on tourism. It would be useful if future studies could identify and develop a practicable framework that would be workable in a Maldivian context to operate successful ecotourism. Such an approach could raise awareness amongst key tourism stakeholders about lucrative ecotourism businesses’ success and failures.

This research recognises that sub-samples of the visitors perceived that there was a lack of educational or environmental information. Since education is one of the important principles of ecotourism, research initiatives could examine the effectiveness of interpretation/learning elements and activities currently offered in the destination. A detailed review of educational tours, activities and environmental information would enable stakeholders to understand constraints in the industry and implement remedial measures to provide further educational ecotourism experiences.

Finally, considering the dynamism of the Maldivian tourism industry with its progressive expansion, it could be worthwhile undertaking further research to assess the current and potential ecotourism operational practices in the destination. This could offer future insights into ecotourism in the Maldives to establish comparative outlooks for further improvements in the sector where necessary.

6.6. **Concluding remarks**

Of the limited resources in the Maldives, natural capital is the most valued and vulnerable. The government, tourism managers and operators, communities and guests have high expectations of the return benefits of natural resources. This is why most operations in the Maldives work to achieve a coexistence of visitor satisfaction and protection of resources. The tourism development in the Maldives has been embedded in the environmental goals set by authorities
and the managers/operators and yet more needs to be done as tourism is an evolving industry. The current research findings imply that the Maldives indeed has latent potential for ecotourism development which could assist in market and product diversification. It should also be emphasised that these are positive factors despite numerous visitors’ responses indicating a need for industry improvements.

The pathway for ecotourism in the Maldives could follow a combination of a sustainable tourism development approach while adapting to generally-accepted ecotourism principles to develop realistic and practicable ecotourism products from the country’s diverse marine resources. It is of central importance to strategise, direct and guide ecotourism development in the Maldives’. In terms of the environment, it needs to be strengthened and improved in several ways; through knowledge about ecotourism, effective delivery of education and interpretation of the environment, maximisation of commercial and community ecotourism, continuous monitoring, enforcement, evaluation and management of resources including conservation, and improved institutional capacity and human resources in environment and ecotourism-related areas. This study suggests some recommendations that could help future directions towards ecotourism development in the Maldives. Furthermore, it is to be stressed here that the destination may not withstand a total ecotourism sector but could be able to gradually adapt ecotourism as a complementary value-based approach to the mainstream tourism market. Subsequently, it is likely that visitors to the destination may favour product diversification in ecotourism. Finally, this study presents detailed insights into visitors’ demand and perspectives of ecotourism in the Maldives that may assist in preserving the environment if development of ecotourism follows in future. Hence, to diversify the Maldivian tourism product in line with ecotourism, it is essential that tourism stakeholders are committed to meeting future sustainable ecotourism challenges.
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Reference list for resort sample set (refer Appendix H)


Appendices

APPENDIX A Principles of Ecotourism

- Minimise the negative impacts on nature and culture that can damage a destination.
- Educate the traveller on the importance of conservation.
- Stress the importance of responsible business, which works cooperatively with local authorities and people to meet local needs and deliver conservation benefits.
- Direct revenues to the conservation and management of natural and protected areas.
- Emphasize the need for regional tourism zoning and for visitor management plans designed for either regions or natural areas that are slated to become eco-destinations.
- Emphasise use of environmental and social base-line studies as well as long-term monitoring programs, to assess and minimize impacts.
- Strive to maximise economic benefit for the host country, local business and communities, particularly peoples living in and adjacent to natural and protected areas.
- Seek to ensure that tourism development does not exceed the social and environmental limits of acceptable change as determined by researchers in cooperation with local residents.
- Rely on infrastructure that has been developed in harmony with the environment, minimizing use of fossil fuels, conserving local plants and wildlife, blending with the natural and cultural environment.

### APPENDIX B Marine Protected Areas (MPAs) in the Maldives

<table>
<thead>
<tr>
<th>Geographic location / administrative names in brackets</th>
<th>Marine Protected Area with original names</th>
<th>Alternative names</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. North Maalhosmadulu (Raa Atoll)</td>
<td>1. Vilingili Thila</td>
<td></td>
</tr>
<tr>
<td>2. South Maalhosmadulu (Baa Atoll)</td>
<td>2. Dhigali Haa / Horubadhoo Thila</td>
<td></td>
</tr>
<tr>
<td>3. Faadhippolhu (Lhaviyani Atoll)</td>
<td>3. Fusheevaru Thila</td>
<td>Kuredu Express</td>
</tr>
<tr>
<td></td>
<td>4. Kureddhoo Kandu Olhi</td>
<td></td>
</tr>
<tr>
<td>4. Male’ Atoll (Kaafu Atoll)</td>
<td>5. Makunudhoo Kandu Olhi</td>
<td>Kuda Faru Rasfari</td>
</tr>
<tr>
<td></td>
<td>6. Rasfaree and the enclosed reef</td>
<td>HP Reef</td>
</tr>
<tr>
<td></td>
<td>7. Thamburudhoo Thila</td>
<td>Banana Reef</td>
</tr>
<tr>
<td></td>
<td>8. Gaathugiri / Ad’dhashugiri</td>
<td>Lions Head</td>
</tr>
<tr>
<td></td>
<td>9. Giraavaru Kuda Haa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. Dhekunu Thilafalhuge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Kollavanee in the centre of Gulhifalhu</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12. Emboodhoo Kandu Olhi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13. Guraidhoo Kandu Olhi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14. Lanakan Thila</td>
<td></td>
</tr>
<tr>
<td>5. North Ari Atoll (Alifu Alifu Atoll)</td>
<td>15. Maaya Thila</td>
<td>Fish Head</td>
</tr>
<tr>
<td></td>
<td>16. Orimas Thila</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17. Mushimasmigili Thila</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18. Karibeyru Thila</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20. Faruhuruvalhibeyru</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22. Vattaru Kandu</td>
<td></td>
</tr>
<tr>
<td>8. Mulaku Atoll (Meemu Atoll)</td>
<td>23. Lhazikuraadi</td>
<td>Hakura Thila</td>
</tr>
<tr>
<td>10. South Nilandhe Atoll (Dhaalu Atoll)</td>
<td>25. Fushi Kandu</td>
<td></td>
</tr>
</tbody>
</table>

*Adapted from (UNEP 2007:51 & Godfrey 2004: 07-47)*
## APPENDIX C  Ecotourism status of Cousin Island and Galapagos Islands

<table>
<thead>
<tr>
<th></th>
<th>Seychelles</th>
<th>Galapagos Islands, Ecuador</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographic Location</strong></td>
<td>Indian Ocean</td>
<td>1000 km off west coast of South America</td>
</tr>
<tr>
<td><strong>Land Area</strong></td>
<td>455 sq km</td>
<td>8000 sq km</td>
</tr>
<tr>
<td><strong>No of Islands</strong></td>
<td>115 Islands</td>
<td>120 Islands</td>
</tr>
<tr>
<td><strong>Cousin Island</strong></td>
<td>1968 – Nature Reserve</td>
<td>1975 – Special Reserve</td>
</tr>
<tr>
<td><strong>Dates of Important</strong></td>
<td>1998 – Conservation of the island integrated in local NGO programme</td>
<td>1998 – Conservation of the Island integrated in local NGO programme</td>
</tr>
<tr>
<td><strong>Designations</strong></td>
<td></td>
<td>1959 – Charles Darwin Research Station</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1979 – The Galapagos National Park Classified as UNESCO World Heritage Site</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1984 – Man And Biosphere Reserve</td>
</tr>
<tr>
<td><strong>International Tourism</strong></td>
<td>10% of all visitors to the Seychelles visit this Island. 1999 - 10,600 tourists visited.</td>
<td>1960s – 1990s: the growth in tourism and resulting impacts on environmental worried researchers and naturalists. 2002 – 80,000 tourists visited.</td>
</tr>
<tr>
<td><strong>Types of Tourism</strong></td>
<td>1. Ecotourism in Cousin Island</td>
<td>1. Ecotourism – emphasis on nature &amp; natural resources</td>
</tr>
<tr>
<td></td>
<td>2. Conventional 3S tourism in other parts of the country</td>
<td>2. Mass tourism – poorly organised and regulated</td>
</tr>
<tr>
<td><strong>Ecotourism</strong></td>
<td>Products based on unique island ecosystem; several species of animals/plants; threatened Seychelles warbler, hawksbill turtles, giant tortoise, forest &amp; coral reef. Priority on high quality tourism products.</td>
<td>Ecological diversities; giant tortoise, ideal for walk, horse riding, snorkelling, surfing, canoeing, sailing &amp; observation.</td>
</tr>
<tr>
<td><strong>Products/activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ecotourism</strong></td>
<td>Due to the potentially high ecotourism interests, the island is not formally marketed, rather an information brochure is produced to disseminate among the visitors. Scientific research on the island has given international attention.</td>
<td>Popular visitor names of the past like William Dampier, Charles Darwin, Herman Melville, Thor Heyerdahl are attached to sell ecotourism products. Western scientists and writers have popularised it as an ecotourism destination.</td>
</tr>
<tr>
<td><strong>Marketing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Visitor Perceptions</strong></td>
<td>1.High quality of experience</td>
<td>1.Uniqueness of the Island is understood only by minority of visitors</td>
</tr>
<tr>
<td></td>
<td>2.Majority of the visitors rated the tour as interesting, educative, informative and well organized</td>
<td>2. Motivation of the majority of the visitors’ were disconnected from the reality of the destination</td>
</tr>
<tr>
<td></td>
<td>3. Minority of the visitors stated time on the island as insufficient.</td>
<td>3. Visitors were not able to understand or experience the distinctive features of the island due to short stay and lack of environmental awareness</td>
</tr>
</tbody>
</table>
### Main Constraints / Achievements as an ecotourism destination

<table>
<thead>
<tr>
<th>Constraints / Achievements</th>
<th>Cousin Island</th>
<th>Ecuadorian Govt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodiversity, ecotourism, protection, conservation, financial achievements</td>
<td>exhibits</td>
<td>not keen to set limits on tourist numbers due to its economic benefits</td>
</tr>
<tr>
<td>Stakeholder participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Island managed as an exemplary ecotourism destination and other similar protected areas exist in the country</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seychelles recognised as a positive force for biodiversity conservation in successful tourism business where ecotourism has further growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Environmental disturbances

<table>
<thead>
<tr>
<th>Disturbances</th>
<th>Measures undertaken to minimise tourism impacts. Successful in managing biodiversity, ecotourism, protection and conservation related issues.</th>
<th>Introduction of non-native plant, species/animals, catch and release of sports fishing under conservation, industrial fishing, pollution, dumping of garbage, erosions, over-use of trails &amp; harvest of black corals for souvenirs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced risk of environmental exploitation as the site is managed by locals.</td>
<td>1. Several measures are undertaken to minimise tourism impacts. Successful in managing biodiversity, ecotourism, protection and conservation related issues. 2. Reduced risk of environmental exploitation as the site is managed by locals.</td>
<td>1. Introduction of non-native plant, species/animals, catch and release of sports fishing under conservation, industrial fishing, pollution, dumping of garbage, erosions, over-use of trails &amp; harvest of black corals for souvenirs.</td>
</tr>
</tbody>
</table>

### Human disturbances

<table>
<thead>
<tr>
<th>Disturbances</th>
<th>Site wardens tightly control increased tourism activities limiting 30 – 70 tourists per day. 2. Able to manage disturbances with greater community, local, national and international involvements.</th>
<th>Realising tourism prospects, native settlements in 3% of the archipelago required additional infrastructures.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Site wardens tightly control increased tourism activities limiting 30 – 70 tourists per day. 2. Able to manage disturbances with greater community, local, national and international involvements.</td>
<td>1. Realising tourism prospects, native settlements in 3% of the archipelago required additional infrastructures.</td>
</tr>
<tr>
<td></td>
<td>1. Site wardens tightly control increased tourism activities limiting 30 – 70 tourists per day. 2. Able to manage disturbances with greater community, local, national and international involvements.</td>
<td>2. Site managers loosely control the official limit of 90 tourists on an island</td>
</tr>
</tbody>
</table>

### Conservation Funds

<table>
<thead>
<tr>
<th>Funds</th>
<th>Sufficient financial sustainability through conservation funds are raised from tourist visitations</th>
<th>Collection of high park fees and donations are considered substantial for its conservation projects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sufficient financial sustainability through conservation funds are raised from tourist visitations</td>
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</tr>
</tbody>
</table>

### Future of Ecotourism

<table>
<thead>
<tr>
<th>Future</th>
<th>Policies for Cousin are linked with national tourism plan. The government recognises new categories of growing tourist markets (e.g. recreational and scientific visitors)</th>
<th>Future optimism in development policies and plans for Galapagos ecotourism is expected to strategise land use for conservation, human settlements, community support, extend protected areas &amp; ban on industrial fishing (selected species).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Source: Adapted from (Fennell 2003; Briguglio & Briguglio 2002; Grenier 2002; Shah 2002; Tyler 2002 & Honey 1999)
Dear Visitor,

My name is Ikleela Ismail and I am studying for a Masters in Tourism at the University of Otago, Dunedin, New Zealand. As part of my studies, I am conducting a survey to examine tourism experiences in the Maldives. The main objectives are to study nature based tourism and “ecotourism experiences of tourists in the Maldives. "Ecotourism is defined as ‘... environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features – both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socioeconomic involvement of local populations” by IUCN (now World Conservation Union).

I would like to ask for five minutes of your valuable holiday time to fill in this questionnaire. Your participation is vital for the success of this survey. Please complete the questionnaire, seal it in the enclosed envelope and return it to the reception staff at your accommodation. Your accommodation is referred to as a resort/hotel in the Maldives where you stayed for most part of your holiday.

If you wish, you could go into the prize draw for Books, Music CDs and Local Souvenirs of the Maldives by clearly filling in your name and address at the end of this questionnaire. Respondent anonymity is ensured and individuals will not be identified. The data will be used in aggregated form only and will be treated confidentially.

I wish you a memorable holiday in the Maldives.

Thank you.

Ikleela Ismail, Masters of Tourism student - ismik830@student.otago.ac.nz
Supervisor: Dr. Anna Carr - acarr@business.otago.ac.nz
Section A: This section asks about your holiday experience in the Maldives

1) Is this your first visit to the Maldives?  1. YES □  2. NO □  *(Please tick only one)*
   If NO how many times have you visited the Maldives before? .................................................................

2) What is the primary purpose of this visit?  *(Please tick only one)*
   a) Wedding / Honeymoon □
   b) Spa / Health / Wellness □
   c) *Ecotourism / Nature Tourism* □
   d) Sun / Beach □
   e) Adventure / Recreation □
   f) Business / Conference □
   g) Others (please specify) ..........................................................................................................................
   *Ecotourism definition is given in first page

3) What are the nature-related activities that you experienced during this stay in the Maldives? *(Please tick as many responses as applicable)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Tick activities experienced</th>
<th>Is it an ecotourism activity for you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Scuba Diving</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>c) Snorkelling</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>e) Scenic flights</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>g) Submarine touring</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>i) Dolphin watching</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>k) Shark watching</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>m) Turtle nesting</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>o) Learning about native flora &amp; fauna</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>q) Conservation projects (Example: tree planting etc)</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>s) Visited mangroves / wet lands in another island (specify)</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>t) Visited marine protected area (specify)</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>u) Others (specify)</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>r) Visited marine museum in Male' city</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

4) Do you consider the Maldives to be an *ecotourism destination?  1) YES □  2) NO □
   1) If YES please explain why? ..........................................................................................................
   .................................................................................................................................
   2) If NO please explain why not? ........................................................................................................
   .................................................................................................................................

5) Please give two examples of a place that you think is an *ecotourism destination:
   1) .................................................................................................................................
   2) .................................................................................................................................
6) Please indicate to what extent you agree or disagree with the following statements about the Maldives. (Please circle one number only)

<table>
<thead>
<tr>
<th>1= Strongly Disagree</th>
<th>2= Mildly Disagree</th>
<th>3=Neutral</th>
<th>4= Mildly Agree</th>
<th>5= Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) I prefer a sustainably managed place when choosing a holiday destination</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) I am interested in learning more about ecotourism experiences in the Maldives</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) I felt I had an ecotourism experience while in the Maldives</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) I was adequately informed about environmental issues and / or environmentally responsible behaviour at my accommodation</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) The accommodation staff / guide provided information about ecotourism experiences in the Maldives</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) I had an undisturbed nature experience in the Maldives</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7) Are you satisfied with your general holiday experience on this visit to the Maldives?
   1) YES ☐ 2) NO ☐

8) During your holiday experience in the Maldives:
   1) Please state what you liked most
   2) Please state what you disliked most

9) Please indicate one important thing that the Maldives tourism industry could do to improve your holiday?

10) How much did you spend on *ecotourism experiences* in the Maldives? (Example: marine life observation)
    Please specify USS ☐ or Euro ☐
    Amount = _______________  Not Applicable ☐

11) If you did not spend anything on *ecotourism experiences* in the Maldives, please explain why not?

Section B: This section asks your opinion on the global environment

12) Please indicate to what extent you agree or disagree with the following statements.
    (Please circle one number only)

<table>
<thead>
<tr>
<th>1= Strongly Disagree</th>
<th>2= Mildly Disagree</th>
<th>3=Neutral</th>
<th>4= Mildly Agree</th>
<th>5= Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) The balance of nature is very delicate and easily upset</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) We are approaching the limit of the number of people the earth can support</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) To maintain a healthy economy, we will have to develop a 'steady state' economy where industrial growth is controlled</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Humans must live in harmony with nature in order to survive</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Humankind is severely abusing the environment</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) When humans interfere with nature, it often produces disastrous results</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Plants and animals exist primarily to be used by humans</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h) Humans have the right to modify the natural environment to suit their needs</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Humans were created to rule over the rest of the nature</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j) The earth has limited room and resources</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14) What is your nationality? .................................................................

15) What is your current country of residence? .................................................................

16) What is your gender? 1. Female □ 2. Male □

17) What is your age? (Please tick only one)
   a) 18 – 24 □  b) 25 – 34 □  c) 35 – 44 □  d) 45 – 54 □
   e) 55 – 64 □  f) 65 – 74 □  g) 75+ □

18) What is your current employment status? (Please tick only one)
   a) Employed full time □  b) Employed part time □  c) Self Employed □
   d) Homemaker □  e) Retired □  f) Student □
   g) Currently Unemployed □  h) Other (please specify) .................................................................

19) What is your highest level of educational qualification? (Please tick only one)
   a) School education □  b) Vocational education □
   c) Bachelors degree □  d) Master or Doctoral degree □
   e) Other (please specify) .................................................................

20) Are you a member of an international or national environment / nature-related organisation, society, group or clubs? 1. YES □ 2. NO □

   If YES please specify .................................................................

Thank you. Respondent anonymity, identity and data confidentiality is ensured.

Please seal the questionnaires in the envelope provided and return it to the reception staff at your accommodation.

☐ Yes, I wish to enter the prize draw on;

Your Full Name: .................................................................
Postal Address: .................................................................
Email Address: .................................................................

Department of Tourism, University of Otago, 4th Floor, Commerce Building, Cnr Clyde & Union Streets, PO Box 56, Dunedin, New Zealand, Tel: +64 3 479 6520, Fax: +64 3 479 9034, www.otago.ac.nz

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APPENDIX E Ethical approval

Application Form for ethical consideration of research and teaching proposals involving human participants

APPLICATION TO THE UNIVERSITY OF OTAGO HUMAN ETHICS COMMITTEE FOR ETHICAL APPROVAL OF A RESEARCH OR TEACHING PROPOSAL INVOLVING HUMAN PARTICIPANTS

PLEASE read carefully the important notes on the last page of this form. Provide a response to each question; failure to do so may delay the consideration of your application.

1. University of Otago staff member responsible for project:
   Dr Carr Anna - Senior Lecturer (Supervisor)
   Ms. Ismail Iklee - (Masters student)

2. Department: Department of Tourism

3. Contact details of staff member responsible:
   Supervisor: Tel +64-3-479-8057 / Fax +64-3-479-9034, Email: acarr@business.otago.ac.nz
   Student: Tel +64-3-479-8251 / Fax +64-3-479-9034, Email: ismik930@student.otago.ac.nz

4. Title of project: Visitor Perspectives of Ecotourism in the Maldives

5. Brief description in lay terms of the purpose of the project:

   The purpose of this research is to examine visitor demand and their experiences of the ecotourism product in the Maldives. This study intends to conduct a quantitative based research survey by disseminating questionnaires to the visitors holidaying in selected resort islands.

   Through analysing visitor perceptions in the survey, the research will investigate existing ecotourism product and activities. Visitor participation and experiences in ecotourism activities would be analysed to understand their environmental ethics and values applied from New Environmental Paradigm (NEP) variables.

6. Indicate type of project and names of other investigators and students:

   Staff Research
   Student Research ✓ Iklee Ismail, Masters in Tourism
   Multi-Centre trial
7. Is this a repeated class teaching activity?

Yes [ ] No [✓]

If applying to continue a previously approved repeated class teaching activity, please provide Reference Number:

8. **Intended start date of project:** August 2007

9. **Projected end date of project:** February 2008

10. **Funding of project.** Is the project to be funded: Please specify who is funding the project:

    (a) Internally [ ]

    (b) Externally [✓]

The student doing this research is awarded by NZAid scholarship, therefore a limited budget is allocated as research funds. Non-financial support is provided by the Maldives Tourism Promotion Board (MTPB).

10. **Aim and description of project:** *(Clearly specify aims)*

    The Maldives is considered to be an established destination with ecotourism based nature products offered by few operators. As the nature of tourism is evolving in a globalized travel market, it is becoming increasingly important to understand the visitors’ demands and needs to sustain and enhance a destination. Hence, the main objective is:

1. To analyse ecotourism visitor demand thus contributing to an understanding of future market issues.
   It is likely that the increase in tourist arrivals in the Maldives could tap a niche market in ecotourism, thereby increasing market diversity at the destination. Hence, the main aims of this research lie in the following questions under which the research objective is identified.

   1. *What are the visitor demands for nature tourism experiences in the Maldives?*
   2. *What are the visitor perspectives of nature tourism experiences in the Maldives?*

Ecotourism experiences in this research are considered with respect to the tourists’ understanding and participation at nature or marine bio diversity settings in the Maldives as an ecotourism destination. The investigation would also examine tourists’ environmental ethics and values; their participation in conservation/ preservation, education and learning elements at the destination.

11. **Researcher or instructor experience and qualifications in this research area:**

    The student researcher has conducted similar non-academic projects during her employment in the past. The only academic research is based on the dissertation titled “Stagnation in the Middle East (ME) Markets Inbound Traffic of the Maldives Tourism: An Investigation” completed for the qualification of Post Graduate Diploma in Tourism at the University of Otago in 2008. An A-grade was achieved on this research.
12. Participants

(Participants means any person whose behaviour, actions, condition, state of health the researcher proposes to study; or whose personal information the researcher proposes to collect or use)

International Visitors to the Maldives above the age of 18 years will be the survey participants. A mail out survey form will be distributed to them with prior permissions from the resort operators.

12(a) Population from which participants are drawn: (in particular, please specify whether any of the following might participate: minors, prisoners, hospital patients, or anyone whose capacity to give informed consent is compromised in any way)

None

12(b) Specify inclusion and exclusion criteria:

Exclusion criteria are people below 18 years of age as they may find it difficult to comprehend the questions. Any participant above 18 years can participate in the survey. A survey form will be distributed to every individual at the tourist resort until the sample target is met.

12(c) Number of participants: (where a sample size calculation is appropriate i.e., for quantitative research, it should be provided)

200 survey returns

12(d) Age range of participants:

Above 18 years of age

12(e) Method of recruitment:

The questionnaire based survey will be carried out at willingly identified resort locations where the resort operator will play a key role by distributing the questionnaires. The resort management will be appropriately guided via e-mail communications on how to disseminate the questionnaires to the tourists. Survey forms will be distributed to the tourist one day before their final departure and completed on site of the holiday location. Visitor participation in the survey is optional. Respondents and operators will also be made aware of the source of funding and support for this research. A letter of support from the Maldives Tourism Promotion Board (MTPB) will be included in the initial contacts with the potential operators. All measures of pre-approval survey processes are being undertaken at this stage to carry out the survey. The local authorities' approval to conduct the survey in the Maldives is being sought. Meanwhile resort operator willingness to let their visitors participate in this survey is being explored with the potential operators through e-mail requests with them.

12(f) Please specify any payment or reward to be offered:

1. Prize draw – Books about the Maldives
2. Prize draw – Music CDs about the Maldives
3. Prize draw – Local Souvenirs of the Maldives

13. Methods and Procedures: Describe the design of the study, the nature of the task required of participants and how the results will be analysed. The various precautionary measures to be taken to avoid harm or discomfort should be described (up to two pages; any questionnaire or survey form to be used must be attached). [If using body fluids or tissues please describe the ultimate fate of the sample; please note these samples must not be used outside of this research]

Design of the study
A preliminary questionnaire is attached. The design of the study will utilise a quantitative methodology as a basis to analyse the outputs of the questionnaires. To maintain maximum accuracy and minimise interpretation difficulties questions are designed by carefully using geographic, demographic and psychographic elements observed from the literature review done for this study. Information from resort websites sets a frame to understand promotion of the product and visitor expectation which is closely linked with questionnaire design. Mostly close ended questions and a few open-ended questions are used in the survey form which includes 'yes' or 'no' responses, ranking answers, likert scales and multiple-choice formats with specified responses. Each survey form will include a questionnaire number. A large sample size of 200 questionnaires is applied as it may generate a high response rate which is vital in a quantitative survey to arrive at statistically significant results. A sample of 10-15 resort operations throughout the Maldives will be studied in this research. The survey will be conducted for a period of four weeks.

Nature of the task required by participants
Participants will be international tourists on a holiday who will be asked to complete the survey form. The survey introduction will be brief to the participants on the first page of the survey form (see attached). On open-ended questions participants are asked to provide views, opinions, and suggestions on the subject otherwise they will have select responses to multiple choice questions. Each questionnaire will be attached with an envelope. They are required to complete the survey forms, place it inside the envelope, seal it and hand it over to the reception. Through the support received from Maldives Tourism Promotion Board (MTPB) the resort operator will be requested to deliver all the forms securely to the MTPB once the sample size is met or the survey period ends. Further, with focal point assistance at the MTPB, arrangements will be made to collect all the returned forms from MTPB to the student researcher through international postage.

Analyses of results
For data management and analyses, a computer software SPSS (Statistical Package for Social Sciences) programme version 10 will be used. To ease comprehension of data, statistically simple analytical techniques will be mostly used to generate descriptive frequencies and aggregated data. Chi Square tests may be applied to test statistical significance.

Precautionary measures to avoid harm
This proposal is made under Ethics Category A application as it involves an international sample. To avoid harm all data analyses will be processed and used in aggregate form. In exceptional circumstances where open ended questions are answered, direct quoting given by the responder maybe used but the responder will not be identified in the research. Hence, full confidentiality is maintained. Although the survey is administered through the help of the resort operators, visitors will be volunteering to participate in the survey. A cover letter to the visitor informing them about the purpose and processes of the research will be enclosed with each questionnaire form. To maintain visitor respondents’ anonymity, a separate envelope will be attached with the questionnaire which the visitor will be asked to place inside the completed form and seal it before handing it to the resort
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Application Form for ethical consideration of research and teaching proposals involving human participants

reception. A separate administrative guideline (refer pg9) will be sent to the potential operators who will be administering questionnaires.

14. Compliance with The Privacy Act 1993 and the Health Information Privacy Code 1994 imposes strict requirements concerning the collection, use and disclosure of personal information. These questions allow the Committee to assess compliance.

14(a) Are you collecting personal information directly from the individual concerned?

Yes

If you are collecting the information indirectly, please explain why:

14(b) If you are collecting personal information directly from the individual concerned, specify the steps taken to make participants aware of the following points: (you should make participants aware of these points in an Information Sheet for Participants; a suggested template is attached):

• the fact that you are collecting the information:
• the purpose for which you are collecting the information and the uses you propose to make of it:
• who will receive the information:
• the consequences, if any, of not supplying the information:
• the individual’s rights of access to and correction of personal information:

All the above information will be in the covering letter of the questionnaire (see attached).

14(c) If you are not making participants aware of any of the points in (b), please explain why:

14(d) Does the research or teaching project involve any form of deception?

NO

If yes, please explain all debriefing procedures:

(Debriefing: Where participants have not been informed fully of the nature and purpose of the research, or where in the course of the project some degree of deception is involved, the researcher must provide participants with an explanation of the research goals and procedures when the procedure is completed. Researchers also have an obligation to be available after participants have participated in the project, should any stress, harm, or related concerns arise. Participants must have the opportunity to obtain information relating to the outcome of the project if they wish. Where relevant, explain how these matters will be dealt with in the proposed research)

14(e) Please outline your storage and security procedures to guard against unauthorised access, use or disclosure and how long you propose to keep personal information: (The University requires original data of published material to be archived for five years after publication for possible future scrutiny. The University is responsible for providing data storage space, data relating to projects should be kept in secure storage within the University)
Application Form for ethical consideration of research and teaching proposals involving human participants

Department concerned [rather than at the home of the researcher] unless a case based on special circumstances is submitted and approved by the University of Otago Human Ethics Committee. At the end of the Project any specific identifying personal information must be destroyed by the Principal Investigator [as specified in question 1] or relevant Head of Department.

The resort staff responsible for survey administration will be fully informed of data management procedures prior to data collection. Blank and completed surveys will be kept in appropriately safe and secure location on the premises of the potential operator until the end of the survey. At the end of the survey period, all completed forms will be delivered to the researcher via Maldives Tourism Promotion Board (MTPB) using international traceable courier. For logistical, financial and management difficulties the operators are not encouraged to post the completed forms directly to the researcher.

14(f) Please explain how you will ensure that the personal information you collect is accurate, up to date, complete, relevant and not misleading:

Many participants may examine the questionnaire before responding; answers may not be spontaneous and may not be independent especially in a destination where holidaying with a partner is common. Therefore, the information gained through the survey will only be used for data analysis for the MTour thesis and possible contribution to an academic publication which may arise from the study in future.

14(g) Who do you propose will have access to personal information, under what conditions, and subject to what safeguards against unauthorised disclosure?

The questionnaires will be self completed in complete privacy and at the convenience of respondents. Visitors completing the survey need not give their names or contact address unless they wish to participate in the survey prize draw. Responses will be made anonymous, as the participants will be advised to place completed survey form into an attached envelope and seal it immediately after completing the questionnaire. This is done to ensure and safeguard the responses of individual visitors from the operators. Only the researcher will be able to access the data/information for analytical purposes of data entry. The operators will also be informed of the need to keep the identity of the participants confidential.

14(h) Do you intend to publish any personal information and in what form do you intend to do this?

Personal information (e.g. age, income) will be collected but will be published only in aggregate form where no participant will be identified. The collection of this information is necessary in the research as it will further assist in building an ecotourism profile for the destination.

14(i) Do you propose to collect information on ethnicity?

(If the collection of information on ethnicity will be used for drawing comparisons or conclusions between Māori and other ethnic groups or the project has clear implications of direct interest to Māori, consultation should be undertaken in accordance with the University’s Policy for Research Consultation with Māori (Please see http://www.otago.ac.nz/research/maoriconsultation/index.html). If this process has already
been undertaken please attach a copy of your completed Research Consultation with Māori Form with this application.)

NO

15. Potential problems: Explain whether there will be harm or discomfort to participants, medical or legal problems, or problems of community relations or controversy, or whether any conflicts of interest might arise (Researchers also have an obligation to be available after participants have participated in the project, should any stress, harm, or related concerns arise. If it is anticipated that professional services are appropriate, these services for the participants should be clarified as well as risks, limitations and obligations. Participants normally should have the opportunity to obtain information relating to the outcome of the project if they wish.)

Since the application of this survey is a postal survey, the visitors will not have a second chance to alter the responses nor will they be able to clarify questions because of the absence of the researcher at the survey location. This is why the questions are to be written clearly to ensure they are understandable to the general holiday maker. It is unlikely that there are any questions that may be considered sensitive, harmful, or deemed offensive by the visitor. For any further enquiries, the researcher’s and supervisor’s contact details will be provided to the potential visitors and the operators.

16. Informed consent

Please attach the information sheet and the consent form to this application. The information sheet and consent form must be separate.

Information Sheet is not attached because this is a quantitative survey.

17. Fast-Track procedure (In exceptional and unexpected circumstances, and where the research needs to commence before the next monthly meeting of the University of Otago Human Ethics Committee, a researcher may request that the application be considered under the fast-track provisions).

Do you request fast-track consideration? (See Important Notes to Applicants attached)

YES

(Please note that this involves the application being sent around members of the Committee by correspondence and can be expected to take 10 to 14 days)
If yes, please state specific reasons:-

Fast track is requested due to the geographically long distance nature of the overseas survey locations (multiple resort operations) where the researcher is currently absent at the survey destination. This may cause some difficulties with the smooth flow of the survey subject to weather conditions and transportations. If the expected sample target of 200 survey forms return is not met during the survey period, the researcher would need additional time to extend the survey period and may have to consider travelling back to the survey destination for supervision and administration of the survey to achieve the sample target. However, prior to any travel decision, all possible rapport will be maintained with the potential operators and the MTPB to minimise any expenses and difficulties that may be experienced while conducting the survey.
18. Other committees

If any other ethics committee has considered or will consider the proposal which is the subject of this application, please give details:

19. Applicant's Signature: ........................................Date: ..............................

20. Departmental approval: I have read this application and believe it to be scientifically and ethically sound. I approve the research design. The Research proposed in this application is compatible with the University of Otago policies and I give my consent for the application to be forwarded to the University of Otago Human Ethics Committee with my recommendation that it be approved.

Signature of *Head of Department: .................................

Date: ..................................................

*(In cases where the Head of Department is also the principal researcher then the appropriate Dean or Pro-Vice-Chancellor must sign)*

This project has been reviewed and approved by the University of Otago Human Ethics Committee
APPENDIX F  Supporting letter from the Maldives Tourism Promotion Board (MTPB)

MALDIVES TOURISM PROMOTION BOARD
REPUBLIC OF MALDIVES

Ref: MTPB/2007/554

July 29, 2007

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Re: Maldives Visitor Perception Survey, August - September 2007

Ms. Ikleela Ismail, is a former employee at the Ministry of Tourism and Civil Aviation, Government of Maldives. She is currently studying towards a Master of Tourism research programme at the University of Otago, New Zealand. In fulfilment of the academic programme, she is undertaking a research on nature tourism and ecotourism experiences of visitors in the Maldives. This research is supported by the Maldives Tourism Promotion Board (MTPB), Government of Maldives.

This research administers an International Tourist Survey in randomly selected tourist operations in the Maldives. Your cooperation to allow your clients to participate in this survey and delivery of completed forms to the attention of MTPB would be highly appreciated.

Any enquiries about this research should be directed to Ms. Ikleela Ismail (MTour Student), Department of Tourism, University of Otago, Dunedin, New Zealand at ismik930@student.otago.ac.nz.

Thank you.

Yours sincerely,

Abdulla Maasoom, PhD
Director General

Maldives
APPENDIX G  Survey application and approval from the Ministry of Planning and National Development (MPND), Maldives

SURVEY APPROVAL FORM

1. Name of Organisation/ Individual :  
   Ikleela Ismail

2. Survey title :  
   Maldives Visitor Perception Survey 2007

3. Survey objectives :  
   The research will study the visitors' demand and perception through nature based tourism and economic experiences in the Maldives.

4. Survey areas (Atoll/Island) :  
   All Tourist Resorts and Hotels

5. Period of data collection:

   
   
   
   
   

   from 1.07.08 to 1.07.08

   year

   2.08

   2.08

6. Government authorities consulted:
   1. Maldives Tourism Promotion Board (MTPB)

7. Contact person:

   1. Name and Address:
      Ikleela Ismail, Dept. of Tourism, Univ. of Otago, Dunedin, New Zealand.

   2. Tel:
      +64 03 475 79 034

   3. Fax:
      +64 03 475 9034

   4. Contact hours: 10 am to 5 pm

8. Is the information going to be collected through questionnaire?
   1. Yes  2. No

9. Method of data collection: (tick the appropriate box(es))
   1. Personal Interview
   2. Self enumeration
   3. Telephone interview
   4. Other (specify)  Postal Survey

10. Computer program or software used for data processing. (specify)
    SPSS / Excel

11. Do you have an enumerators guideline or user manual for this survey implementation?
    1. Yes  2. No  Not Applicable

Statistics Section-MPND  Phone: 323491, 315347  Fax: 318343  email: stats@planning.gov.mv
12. Approximately how many enumerators would be involved in the survey?
   □ Number of enumerators   Not Applicable

13. Was the enumerators given any kind of training about the survey?
   1. □ Yes   2. □ No   Not Applicable

14. Has the questionnaire been pre-tested?
   1. □ Yes   2. □ No

15. Sample size:
   1. Number □ 121 □
   2. Sample proportion □ 12% %

16. Was the sample taken randomly?
   1. □ Yes   2. □ No (If No please specify the reason)

17. Expected date of completing the survey report: June 2008
   (A copy of the survey report should be forwarded to MPND for reference)

1. Name of Organisation/ Individual: Ikleela Ismail
3. Survey objectives: The research will study the visitors' demand and perception through
   nature based tourism and ecotourism experiences in the Maldives.

5. Survey areas (Atoll/Island): All Tourist Resorts and Hotels.

6. Government authorities consulted:
   1) Maldives Tourism Promotion Board (MTPB)
   2) 
   3) 

Under the Statistical Regulation of the Republic of Maldives, we hereby approve to undertake
the above mentioned survey.

Name: Mariyam Saba
Designation: Assistant Director
Date: 24/07/2007

[Signature]
## APPENDIX H Resort sample set

<table>
<thead>
<tr>
<th>Name of Resort</th>
<th>Operations/Location</th>
<th>Beds</th>
<th>Sample size</th>
<th>Eco / Nature related products</th>
<th>Comments</th>
</tr>
</thead>
</table>
2. Snorkelling  
3. Fishing  
4. Sea Plan photo flight  
5. Excursion / island hopping  
6. Other water sports | - Promoted as a Small Luxury Hotel and nature is a key element in its beach holiday product |
| 2. Coco Palm Boduhithi         | Boduhithi Island North Kaafu Atoll www.cocopalm.com | 35   |              | 1. Dolphin watching  
2. Marine life discovery with a marine biologist  
3. Snorkelling, sailing, windsurfing (lessons & courses offered  
4. Diving, fishing  
5. Excursions | - Mainly a small luxury resort for beach holiday and has obtained several national & international awards including Green Globe Award 2003 as the first resort in the Maldives |
| 3. Full Moon Beach Resort      | Furunafushi Island North Kaafu Atoll www.universalresorts.com | 312  | 30 +        | 1. Dolphin watching trips  
2. Glass bottom boat trip  
3. Diving, snorkelling & other water sports  
4. Island hopping/sight seeing | - A laid back concept of adventure and relaxation. |
2. Dolphin watching  
3. Excursions & island hoping  
4. Community projects offered | - Environmental advisory is given to the visitors to refrain from actions that may harm the fragile environment while on holiday. - Mostly an adventure type holiday destination for mass visitors. |
| 5. Lily Beach Resort,          | Huvahendhoo Island South Alif Atoll www.lilybeachmaldives.com | 170  | 30          | 1. Diving, various water sports & recreational activities.  
2. Night/sunrise fishing  
3. Excursions and island hopping | - Conceptualised as an all inclusive type of resort for all ages. |
| 6. Olhuveli Beach and Spa Resort| Olhuveli Island South Kaafu Atoll www.olhuveli.com | 268  | 30 +        | 1. Diving, snorkelling & other water sports  
2. Glass bottom boat trip | - Promoted as a laid back, leisure ambiance resort in a secluded and unspoilt environment |
| 7. Reethi Beach Resort         | Fonimagoodhoo Island Baa Atoll www.reethibeach.com | 200  | 30          | 1. Scuba diving, snorkelling, sailing & other water sports  
2. Night fishing  
3. Island hopping | - Presented as an ‘eco-friendly tourist resort’ and claims its unique local architecture blends with the nature. - Environmental awareness programmes are undertaken targeting the locals. Sustainable management practices are advocated. |
2. Night/sunrise fishing  
3. Turtle watching & wildlife | - Tempts about spectacular marine life and sound of birds chirping but mostly highlights on adventurous activities - Runs community projects |
### Name of Resort Operations/Location

<table>
<thead>
<tr>
<th>Beds</th>
<th>Sample size</th>
<th>Eco / Nature related products</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>138</td>
<td>30</td>
<td>1. Scuba Diving, Sailing, Snorkelling, Windsurfing &amp; Island Hopping</td>
<td>- Promotes as an exotic island resort of unspoilt beauty emphasising on romance as ‘lovers’ paradise</td>
</tr>
<tr>
<td>530</td>
<td>30</td>
<td>1. Diving &amp; snorkelling 2. Dive show presentation &amp; information 3. Nature trails, garden tours &amp; glass bottom boat 4. Photo flights, submarine tours 5. Excursions &amp; boat cruising</td>
<td>- Is promoted as a relaxing casual and fun atmosphere, advocates that much of the island is untouched and offers some learning experiences</td>
</tr>
</tbody>
</table>

*Note: This sample set provides product details of resort operations that participated in the survey and this table is prepared from resort websites and other online information references which are separately enlisted at the end of the main reference list*
APPENDIX I  Pre-notification survey email

To: [contact address of operator]

Dear Sir,

Subject: Maldives Visitor Perception Survey 2007

I am a Maldivian national, currently studying towards a Masters in Tourism at the University of Otago, New Zealand. As part of my research thesis, I am interested in conducting a tourist survey at your resort/hotel during August – September 2007.

The purpose of this research is to study international visitor experiences of nature based tourism and ecotourism in the Maldives. This study will use a postal survey to distribute questionnaires to the tourists. The data collected through the survey may formulate strategies for tourism product and market development of the Maldives. I believe the results of this research can be useful to the Maldives tourism stakeholders. On completion of the research, the aggregated results will be sent to all the participating operations of this survey.

This research is conducted in association with the Maldives Tourism Promotion Board (MTPB) and is approved by the Ministry of Planning and National Development (MPND), Maldives (refer attachments). It is funded by New Zealand’s International Aid and Development Agency (NZAid). Therefore, resort/hotel operations do not have to contribute to this survey financially but minimum administrative support would be helpful.

I would appreciate it if you could permit me to conduct this research, by allowing your clients to participate in this survey. Your support would be by distributing the postal survey form to visitors, through the reception area of your operation. A simple guideline to administer this survey and a sample survey form is attached for your information.

Please indicate to me, your interest in participating in this survey and the printed survey forms will be posted to your Male’ office. Please provide the contact details of a contact person at your operation, so that I can liaise with further information.

Please refer to the attachments for further information; 1. Sample Survey Form – English 2. Survey Administrative Guidelines 3. MTPBs Supporting Letter and 4. MPNDs Approval. Your assistance is vital and highly valued for the successful completion of this survey. A favourable reply to this e-mail is highly anticipated.

Thank you.

Yours sincerely,

Ikleela Ismail (MTour Student)
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Dept Fax: +64 03 479 9034
Email: isnik930@student.otago.ac.nz
APPENDIX J  Survey administrative guidelines

Maldives Visitor Perception Survey, August – September 2007

Survey Administrative Guidelines for Tourist Operations

1)  Who should fill in the survey forms? (Eligibility)
Please ensure that the visitors completing this survey are only tourists above 18 years of age. It is preferable that the tourists complete the survey forms after a few days of their holiday experience in the Maldives and before their final departure from your resort/hotel. The survey forms are prepared in English or Italian. Hence, it is important that you hand out the forms to all tourists who understand English or Italian irrespective of the nationalities.

2)  How many forms should be distributed by the tourist operation? (Sample Target)
Please hand out all the given survey forms and collect completed forms from the tourists over the survey period. The survey period is 10th August to 10th September 2007. If you manage to receive completed forms before the survey period ends, please deliver all forms to the Maldives Tourism Promotion Board (MTPB). Please ensure that survey forms are kept in a safe place (e.g. reception office) during and until the end of the survey period.

3)  How should the forms be distributed to the tourists? (Sampling Method)
Please approach each individual tourist you receive at your operations’ reception and distribute them all the given forms. Ensure that all the tourists are given a survey form and request them;
   1. To complete the survey form
   2. To seal the form inside the enclosed envelope and
   3. To return the sealed envelope to your reception staff.
This procedure ensures anonymity and confidentiality of the information provided by the tourists. It is strongly recommended that tourists complete and return their survey forms at the reception area before leaving your operation. If necessary they can take it away from the reception area, but please request/remind them that they return it before departure. It would be convenient for all concerned if the survey forms are completed and returned on site. However, if your staff finds it difficult to distribute it directly to the tourists, please keep the survey forms in a place visibly available to the tourists (e.g. reception/front office area), so that those tourists who are willing can participate in this survey.

4)  What should be done with the returned survey forms? (Data Management)
At the end of the survey period or if you have managed to complete the number of forms sent to you before the survey period ends, then please deliver all the returned sealed envelopes to the following address. Please ensure that all the surveyed envelopes and any blank forms are securely and safely stored in the A4 sized addressed envelope when you deliver them to;

   TO:  Ms. Ikleela Ismail
   C/o:  Maldives Tourism Promotion Board (MTPB),
        Aage, 3rd Floor,
        12, Boduthakurufaanu Magu,
        Male’ 20094,
        Maldives.

5)  Researcher’s Contact:
Please contact me at ismik930@student.otago.ac.nz for any clarifications/questions on this research. If the survey sample target is not met during the survey period, it will be extended, by two weeks. I may travel to the Maldives to supervise and monitor this survey provided the fundings are available.