Environmental Management
in the Hotel and Lodge Sector
in KwaZulu-Natal, South Africa

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DECLARATION

I declare that this thesis is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. I confirm that an external editor was not used. The thesis is being submitted for the degree of PhD in Geography in the School of Social Sciences, College of Humanities, University of KwaZulu-Natal, South Africa. None of the present work has been submitted previously for any degree or examination in any other university.

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DEDICATION

I dedicate this thesis to my dearest friend

Kamlesh Khadaroo

(05/02/1968 – 05/07/2004)

We loved you … but God loved you more.

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ABSTRACT

The tourism industry has emerged as one of the key economic drivers in Africa and remains as one of the few growth industries in the world. The industry has well-documented, significant socio-economic and environmental impacts, many of which are not positive and result in enduring problems at destinations. This is particularly acute in countries such as South Africa where socio-economic inequities are high and historical patterns of development have resulted in most people being marginal from the tourism sector. The accommodation sector is one of the main players in terms of tourism and benefits the most from this industry. However, very few studies have critically examined this sector in terms of environmental management. It is the lacunae in the research that this study aims to address. The main objectives of the study were to investigate the nature and extent of environmental management in hotels and lodges in KwaZulu-Natal, South Africa. The primary data collection was undertaken via the use of surveys to 60 accommodation managers and 400 hotel guests. In-depth interviews were also undertaken with key tourism industry stakeholders. The main findings of the research indicated that although participants were aware of the detrimental environmental impacts of the accommodation sector, environmental management programs were very much in its infancy. Hotel managers were enthusiastic about environmental management but were unable to implement environmental programs and actions due to a number of challenges and constraints. Environmental issues were also not a high priority for hotel guests in the study. The study concludes that environmental issues in the accommodation sector needs to be re-examined and measures need to be put in place to address the sector's negative impact on the environment.

LIST OF ACRONYMS

ASEAN	Association of Southeast Asian Nations
BACC	British Airways Communities and Conservation
CIWMPP	Cruise Industry Waste Management Practices and Procedures
CSR	Corporate Social Responsibility
DEAT	Department of Environmental Affairs and Tourism
ECA	Environmental Conservation Act
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EMT	Ecological Modernization Theory
EXSA	Exhibition and Event Association of Southern Africa
FEDHASA	Federated Hospitality Association of South Africa
FEEE	Foundation for Environmental Education in Europe
FTTSA	Fair Trade in Tourism South Africa
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GLES	Green Leaf Environmental Standard
HER	Hilton Environmental Reporting
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICCL	International Council of Cruise Lines
IDP	Integrated Development Plan
IFTO	International Federation of Tour Operators
IHEI	International Hotels Environmental Initiatives
IHRA	International Hotel and Restaurant Association
IOL	Independent Online
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization

IUCN	International Union for the Conservation of Nature
LED	Light Emitting Diodes
LEED	Leadership in Energy and Design
NAA-SA	National Accommodation Association in South Africa
NALEDI	National Labor and Economic Development Institute
NDT	National Department of Tourism
NEMA	National Environmental Management Act
NGO	Non-Governmental Organization
NTSS	National Tourism Sector Strategy
PATA	Pacific Asia Travel association
RASA	Restaurant Association of South Africa
RMTSA	Responsible Tourism Manual for South Africa
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
SANP	South African National Parks
SARi	South African Renewables Initiative
SAT	South African Tourism
SPSS	Statistical Package for Social Scientists
SR	Social Responsibility
StatsSA	Statistics South Africa
STEP	Sustainable Tourism – Elimination of Poverty
TBCSA	Tourism Business Council of South Africa
TGCSA	Tourism Grading Council of South Africa
THETA	Tourism and Hospitality Education and Training Authority
TKZN	Tourism KwaZulu-Natal
TOI	Tour Operators Initiative
TUI	Touristik Union International
UK	United Kingdom
UN	United Nations

UNCED	United Nations Conference on Environment and Development
UNCSD	United Nations Committee for Sustainable Development
UNEP	United Nations Environment Program
UNESCO	United Nations Environmental Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNWTO	United Nations World Tourism Organization
US	United States
WCED	World Commission on Environment and Development
WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development
WTTC	World Travel and Tourism Council
WWF	World Wildlife Fund for Nature
WWF	World Wildlife Fund for Nature South Africa

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CHAPTER ONE
INTRODUCTION AND CONTEXT OF THE STUDY

1.1   Introduction

At the beginning of the 21st century the environment has come under threat due to the spread of industrial pollution globally and an increasing world population (Best and Thapa, 2011; Rodriguez and Cruz, 2007). The future of humans is faced with a number of environmental threats: global warming, the depletion of the ozone layer, over-consumption of non-renewable resources, global air pollution (Chan, 2008; Goosen, 2012), traffic patterns, and waste (Bastic and Gojcic, 2012; Leslie, 2001). As a result, the need to take action on environmental issues is becoming more widely accepted and there is an urgent need for the "globalization of environmental concern" (Tzschentke *et al.,* 2008:126). The changes in nature brought about by human action have contributed to "re-evaluating ethical positions towards it" (Holden, 2003:97). Recently there has been a progression in the approach to the management of environmental problems in developed countries. Environmental problems were "largely understood as a by-product of industrial development and a new affluence" and policy-makers are now beginning to adopt the appropriate remedy (Meadowcraft, 2002:175). Governments have responded by putting environmental issues on the international agenda through events such as United Nations Conference on Human Development held in 1972 and the Rio Earth Summit of 1991 (Weaver, 2001; 2006). In the late twentieth century the environmental movement created a broad sense of environmental conscientiousness which resulted in a growth of environmental concern in western societies. Tourism was not immune to these concerns (Holden, 2003:95).

Initially, tourism faced little criticism as it was considered as an "environmentally-friendly activity and a smokeless industry" (Williams and Ponsford, 2008:2) which was able to maintain any "high moral „green‟ ground over its economic counterparts" (Williams and Ponsford, 2008:7). Tourism was viewed as being "fundamentally soft on the environment" (Garrod and Fyall, 1998:202). However, the late 1960s saw a rapid growth in international tourism which led to a rapid development of tourism services that lacked regulations on development (Saarinen, 2006; Tang *et al.*, 2011). "What was perceived to be a small and primary non-invasive economic activity now became a massive global phenomenon"

(Williams and Ponsford, 2008:2). Research followed on tourism‟s pressure on the natural environment with the focus on land-use and infrastructure development, the utilization of natural resources, the generation of waste and pollution and general environmental degradation. The tourism sector was found to consume considerable amounts of natural resources, both in its development and operation (Han *et al.*, 2011; Scanlon, 2007). Therefore tourism is described as an "extractive industry as it operates by appropriating environmental resources and transforming them for sale in consumer markets" (Garrod and Fyall, 1998:199). Williams and Ponsford (2008:1) concur that:

> *Tourism stresses natural environments through a range of infrastructure development, resource consumption and waste generation processes. These processes occur in some of the most ecologically fragile locations on the planet. Tourism simultaneously requires these environmental resources as core ingredients and compelling backdrops for the production and consumption of tourism experiences. Paradoxically, it also requires the protection of the ecological integrity and abundance of these resources for sustained competitiveness.*

The demand for more environmentally sensitive tourism practices began emerging in the 1980s and this period saw the introduction of labels to describe the new forms of tourism: ecotourism, sustainable tourism and nature-based tourism. Ecotourism is defined as "ecologically sustainable tourism, with a primary focus on experiencing natural areas, that fosters environmental and cultural understanding, appreciation and conservation" (Weaver, 2001:7). The common characteristics of ecotourism embrace three core criteria: a nature-based component, an educational or learning component, and the need for sustainability. Nature-based tourism is any form of tourism that depends on attractions that are directly linked to the natural environment. Therefore, ecotourism is regarded as a subset of nature-based tourism (Weaver, 2001). According to Swarbrooke (1999:13), sustainable tourism is "tourism which is economically viable but does not destroy the resources on which the future of tourism will depend, notably the physical environment and the social fabric of the host community" which therefore required the need to achieve a balance in the tourists‟ use of tourist resources and environments they visit and consume.

In the last two decades an increasing number of studies have focused on the impacts of tourism development on the environment and the depletion of natural resources (Bob, 2010, Hunter and Green, 1995; Lindberg, 1991; Lozano-Oyola *et al.*, 2012; Pearce, 1989; Pigram,

1980; Terryn, 2010). Attention was first drawn to the environmental impacts of tourism businesses at the end of the 1980s by means of the Bruntland Report and the promotion of sustainable development (Holden, 2003; Leslie, 2007; Williams and Ponsford, 2008). The Bruntdland Report gave emphasis to this concern and indicated that "environmental protection should be accorded primary status in policy development" (Tzchentke *et al.*, 2008:126) which was followed by the formulation of an action plan for sustainable development in 1992 with Agenda 21. The concept and definition of sustainable tourism was first presented at the Rio Earth Summit in 1992, which forced businesses and government to "recognize and mitigate the negative environmental repercussions of their developments" (Williams and Ponsford, 2008:2). Thereafter, the World Travel and Tourism Council (WTTC), together with the United Nations World Tourism Organization (UNWTO) and the Earth Council published *Agenda 21 for the Travel and Tourism Industry: Towards Environmentally Sustainable Development* (Meade and del Monaco, 2000; Tzschentke *et al.*, 2008).

To support the Agenda 21 sustainable development, the International Hotel and Restaurant Association (IHRA) and industry leaders were present at the Seventh Session of the United Nations Committee on Sustainable Development (UNCSD) in April 1999. Issues and future concerns for the international lodging industry were identified at this forum (Scanlon, 2007). Initiatives such as the International Hotels Environmental Initiatives (IHEI) in 1993 led to efforts to green the hotel industry (Holden, 2003). The IHEI published a manual, *Environmental Management for Hotels: The Industry Guide to Best Practice,* aimed at general managers of hotels (Brown, 1996). Since, many green movements have emerged and have improved the ecological performance of many hotels, reduced their operational costs and enhanced their corporate image (Han *et al.,* 2009).

South Africa responded to the 1992 United Nations Conference on Environment and Development with the 1996 White Paper on the Development and Promotion of Tourism in South Africa which indicated that, "for South Africa, responsible tourism was not a luxury but a necessity" (Frey and George, 2010:2). The White Paper proposed *Responsible Tourism* as a key guiding principle for tourism development in South Africa and implies that the tourism industry has a responsibility to the environment (Department of Environmental Affairs and Tourism (DEAT), 1996). The Responsible Tourism Manual for South Africa (RMTSA) was formulated in 2001 followed by the Responsible Tourism Guidelines in 2002

which identifies specific ways in which responsible tourism can be realized. Cape Town hosted the first conference on Responsible Tourism in 2002 which led to the formulation of the Cape Town Declaration. Furthermore, the World Summit on Sustainable Development (WSSD) was also held in Johannesburg in 2002, which brought together tens of thousands of participants including heads of states, Non-Governmental Organizations (NGOs), businesses and other stakeholders to discuss the world‟s challenge of improving people‟s lives while conserving the natural resources. The outcome of the WSSD resulted in two documents: a „Political Declaration‟ that showed commitment and provided a framework for the implementation of sustainable development and a „Plan of Implementation‟ that provided a guideline for government activities (World Summit, 2002: n.d.).

The Federated Hospitality Association for South Africa (FEDHASA) together with the WSSD Greening Initiative launched a Hospitality Industry Campaign for Responsible Tourism to form a green agenda in the hotel sector with a strong emphasis on environmental issues. FEDHASA has also formed the Imvelo Responsible Tourism Awards Scheme which focuses on the awareness of environmental management across varied sectors of the tourism industry. Amongst the various award categories is the category for "Best Overall Environmental Management System" (Imvelo Awards for Responsible Tourism, n.d.). Fair Trade in Tourism South Africa (FTTSA) also offers accreditation to establishments that meet the criteria for „fair‟ and „responsible‟ tourism practices and currently more than sixty establishments in South Africa boast the FTTSA logo (FTTSA, n.d.). The Heritage Environmental Certification Program has also been developed to assist all types of tourism businesses in South Africa in effective environmental management and to reduce the impact of their operations on the environment. Establishments obtain heritage status according to their environmental awareness and commitment and currently more than 120 establishments throughout South Africa that are members of the Heritage Environmental Certification Program (Heritage Environmental Management Company, n.d.).

Tourism has the potential to create global environmental effects as a result of its escalating growth and therefore the concept of sustainable tourism has become a growing topic in the tourism literature (Butler, 2008; Frey and George, 2010; Green *et al.,* 1990; Han *et al.*, 2011; Hassan, 2000; Huybers and Bennet, 2003; Lozano-Oyola *et al.*, 2012; Weaver, 2006). The destructive impacts of tourism are increasingly becoming a topic of debate (Faulk, 2000) and "the economic repercussions for destinations with visibly exhausted or polluted natural

environments can be severe" (Williams and Ponsford, 2008:2). Therefore, "the environmental performance, environmental management and operational practices of a tourism enterprise, is very much part of today"s agenda" (Leslie, 2001:130) and the hospitality and tourism industry is under great pressure to become more environmentally-friendly and sustainable (Foster *et al.,* 2000).

1.2   Rationale for this study

Due to its function, operating characteristics and services provided, the hotel industry consumes large amounts of energy, water and non-durable products (Bohdanowicz, 2006). The huge growth in the hotel industry has considerably affected the environment at a global level (Rodriguez and Cruz, 2007) and the sector is associated with the excessive consumption of non-durable goods as well as energy and water. According to Weaver (2006:84), the accommodation sector leaves the most "visible and permanent footprint" on the environment and is guilty of "environmental malpractice". Liu and Sanhaji (2009:68) further claim that "lodging properties comprise one of the least sustainable asset classes" and the ecological implications of hotels have long been ignored. Therefore, hotels are now faced with the pressure to give attention to environmental issues and policies at every phase of their business venture, "from the preparation and application of site plans and business programs and policies to daily routine practices" (Erdogan and Baris, 2007:604). Recently, the hospitality sector has emerged as pioneers in sustainable tourism and is now focusing on environmentally sustainable good practice aimed at energy reduction, recycling, waste management, water management and social projects.

Concerns about environmental protection have also brought about changes in consumer demand and behavior (Han *et al.,* 2009). Consumers are now becoming more environmentally aware and prefer green firms and green products (Han *et al*., 2009, 2010; Han and Kim, 2010; Manaktola and Jauhari, 2007; Weaver, 2001) and there is also growing consumer pressure for hotels to adopt green principles. The green tourists are seeking to "purchase eco-friendly products and services, preferring firms that favor environmental practices" (Han *et al.,* 2009:1). Consumers also have the power to change the industry and literature confirms that tourists are becoming more environmentally aware (Brown, 1998; Leslie, 2001; Litvin, 1996; Masau and Prideaux, 2003; Turner, 1997). A study by Han *et al.* (2011) reveal that 75% of frequent travelers in America claim to be environmentally-minded with 54% stating that they prefer to stay in hotels that show concern for the environment.

Another study conducted by Coddington (1990) reveals that 67% of Americans are willing to pay 5-10% more for green products. Mensah (2006) further indicates that 90% of US hotel guests prefer to stay in hotels that adopt green management practices. The Kimpton Hotels and Restaurants also announced that 16% of their guests choose their hotels because of their eco-friendly practices (Butler, 2008) and 53% of Brits and Australians also preferred hotels with an environmental management program (Hotel Online, 2002). "As environmental awareness increases, consumers are increasingly searching for eco-friendly hotels over conventional hotels" (Han *et al.*, 2011:346) and travelers are willing to pay a premium for the privilege of staying in a green facility (Bohdanowicz, 2006). Therefore, hotels and other tourism operations that are not environmentally-friendly may face pressure from consumers to adopt environmentally-friendly management practices (Masau and Prideaux, 2003).

According to Han *et al.* (2009:1), a green hotel is "an environmentally-friendly hotel establishment that practices green principles and programs to help save the environment as well as to improve the hotel"s effectiveness". The term „green" is also known as „eco-friendly", „environmentally-responsible" or „environmentally-friendly". Bostwick (2007:1) maintains that "no matter what you call them, eco-hotel, eco-lodge or green hotel, they are all part of the „greening" of the tourism industry, representing a conscience effort on the part of hotels to promote themselves as environmentally, and quite often socially, conscience entities". A major part of the greening of the hotel industry entails implementing green policies and programs in the areas of water usage, energy efficiency, waste management and general environmental quality. Improving the environmental performance of hotels is often driven by the need to preserve the local environment, reducing operating costs and gaining competitive advantage, institutional pressures and a growing demand by responsible travelers (Erdogan and Baris, 2007; Gustin and Weaver, 1996; Manaktola and Jauhari, 2007). Therefore, the benefits that a hotel is likely to accrue from sound environmental practice include good public relations, financial savings, a positive reputation and increased publicity and marketing (Masau and Prideaux, 2003).

However, the area of environmental performance of hotels is generally ignored and there is a widespread ignorance on such issues despite growing attention around sustainable development and "the need for a balance between economic growth and quality of the environment" (Leslie, 2001:128). Many hotel managers are confident that environmental issues don"t affect their business. Other hoteliers believe that mere compliance with laws and

standards is adequate in making their facilities environmentally responsible (Despretz, 2001). Even though a number of hotels may show an interest in environmental aspects, only a few carry out formal environmental audits (Goodall, 1994).

Very few (if any) studies examining accommodation environmental practices and guests" preferences in relation to green products have been undertaken in developing contexts. Yet, many of the key tourism destinations are based in developing countries (often regarded as value for money destinations) and tourism products often rely on nature. In South Africa, the majority of hotels are found in urban areas such as Durban, Cape Town, Johannesburg and Pretoria. Hotels in South Africa vary in size with an average of 60 rooms (Tourism Grading Council of South Africa (TGCSA), n.d.). In South Africa, there is little international ownership of hotels and lodges, and most of the hotel chains are owned by South African conglomerates (National Labor and Economic Development Institute (NALEDI), 2001). This remains the same today. The main hotel and lodge chains in South Africa comprise: The Three Cities Group, Sun International, Tsogo Sun, Hilton Hotels Corporation, Protea Hotels, Signature Hotels and City Lodge Hotels. The hotel sector has grown rapidly in South Africa since the 1990s. Very few studies in South Africa focus on environmental issues in the tourism industry and to the best of the researcher"s knowledge as indicated earlier, in relation to literature sourced, none examine the accommodation sectors" environmental practices and perceptions in depth by undertaking primary survey research. This study therefore examines the key environmental impacts facing hotels and lodges today, and further assesses the nature and extent of environmental practices in hotels and lodges. Furthermore, guest experiences and perceptions towards environmental issues are also a neglected area of research. This study therefore analyzes guest perceptions towards environmental measures at hotels and lodges. Thus, this study contributes to the growing body of research on environmental considerations in the accommodation sector, focusing primarily on hotels and lodges and integrating primary survey findings.

1.3 The aim and objectives of the study

This section highlights the aims and the research objectives of this study.

1.3.1 Aim

The aim of this research is to investigate the nature and extent of environmental performance of hotels and lodges in KwaZulu-Natal and to reveal the contribution of the hotel and lodge sector to responsible tourism. Moreover, the study aims to examine hotel managers" and guests" awareness, attitudes and perceptions of environmental management issues and associated environmental practices in the hotel and lodge sector in KwaZulu-Natal.

1.3.2 Research objectives

The study is directed by the following objectives:

1.3.2.1 To examine the nature and extent of environmental management practices in hotels and lodges in KwaZulu-Natal.

This objective focuses on environmental management practices such as energy consumption, water consumption, waste management and the control of pollution in hotels and lodges. This also entails an assessment of environmental policies, EMSs and environmental accreditation schemes and their implementation process. Furthermore, the reasons why specific environmental practices are chosen are examined.

1.3.2.2 To identify and evaluate factors that motivates hotels and lodges to adopt environmentally-friendly practices.

It is important to gain an understanding of what motivates hotel and lodge managers and influences their decisions to engage in environmentally responsible practices. Motivations may be to reduce operating costs and increase profits, improve image of the establishment, and gain loyalty from green guests.

1.3.2.3 To ascertain the barriers to environmental management faced by hotels and lodges in KwaZulu-Natal.

Often hotel and lodge managers are keen to engage in responsible environmental practices but are unable to do so due to certain impediments. Legislative frameworks, increased costs, and lack of resources may act as barriers to

environmental management. The key focus is to identify such impediments and suggest measures to overcome them.

1.3.2.4 To examine the levels of awareness and attitudes of hotel and lodge managers towards responsible environmental management.

The key issue is whether hotel and lodge managers are aware of environmental issues affecting their businesses. The implementation of environmental management practices is also examined.

1.3.2.5 To examine the levels of awareness and attitudes of hotel and lodge guests towards environmental management.

Key considerations focus on guests" preferences when choosing a hotel or lodge; their perceptions regarding the extent, nature and effectiveness of environmental practices; and environmentally-friendly practices guests adopt in their homes.

1.3.2.6 To assess the legal and institutional frameworks for environmental management in the hotel and lodge sector in South Africa.

This includes examining various policies, legislations and regulations pertaining to environmental management in the accommodation sector in South Africa.

1.4   Scope and Limitations of the Study

The scope of this study is to examine the nature and extent of environmental management within the hotel and lodge sector in KwaZulu-Natal. It is aimed at understanding the current state of environmental management practices in hotels and lodges and investigates the challenges facing them in adopting environmental actions. Moreover, the study explores the attitude and opinion of hotel and lodge guests towards environmental issues. The study adopts the qualitative and quantitative research approach and the study area is the entire province of KwaZulu-Natal which is home to a number of hotels and lodges. The respondents of the study included hotel and lodge managers and as well as their guests. Comparisons of environmental management practices between all accommodation sectors were not possible. Due to resource and time constraints, the researcher was unable to include all accommodation categories in the study.

1.5   Outline of the Study

The first Chapter provided an overview of the thesis and presented an introduction to environmental management in the tourism industry and more specifically the accommodation sector. This Chapter also stated the reasons for conducting the study on hotels and lodges in KwaZulu-Natal and provided a brief description of the study area. The aims and objectives of the research and a brief overview of the methodology used were discussed in this Chapter. The second Chapter provides a conceptual framework to the study and specifically examines issues on the political economy approach to environmental management, environmental ethics and paradigm shifts in environmental issues and sustainable tourism development. Chapter three presents a comprehensive review of existing literature on the environmental impacts of the tourism industry and the accommodation sector and environmental management practices in hotels and lodges. The literature review also evaluates environmental management policies, regulations and legislation in South Africa, and this Chapter has been presented thematically and addresses the relevant theoretical debates which form a framework for the thesis.

The fourth Chapter provides a comprehensive overview of the methodological issues that guide the research questions of the study. The research design, the study sample and data collection procedures used in the study are explained in this Chapter. A comprehensive analysis of the data in relation to the research objectives and a presentation of the research findings are enclosed in Chapter five. Relevant literature and secondary data is integrated in the discussion. Chapter six summarizes the key findings and draws conclusions from the research. This Chapter further provides suggestions and recommendations to improve environmental management practices in the accommodation sector. Additionally, suggestions for future research are suggested in this Chapter.

1.6   Conclusion

Environmental management in the accommodation sector has been well documented in international research. Environmental awareness is an important issue for hotel managers and is therefore becoming a priority on the agenda for government. Concerns over the environmental impacts of tourism on natural resources have led to a number of policy initiatives and programs aimed at sustainable tourism. A major component of the tourism industry is the accommodation sector which is considered to have a huge environmental footprint given its excessive utilization of environmental resources (Liu and Sanhaji, 2009;

Tang *et al.,* 2011). A rapid increase in the number of tourists globally has further given rise to the rapid development of hotels thereby increasing the consumption of natural resources. Therefore, the global trend is to encourage hoteliers to safeguard the environment through the adoption of sound environmental practices. Research indicates that in the past two decades a number of hotels and lodges have initiated environmental management through a number of programs and schemes. However, a large proportion of hoteliers generally ignore environmental considerations as they believe there are no rewards for environmental management (Kang *et al.,* 2011). Also, although hotel managers are enthusiastic about the implementation of sound environmental practices, they are often prevented from doing so due to a number of challenges. Lack of resources was cited as a key constraint to environmental management. Furthermore, managers indicated that there was a general lack of knowledge on the implementation of environmental practices and a general lack of government intervention.

Environmental concerns have also altered consumer buying behavior and there is a conviction that hotel guests are now demanding environmentally-friendly products and services. Therefore, there is now a growing need for hotels and lodges to engage in environmental management due to consumer demand (Kim and Han, 2010). This research attempts to provide an overview of environmental management in hotels and lodges in KwaZulu-Natal based on data obtained from hotel managers and hotel guests. The key focus is on establishing whether hotels and lodges in KwaZulu-Natal are engaging in environmental management practices and the type of practices undertaken are evaluated. Consumer demand for environmentally-friendly hotels and lodges is also ascertained from the study as well as guests" general attitude towards environmental issues. These aspects will assist the researcher to contribute to the information on environmental management in the hotel sector in KwaZulu-Natal, which is currently a neglected area of research. Having provided a framework for the structure and flow of this thesis, Chapter two examines the conceptual framework that embodies this research.

CHAPTER TWO
CONCEPTUAL FRAMEWORK

2.1   Introduction

Globally, the environment has become under threat as a result of an increasing world population, industrialization and widespread pollution and therefore there is an urgent need for sound environmental management (Rodriguez and Cruz, 2007; Saarinen, 2006). It is believed that the term "environmental management" is entrenched in environmental law and is considered as a "management strategy that is ultimately aimed at shaping or changing the behavior of people in their environment" with the aim of regulating the "effects of peoples" activities, products and services on the environment" (Nel and Kotze, 2009:1). The growth of environmental management in the service industry, particularly the tourism sector, is relatively recent and implementation of environmental management in the sector has improved in the last few years (Best and Thapa, 2011; Kilipiris and Zardava, 2012).

This Chapter of the study develops a conceptual framework for examining environmental management in hotels and lodges in KwaZulu-Natal. The theoretical framework provides a conceptual foundation to commence with the research (Sekaran and Bougie, 2009) and "sets the stage for presentation of the specific research question that drives the investigation being reported" (McGaghie *et al*., 2001:923). Conceptual frameworks are potentially close to empirical inquiry, and therefore may vary depending on the research question or problem (Maxwell, 2005:35). This thesis is conceptualized within the context of political ecology which is considered as one of the most fitting approaches in analyzing the relationship between humans and the environment (Stroup and Finewood, 2011). Also, the theoretical focus explores environmental management from the point of view of the Ecological Modernization Theory (EMT), emerging environmental paradigms and development theories.

2.2   The environment in context

Much of the pressure on ecosystems can be traced to humanity"s voracious demand for goods and services which is now exceeding the planet"s capacity to generate resources and absorb the waste we produce. Humanity"sdemand on the world"sliving resources has more than doubled since 1961and now overshoots the planet"s regenerative capacity by about 50%.

(World Wildlife Fund (WWF), 2012a:6)

According to Jabbour *et al*. (2012:1), the current environmental problems are a result of consumption and production patterns which were "created during the Industrial Revolution and fostered by capitalism since the 20th century". Proactive environmental management is the only way to appease these detrimental impacts. Society has now entered the last stage of a process that took humans from "fearing, to understanding, to using, to abusing, and now, to worrying about the physical and biological world around them" (Bowman, 1975:94) and issues such as "rainforest removal, ozone depletion, and greenhouse warming are becoming topical media issues" (Holden, 2003:95). The book, *Tragedy of the Commons* (Hardin, 1968) affirms the degradation of the environment through over-use and states that "ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons" (Blanco *et al.,* 2009:113). According to Faulk (2000:7), modern business has been developed "in a climate of economic assumptions that are incompatible with care of the planet" and "users of natural resources are trapped in a situation that inevitably leads to the overuse and depletion of the resources" (Blanco *et al.*, 2009:112). The 1990s saw an increase in environmental concerns (Rodriguez and Cruz, 2007) and pressure was now being placed on industries "to address the actual and potential contribution of their operations in contributing to environmental degradation" (Leslie, 2001:129). According to Figure 2.1, the Global Ecological Footprint analysis indicates a constant trend in the overconsumption of resources and therefore a dire need for environmental management. It is evident that one Earth will be insufficient to sustain life and provide resources to humans.

We are living as if we have an extra planet at our disposal. We are using 50% more resources than the earth can provide, and unless we can change course that number will grow very fast – by 2030, even two planets will not be enough.

(Global Footprint Network, 2011:6)

According to Figure 2.2, the One Planet Perspective aims to manage and govern the earth's natural resources within the Earth's Ecological boundaries. WWF tries to find better choices in the system of production and consumption and to steer human development from unsustainable consumption and to maintain the integrity of the ecosystem. Enabling factors to achieve this include preserving natural resources, better production, wiser consumption, equitable resource governance and the redirecting of financial flows. More specifically, the One Planet Perspective suggests that biodiversity, ecosystems and habitats need to be

preserved and restored, production processes need to be more resource efficient with a reduced ecological footprint and an increase in renewable energy production. Dietary patterns should also be altered to be more resource efficient and wealthy nations need to reduce their carbon footprint and healthy consumption patterns should be promoted. Financial flows should be redirected at conservation and the preservation of natural resources, and there should be equitable access to food, water and energy (WWF, 2012a).
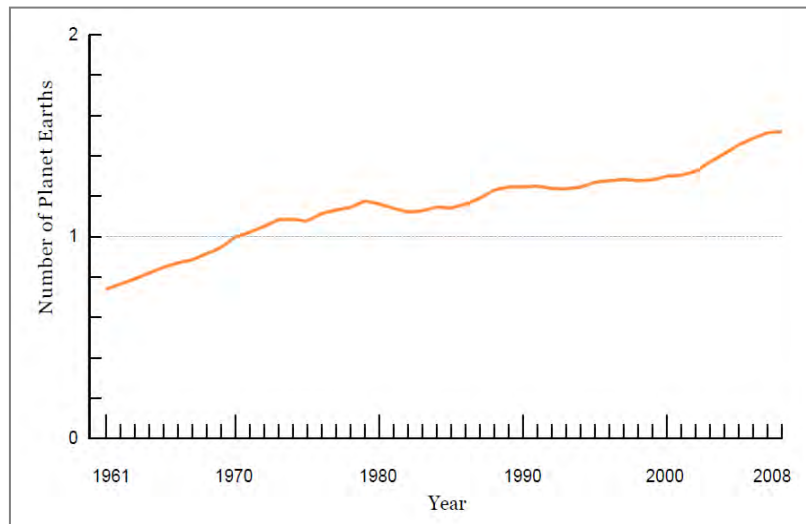
Figure 2.1: Global Ecological Footprint
Source: WWF (2012a:9)

Environmental issues and sustainable development became a major part of the political arena in the 1980s. This called for a global action to environmental issues (Berry and Ladkin, 1997; Stabler and Goodall, 1997) as the view was that "environment and development are not separate challenges, they are linked" (Sharpley, 2009:7). Past policies that were based on economic goals, and modernization ignored environmental costs and environmental usage, and decisions to change the natural environment were often the result of political and economic systems (Bassett, 1998; Stonich, 1998; Walker, 2005; and Zimmerer and Basset, 2003). Political economy has "blatantly disregarded all that is not human" (Greenberg and Park, 1994:1) and political economists are now attempting to understand how economic structures influence environmental decisions (Stroup and Finewood, 2011). The need for a broader assessment of the interconnections between political economy and human-environment interactions has resulted in the growth of the geographic sub-field of political ecology (King, 2010; Nygren and Rikoon, 2008; Schroeder, *et al.,* 2006) and this has resulted in a new wave of "green political thought" (Humphrey, 2000:1). In relation to the

accommodation sector, as highlighted in Chapter 1, there has been an increased focus on environmentally responsible behavior.
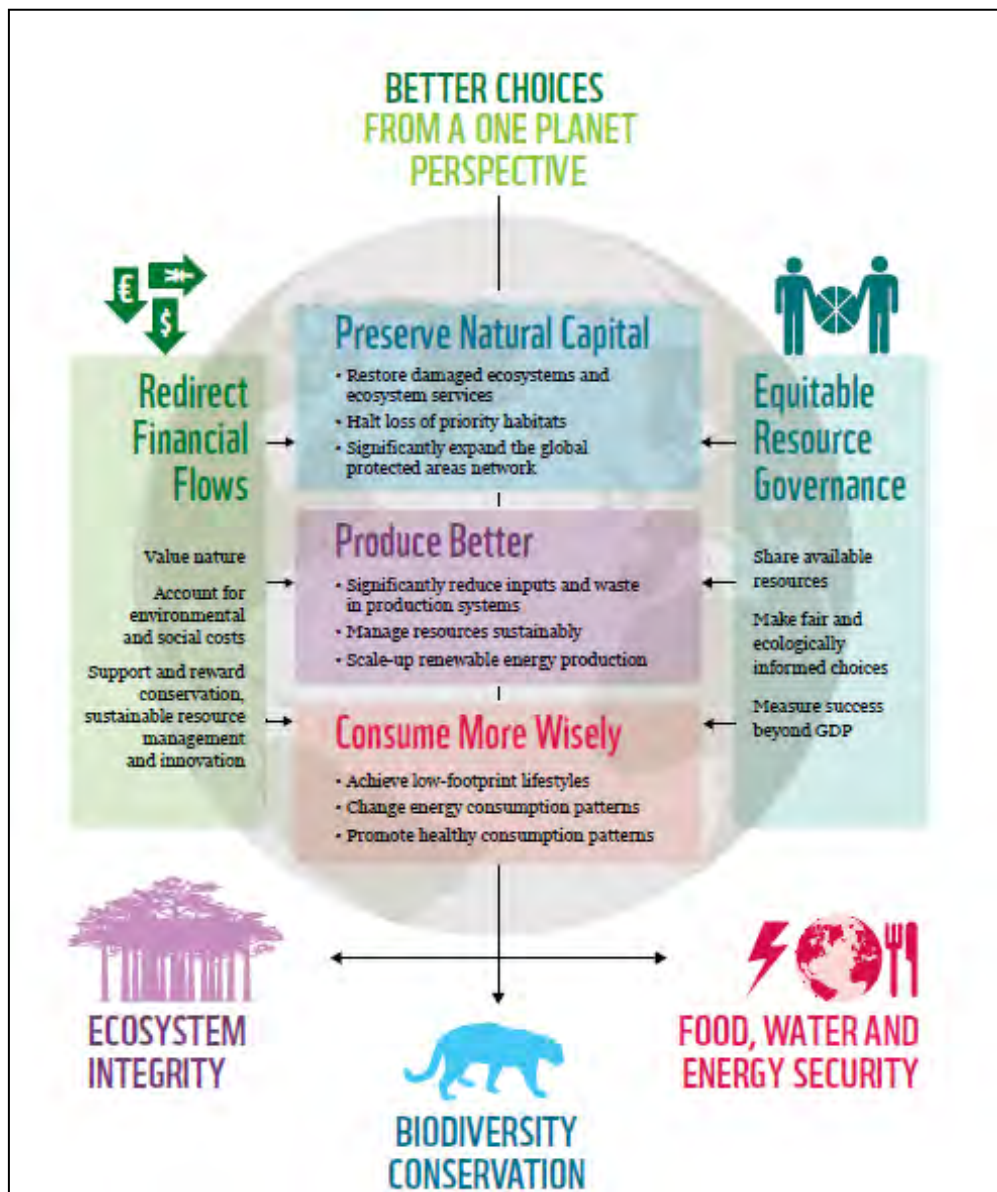
Figure 2.2: WWF's One Planet Perspective
WWF (2012a:39)

2.3   Political ecology

According to Turpie (2009:34), economic thinking during the 1700s and 1800s was initially called „*Political Economy*" and is now referred to as „*Classical Economies*". It emerged during the industrial revolution which led to the rise of capitalism. One of the key initiators of classical economies during this period was Adam Smith who argued that "self-interested behavior by individuals could serve the interests of society and government was only

important for certain services like law and order". Around this period, other influential philosophers such as Malthus (1766-1834), Ricardo (1772-1823) and Mill (1806-1873) were skeptical about long-term growth and predicted that "economic growth would eventually cease in the long run because of a scarcity of natural resources" (Turpie, 2009:35). Economic thinking entered the Neo-Classical period from the late 1800s and the focus was on supply and demand (micro-economics) and the individual. Political and institutional issues and social class were largely ignored. Due to technological processes, economic growth was viewed with optimism and it was assumed that technological advancement will be capable of addressing socio-economic and environmental challenges.

Anthropologist, Eric Wolf derived the term „political ecology" in his argument that ecological contexts must be integrated within the broader political economy. Due to the "economic-doomsday" scenario (Humphrey, 2000:1), political ecology originated in the 1970s and combines the "concerns of ecology with a broadly defined political economy" (Brown, 1998:74) with the intention of "examining the contextual realities of resource-use decision-making" (King, 2010:42). Political ecology is therefore described as a "window on the politics of environmental change" (Stroup and Finewood, 2011:89) and focuses on approaches to environmental policy. Political ecology further opposes conventional ideas about environmental change (Turner, 2003) and recognizes that local problems are linked to much larger issues (Hurley and Carr, 2010; Krupa and Burch, 2011; Nygren and Rikoon, 2008). Hence, after the 1970s, the notion of limitless growth was opposed and the ecological-economics philosophy emerged. Turpie (2009:36) notes:

> *Ecological economics challenged the traditional view of an economic system in which natural resources are merely inputs into production, and emphasis was on maximizing efficiency in terms of labor and other costs but not in terms of natural resource use. The ecological economics view is that the natural environment is not merely an input into the economy, but encompasses the economy. The economy is an open system within the ecosphere, importing natural resources and exporting wastes back into it.*

Walker (2005:75) is of the view that attention to the role of politics on human-environment relationships is a good thing and there should not be "politics without ecology". Often natural resources are degraded by the actions of the more powerful private, public and corporate interests where large-scale enterprises have "acted destructively" (Stonich, 1998:30). The

decline in environmental quality is largely a result of ineffective institutions and a lack of political will.

> *Burgeoning levels of energy consumption, enhanced levels of ecological degradation, a growing public mistrust of science, vast inequalities in economic opportunities both within and across societies, and a fractured set of institutional arrangements for global environmental governance; all represent seemingly insurmountable obstacles to a move towards sustainability.*

> (Sneddon *et al.*, 2006:263)

Basset (1998) further states that decision-making was often linked to external structures and capitalist affairs and this limited opportunities for local populations. Tosun (2000:618) argues that "the ruling elites of developing countries rationalize their decisions under the cover of bureaucratic traditions, unwilling to give up personal gain for the sake of community benefits". According to Meadowcroft (2002), different political and economic contexts with similar environmental burdens will lead to different societal effects. Moreover, the ways in which environmental problems are perceived and managed are influenced by levels of economic and technological development, population density and political and administrative structures (Sharpley, 2009). The economic policies of most countries, including South Africa are focused on promoting economic growth by increasing production. However, economic growth is dependent on natural resource consumption. Turpie (2009:36) argues that natural resources should be regarded as "natural capital" and by allowing unregulated economic growth is like "drawing money out of one"s bank account rather than living on the interest". The key concern of ecological economics is the amount of substances emanating from the environment, and back into the environment in the form of waste matter. The resources of the environment are finite and a continued growth of the economy will result in a depletion of resources. "What happens in the future will also depend on the way we choose to live and the size of the „ecological footprint" that we generate" (Turpie, 2009:36).

Recently there has been a progression in the approach to the management of environmental problems in developed countries. Environmental economists believe that economic activities take place in natural, human-made and socio-cultural environments that provide the resources for such activity (Figure 2.3) and "natural capital warrants special treatment" (Garrod and Fyall, 1998:204). Environmental economics therefore tends to be based on the status of natural resources. Nygren and Rikkon (2008:775) state that "the environment is more than

„all that surrounds‟ – it is a sphere of life activity and a place where one dwells and makes a living". Environmental problems were "largely understood as a by-product of industrial development and a new affluence" and policy-makers are now beginning to adopt the appropriate remedy, which reflects a paradigm shift in environmentalism (Meadowcraft, 2002:175). Given the environmental paradigm shift and the move towards environmentalism, this study seeks to examine the impact of this paradigm shift on the accommodation sector in particular.
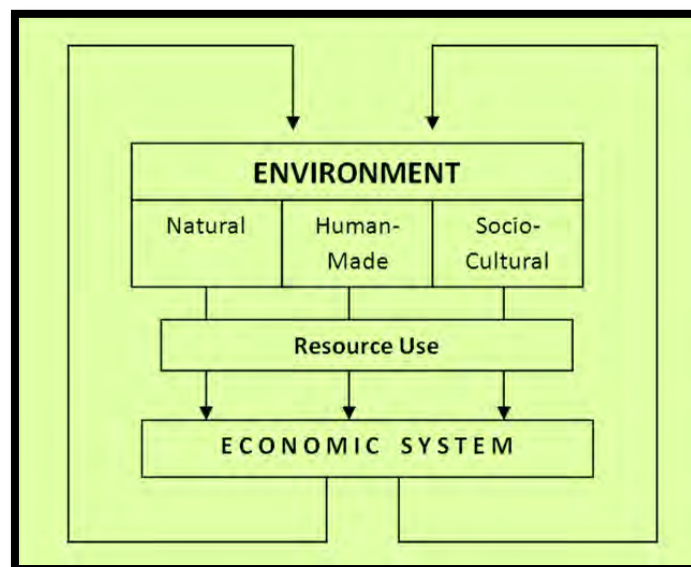
Figure 2.3: Types of environmental capital
Source: Garrod and Fyall (1998:203)

2.4   Environmental paradigm shift

The scientific paradigm, referred to by Knill (1991) as the dominant western environmental paradigm, formed an anthropocentric belief that "humans are separate from, and superior to, the natural environment" and the natural environment is "a commodity that should be exploited for human benefit through technology" (Weaver, 2001:31). Holden (2003:99) further maintains that according to the anthropocentric view, "the resources of the earth are solely of the instrumental value for human use, their value limited to the pleasure and profit they bring to humans". Weaver (2006:67) maintains that the dominant western environmental paradigm, also known as the "ethic of instrumentalism" is linked to "environmentally-destructive technologies and economic theories that value Gross Domestic Product (GDP) growth and material acquisition above all else".

Resistance to the dominant western environmental paradigm dates back to the 1880s and eventually gave rise to the environmental movement or "conservation ethic" which emphasized "ecological conservation for the benefit of humankind" (Holden, 2003:99). The changes in nature brought about by human action have contributed to "re-evaluating ethical positions towards it" (Holden, 2003:97). In the late 20th Century the environmental movement created a broad sense of environmental conscientiousness as the general public started becoming more aware of environmental threats. With the assistance of international organizations such as the International Union for the Conservation of Nature (IUCN) and United Nations Environmental Scientific and Cultural Organization (UNESCO), "humans started to be understood as part of nature, rather than separate, superior and antagonistic to it" and vigorous initiatives were taken towards conservation challenges (Sharpley, 2009:5). Governments responded to the growing public concern by putting environmental issues on the international agenda through events such as United Nations Conference on Human Development held in 1972 and the Rio Earth Summit of 1991 (Holden, 2003; Weaver, 2001; 2006). These contradictions in the dominant western environmental paradigm, the environmental movement and the increasing concern for the environment created a paradigm shift and the emergence of the green paradigm.

The green paradigm is also known as the „new environmental paradigm" and the „new ecological paradigm". In contrast to the anthropocentric view of the dominant western environmental paradigm, the green paradigm has a bio-centric orientation which claims that humans are an equal part of nature and are dependent on the environment for survival (Sharpley, 2009). Environmental ethics are vital in defining the future of the human-environment relationship and the human position and responsibilities towards nature (Robbinson and Garrat, 1999). The 1960s saw the emergence of the ideology of environmentalism rather than conservation. Environmentalism viewed the earth as a "closed system with finite resources and a limited capacity to absorb waste" (Sharpley, 2009:47). Instead of only focusing on the depletion of resources, the actual scientific, technological and economic processes of human progress were being questioned. This period also questioned the consequences of industrialization, and the so-called "effluence of the affluence" (Sharpley, 2009:47). This period was therefore known for the birth of a „global environmental movement" and „green consumerism" (Bohdanowicz *et al.,* 2005) which forced a number of industries and governments to address environmental concerns (Williams

and Ponsford, 2008). This movement called for a "counterculture that rejected a consumerist society" (Knowles *et al.,* 1999:256).

Initially environmental control was largely focused on industries known for their environmental pollution such as heavy manufacturing and chemical industries. The services industries "have escaped blame for environmental degradation" (Kasim, 2009:709) despite being a large economic sector for many counties. However, environmental concerns have now extended to the service sector organizations such as tourism (Chung and Parker, 2010). The 1980s saw a growth of environmental concern in western societies and tourism, as a major global economic force, was not immune to these concerns. Due to the rapid growth in global tourism, "all eyes are today on tourism and its‟ environmental impacts" (Faulk, 2000:4). Given the detrimental impacts of the tourism industry and the fact that tourism is directly dependent on the natural environment, the need for a new environmental ethic in tourism is imperative (Holden, 2003). This study contributes to identifying responsible environmental behaviors and activities that the accommodation sector in South Africa can embrace.

2.5   An environmental ethic for tourism

Jafari (2001) asserts that a useful basis for understanding the emergence of an environmental ethic in tourism can be best described through the advocacy and cautionary platforms. These platforms do not replace the preceding ones, but rather coexists with each other in the contemporary global tourism sector. The advocacy platform emerged in the post-war era with a great support for tourism and a pro-tourism perspective. Tourism was "touted as a benign avenue to economic development that would be sustained by an inexhaustible supply of tourism resources" (Weaver, 2006:5). The advocacy platform emphasized generation of direct revenues, creation of employment, promotion of cross-cultural understanding and incentives to preserve the environment as the fundamental benefits of tourism. Advocates to this platform believed in a "continual growth" approach to tourism development that highlighted "if little tourism is a good thing, then more tourism must be even better" (Weaver, 2006:6). This ideology was consistent with the free market capitalism that focused on rapid growth for economic benefits where the tourism industry was seen as "a source of wealth for the developing „South‟ and a tool for the redistribution of income from the wealthier „North‟, within this period the potential for negative impact was largely unquestioned" (Miller and Twining-Ward, 2005:28).

The late 1960s and early 1970s was an era of great critique of the development of tourism (Miller and Twining-Ward, 2005) and saw the appearance of the cautionary platform which accentuated that "unregulated tourism development eventually culminates in unacceptably high environmental, economic and socio cultural costs for residents and destinations" (Weaver, 2006:6). Mass tourism development models were challenged and criticized as "meeting the economic and political requirements of the colonial powers" (Miller and Twining-Ward, 2005:29). Due to the intensified and rapid development of tourism of the advocacy platform, the negative impacts of tourism now became evident and tourism was criticized for "widening the gap between rich and poor, increasing crime rates and disrupting traditional lifestyles" (Miller and Twining-Ward, 2005:29). Dogan (1989:216) further declared that "the touristic centers of the Third World countries are swarmed by tourists from the industrial nations who leave behind them bewildered people, crippled institutions and a ravaged environment" (Miller and Twining-Ward, 2005:29). The environmental movement and the emergence of the green paradigm at the time further imposed the need for environmentally appropriate tourism development. As the detrimental impacts of tourism on the environment became realized, and the rise of environmentalism and the „green" consciousness emerged, the role of tourism in the environment was reassessed (Berry and Ladkin, 1997). In the last two decades an increasing number of studies have focused on the impacts of tourism development on the environment and the depletion of natural resources (Hunter and Green, 1995; Lindberg, 1991; Logar, 2010; Pearce, 1989; Pigram, 1980; Tortella and Tirado, 2011). "Environmental performance, environmental management and operational practices of tourism enterprises, is very much part of today"s agenda" (Leslie, 2001) and this has given rise to the concept of sustainable development and sustainable tourism (Foster *et al.,* 2000; Sharpley, 2009). The aspect of sustainability underpins responsible and environmentally-friendly management practices which are the focus of this study.

2.6 Sustainable development

"Sustainability is not only a popular but also a vague concept" (Jacobsen, 2007:105) and emerged in the political arena in the 1980s (Berry and Ladkin, 1997). Sustainable development has also become a significant central point for industry leaders (Singh *et al.,* 2012). Eber (1992:1) maintains that sustainable development "advocates the wise use and conservation of resources in order to maintain their long-term viability". The Brundtland Report defines sustainability as "meeting the needs of the present without compromising the

ability of future generations to meet their own needs" (Berry and Ladkin, 1997:434). Sustainable development is similar to alternative development as they both focus on human development whilst protecting the environment. According to Dresner (2002:64), sustainable development signifies a "meeting point for environmentalists and developers" and "advocates the wise use and conservation of resources in order to maintain their long-term viability" (Eber, 1992:1). The IUCN, UNEP and WWF are of the view that sustainable development means improving the quality of life while living within the carrying capacity of supporting ecosystems (Lee, 2001). Embedded in sustainable development is "the moral responsibility of ensuring that future generations inherit an undiminished bank of natural resources, rather than the recognition of „rights" to nature" (Holden, 2003:100). Evidently the driving force behind the emergence of sustainable development was the "awareness of the sheer scale of human interaction with the environment" (Sharpley, 2009:13). According to Hunter (2002:9), debates of sustainable development have highlighted:

> *...the role of economic growth in promoting human well-being; the substitutability of natural resource capital with human-made capital created through economic growth and technological innovation; the criticality of various components of the natural resource base and the potential for substitution; the ability of technologies and environmental management methods to decouple economic growth and environmental degradation; the meaning of the value attributed to the natural world and the rights of non-human species; and the degree to which a systems perspective should be adopted entailing a primary concern for maintaining the functional integrity of ecosystems.*

Miller and Twining-Ward (2005) argue that in the progression of ecosystem ecology and global change theory, there are a number of lessons for sustainable development:

- Firstly, sustainable development is not purely an economic, ecological or social problem but rather a combination of all three and therefore necessitates the integrated and interdisciplinary examination;

- Secondly, the complex and unpredictable nature of sustainable development requires a non-linear science approach;

- Thirdly, due to the evolutionary character of sustainable development, policies and actions have to be continually modified to suit changing conditions; and

- Fourthly, monitoring is required from local to global levels to enhance knowledge and reduce unexpected impacts on the ecosystem.

The rapid, unplanned growth of tourism in the 1960s called for a more planned and controlled approach to development. At the same time, attention was drawn to the widespread economic, socio-cultural and environmental impacts of tourism and by the 1990s "no topic concerned tourism academics, pressure groups, journalists and certain sectors of the tourism industry more than „these impacts of tourism" (Sharpley, 2010:3). Tourism development was considered to be unsustainable and therefore the 1980s saw the appeal for a more sustainable development of tourism.

2.6.1 Sustainable tourism development

A specter is haunting our planet: the specter of tourism. It‟s said that travel broadens the mind. Today, in its modern guise of tourism, it can also ruin landscapes, destroy communities, pollute air and water, trivialize cultures, bring about uniformity, and generally contribute to the continuing degradation of life on our planet.

(Croall, 1995:1)

The concept of sustainable tourism has become a growing topic in tourism literature (Green *et al.,* 1990; Hassan, 2000; Huybers and Bennett, 2003; Saarinen, 2006; UNWTO, 1999, 2004) and has been subjected to a number of interpretations and multiple definitions (Sharpley, 2009). Swarbrooke (1999:13) defines sustainable tourism as "tourism which is economically viable but does not destroy the resources on which the future of tourism will depend, notably the physical environment and the social fabric of the host community". Hunter (2002:11) believes that sustainable tourism is about "finding the right balance between the need for development and the need for environmental protection".

Although the definitions of sustainable tourism differ, there is general agreement on the key principles of sustainable tourism: social, economic and environmental equity (Jarvis *et al.*, 2010). The definition of sustainable tourism is regarded as being "complex, normative, imprecise and not operational" (Saarinen, 2006:1123) and "ideologically and politically contested" (Spangenberg, 2005:89). Terryn (2010:68) states that the concept of sustainable tourism development has major "shortcomings in providing guidance and vision" as the concept was "popularized, questioned, interpreted by innumerable users and everyone seems to impose its own interpretation on it". Therefore, sustainable tourism is best understood as an ideology or point of view rather than a precise operational definition. Lozano-Oyola *et al.*

(2012) argue that sustainable tourism is not a particular type of tourism, but rather an approach to tourism. The focus of sustainable tourism is on the sustainable use of resources and this ideology has created a stage for all stakeholders to reflect on the impact of their actions on the environment (Angelevska-Najdeska, 2012; Clarke, 1997; Lozano-Oyola *et al.,* 2012; Sharpley, 2009). According to Leslie (2001:130), in order to achieve sustainable tourism in a locality, the industry needs to reduce its waste and environmental impacts and "approach a state where a balance can be achieved between environmental exploitation and consumer utility". The accommodation sector consumes vast amounts of natural resources and generates large quantities of waste. There is therefore a dire need for this sector to reduce its impacts on the environment in order to achieve sustainable development.

The Triple Bottom Line reporting is considered a comprehensive approach to achieving sustainable tourism. Figure 2.4 illustrates the Triple Bottom Line approach to sustainable tourism and implies that sustainability incorporates social, economic and environmental responsibilities. Gimenez *et al.* (2012) argue that environmental considerations must be incorporated in all aspects and levels of business planning and management. Environmental sustainability entails the responsible use of resources and a reduced environmental footprint of the company. The focus is generally on waste reduction and management, pollution control, efficient use of energy, a reduction in harmful emissions and the conservation of resources for future generations. Social equity indicates equitable opportunities, an enhancement in quality of life for local communities and respect for socio-cultural norms. Economic efficiency pertains to economic viability of the tourism product and its destination and satisfaction in consumer demand. Through socially and environmentally responsible actions, tourism businesses should produce sustainable economic benefits (Gimenez *et al.,* 2012). Fundamentally, Assaf *et al.* (2012:596) deduce that the Triple Bottom Line approach to sustainable tourism "relates to a firms‟ need to generate economic welfare (that is, profit), while also caring for the society (that is, people) and the environment (that is, the planet)".

During the 1980s the environment "entered the arena of pressure group politics" (Holden, 2003:96). NGOs such as the Ecotourism Society (United States) and Tourism Concern (United Kingdom) advocated for more ethical forms of tourism, expressing concern about the effects of global mass tourism (Holden, 2003). In 1982, the UNWTO in conjunction with UNEP implemented a set of principles *„The Joint Declaration on Tourism and the Environment‟* (Hughes, 2002). The issue of sustainable tourism gained momentum at the end

of the 1980s by means of the World Conservation Strategy and the World Commission on Environment and Development's (WCED) Report (Bruntland Report) *Our Common Future* (Jarvis *et al.,* 2010; Ko, 2005; WCED, 1987) and the promotion of sustainable development (Bader, 2005; Berry and Ladkin, 1997; Garrod and Fyall, 1998; Irandu, 2006; Knowles *et al.*, 1999; Leslie, 2007; Williams and Ponsford, 2008; Yasarata, 2010). The WCED, which was led by Gro Marlem Brundtland, put forward an urgent call to "recalibrate institutional mechanisms at global, national and local levels to promote economic development that would guarantee the security, well-being and very survival of the planet" (Sneddon *et al.,* 2006:254). The Bruntland Report marked a "watershed in thinking on environment, development and governance" (Sneddon *et al.*, 2006:253) and indicated that "environmental protection should be accorded primary status in policy development" (Tzchentke *et al.*, 2008:126). Brundtland maintained that a "five-to-tenfold increase in global economic activity was necessary to meet the needs of the world's poor, but, recognizing the environmental costs of overdevelopment, that such an increase should be within the world's technological and environmental limits" (Sharpley, 2009:63). The Report also emphasized ethical considerations regarding human-environment relationships and placed the environment as a crucial factor of international governance (Saarinen, 2006; Sneddon *et al.,* 2006). A „triangle‟ of sustainable development emerged from this Report which highlighted economic responsibility, social inclusion and environmental stewardship as the "bedrock of 21st Century politico-environmental thinking" (Yasarata, 2010:346). By the 1990s, the paradigm of sustainable tourism was gaining much attention from practitioners and academics (Saarinen, 2006; Warnken *et al.,* 2005; Weaver, 2006). Moreover, the accommodation sector is also looking towards sustainable measures in an effort to embrace economic efficiency, social equity and environmental preservation (Best and Thapa, 2011).
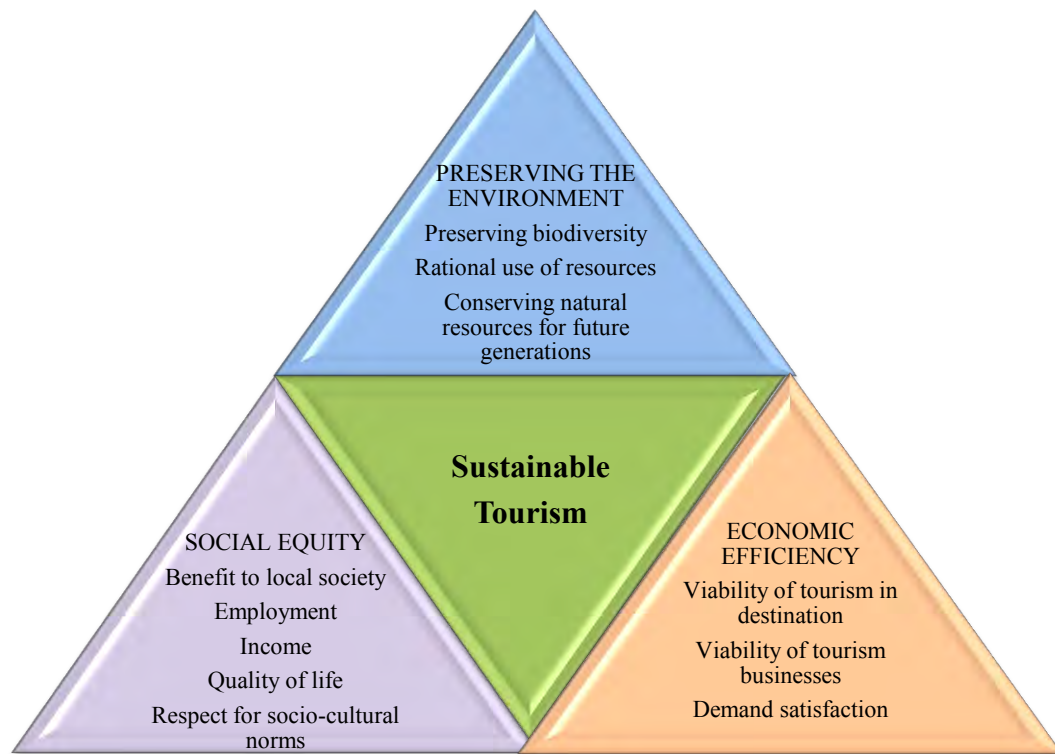
Figure 2.4: Sustainable tourism model: the Triple Bottom Line approach
Source: Modified from Fons et al. (2011:552)

Following the Bruntland Report were two United Nations conferences – the Earth Summit in Rio de Janeiro in 1992 and the Earth Summit in New York in 1997. The concept and definition of sustainable tourism was first presented at the Rio Earth Summit in 1992, which forced businesses and government to "recognize and mitigate the negative environmental repercussions of their developments" (Williams and Ponsford, 2008:2). A detailed blueprint for implementing sustainable tourism, *Agenda 21,* originated from the Earth Summit (Berry and Ladkin, 1997). Agenda 21 specified goals for government and the private sector to achieve in order to attain sustainable tourism development. Following Agenda 21, the WTTC, together with the UNWTO and the Earth Council published *Agenda 21 for the Travel and Tourism Industry – Towards Environmentally Sustainable Development* (Hsieh, 2012; Hughes, 2002; Meade and del Monaco, 2000, Tzschentke *et al.*, 2008). Moreover, the WSSD held in Johannesburg in August 2002 clearly declared that the tourism industry must take more active role in maintaining environmental quality (Terryn, 2010). The WSSD informed that local authorities, together with relevant stakeholders must formulate destination management strategies that focus on responsible and sustainable tourism.

Since the 1980s the UNWTO has also played a crucial role in sustainable tourism through formulation and dissemination of sustainable tourism practices and policies (Weaver, 2006). In 1999, the UNWTO took forward the issue of sustainable to the 7th Session of the UN Commission on Sustainable Development. The Sustainable Development of Tourism Department is contained within the UNWTO. Sustainable tourism took to the global arena with the International Year of Ecotourism, organized by the UNWTO. In the same year, the Secretary-General of the UNWTO gave a plenary address at the World Summit on Sustainable Tourism in Johannesburg. The UNWTO also initiated the *Sustainable Tourism – Elimination of Poverty* (STEP) with the aim to provide a research base to disseminate information and to coordinate international action on sustainable tourism (Weaver, 2006). The WTTC is an international organization representing the private sector and collaborates often with the UNWTO on sustainable tourism issues. The WTTC further launched the Blueprint for New Tourism in 2003.

Whilst the debate concerning sustainable tourism is fairly new, claims have been made that the tourism industry in particular has "begun to react energetically to the sustainability imperative" (Garrod and Fyall, 1998:201). Travel and tourism has begun to find a place on the "green growth agenda" (National Department of Tourism (NDT), 2011a:6). However, although sustainable concerns were adequately instituted on the global political agenda, implementation of sustainable practices has become a concern for many governments (Berry and Ladkin, 1997). Critics have argued that sustainable tourism has become a "catchword and an ideological slogan" (Jacobsen, 2007:105) or "greenspeak" (Dann, 1996:240) and "is now seen as a buzzword rather than an action plan" (Graci and Dodds, 2008:254). "The concern about the tourism-environment relationship is the gap between theory and practice" and the sustainable tourism debate is now becoming "a quagmire of jargon and debate and mere lip-service is made" (Knowles *et al.*, 1999:258). Moreover, Bohdanowicz and Martinac (2003) and Jacobsen (2007) believe that implementation of sustainable practice is limited and cautions that the mere existence of documents and events cannot bring about the necessary changes required for a sustainable tourism industry.

> *Sustainable tourism has the potential to become a tangible expression of sustainable tourism development. Yet, it runs the risk of remaining irrelevant and inert as a feasible policy option for the real world of tourism development, without the development of effective means of translating the idea into action.*

> (Berry and Ladkin, 1997:435)

2.6.2   Development theory, sustainability and tourism

The political aspect of development can be considered along a continuum with capitalism. On the one end capitalism and development are equal and on the other end there is no relationship with capitalism and development (Sharpley, 2009). Development may take place alongside capitalism or development may arise against capitalism where "capitalism is rejected in favor of more radical state intervention or people-focused approach to development" (Sharpley, 2009:36). The chronological sequence of development theory signals a shift from "traditional, top-down economic growth-based models through to more broad-based approaches focusing on bottom-up, people-centered planning within environmental limits" (Sharpley, 2009:38). Modernization (or westernization) of societies focused on economic growth and the inevitable need to move from traditional to modern structures. Rostow (1960) described this period as the "take-off stage" which led to the emergence of „growth poles" which acted as a "magnet for people and resources" (Sharpley, 2009:40). In many destinations, tourism was introduced as a growth pole to encourage national and regional economic growth and development. This was particularly evident in a number of island micro states and less developed countries.

The failure of economic growth-based models to development led to the emergence of the alternative development paradigm. Alternative development characterizes a "bottom-up or grassroots approach to development that focuses on human and environmental concerns" (Sharpley, 2009:42). It advocates that development should be people-centered and be guided by community needs and emphasizes development that is decentralized or localized (Broham, 1996). The alternative paradigm is linked to environmental sustainability and highlighted a community-participatory approach to tourism development. This laid the foundation for the emergence of „alternative tourism" which is tourism that is "appropriate to local environmental, social and cultural values that minimizes negative impacts" which is viewed as being "a better form of tourism than conventional mass tourism"(Sharpley, 2009:42).

Middleton and Hawkins (1998:431) argue that "sustainability in tourism is generally an aspiration or goal, rather than a measurable or achievable objective" and there is much debate about the process of sustainability assessment. A crucial element in achieving sustainability in the tourism sector is the willingness to adopt greater environmental actions (Erdogan and Baris, 2007) aimed at promoting the sustainability of tourism (Masau and Prideaux, 2003). According to Garrod and Fyall (1998), the debate on sustainable tourism needs to move

forward from merely defining the concept to a more careful consideration on how it may be implemented into practice. Ko (2005) maintains that a number of arguments and debates regarding sustainable tourism have been put forward only in theory and not at a practical level. A worrisome factor among tourism academics, however, is "that continuing merely to define and redefine what the concept of sustainable tourism means in principle will serve only to postpone a serious and concerted academic debate regarding the much more important issue of what it involves in practice" (Garrod and Fyall, 1998:201). Therefore, this study concerns itself with identifying and evaluating the environmental management practices implemented in the accommodation sector of the tourism industry.

Khosla (1995:9) believes that a suitable approach to measuring sustainability is "to bring sustainability closer to becoming an operational guide for designing a better future". Whilst the concept of sustainable tourism is still fairly new, "tourism stakeholders are collectively making promising but small transitions toward more sustainable practices" (Williams and Ponsford, 2008:2). Leslie (2007) maintains that the promotion of more responsible practices and the efficient utilization of resources are important in addressing the environmental performance of the tourism industry.

Tourism organizations have embraced change so that "all members prioritize environmental ethics as a value" (Faulk, 2000:7). Recently, a number of environmental protection projects have been developed and marketed under the name of ecotourism, sustainability and other green labels (Mihalic, 2000). Environmental action, according to Stabler and Goodall (1997), includes auditing, measuring, monitoring, implementing and reviewing business behavior and a commitment to improving environmental performance of the business. Hotels and a number of tourism organizations in particular are developing environmental guidelines, training programs and industry best-practice (Bohdanowicz, 2006). An increasing number of organizations have also been instrumental in addressing the environmental performance of tourism enterprises. These organizations range from international organizations to public sector and NGOs (Kilipiris and Zardaza, 2012; Leslie, 2001). Some civil society organizations have prompted businesses to adopt environmentally-friendly practices and industry codes of conduct and are also assisting businesses to implement sustainable practices (Williams and Ponsford, 2008). Furthermore, guidelines, such as the ten principles for sustainable tourism put development by the WWF and the WTTC"s environmental guidelines are often attractive and are widely adopted by tourism businesses. Williams and Ponsford

(2008) believe that the implementation of sustainable tourism practices is the responsibility of consumers, businesses and government.

> *Tourists must become aware of the impact of their tourism pursuits and adjust their activities accordingly; businesses must recognize the effects of their production process and modify them appropriately; regulatory agencies must monitor the effects of their tourism policies on destination environments and revise them as necessary.*
>
> (Williams and Ponsford, 2008:2)

According to Terryn (2010:67), "the tension between economic growth and environmental protection lies at the heart of environmental politics". Governing authorities have been faced with difficulty in an effort to transform the concept of sustainability into practical policies and governments also "lack the political will to impose restraints upon economic sectors" (Terryn, 2010:69). Local governments are often unable to manage environmental issues at a destination without transferring part of this task to the private sector. Due to the weak implementation of sustainable development principles, the implementation of EMT is emerging with a focus on "proposing a reconciliation between the opposing goals of economic growth and environmental protection, by so named ‚greener industrialization‛" (Terryn, 2010:69). This study examines the contribution of government policies and legislations in sustainable development and, more specifically, in environmental management in the accommodation sector.

2.7   The ecological modernization theory (EMT)

EMT is viewed as a paradigm for the "ecological restructuring of society" (Terryn, 2010:69) and calls for a transformation of the role of the national government, new ideologies and the increased role of social movements.

> *In the ecological modernization, traditional curative and repair options are replaced by preventative approaches by incorporating the environmental considerations into the production process. Moreover, more decentralized, bottom-up, flexible and consensual styles of governance that replace the traditional command and control policy-making, emerged. Increasingly, the social movements are involved in the public and private decision-making regarding environmental reforms.*
>
> (Terryn, 2010:69)

EMT aims to overcome the inadequacies of the traditional and bureaucratic environmental policies. An option of the EMT is to move environmental policies from curative and reactive to preventative, from exclusive to participatory, from centralized to decentralized and from authoritarian and over-regulated to flexible and simplistic (Terryn, 2010). EMT also entails the transferring of responsibilities for ecological transformation from the state to a better managed private sector. Tyrren (2010:70) views the EMT as a process of "ecologizing of the economy" and the "economizing of ecology". In terms of the tourism industry, this implies placing an economic value on nature and introducing mechanisms such as eco-taxes, environmental audits and environmentally-friendly products. The tourism industry can also demand audits for energy and water savings and waste management and should also engage in the careful use of natural resources by investing in green technologies to reduce the environmental impacts. Governments should also create the conditions for self-regulation and take responsibility for the monitoring and evaluation of environmental performance through economic instruments such as the „polluter pays principle" (Oom do Valle *et al.,* 2012). Tourism taxes can alleviate environmental impacts.

It is evident that environmental problems in the tourism sector are linked to the "consumption of tourism products" which entails consumption of water, energy and generation of waste. Tourists are the consumers of such resources and they should not be considered as "autonomous actors unaffected by the consumption decision of others" (Tyrren, 2010:72). In order for tourists to alter their consumption practices governments need to advocate an environmental and social message through political speeches, legislation and the funding environmental programs (Tyrren, 2010). Environmental policy-making has evolved from the "command and control" paradigm and the role of the state changes from "authoritative allocation to negotiation, hierarchy will give way to equality among negotiating partners and mutual trust among policy partners" (Tyrren, 2010:73). Recently, the EMT has proved to be one of the most promising ways of balancing the environment-society relationship in Western European countries.

Hodge (1995) believes that the tourism production stage is fairly short. This stage is characterized by the consumption of natural resources and the generation of waste whilst post-production tourism continues to consume elements of the environment and disperse waste. Environmental regulation is often exercised at the development stage whereas regulation hardly applies at the operational stage (Carter *et al.*, 2004). Since the quality of the

environment is part of the tourism product, sustainability of tourism largely depends on environmental quality. Wight (1994:665) argues that "the paradox is that for many years the tourism industry has proclaimed its awareness and sensitivity to the environment, but actions have not always corresponded to those assertions". However, signs are surfacing that the tourism industry "has learnt some valuable lessons and has taken steps to secure its own future" and is aggressively working towards more effective approaches to environmental management (Griffin, 2002:27). Similarly, due to its detrimental impacts on the environment, the accommodation sector has recently begun to address environmental concerns and this study hopes to unveil the nature and extent of environmental commitment in hotels and lodges in KwaZulu-Natal.

2.8   Environmental management

Nel and Kotze (2009) maintain that the concept of „environmental management" is vague and is a term that is used frequently but often in the wrong context. It is further believed that the term is entrenched in environmental law and is considered as a "management strategy that is ultimately aimed at shaping or changing the behavior of people in their environment" with the aim of regulating the "effects of peoples" activities, products and services on the environment" (Nel and Kotze, 2009:1). The concept of environmental management remains poorly defined and focuses instead on the characteristics of environmental managers and challenges of environmental management. According to Burgos-Jimenez *et al.* (2002:208), environmental management suggests "how a corporation implements measures to reduce or control the impact of its activity on the environment". This translates into actions that are taken by the company to protect the environment and the incorporation of these actions into the management process. Best and Thapa (2011:147) maintain that environmental management "encompasses measures taken to protect the environment from harmful anthropogenic impact so as to sustain resources over time". They further claim that although environmental management has played a major role in businesses in the past, "it has now become an international phenomenon" as many companies are now presenting environmental management as part of their core business philosophy.

Greenberg and Unger (1992) and Stevens *et al.* (2012) believe that a company"s environmental management activities are a way of measuring its environmental performance and also seen as "maintaining natural capital" (Alonso and Ogle, 2010:819). Therefore "the more environmental protection measures are taken by a company, the less will be the damage

to the environment and the greater will be its environmental performance" (Burgos-Jimenez *et al.*, 2002:209). Stevens e*t al*. (2012:206) state that environmental management in the past was in the form of "command and control regulations stemming from broad principles introduced at international level, which have become ratified through international treaties or conventions". A number of environmental regulations were criticized for being costly and inflexible. Levies and permits were also introduced to deal with environmental concerns but were found to be inadequate. Private instruments that run concurrently with existing legislations were thereafter considered more beneficial and this led to the adoption of a certified EMS (Stevens *et al.,* 2012).

Ayuso (2007), Chan and Hawkins (2010) and Stevens *et al.* (2012) specifically identify EMSs as the most effective tools in guaranteeing a company"s environmental performance. According to Hofer *et al.* (2012:69), firms have begun to embrace environmental management activities due to the increase in stakeholder pressure. Chan (2008:188) concurs that "an EMS is developed as a response to pressure to show environmental performance". They are viewed as "the most complete tool" due to its integration of other instruments such as codes of conduct, environmental best practice and environmental performance indicators (Ayuso, 2007:154). An EMS may be seen as "the integration of multiple environmental programs under a comprehensive organizational system" (Meade and del Monaco, 2000:2). Lee (2001:316) describes EMS as a tool used for managing environmental issues of a business in a "systematic and comprehensive manner" and is designed to achieve environmental protection in all aspects of its operations. Penny (2007:288) refers to EMS as "the processes and practices introduced by an organization for reducing, eliminating and ideally, preventing negative environmental impacts arising from its undertaking".

> *EMS relates to the conduct of existing day-to-day business operations and is a useful label for the range of programs undertaken by a public or private sector organization to protect, enhance or reduce its impact on the environment. It is a corporate approach usually based on auditing procedures, which involves setting objectives, measurable targets, a detailed program and a monitoring and evaluation process.*
>
> (Mensah, 2006:417)

An EMS may be seen as "the integration of multiple environmental programs under a comprehensive organizational system (Meade and del Monaco, 2000:2). It is designed to achieve environmental protection in all aspects of its operations. Chan (2008:188) believes

that "an EMS is developed as a response to pressure to show environmental performance". EMS is a tool used to manage environmental issues in a systematic and comprehensive manner (Lee, 2001) and Chan and Hawkins (2010) claim that EMSs are the most effective tools in achieving sustainable tourism. EMS involves internal and external environmental auditing and is able to: identify problems, formulate environmental policy, set environmental goals, measure environmental impacts, measure performance, determine effectiveness of EMS, provide a database for corrective environmental action and develop a business" environmental strategy and communication (Lannelongue and Gonzalez-Benito, 2012; Netherwood and Shayler, 1998). A formal EMS "provides a structure that allows management the ability to better control the company"s environmental impact" (Chan, 2008:188). This process should include commitment and policy, planning, implementation, measurement and evaluation and review and improvement. In the past few years, an increasing number of accommodation establishments have also initiated many corporate social responsibility (CSR) initiatives in an effort to conserve the environment and reduce social problems (Lee and Park, 2009).

CSR is also known as social responsibility (SR), corporate citizenship, corporate sustainability (Holcomb, *et al.,* 2007) and responsible tourism (Frey and George, 2010; van der Merwe and Wocke, 2007). Although literature on CSR is scarce (Bohdanowicz, 2006), CSR is defined as "the management of a company"s positive impact on society and the environment through its operations, products or services and through its interaction with key stakeholders such as employees, customers, investors and suppliers" (Holcomb *et al.,* 2007:462). Carroll (1979) believes that CSR is when businesses are responsible to society and should do what is expected from society. Lannelongue and Gonzalez-Benito (2012) claim that the concept implies that a coorporation has a responsibility not only to its shareholders but also to all stakeholders who are affected by the firm. Corporations are accountable to society and Wood (1991) states that responsibilities go beyond the legal and economic to include ethical and discretionary responsibilities. Scalon (2007:712) believes that "corporate leadership in environmental management is seen as the driving factor in the success of lodging environmental management programs". According to Lee and Park, (2009:105), "companies execute CSR activities for various benefits: to improve corporate images, to enhance the morale of their employees, to improve employee retention rates, to build sound relationships with governments and communities, and to respond to the growing expectations of customers and social groups". In recent years, the accommodation sector has

emerged in the forefront of CSR activities that focus on community upliftment and environmental management.

2.9   Conclusion

There exists a "natural contradiction between the danger of destroying the environment and the commercial imperatives" (Yasarata *et al.,* 2010:346). Although tourism has been identified as a potential economic savior for many countries, "the economic repercussions for destinations with visibly exhausted or polluted natural environments, can be severe" (Williams and Ponsford, 2008:2). Tourism is also seen as an "extractive industry as it operates by appropriating environmental resources and transforming them for sale in consumer markets" (Garrod and Fyall, 1998:199). Environmental change is further influenced by political and economic interests and often the view is that "tourism investments and environmental conservation are contrary to each other" (Yasarata *et al.*, 2010:355). In light of this, the quality of the natural environment is vital for sustainable tourism development (Irandu, 2006) as it is clearly evident that a "symbiotic relationships exists between the tourism product and the environment in which interaction takes place" (Carter *et al.*, 2004:46). The increasing importance of the tourism sector's interaction with the natural environment has driven the research agenda and has resulted in a number of studies focusing on environmental management and environmental related topics. Despite the limited development of a conceptual framework for environmental ethics related to tourism, an understanding of the conceptual framework of political ecology and sustainable development is vital in examining the environmental management in the hotel sector. A major focus of using the political ecology approach has accentuated human impoverishment and environmental degradation based on dominant development models that function in partnership with the state. This approach further provides a basis to conceptually incorporate various areas of tourism research, political economy, environmental characteristics and human environmental health (Stonich, 1998). Thus, the conceptual framework for this study provides a holistic view and an enhanced awareness of how to address environmental management in the hotel and lodge sector in KwaZulu-Natal.

CHAPTER THREE
LITERATURE REVIEW

3.1   Introduction

The review of literature entails identifying, locating and analyzing information pertaining to the research problem being investigated (Mugenda and Mugenda, 1999) and sets the stage for a good conceptual framework (Sekaran and Bougie, 2009). The literature review also serves to inform the theoretical and conceptual base for this study and shows how various studies relate to one another and ties up with the study. This Chapter therefore integrates past studies on issues such as environmental management and sustainable development within the hotel and lodge sector in a global and national setting. The Chapter commences with the examination of literature on the impacts of tourism and the hotel and lodge sector on the environment and the role of government in sustainable tourism. Thereafter, literature on environmental management on hotels and lodges is examined with specific reference to EMSs, codes of conduct, environmental best practice, ecolabels and awards and CSR activities. An overview of examples of environmental initiatives in hotels and lodges is also provided. The Chapter goes on to observe literature on the role of employees and consumers in environmental management in the hotel and lodge sector and the obstacles and incentives for environmental management in hotels and lodges. Lastly, the Chapter presents a synopsis of environmental management in South Africa.

3.2   Tourism and the environment

Research specifically highlighted that the key sources of tourism-induced environmental degradation are infrastructure development, natural resource extraction, the generation of waste and pollution, loss of vegetation coverage and soil erosion (Best and Thapa, 2011; Goosen, 2012; Hunter and Green, 1995; Mathieson and Wall, 1982; Mieczkowski, 1995; Sasidharan *et al.*, 2002), draining of wetlands, destruction of coral reefs, and increased deforestation (Holden, 2003). Studies further indicate that tourists utilize greater amounts of energy, water and materials in tourism destinations than they do at home (Irandu, 2006; Saarinen, 2006; Tabatchnaia *et al*., 1997; Tang *et al.*, 2011). Additionally, Griffin (2002:24) asserts that tourism has been accused of being "a despoiler of pristine environments, a destroyer of valued lifestyles and an exploiter of poor nations" and "there is no such thing as „zero impact‟ tourism" (Irandu, 2006:191).

There has been a huge increase in international tourist arrivals worldwide from 25 million in 1950 to 664 million in 1999 and the UNWTO predicts international tourist arrivals to reach 1.6 billion in 2020 (Graci and Dodds, 2008; Griffin, 2002). International tourism arrivals increased from 938 million in 2010 to 980 million in 2011, indicating a 4% growth rate (UNWTO, 2012). It is further predicted that the tourism sector will continue to gain superior economic weight in the future (Rodriguez-Anton *et al.*, 2012). The UNWTO forecasts that the number of international tourist arrivals worldwide will increase by approximately 43 million a year over the period 2010 to 2030. With an average growth rate of 3.3% a year, international tourist arrivals will reach more than 1 billion in 2012 and 1.8 billion by the year 2030 (Figure 3.1)
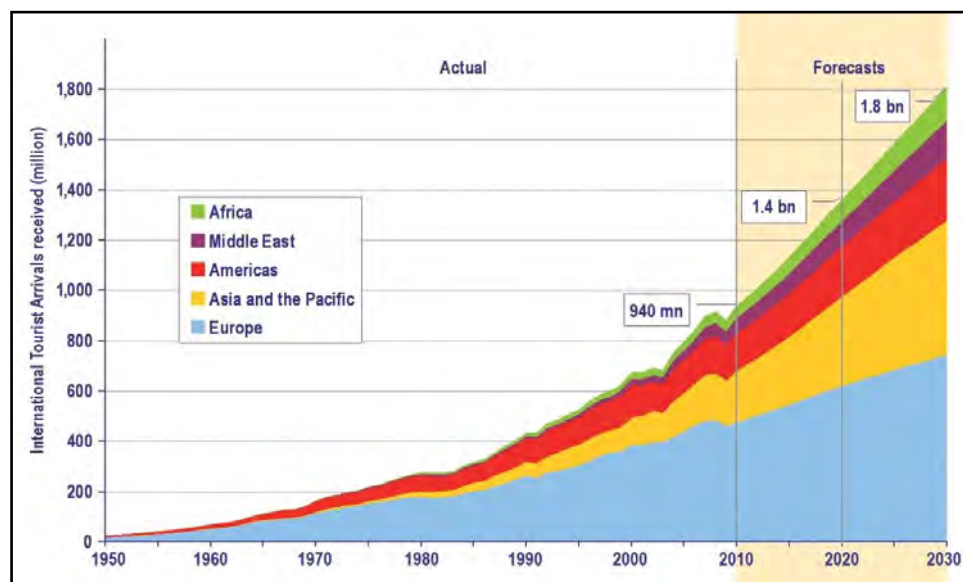
Figure 3.1: Tourism trend and forecast 1950-2030
Source: UNWTO (2012:14)

"The unplanned growth of tourism catalyzed by burgeoning numbers of tourists further resulted in the degradation, depletion and, in some cases, total destruction of essential economy-supporting natural resources" (Sasidharan *et al.*, 2002:164). Mass tourism has led to the over-consumption of resources and the rapid growth of tourism is perceived to be problematic due to the environmental and detrimental future of the industry in terms of its viability and image (Dief and Font, 2010; Han *et al.*, 2011; Tortella and Tirado, 2011; Williams and Ponsford, 2008). Mass tourism destinations are becoming mega tourism destinations and are "poised to propel global tourism into a period of accelerated expansion" (Weaver, 2006:xi). Hence, tourism is now regarded as an "extractive industrial activity"

(Garrod and Fyall, 1998:199) which is "threatening the industry"s viability and image" (Saarinen, 2006:1123). The rapid increase in tourist arrivals worldwide has subsequently led to the rapid and often, unplanned development of accommodation facilities. This has further contributed to the degradation and depletion of natural resources in a destination.

The tourism sector consumes considerable amounts of natural resources, both in its development and operation (Lozano-Oyola *et al.,* 2012; Scalon, 2007) and depends heavily on the environment (Knowles *et al*, 1999; Mensah, 2006; Rodriguez and Cruz, 2007; Rodriguez-Anton *et al.,* 2012). The environment is also part of the final tourism product being sold (Blanco *et al.*, 2009) and natural environments draw tourists and are places of tourism experiences. Often tourism development takes place in very fragile and ecologically sensitive environments and negative impacts occur when "tourism activity expands beyond the environment"s ability to cope" (Irandu, 2006:191). Eventually, the natural environment that the tourist experience depends on is exploited and degraded by tourist activities. A degraded natural environment becomes unattractive and will negatively affect a tourist experience (Faulk, 2000; Sharpley, 2009; Williams and Ponsford, 2008) and it is time that the industry realized that "tourists will cease to enjoy travel if the location is dirty, polluted and not aesthetically pleasing" (Kasim, 2009:723). There also exists a "natural contradiction between the danger of destroying the environment and the commercial imperatives" (Yasarata, 2010:346). Therefore, the critical question is "will the unfettered growth of tourism inevitably kill the goose that so many are hoping will lay them a golden egg" (Garrod and Fyall, 1998:199). The tourism industry is regarded as being "resource-hungry" (Sharpley, 2009:22) since the development of tourism fundamentally depends on natural environmental resources (climate, topography, ecosystems and habitats). Often there is an over exploitation of tourism resources which leads to loss of non-renewable resources. McKercher *et al.* (2010), Scott and Becken (2010) and Tang *et al.* (2011) emphasize that tourism is a major contributor to greenhouse gas (GHG) emissions and consequently a "non-negligible contributor to climate change" (Yang, 2010:213).

3.2.1 Tourism, global warming and climate change

An economy that has a low output of GHG emissions is termed a Low-Carbon Economy (LCE) or Low-Fossil-Fuel-Economy (LFFE) (Yang, 2010). Climate change is caused by an increase in GHG (especially CO_2) in the atmosphere. Between 1996 and 2005, the global

average land surface temperature has increased by 0.74 centigrade (Yang, 2010). According to Intergovernmental Panel on Climate Change (IPCC) (2001), global warming indicates the heating of the earth‟s atmosphere and an increase in global air temperatures. This phenomenon is predicted to bring about climate changes in many parts of the world. Climate changes entails extremes weather patterns such as floods, heat-waves, hurricanes, severe storms, tornadoes, etc. which will in turn lead to lower agricultural yield, reduced stream flows, glacier retreat, extinction of species and advent of diseases (Bowen, 2005; McCarthy et al., 2001). This can have considerable impacts on industries that are dependent on weather and natural resources (Agnew and Viner, 2001; Tang et al., 2011), such as the tourism industry.

According to McKercher et al. (2010:298), "tourism is both a significant contributor to climate change and global warming and a potential victim". In the tourism industry, a number of sectors contribute to direct and indirect carbon emissions and include emissions from electricity usage at hotels and resorts, passenger aircrafts and railways. The UNWTO (2008) reveals the contribution of tourism to CO_2 emissions (Table 3.1). Air transport accounts for highest share (40%) of CO_2 emissions from the tourism sector. This is followed by car transport (32%) and the accommodation sector (21%). McKercher et al. (2010) state that tourism contributes to roughly 14% of total GHG emissions. According to Yang (2010), emissions from tourism transport are likely to increase by 2.7% per year, emissions from ocean cruises are likely to rise by 3.6% per year and accommodation sector carbon emissions are predicted to rise by 3.2% per year. Poor management of tourism sites and products has also led to the increase of carbon emissions. The increase in carbon emissions is stimulated by air, water and noise pollution.

The economic sector that is likely to be most affected by this phenomenon is the tourism and hospitality industry (Becken, 2007). Due to tourism being highly dependent on the environment and climate, and is considered as a "climate-sensitive economic activity", climate change will inevitably damage the industry (Yang, 2010:212). For example, the tourism industry in the United States (US) is the second largest employer and currently there are concerns of the impacts of climate change especially in Florida where the rise in sea levels may have a detrimental impact on the sector (Richins and Scarinci, 2009). Climate change and rising sea levels pose a major threat to tourism (McKercher, 2010). Hamilton et al. (2005) and Hsu and Wang (2013) believe that climate change will result in a shift of

tourist destinations and a decline of current resorts and destinations. With rising temperatures, demand in destinations will also drop.

Table 3.1: CO$_2$ emissions from the tourism sector

Tourism sub-sector	Million tons	Share in tourism (%)
Air transport	515	40
Car	420	32
Other transport	45	3
Accommodation	274	21
Other activities	48	4
Total tourism	**1 302**	**100**

Source: UNWTO (2008:33)

Significant progress has been made in the field of tourism and climate change (Figure 3.2). Literature on tourism and climate change emerged 25 years ago with the first paper on the impacts of climate change on tourism published in 1986 (Wall *et al.*, 1986). The IPCC"s First Assessment Report was published in 1990 and made no mention of the tourism sector. However, the latter part of the 1990s saw a rapid increase in publications relating to tourism and climate change which doubled between 2000 and 2004 (Scott and Becken, 2010). IPPC"s Fourth Assessment Report of 2007 gave more attention to tourism. In the same year, the UNWTO, UNEP and the World Meteorological Organization (WMO) commissioned an assessment of tourism and climate change which focused on the vulnerability of tourism destinations, the contribution of tourism to climate change and highlighted methods of adaptation within the tourism sector (Scott and Becken, 2010).
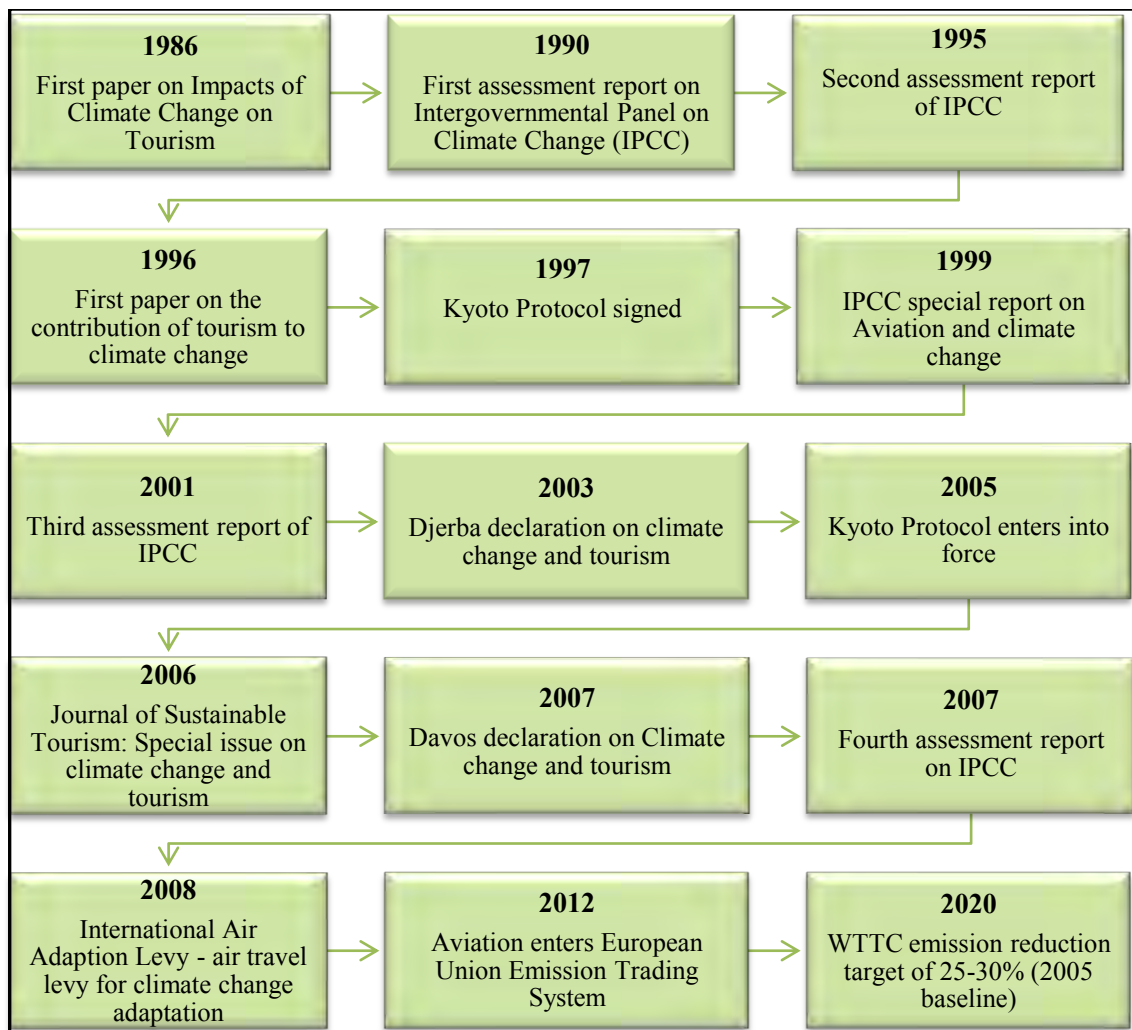
Figure 3.2: The progress on climate change and tourism
Source: Modified from Scott and Becken (2010:285)

The UNWTO and the UNEP arranged the First International Conference on Climate Change and Tourism in Tunisia in 2003. The conference helped raise awareness on the impact of climate change on the tourism sector. The second International Conference on Climate Change recently took place on the 13-14 September 2012 at Bournemouth University, UK. The major themes of this conference included: green economy, indicators and planning, sea-level rise, hospitality and green issues, GHGs and climate change mitigations. In 2007, the UNWTO presented the Davos Declaration which urged tourists to reduce their carbon footprint and to consider the impact of their travel options (McKercher, 2010). The United Nations Climate Change Conference also known as the Conference of the Parties was held in Copenhagen in December 2009 and was attended by 115 heads of state and approximately 40 000 delegates.

Expectations were high that the international community would negotiate substantial GHG emission reduction targets for all major emitters as well as emission targets for developing countries with larger economies and GHG emissions, agree upon terms to mobilize technology transfer to foster emissions reductions in developing nations, provide a framework and financial incentives to protect the remaining great forests in developing countries and provide a large increase in reliable funding for climate change adaptation in most vulnerable countries. Such a landmark agreement would have major implications for economies and economic sectors around the world – and tourism would be no exception.

(Scott and Becken, 2010:283)

Each nation was now required to set up non-binding undertakings to reduce carbon emissions and submit it to the United Nations Framework Convention on Climate Change (UNFCCC) in early 2010. According to Becken (2008), the UNWTO"s 2nd International Conference on Tourism and Climate Change emphasized the need for tourism to:

- Reduce GHGs;

- Adapt to climatic changes;

- Improve the use of technology; and

- Secure financial support for developing countries.

However, the USA has shown reluctance to support an international climate change agreement, until China, India and other developing countries implement emission controls. Despite the rapid projected growth emissions in some developing countries, the USA will remain "the world"s largest annual and historical contributor of carbon emissions for many years to come" (Baumert and Kete, 2001:1). Alonso and Ogle (2010:819) maintain that "environmental awareness is turning into a ‚hot" issue for managers as well as having become a high priority on the agenda for governments". Increasing concerns about the quality of the environment and the impact of economic development has resulted in numerous policy initiatives to promote sustainable development (Leslie, 2007). Governments have realized the importance of legislation and regulations as an effective measure to protect the environment (Erdogan and Baris, 2007).

3.3   The role of government in sustainable tourism

In order to be effective, sustainable tourism requires intervention by governments and a "command and control regulation" which incorporates government-led planning strategies (Bramwell and Lane, 2010:1). However, during the 1970s, this level of government involvement began to decline due to the economic crisis at the time which resulted from rises in oil prices, strong trade unions and unsustainable welfare demands (Bramwell and Lane, 2010). These economic difficulties brought about economic „neo-liberalism‟ where governments limited their involvement in many areas of public policy and supported free market capitalism. The reduced level of intervention by government created more competitive markets and led to an increase in partnerships between government and the private sector. Government planning gained a negative and poor reputation and countries with liberal democracies revealed a change in government intervention and planning. According to Owen *et al.* (1993), the need for government intervention in environmental management is essential as free markets fail to distribute resources in a sustainable manner. The importance of tourism in economic development was initially not recognized due to the slow growth of tourism in the post Second World War period. The post war period further resulted in the need for large-scale investment and reconstruction of lost infrastructure which involved extensive privatization. Tourism lacked planning and only from the 1970s was tourism fully recognized as having the potential for economic restructuring. The 1970s witnessed increasing criticism of government intervention in tourism and this led to a decline in government involvement in the ensuing decades.

Giddens (2009) believes that a higher level of government intervention in tourism planning will encourage more sustainable development as the failure of deregulation requires greater government intervention.

> *Commentators are now urging direct government intervention and planning in the face of the highly disruptive and potentially catastrophic threat of climate change. Here the tourism industry is seen as a growing and eventually substantial contributor to global warming. An increasing number of people now consider that only political action and government intervention can effectively restrict global warming by encouraging substantial responses to the new issues created by climate change.*
>
> (Bramwell and Lane, 2010:3)

Whilst governments may implement various forms of industry regulation, often tourism operators resist regulation as they are concerned with the costs associated with compliance.

Furthermore, direct regulation is "generally unwanted, challenging to implement, costly to enforce and difficult to monitor" (Williams and Ponsford, 2008:5). Therefore, many governments have moved away from the „command and control" legislative route for achieving sustainable tourism goals. Instead, government-instituted economic incentives are a more favorable route with tourism businesses as these incentives seek to influence business and consumer behavior by making courses of action more economically attractive. Such incentives include eco-taxes that levy „polluter pay" charges on activities and products that are environmentally damaging and subsidies that offered to tourism businesses that incorporate environmentally sustainable programs (Williams and Ponsford, 2008). Government-instituted economic incentives are therefore considered as a more favorable option and governments are looking towards economic incentive policies such as introducing subsidies for businesses that encompass environmentally sustainable programs and practices (Williams and Ponsford, 2008). Additionally, government can make available, through government-sponsored research, development strategies and tools and best management practices to guide tourism businesses towards environmental sustainability.

The role of government in the move toward sustainable tourism is crucial as governments at all levels have the responsibility of influencing how the private sector and other stakeholders utilize natural resources (Hall, 2000; Lannelongue and Gonzalez-Benito, 2012; Williams and Ponsford, 2008). However, Huybers and Bennet (2003) and Tang and Tang (2006) believe that not all environmental problems can be solved by government regulation alone and collaborative involvement from various organizations and the public and private sectors is required. Today, there is limited direct regulation and intervention by government in the planning of tourism with an increase in public-private partnerships. Erkus-Ozturk and Eraydin (2010) maintain that these partnerships and collaborative networks are crucial in addressing environmental concerns. Moreover, governments delayed concern in tourism planning and lack of related regulations has resulted in voluntary or self-regulation instruments (Ayuso, 2007; Tepelus and Cordoba, 2005). Self-regulating action networks are based on action-orientated practices and are encouraged by newly emerging organizations that share the same interests. Self-regulation networks are directed by the private sector, local organizations and NGOs, and such networks also help develop organizations for environmental protection.

The 1980s saw an awareness in environmental concern largely due to global warming, ozone depletion and greenhouse warming. The formation of NGOs such as the Ecotourism Society in the US and Tourism Concern in the UK highlighted the concern of the impacts of mass tourism and the environment (Holden, 2003). Given the detrimental impacts of the tourism industry and the fact that tourism is directly dependent on the natural environment, the need for sound environmental management in tourism is imperative (Holden, 2003).

3.4   Environmental management in the tourism sector

The manufacturing sector has shared a longer history with environmental management compared to the service industry (Kassinis and Soteriou, 2003). Grove *et al.* (1996) argue that this disproportionate attention to environmental management is problematic since the service sector utilizes a number of products daily, wastes resources and generates and abundance of waste. Burke (2007) is of the same opinion and believes that tourists, for example, consume more resources than residents of a community. For example, his study on Barbados and St. Lucia reveal that hotel guests consume about three times more water than that of residents (Burke, 2007). Different sectors of the tourism industry have embarked on sector-specific environmental actions. Outbound tour operators have shown a move towards sustainability practices as evidenced by their pilot project in the 1990s, and the International Federation of Tour Operators (IFTO) sought to engage its members in "proactive and social actions" (Weaver, 2006:77). The Tour Operators Initiative (TOI) was launched in 2000 in Europe with the intention of making the tour operators sector more environmentally sustainable (Weaver, 2006). The TOI has also developed an extensive set of indicators related to sustainable practices.

The airline sector is viewed as the least sustainable form of transport especially due to the increase in the volume of air traffic. Four percent of all carbon dioxide and nitrogen oxide emissions come from commercial airlines and this is the greatest cause of global warming (Weaver, 2006). Aircrafts are responsible for 3.9% of global warming which is expected to rise to 15% by 2050 (Faulk, 2000). However, since the 1970s aircrafts have by and large become "more fuel-efficient, lighter, less polluting and less noisy" (Weaver, 2006:81). National and international regulations such as those imposed by the International Civil Aviation Organization (ICAO) Committee on Aviation Environmental Protection have coerced the airline sector to pursue green initiatives. Airlines such as British Airways and American Airlines have been in the forefront in the pursuit of sustainability and have a

formal policy for environmental responsibility. American Airlines claims their recycling of waste between 1992 and 2001 to "save 51 000 trees, 19 300 000 liters of water, 6.6 million kilowatt hours of electricity and 10 600 cubic meters of landfill space" (Weaver, 2006:81). The introduction of more fuel-efficient aircrafts has led to the use of 360 million less liters of fuel in 2001 compared to 2000. Since 1990, British Airways have produced an annual Social and Environmental Report which is accessible to the public. Amongst British Airways best practice between 2000 and 2002 were a 15% reduction in carbon dioxide emissions, 4% reduction in water consumption and a 61% decrease in fuel spills. British Airways also sponsors the British Airways Tourism for Tomorrow Awards and British Airways Communities and Conservation (BACC) scheme. The latter funds conservation projects throughout the world (Weaver, 2006).

The cruise sector of the tourism industry has also gained a reputation for irresponsible environmental practices. Since passengers spend most of their time on a ship, an average one-week cruise generates "50 tons of garbage, almost four million liters of greywater (that is, liquid waste from sinks, showers and laundry), 800 000 liters of blackwater (sewage) and 130 000 liters of oil-contaminated water" (Weaver, 2006:82). Ships are also increasing their capacity and size which in turn have increased the quantity of waste, pollution and congestion generated. For example, the Voyager of the Sea (Royal Caribbean Lines) accommodates 3 840 passengers and 1 181 crew and such vessels have been described as ,,small cities". Cruise ships also spend a lot of time out at seas which compromises their ability to adhere to environmental sustainability as they are away from the territorial region of any country. Cruise ships account for more than 77% of all marine pollution and often the release of toxic waste takes place underwater which is difficult to detect (Weaver, 1996). Given the detrimental environmental impacts of cruise vessels, the issue of sustainability is imperative to this sector. The International Council of Cruise Lines (ICCL), the largest cruise line company, introduced its Cruise Industry Waste Management Practices and Procedures (CIWMPP) program which involves the implementation of environmental standards defined by the US Environmental Protection Agency (EPA). The program entails environmental awareness training, recycling, and testing of waste treatment technologies. In 2003, the ICCL together with Conservation International created the Ocean Conservation and Tourism Alliance aimed at protecting biodiversity through environmental awareness and wastewater management (Weaver, 2006).

Global concern for environmental quality has been conveyed in international agreements which have been transformed into national and local initiatives (Carter *et al.*, 2004). Industries that impact directly on the natural environment in terms of air, land and water quality tend to be sanctioned by environmental protection legislation. According to Carter *et al.* (2004), legislation related to environmental protection is targeted at waste-generating industries whilst self-regulation dominates the service industries (Figure 3.3). Land-based industries such as agriculture are concerned with environmental legislation, especially at the operational stage. Tourism is an industry that consumes land and therefore can be subject to "legislative instruments of town planning" which includes environmental impact assessments, environmental management plans and zoning plans (Carter *et al.,* 2004:48). However, tourism as an operational service industry, is not compelled to environmental legislation.

In the past decade the operational aspects of the tourism industry have been controlled by self-regulation environmental programs. The tourism product comprises a number of sectors which makes regulation by the public sector difficult. Due to the fact that tourism is regarded as "an industry relatively free from regulation", the sector has implemented industry-driven performance standards, self-regulatory initiatives and voluntary management systems to improve environmental performance (Tepelus and Cordoba, 2005:135). Moreover, the lack of systems to implement sustainable management in the tourism industry has resulted in the emergence of an increasing number of voluntary initiatives and instruments (Font, 2002; Kilipiris and Zardava, 2012). Such instruments are voluntary agreements which are neither created nor enforced by government and are not legally binding (Bramwell and Lane, 2010; Carter and O‟Reilly, 2000). They include ecolabels, codes of conduct, accreditation schemes and industry guidelines that emphasize environmental issues in tourism (Carter *et al.*, 2004) and these instruments have been deemed by UNEP (1998:1) as the "best way of ensuring long-term commitments and improvements".
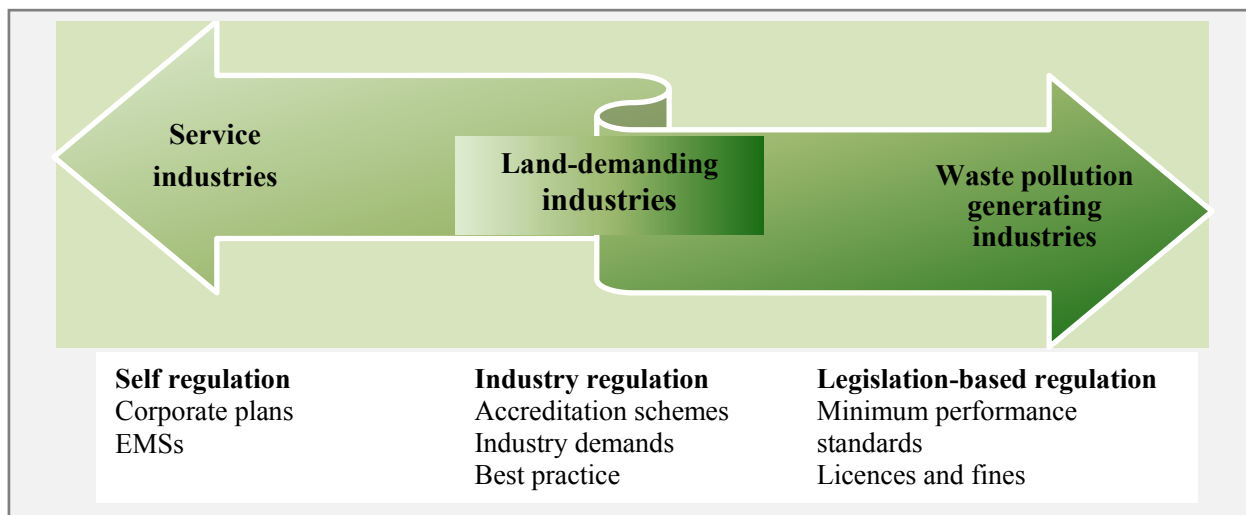
Figure 3.3: Industry regulatory instruments for environmental protection
Source: Carter et al. (2004:47)

Carter *et al.* (2004:46) claim that "voluntary approaches are deemed more appropriate than command and control mechanisms due to legislative and policy complications". For example, tour operators such as Touristik Union International (TUI) and Thompsons Tours have formulated environmental policies to control their environmental actions. Environmental auditing, to control the usage of water and energy, is also undertaken by a number of hotel groups, with a significant development being the IHEI in 1993. NGOs such as the WWF and Tourism Concern have also emphasized sustainable tourism in their codes of conduct (Holden, 2003).

However, the important question is how the environmental performance of enterprises is measured? "If we cannot measure it, how will we know when or if we have made progress?" (Leslie, 2001:132). According to Scanlon (2007), Leslie (2001), Warnken *et al*. (2005) and (Bohdanowicz *et al.,* 2005), the use of indicators and benchmarking provides a standard by which activity can be measured and typically compares operational efficiency and environmental impact within similar facilities There may be common issues of sustainability at destinations which requires core indicators whilst differences in sustainability concerns require site-specific indicators. The UNWTO developed a sustainability indicator framework and can be used in the development tourism sustainability indicators. Indicators can emphasize different dimensions of sustainable tourism development: environmental, economic, socio-cultural and institutional management (Carter *et al.*, 2004).

3.4.1 Benchmarking and indicators

The need to establish objective measures has led to the development of „sustainability indicators" or „efficiency indicators". A necessary step to attain environmental protection and economic development objectives is to set specific indicators to measure sustainable tourism (Angelevska-Najdeska, 2012; Leslie, 2001; Singh *et al.,* 2012). According to Ayuso (2007:152), "environmental performance indicators are tools to assess and communicate the environmental performance of a company". Carter *et al.* (2004:577) define an indicator as "something that helps you understand where you are, which way you are going and how far you are from where you want to be" and helps quantify, assess, monitor, measure and communicate relevant information. The UNWTO (1996:9) further contends that "indicators measure information with which decision-makers may reduce the chances of unknowingly taking poor decisions". Weaver (2006); Singh *et al.* (2012) and Lozano-Oyola *et al.* (2012) assert that indicators, also known as variables, can be used to measure or monitor a situation. The set of indicators to be used must be condensed but at the same time, comprehensive as this ensures that the indictors encapsulate vital information and is not time-consuming to implement.

Increased public environmental awareness has led to the recent development of a number of voluntary industry initiatives and environmental performance indicators (Meade and del Monaco, 2000). A number of „sustainability indicators" have been developed to assist in the sustainable development of tourism destinations. The establishment of indicators involved a review of a range of publications and initiatives related to the greening of tourism. Specific attention has been paid to the three core dimensions of sustainable tourism development – the local economy, the environment and the community (Leslie, 2001). Areas of action identified by the WTTC also informed the formulation of these indicators. The involvement of tourists and the awareness of environmental practices in conservation as well as the key elements of environmental auditing (use of resources and waste management) were further considered in the formulation of indicators (Leslie, 2001). Indicators generally relate to the impact of major environmental areas of atmosphere, energy, water and waste (Angelevska-Najdeska, 2012; Burgos-Jimenez *et al.*, 2002).

Table 3.2: Environmental indicators for the tourism

Sustainable tourism indicator	Performance indicator	Possible targets
Environmental awareness and management	• Presence of policy statement • Actual Environmental Assessment conducted • Membership in environmental scheme • Steps taken to rectify any environmental problems identified	• Environmental policy statement which shows adherence to sustainable tourism policy • Undertake environmental assessment • Management supportive of policy
Energy efficiency	• Energy conservation plan • Energy consumption monitored • Energy conservation measures	• Develop energy conservation plan • Use of energy saving devices • Monitoring energy use at all facilities • Develop appropriate strategies and/or alternatives for the management of energy resources • Staff and customers informed of the benefits of energy efficiency
Water efficiency and monitoring	• Water conservation plan • Scheduled water consumption monitoring • Water conservation measures	• Develop water management plan • Develop maintenance plan for checking and repairing all plumbing fixtures and storage tanks frequently • Monitor water quality • Promote water conservation amongst staff and guests
Recycling and reuse	• Type of waste most generated • Percent of materials recycled or reused	• Formal or informal recycling policy • System to deal with recyclable or reusable waste
Solid waste management	• Solid waste management plan • Systematic disposal of degradable and non-degradable waste in a way that is environmentally-friendly and non-polluting	• Develop solid waste management. • Collection, storage and disposal of waste in conformity with legislative requirements • Participate in community clean-up activities
Waste water management	• Waste water management plan • Attitude to waste water management • System of waste water disposal • Management system for accidental discharge of sewerage	• Develop hazardous waste management plan • Proper collection, storage and disposal of waste water • Waste water treatment plants operating properly
Pollution effects management	• Hazardous waste management plan • Deliberate action taken to reduce pollution levels	• Develop hazardous waste management plan • Knowledge of known and potential pollutants • Use of cleaners and disinfectants with <0.5% phosphates
Visual pollution	• Planning permission obtained • Conformity to local vernacular	• Planning approval obtained prior to building construction • Maintenance of traditional development patterns • Design and planning of physical structures conforming to established guidelines and cultural themes

Source: Roberts and Tribe (2008:587)

Table 3.2 shows environmental indicators for the tourism industry. These environmental indicators focus on environmental awareness and management, energy efficiency, water efficiency, waste management and pollution control. Energy and water indicators are based on their consumption levels and waste is determined by an approximation weight measurement. Critical to the evaluation of indictors are „benchmarks‟. Targets are set based on the related performance indicators. Weaver (2006:28) defines benchmarks as the "values against which the relative performance of an indicator is assessed, often in terms of what is desired". According to Bohdanowicz *et al.* (2005:163), benchmarking is "a systematic procedure of comparative measurement with the objective to achieve continuous improvement" and is an important system for environmental management in the hotel sector. The indicators emanating from the literature review in Chapters 2 and 3 and Table 3.2 were used to inform the design of the survey instrument used in this study.

Despite the emergence of a number of environmental performance indictors since the 1990s, there is no commonly agreed set of indicators for the hotel sector (Ayuso, 2007:152). The major environmental impacts by the hotel industry occur as a result of resource utilization, that is, water, energy, materials, chemicals, and pollution. Therefore common sustainability indicators for the hotel sector should focus on air emissions, water consumption, energy consumption and waste management.

3.5   The hotel sector

An integral component of the tourism industry is the accommodation or lodging sector and hotels form an integral component of the tourist image of a destination (Atul, 2008). The concept of a hotel was established in the early fourteenth century with the first hotel being developed in Paris in 1312. Soon thereafter, similar hotels began to emerge in France, Holland, Italy, Germany and a number of other countries. A number of hotels also came up in the summer resorts along the French and Italian Riviera. The development in transportation systems greatly influenced the development of hotels. "From the age of carriage and horses through the age of railroad into the era of jumbo jet, the hotel industry developed with the simultaneous development of transportation systems" (Atul, 2008:187). Consequently, a variety of accommodation facilities such as inns, taverns, private houses and hotels emerged as the tourist‟s demand for accommodation grew (Atul, 2008).

Different types of properties form part of the commercial accommodation sector and includes bed and breakfasts, guesthouses, backpacker hostels, luxury safari lodges and different types of hotels (Rogerson, 2012). Traditionally hotels emerged as an establishment offering lodging and food and beverage to guests. Today hotels have grown to include a variety of services such as restaurants, meeting rooms, conference facilities, spa facilities and entertainment (Rutherford and O'Fallen, 2007). According to the UNWTO, the global count of hotel rooms grew from 14 million in 1997 to 17 million in 2005. Page (2007) further estimates the global hotel room growth rate at 3% annually. The accommodation sector comprises small, independent operations and "whilst their individual detrimental impact on the environment is limited, their collective one is significant" (Tzschentke *et al.*, 2008:126). Services provided by hotels to guests are resource intensive (Bohdanowicz and Martinac, 2003, 2007; Graci and Dodds, 2008). The accommodation sector is viewed as having the most permanent footprint on the environment and has a vast impact on the sustainability of a destination (Ayuso, 2007; Tang *et al.*, 2012; Weaver, 2006). It is becoming fairly obvious that the hotel sector is increasingly harming and wasting environmental resources (Manaktola and Jauhari, 2007; Rodriguez and Cruz, 2007) and therefore "their impact on the environment cannot be underestimated" (Mensah, 2006:415).

3.5.1 Impact of the hotel sector on the environment

A number of studies have focused on environmental management in the hotel sector (Ayuso, 2007; Bohdanowicz, 2006; Dief and Font, 2010; Erdogan and Baris, 2007; Kasim, 2007, 2009; Mensah, 2006; Miao and Wei, 2012; Penny, 2007; Rodriguez-Anton *et al.,* 2012; Scanlon, 2007). The "lodging industry is the most environmentally harmful hospitality sector" and is regarded as being the largest consumer of natural resources and producer of wastes (Rahman *et al.,* 2012:720). This view is supported by national, regional and international organizations worldwide and has resulted in an interest in the study of general policies and daily practices of the tourism and hotel industry and their environmental behavior. Also, due to its function, operating characteristics and services provided, the hotel industry consumes large amounts of energy, water and non-durable products (Bohdanowicz, 2006; Chan and Hawkins, 2012; Grosbois, 2012; Kim and Han, 2010; Liu and Sanhaji, 2009; Min, 2011; Myung *et al.,* 2012; Tang *et al.*, 2012). Chan and Hawkins (2010:647) further claim that the operation of a hotel entails "round-the-clock operations" which makes excessive use of water and energy inevitable.

Conventional hotels have produced enormous harm to the environment from excessive consumption of non-recyclable goods, water and energy for heating, ventilating, air-conditioning and have released significant amount of emissions into the air, water and soil"

(Han et al., 2011:346)

A hotel discharges about 160-200kg of CO_2 per m^2 of room floor area per year, 1 kg of waste per guest per night and 170-440 liters of water used per guest per night (Bohdanowicz and Martinac, 2007; Liu and Sanhaji, 2009; Sloan *et al.,* 2009). The growing number of tourists worldwide leads to higher occupancy rates, rapid hotel development and the higher consumption of energy and resources, "thereby imposing an increasing ecological footprint" (Chung and Parker, 2010:49). The huge growth in the hotel industry has considerably affected the environment at a global level (Rodriguez and Cruz, 2007; Grosbois, 2012) and evidently the hospitality industry "will no longer be able to ignore its environmental responsibilities" (Brown, 1996:18). The sector is associated with the excessive consumption of non-durable goods and energy and water (Kim and Han, 2010; Penny, 2007) and, as illustrated in Table 3.1 , accounts for 21% of all CO_2 emissions. Figure 3.4 indicates that the sectors that consume the greatest amount of energy in the UK are retail (18%), hotels and catering (17%), education (13%) and commercial offices (11%). In the hotel sector, a large proportion of energy is used for heating, catering and hot water (Wiberg, 2009).
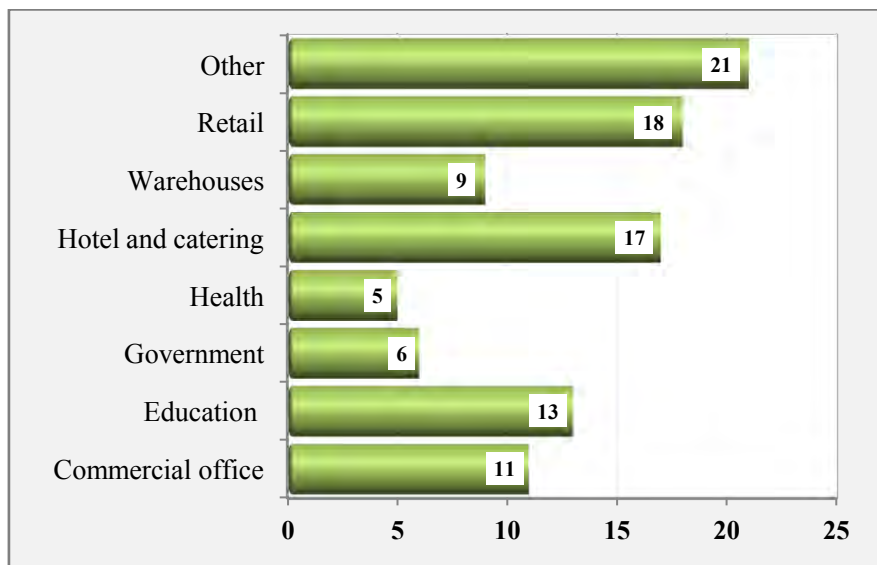
Figure 3.4: Service sector energy consumption by sub-sector
Source: Wiberg (2009:18)

Resource consumption in hotels and lodges differs according to the physical parameters of the building which includes size, building design, geographical and climatic location, type of energy and water systems installed, operation and maintenance schemes, type and amount of available local resources and energy and water use regulations and cost (Bohdanowicz and Martinac, 2007). Resource use within the hotel is further influenced by operational elements such as catering outlets, laundries, swimming pools and spas, recreational facilities, customers" awareness of resource consumption and services offered. Compared to other commercial buildings, ecologically, hotels are more conspicuous than any other buildings of similar size due to their high consumption of energy and water and the excessive generation of waste (Bohdanowicz *et al.*, 2011; Kasim, 2009; Min, 2011; Robinot and Giannelloni, 2010). The "environmental footprint of hotels is typically larger than those of other types of buildings of similar size" (Bohdanowicz, 2005:1643).

Figure 3.5 reveals that lodging buildings consume the largest amount of fuel compared to other buildings, which amounted to 3 700 million British thermal units (Btu) in 2003 (Liu and Sanhaji, 2009). However, "other than the carbon footprint effects of international air travel that can be traced to tourism activities, the hotel industry and its potential for local environmental impact reduction remains a silent space" (Chung and Parker, 2010). One of the major reasons for this is that the hospitality industry often lacks civil movement and governmental pressure (Kasim, 2009). Hotels are regarded as "fixed products in the tourism sector and are only influenced at the development stage by town planning, conservation and impact minimization regulations that relate to land-use and development" (Carter *et al.*, 2004). However, beyond the development stage, regulations, instruments and minimum standards are non-existent and often hoteliers lack support systems to encourage environmental responsibility.
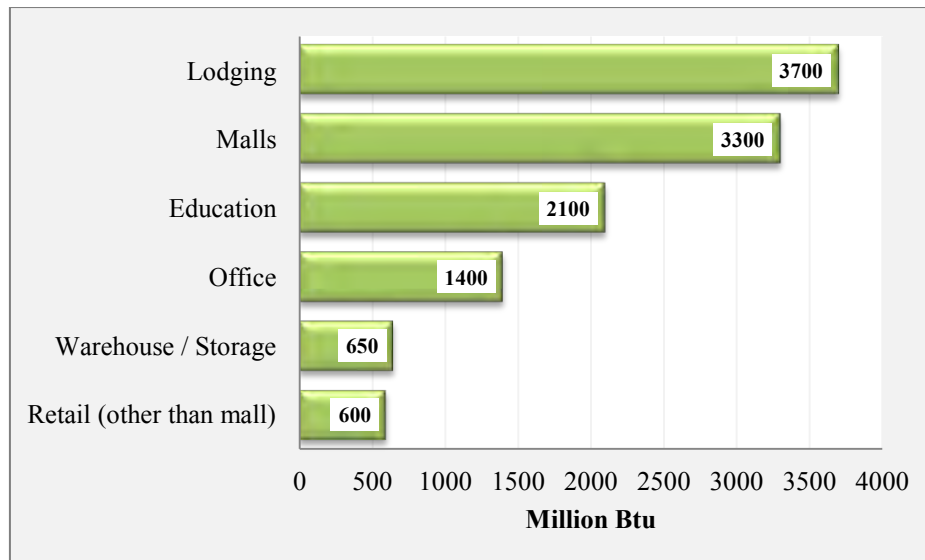
Figure 3.5: Major fuel consumption per building in 2003
Source: Liu and Sanhaji (2009:69)

This large consumption of natural resources has prompted the accommodation sector to explore sustainable tourism practices (Miao and Wei, 2012; Richins and Scarinci, 2009). Hoteliers are responsible for protecting the environment since "their continued existence is reliant on the environment" (Bader, 2005:70) and they are now faced with the pressure to give attention to environmental issues and policies at every phase of their business venture, "from the preparation and application of site plans and business programs and policies to daily routine practices (Erdogan and Baris, 2007:604). The hotel sector has a crucial role to play in protecting the natural environment and resources and one way to achieve this to implement environmental management initiatives (Best and Thapa, 2011; Erdogan and Tosun, 2009).

3.6 Environmental management in the hotel sector

Environmental attention in the hospitality sector began over half a century ago and was pioneered in destinations such as Caneel Bay and Maho Bay Camps in the US Virgin Islands (Goldstein and Primlani, 2012). Best and Thapa (2011:147) state that there are three critical issues that needs to be examined when assessing environmental management in the accommodation sector. Firstly, accommodation providers are profit driven and therefore managers need to make "fiscally responsible decisions". Secondly, this sector offers a service to guests and managerial decisions are based on optimizing customer"s satisfaction (Gustin and Weaver, 2006). Thirdly, the development and operation of accommodation establishments impacts on the natural environment.

To support the Agenda 21 sustainable development, the IHRA and industry leaders were present at the 7th session of the UNCSD in April 1999. Issues and future concerns for the international lodging industry were identified at this forum (Scanlon, 2007). Initiatives such as the IHEI in 1993 led to efforts to green the hotel industry. The IHEI published a manual *Environmental Management for Hotels: the Industry Guide to Best Practice* aimed at general managers of hotels (Brown, 1996; Hsieh, 2012; Kattara and Zeid, 2002; Tzchentke *et al.,* 2004). Since, many green movements have emerged and have improved the ecological performance of many hotels, reduced their operational costs and enhanced their corporate image (Han *et al.,* 2009). According to IHEI (1996), a more strategic environmental management program for hotels should include:

- Having a clear environmental policy;

- Designating a staff or team to be in charge of environmental management;

- Creating an implementation plan to reduce the excessive consumption of goods, energy and water, and emissions;

- Having a plan to raise the environmental awareness among staff and customers;

- Participating in activities of local communities such as donations;

- Becoming a member of some environmental organizations and conducting research;

- Seeking published information on environmental matters; and

- Having a plan to audit environmental performance.

Jovicic (2010:947) maintains that the management of accommodation facilities requires substantial knowledge of environmental issues, especially about "its environmental balance sheet in terms of consumption of natural resources". Improving the environmental performance of hotels is often driven by the need to preserve the local environment, reducing operating costs, gaining competitive advantage, institutional pressures and growing demand by responsible travelers (Chan and Hawkins, 2010; Choi *et al.,* 2009; Erdogan and Baris, 2007). Therefore, the benefits that a hotel is likely to accrue from sound environmental practices include good public relations, financial savings, a positive reputation and increased publicity and marketing (Masau and Prideaux, 2003). Often the implementation of environmental programs has resulted in environmental awards which contribute to marketing opportunities and positive publicity. This study examines the benefits and costs associated with environmental management in hotels and lodges.

According to a study based on the Antalya tourism region (Erkus-Ozturk and Eraydin, 2010:119), a number of accommodation establishments are aware of environmental conservation and large to medium-sized hotels indicated a need to build collaborative action on environmental issues as they believed that they "need higher service quality and superior environmental qualities to be more competitive in the global marketplace". A study on Swedish and Polish hotels indicated that majority of hoteliers (95%) expressed serious concern for the environment which can be attributed to priority being given to environmental issues at a national level (Bohdanowicz, 2006). Knowles *et al.* (1999) in their research on the London hotel sector revealed that 94% of respondents were found to be taking some form of action on environmental issues.

Whilst environmental management has now become an important issue for the hospitality industry (Erdogan and Baris, 2007, Han *et al.*, 2011), environmental stewardship is not always a top priority for many countries (Cunningham, 2005) and the "challenge lies in getting businesses to adopt environmentally-friendly practices" (Erdogan and Baris, 2007: 611). Knowles *et al.* (1999:262) maintain that the hotel sector "exhibits a gap between environmental good intention and action". The area of environmental performance of enterprises is generally ignored and there is a widespread ignorance on such issues despite growing attention around sustainable development and the need to balance economic growth with environmental quality (Leslie, 2001). A number of managers believe that environmental issues don"t affect their business (Leslie, 2001) and tend to display a "shallow environmental ethic" (Tzschentke *et al.*, 2004:117). Moreover, hoteliers tend to believe that there are no financial benefits from green initiatives (Kang *et al.*, 2011). A study by Essex and Hobson (2001) revealed that 50% of accommodation establishments believed that there were no financial rewards in adopting environmental practices. Hoteliers also believe that mere compliance with laws and standards is adequate in making their facilities environmentally responsible (Despretz, 2001). Even though a number of hotels may show an interest in environmental aspects, only a few carry out formal environmental audits (Goodall, 1994). Furthermore, many managers may still be "operating with the old world mental models" that do consider the value of the environment (Brown, 1996:19).

Gray and Collison (1991) believe that the environmental performance of a hotel should be part of the appraisal system of the general manager. Brown (1996) concurs that the responsibility of implementing a company"s environmental policy is that of the hotel manager

who should be able to identify environmental issues that affect the hotel. Although environmental concern should be part of a hotel's strategic concerns, not all hotel companies give recognition at all to environmental issues in a strategic context (Brown, 1996). Often the concept of a green hotel is not accepted by hoteliers as they believe that their business is based on "perceived opulence, luxury and grandeur" (Graci and Dodds, 2008:254). Hence despite hoteliers being fully aware of the benefits of environmental management practices, "this awareness of good intentions is not always translated into actions" (Penny, 2007:293). Of those hotels that do implement environmental strategies little is known about their "motivations, management processes and controls, performance measurement and accountability systems" (Chung and Parker, 2010:51). Furthermore, whilst hoteliers may be supportive of environmental management, their actual commitment is still subjected to the issue of consumer demands, capital resources and information and time (Kasim, 2009). Geo-political, economic and socio-cultural contexts of a country can also greatly affect the attitudes of hoteliers towards environmental issues (Bohdanowicz, 2006).

There are various ways in which hotels can go green. These include energy and water management and recycling practices, reduction in the consumption of resources, engaging with green vendors and green service providers, and recycling (Rahman *et al.*, 2012). The global trend is to encourage hotels to engage in green practices (Han *et al.*, 2011) and an increasing number of hotels are now embarking on the implementation of eco-friendly practices and environmental strategies (Brown, 1996, Enz and Siguaw, 1999,2000; Han *et al.*, 2011; Kang *et al.*, 2012; Min, 2011). Hotels are now joining the green movement to reduce harmful impacts on the environment (Han and Kim, 2010) and „eco-hotels" or „green hotels" are fast becoming the favorite of the travel and hospitality industry.

Persic-Zivadinov and Blazevic (2010:166) describe an eco-hotel or green hotel as "a hotel or accommodation facility that has made important environmental improvements to minimize its impact on the environment". According to Han *et al.* (2009:1), a green hotel is "an environmentally-friendly hotel establishment that practices green principles and programs to help save the environment as well as to improve the hotel's effectiveness". The term „green" is also known as „eco-friendly", „environmentally-responsible" or „environmentally-friendly". Initially these hotels were termed eco-lodges due to its natural location and traditional building methods. However, the term now includes all properties that are improving their

green practices and credentials. According to Bostwick (2007:1), majority of eco-hotels fall into one of several categories:

- Hotels and resorts that conserve ecologically significant habitats
- „Green‟ hotels that reduce, recycle, minimize waste and conserve water
- Sustainable hotels that harvest food from gardens on the hotel property or obtain power from renewable energy
- Hotels that encourage community involvement
- Hotels that offer some form of environmental education to their guests

Bostwick (2007) maintains that regardless of what they are called, eco-hotel, eco-lodge or green hotel, they are all part of the „greening‟ of the hospitality industry, representing a determined effort on the part of hotels to become environmentally and socially conscience. According to Han *et al.* (2011), the term „green‟ refers to actions that reduce the impact on the environment. In view of the fact that a „green hotel‟ indicates an eco-friendly hotel that implements environmental management programs and practices, a major part of the greening of the hotel industry entails implementing „green‟ policies and programs in the areas of water usage, energy efficiency and indoor environmental quality. Fairmont Hotels and Resorts has been the leader of the „green‟ hotel movement. Their Green Partnership program guide, introduced in 1990, has been used as a model for other hotels, including Four Seasons and Hyatt. The Green Partnership guide includes everything from recycling and organic waste diversion, to energy efficient lighting and purchasing green power. They have recently launched Eco-Meet, a green meeting and conference option (Bostwick, 2007).

By taking a head start on environmental management, the hotel sector can plan in advance and "avoid expensive remedial measures" (Graci and Dodds, 2008:265). Furthermore, given that public authorities regulate the tourism sector very little, voluntary instruments are especially relevant. Since the 1990s a number of hotels have undertaken various voluntary initiatives to show their commitment to sustainable tourism. Such voluntray tools focus on the environmental aspect of sustainability and includes "environmental management systems, codes of conduct, best environmental practices, ecolabels, and environmental performance indicators" (Ayuso, 2007:145). An assessment of the implementation of environmental ecolabels, codes of conduct and other voluntary tools will be undertaken in this study to ascertain its contribution to the sustainable operation and development of hotels and lodges.

3.6.1 Environmental Management System (EMS)

A formal EMS "provides a structure that allows management the ability to better control the company‟s environmental impact" (Chan, 2008:188). According to Garay and Font (2012), EMSs do not reduce impacts on the environment, but they initiate procedures to improve environmental performance through a structured and systematic process. Operational practices entail transformation in production and operation systems. Such practices are governed by environmental actions aimed at reducing operation costs, minimizing resource consumption and engaging in green procurement (Ayuso, 2007; Bohdanowicz, 2006; Chan, 2008; Chan and Hawkins, 2010; Lannelongue and Gonzalez-Benito, 2012). EMS involves internal and external environmental auditing and is able to identify problems, formulate environmental policy, and set environmental goals, measure environmental impacts, measure performance, determine the effectiveness of the EMS, provide a database for corrective environmental action and develop a business‟s environmental strategy and communication (Lee, 2001; Netherwood and Shayler, 1998). EMSs appeared in the 1990s with the best known being ISO 14001 which was released in September 1996 by the International Organization for Standardization (ISO) (Chan and Hawkins, 2010). ISO is an NGO and was formed in 1947 to develop worldwide standards (Chan, 2008). Currently, it is the largest developer and publisher of international standards. As illustrated in Figure 3.6, the ISO EMS essentially comprises five principles: environmental policy, implementation and operation, checking and corrective action and review and improvement (Chan and Wong, 2006). A committed environmental policy must be developed and should include compliance with relevant legislation and regulation. The planning stage of an EMS entails an analysis of micro and macro issues. A structured set of responsibilities must thereafter be developed focusing on awareness and training, operation controls and documentation. Environmental performance is then measured, monitored and recordered and the necessary corrective action is taken in the case of non-compliance. The EMS is subjected to regular review to cater for changing needs.
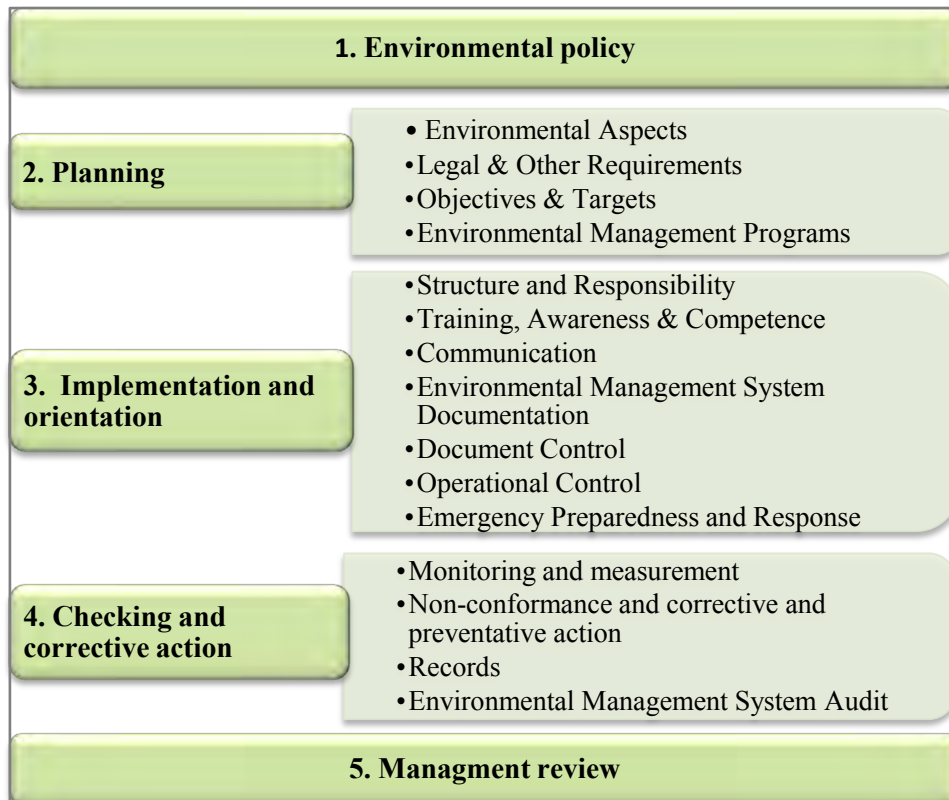
Figure 3.6: Elements of the ISO 14001 EMS
Source: Chan and Wong (2006:483)

In 1996, ISO introduced ISO 140001 which addresses environmental management and focuses on minimizing harmful effects on the environment caused by activities and continual improvement of environmental performance (Font, 2002). The ISO 14001 EMS standards consist of 20 environmental standards that are voluntary and process-orientated (Chan, 2008) and ensures the following in the implementation of EMSs:

- Complies with relevant environmental regulations
- Develops a systematic structure to implement environmental performance
- Improves the environmental awareness and efficiency of employees
- Achieves continual improvement in environmental performance
- Enhances the image of businesses

The ISO 14001 series offers a comprehensive guideline on the content of EMS, auditing, environmental performance evaluation, etc. (Chan and Ho, 2006; Faulk, 2000). According to Chan and Hawkins (2012), at the end of 2009 there were more than 223 149 companies worldwide certified against ISO 14001. While critics believe that ISO 14001 does not ensure

either legal compliance or improvements in performance, advocates believe that ISO 14001 can bring about significant operational, managerial and competitive benefits for businesses (Rondinelli and Vastag, 2000). ISO 14001 is viewed as a label for image-building. For example the Portuguese resort of Jardim Atlantico is in compliance with ISO standard 14001 and has received the „European Ecolabel", which is the highest environmental certification available from the European Union. The island Shangri-la hotel, a 5 star hotel in Hong Kong began the process of developing an EMS and became the first hotel in Asia to obtain ISO 14001 certification (Chan and Ho, 2006). The hotel developed an environmental management manual which focused on immediate and long-term environmental impacts of the hotel and an environmental consultant was employed to achieve the hotels environmental goals. Chan (2008) claims that a number of additional hotels in Hong Kong such as the Kowloon Shangri-La, Hotel Nikko and Grand Stanford Inter-Continental are ISO 14001 accredited.

Meade and del Monaco (2000) further suggest that hotels usually take the following approach to developing an EMS:

- An assessment is firstly carried out in order to determine: improvements to be made, costs of improvements and the changes in consumption and waste generation to be expected. The assessment also acts as a baseline against which to measure change.
- The hotel then decides on objectives such as using water more efficiently. Targets are set for these objectives, such as installing low-flow shower heads.
- Thereafter an action plan is formulated whereby the hotel identifies the individuals or departments responsible for achieving the targets. Often, changes in staff procedures and achieve major improvements.
- Finally, the hotel must measure and note the impact and any changes from the baseline. This information will determine whether the EMS is working.

Chan and Hawkins (2010) claim that the implementation of an EMS is fairly expensive in terms of financial and human resources and in order for EMS to be successful, the attitudes and behavior of employees is extremely important. The greatest challenge is "getting people to invest emotionally in these ideas and change their behavior" (Chan and Hawkins, 2010:641). Costs include those associated with initial set-up, maintenance and improvement such as software and hardware facilities, purchase of monitoring and measuring equipment, facilities and equipment for document processing and storage, hiring specialist environmental

assistance, staff training and staff recruitment. There are also costs associated with the continuous maintenance and improvement of the EMS (Chan and Ho, 2006).

Rodriguez and Cruz (2007) indicate that responsible management of the environment is intrinsically linked to the quality of the tourism product. In particular, the hotel sector is embarking on a number of environmental programs, in the form of voluntary initiatives, to protect the environment (Chan, 2008; Erdogan and Baris, 2007; Font, 2002). Mihalic (2000) indicates that there are four key categories of EMSs for the tourism and hospitality sectors which comprise environmental codes of conduct, environmental best practice and environmental accreditation schemes such as ecolabels and awards. These EMSs will be examined in this study to highlight its contribution to environmental management in the accommodation sector.

3.6.2 Environmental codes of conduct

Also known as codes of ethics, codes of conduct are defined as a "set of guidelines that aims to influence the attitudes and behavior of those claiming adherence to it" (Weaver, 2006:111). They are also considered as "public statements that aim to show commitment to basic principles of environmentally sound (and sustainable) company performance" (Ayuso, 2007:147). Codes have also been developed by governments, the private sector and NGOs. A common feature of sustainable codes of conduct is the commitment to protect the natural and socio-cultural environment (Mihalic, 2000; Weaver, 2006) and aims "to influence attitudes and modify behavior" (Mason, 2008:225). Codes of conduct have been developed in response to the global call for environmental conservation and a need for self-regulation in the industry (Holden, 2003) and are often considered a suitable path for sustainable tourism. The Rio Earth Summit led to the formulation of codes of conduct directed at the tourism sector to guide sustainable development. Environmental codes of conduct for the tourism sector vary considerably: they may be national, regional or international industry codes; they may be directed to the tourism industry, host communities, visitors or organizations (Gennot, 1995). National or international codes are more general and abstract, such as the UNWTO codes of conduct. A number of industry codes of conduct have also originated from organizations and private enterprises such as the International Air Transport Association (IATA), The WTTC, the Association of British Travel Agents and the American Society of Travel Agents (Holden, 2003). Generally codes of conduct acknowledge the importance of environmental awareness and usually provide a guideline to environmentally-friendly behavior. Often putting forward

environmental codes of conduct is the first set an organization makes towards environmental responsibility.

Codes of conduct are not costly to develop and directives are usually easy to understand. The directives provide the basis for the development of specific sustainable tourism indicators (Bendell and Font, 2004) and "codes of conduct provide the basis for moving towards higher levels of quality control" (Weaver, 2006:114). Given that codes of conduct are voluntary and self-regulated, it is considered non-threatening for organizations to adopt. However, they are often problematic to implement. Firstly, codes of conduct "offer general directives rather than specific objectives" which are often vague and open to interpretation (Weaver, 2006). Secondly, they do not specify timeframes for objectives to be met which results in no pressure to put actions forward. Thirdly, adherence to codes of conduct are voluntary and implies withdrawal if adherence becomes costly or inconvenient. Lastly, codes of conduct are self-regulated and often companies may not critically assess its performance or take remedial action (Mason and Mowforth, 1995; UNEP, 1995).

Garrod and Fyall (1998:203) further argue that simple codes of conduct and guidelines act as a "quack remedy, with sufficient potency to make the patient feel somewhat better but lacking the substance to cure them of their ailments" and tend to trivialize the sustainability problem. Their simplicity leaves it open to interpretation as there is a general lack of knowledge on how these principles can be put into practices (Garrod and Fyall, 1998; Holden, 2003). Also, such initiatives have been problematic due to their "universal nature, lack of specific responses to the nature and size of an operation, and the effect of variability inherent in the receiving environments" (Carter *et al.*, 2004:51) and "while these initiatives are incrementally moving tourism towards in a more sustainable future, in many cases the immediate threats of environmental degradation are far too great for such a gradual transition" (Williams and Ponsford, 2008:2). As a result a number of hotels are embarking on „environmental best practice" to address environmental concerns. This study seeks to assess the various codes of conduct adopted by hotels and lodges in an attempt to address environmental concerns in a destination.

3.6.3   Environmental Best Practice

The 1990s saw the emergence of the tourism industry, and more specifically the hotel sector incorporating best environmental practices in their business activities. The hotel industry in the past few years has increased their efforts towards environmental protection and has made significant investments in going green. Cost savings are usually the main drivers for environmental best practice as the control of resource consumption contributes to financial savings (Blanco *et al*., 2009; Chan and Wong, 2006; Iwanowski and Rushmore, 1994). Kang *et al.* (2011) believe that by installing "eco-friendly technology" such as solar panels, recycling bins and low-flow showerheads, hotels can substantially reduce their impact on the environment and save costs. In a study on environmental management in the Caribbean accommodation sector, Best and Thapa (2011) found that 68% of hotels adopted environmental management practices largely in the form of environmental best practice (energy-saving bulbs, water saving devices and recycling) on an ad hoc basis. The most common action areas of best environmental practice include energy conservation, water conservation and waste management (Ayuso, 2007:148). These elements of environmental best practices are thoroughly assessed in this study and its contribution to environmental management in hotels and lodges is extensively evaluated.

3.6.3.1   Energy Conservation

Public awareness and concern about energy consumption has been heightened by global warming and climate change (Tang *et al.,* 2012). Agenda 21 for the Travel and Tourism Industry formulated by the WTTC and the UNWTO, identified energy use and conservation as one of the major environmental issues facing the tourism industry (Tsagarakis *et al.,* 2011).

> *The worldwide economy burns every day and amount of energy the planet required 10 000 days to create. In other words, 27 years" worth of stored solar energy is burned and released by utilities, cars, houses, factories and farms every 24 hours.*

> *(*Rahman *et al.*, 2012:720)

Hotels generally have extremely large and expensive energy requirements (Alexander, 2002; Nikolaou *et al.,* 2012) especially in the provision of comfort and services to guests (Bohdanowicz *et al.*, 2001). Therefore, "the thrust of the green campaign in the hospitality sector has focused mainly on energy savings" (Mensah, 2006:418). Becken *et al.* (2001) compared energy usage amongst various accommodation forms and found hotels to be the

largest energy consumers. Energy consumption in hotels may vary according to size and luxuriousness of the hotel, climatic conditions, location, visitor profiles and types of services, facilities and activities (Ali *et al.,* 2008). Bohdanowicz *et al.* (2001) characterizes the energy use in hotels into three distinct zones (Table 3.3). These zones comprise the guest room (bedrooms and bathrooms), the public area (reception areas, bars, restaurants, meeting rooms, swimming pool and sauna) and the service area (kitchens, offices, storerooms, laundry and staff facilities). In terms of energy use, the energy load for guest rooms vary, whilst service areas are associated with intensive energy use. Public areas experience high thermal losses and high energy use from appliances, equipment and lighting.

Table 3.3: Energy consumption in hotels

Zone	Features	Energy use
Guest room	Bedrooms, bathrooms/showers, toilets.	Often with extensive glazing, varying energy loads.
Public area	Reception hall, lobby, bars, restaurants, meeting rooms, swimming pool, sauna.	High rate of heat exchange with the outdoor environment (high thermal losses) and high internal loads (occupants, appliances, equipment and lighting).
Service area	Kitchens, offices, store rooms, laundry, staff facilities.	Energy intensive areas.

Source: Modified from Bohdanowicz et al. (2001:2)

According to Chung and Parker (2010), electricity accounts for almost 65% of annual hotel utility costs. As indicated in Figure 3.7, energy usage in a typical US hotel shows that a large portion of this electricity is used for cooling (27%), lighting (23%), heating (11%), office equipment and ventilation (7%), refrigeration (6%) and water heating (5%). Hotels are believed to be the largest consumers of energy in the accommodation sector with a low level of energy efficiency (Ali *et al.*, 2008; Bohdanowicz and Martinac, 2007; Goldstein and Primlani, 2012; Min, 2011; Tang *et al.*, 2012). For example, a study by Becken *et al.* (2003) uncovered that a five night stay at a campground is equivalent to the energy cost of one night in a hotel. Richins and Scarinci (2009) claim that electricity accounts for almost 60-70% of a typical hotel‟s utility cost with engineering and housekeeping departments having the highest consumption. Kirk (1995) claims that energy used for heating rooms and for hot water in the UK costs about US$228.9 million and creates 5 million tons of CO_2 annually. Due to the considerable amount of energy used daily in hotels, there is growing concern for the

conservation of energy. Tang *et al.* (2012) believe that a reduction in energy consumption can greatly reduce carbon emissions and therefore reduce the negative effects of GHG.
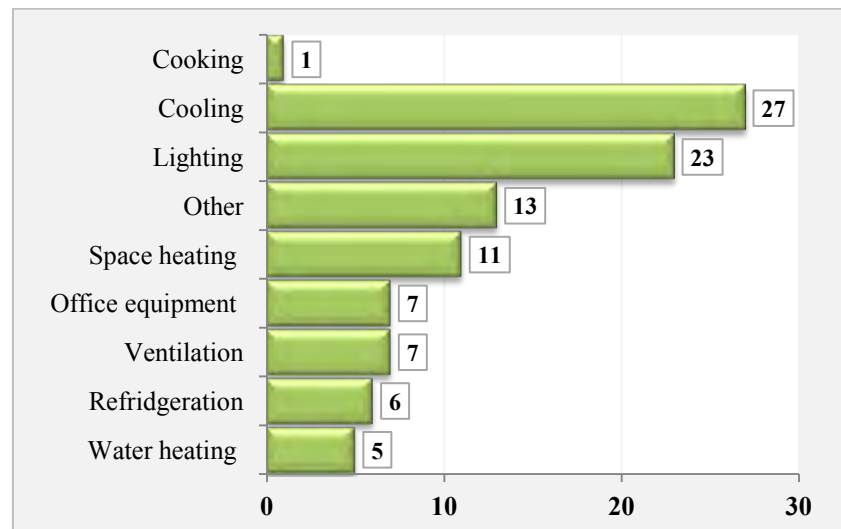
Figure 3.7: Typical electricity consumption for a US hotel
Source: Goldstein and Primlani (2012:4)

There are a number of measures aimed at energy conservation in hotels. These include the use of energy-efficient lighting; installation of renewable energy systems and the control of energy consumption through occupancy sensors to control lighting, energy save power cards, the use of solar energy (Erdogan and Baris, 2007; Min, 2011; Tang *et al.*, 2012), the use of motion detectors (Tari *et al.*, 2010), thermopane windows (Chung and Parker, 2010), good insulation (Alexander, 2002) and installation of compact fluorescent light bulbs (Liu and Sanhaji, 2009). These have greatly reduced energy consumption in hotels. In particular, Bohdanowicz (2006) believes that lighting has a significant saving potential in hotels. Depending on the size of the establishment, lighting can account for up to 40% of the hotels energy consumption and is regarded as the "second largest energy-using system in a hotel" (Alexander, 2002:4). Fluorescent lamps are considered environmentally-friendly as they produce approximately four times more light than normal lamps and they last about eight times longer (Alexander, 2002). Solar power is also increasingly being used and is considered a "limitless natural resource with economic and environmental benefits" (Alexander, 2002:4). Technology has enabled a number of new systems to harness solar power with a common system being the use of photovoltaic panels. Energy saving practices and the use of energy-saving equipment in hotels and lodges is widely examined in this study.

Conserving energy leads to considerable cost savings. However, hoteliers are often concerned with the initial costs of setting up energy saving programs (Rahman *et al.,* 2012). For example, Chan and Lam (2001) examined the cost and effect of a heater for an outdoor swimming pool at a Hong Kong hotel. It was found that the new heater will reduce energy costs from US$5 792 to US$2 574. Although the savings are significant the cost of the heater was US$5 792. However this meant that the heater will have paid for itself in about two years and over the next ten years the hotel will have saved about US$29 142 in energy consumption. Despite the impressive cost savings and excellent return on investment with such practices, often hotels simply cannot afford the upfront costs. On the other hand, many environmental management programs focus on managing energy due to the financial gains from conservation (Ali *et al.*, 2008, Erdogan and Baris, 2007; Knowles *et al.*, 1999). The Hyatt Regency International Hotel in New Zealand observed that guests often tend to leave appliances and heating and cooling equipment on when not occupying their rooms. To address this, the hotel devised a system to link energy usage with room occupancy. When the guest leaves a room, all energy appliances shut down, except refrigerators, alarm clocks and other essential equipment. Although the project cost US$16 000, the payback period was 14 months. The project has enabled the hotel to attain a saving of $14 000 per annum in energy consumption (Alexander, 2002). According to Mensah (2004), the LA Intercontinental Hotel reduced its electricity cost by $12 000 via the implementation of a power monitoring system.

In recognizing that hotels are among the largest energy consumers in the building sector, hotels in Singapore have been recognized by the Singapore government for their energy-efficiency building program called the Energy Smart Building Labeling Program, developed in 2007. An energy smart label is given to hotels that are energy efficient and maintain a healthy environment (Chung and Parker, 2010). Recent winners include Holiday Inn Park View, Intercontinental Singapore, and Shangri-La Hotel Singapore. Additionally, Singapore hotels have developed the Association of Southeast Asian Nations (ASEAN) Green Hotel Awards initiated by the ASEAN member country ministers of tourism. This award focuses on eleven criteria that assess environmental strategies and actions for hotel operations, solid waste management, energy-efficiency, water efficiency and air quality. The Grand Hyatt, Shangri-la Hotel, The Regent, Sheraton Towers Singapore, Intercontinental Singapore and Conrad Centennial have recently won this award in Singapore (Chung and Parker, 2010).

3.6.3.2 Water Conservation

Among the various negative environmental impacts of tourism, water consumption is one of the most pertinent impacts, and overexploitation of water resources can be problematic in areas that have scarce water resources (Tortella and Tirado, 2011). According to Gossling *et al.* (2012:4):

> *By 2020, tourism"s contribution to water use is likely to increase with increased tourist numbers, higher hotel standards and the increased water-intensity of tourism activities. Higher average hotel standards are likely to go along with increasing water use, because of spas, wellness areas or swimming pools. Growth in water-intensive tourism activities, such as golf or skiing will also leads to greater water consumption in the sector.*

According to Essex *et al.* (2004) and Rico-Amoros *et al.* (2009), the sustainability of a tourism destination depends on a sufficient water supply. Tang *et al.* (2012) claim that the hotel sector, especially large, five-star establishments consume greater amounts of water and tourists tend to use more water whilst on holiday than they do at home. According to Tortella and Tirado (2011) and Gossling (2001), tourists consume three times more water than locals in developed countries and almost fifteen times more in developing countries. Excessive water is consumed both at the development stage and operation of hotels. Alexander (2002) claims that developers drew about 66 000 gallons of water a day from local water sources and wells for the development of a number of hotels in Goa, India. Research also indicates that medium sized hotels consume between 250–507 liters of water per person per day (Bohdanowicz, 2005; Cespedes Lorente and Burgos Jiminez, 2003). Most water is consumed in hotel rooms, followed by the laundry and then kitchen facilities (Lawson, 2001). Guests usually use between 24 to 40 gallons of water per night and some chains report an average of 116 gallons per guest per night (Bohdanowicz and Martinac, 2003). Richins and Scarinci (2009) claim that a room in a typical accommodation establishment consumes over four times the water used in an average home per day. Sources of water usage in accommodation establishments include showers, toilets, kitchens, laundry facilities, landscaping and pool services. Table 3.4 indicates that water usage can range between 84 to 2 000 liters per hotel guest per day and up to 3 198 liters per room per day. Overall, higher-graded accommodation facilities tend to demonstrate higher water usage. Campsites and apartments display the lowest water usage (Gossling *et al.,* 2012). Tortella and Tirado (2011) also conclude that hotels belonging to larger international chains and „all-inclusive" resorts reflect a much higher

consumption of water which can be attributed to the availability of added facilities and services. Gossling *et al.* (2012) reported that high water consumption in hotels was attributed to landscape irrigation, swimming pools, luxurious bathroom facilities and laundry facilities.

Table 3.4: Water use per guest per day according to hotel type

Country/region	Accommodation type	Water use per tourist per day (liters)
Mediterranean	Mostly hotels	250
Mediterranean	Campsites	145
Mediterranean	All accommodation	440-880
Benidorm, Spain	Campsites	84
Benidorm, Spain	1 star hotel	174
Benidorm, Spain	2 star hotel	194
Benidorm, Spain	3 star hotel	287
Benidorm, Spain	4 star hotel	361
Tunisia	All hotels	466
Morocco	Apartment	180
Morocco	3 star hotel	300
Morocco	4 star hotel	400
Morocco	5 star hotel	500
Morocco	Luxury 5 star hotel	600
Sharm El Sheik, Egypt	5 star hotels	1410 – 2190 (per room)
Zanzibar, Tanzania	Hotels	931
Philippines	4 star hotel	1802 (per room)
Hong Kong	Hotels	336-3198 (per room)
Australia	Hotels	750 (per room)
Las Vegas, USA	Hotels/resorts	303

Source: Modified from Gossling et al. (2012:5)

The primary objective for many hotels is to reduce the consumption and wastage of water (Roller and Dombrovski, 2010; Sloan *et al.*, 2009). Some measures that relate to water management include reducing washing and rinsing cycles in laundry, regular checks for leaking pipes and taps, sensors for low-flow water, recycling grey water for gardening and washing floors (Andereck, 2009; Mensah, 2006; Tari *et al.,* 2010), installation of low-flow shower heads, dual flush toilets, electronic sensors to control water usage in toilets and

bathrooms and leaflets encouraging water conservation (Alexander, 2002; Alonso and Ogle, 2010; Min, 2011). The towel reuse program is also one of the most well-established practices for water conservation in many hotels. The program saves water and energy and reduces the use of detergents (Bohdanowicz, 2006). According to Erdogan and Baris (2007), an average 150-room hotel can save 22 700 liters of water and approximately 150 liters of detergent per month on the line reuse program. Urinals and automatic flushing toilets are also found to consume large amounts of water. For example the Rotorua Hotel in New Zealand initially installed urinals that automatically flushed every nine minutes with a consumption of 10 liters of water per flush. This amounted to 1 580 liters of water per day, per urinal regardless of its usage (Alexander, 2002). Detectors were subsequently installed in the urinals which allowed flushing a certain time after use. This reduced the consumption of water of three urinals from 66 liters per hour to 60 liters per day. At a cost of US$3 060, the hotel further installed low-flow shower heads which resulted in an annual saving of US$5 244 and payback period of seven months (Alexander, 2002). The luxury Fairmont hotel in Southampton also installed the one-million-gallon rainwater storage tank (Liu and Sanhaji, 2009). An extensive examination of water-saving practices and devices used in hotels and lodges is undertaken in this study in order to ascertain the accommodation sector's contribution to water management.

3.6.3.3 *Waste Management*

According to Singh *et al.* (2011), the uncontrolled misuse of resources, due to rapid urbanization and industrialization, has resulted in the generation of large amounts of solid waste. Rahman *et al.* (2012) claim that waste is the most visible source of the impact of human activity and it is estimated that a typical hotel guest generates at least 1kg of waste per day (Bastic and Gojcic, 2012; Bohdanowicz, 2005; Chan and Wong, 2006). "Waste is unused material produced as a result of inefficient production and/or consumption practices and puts economic and environmental costs on society through its collection, treatment and disposal (Radwan *et al.,* 2012:535). Hotels use large amounts of water which results in a high level of wastewater. Sources of solid waste in hotels are from kitchens and restaurants, guestrooms, offices, laundry and gardens. Solid waste in a hotel comprises paper, food, metals, plastics, aluminum and glass (Alexander, 2002).

According to Bohdanowicz (2006) and Chung and Parker (2010), waste reduction initiatives include:

- Bulk purchases to reduce packaging
- Food-waste composting for fertilizer and biogas production
- Installation of soap and shampoo dispensers in bathrooms instead of individually packed toiletries
- Refurbishing existing furniture instead of purchasing new
- Local purchasing of goods and bulk purchases to reduce transport distances
- Guest options for less frequent towel replacement
- Waste sorting and recycling

The accommodation sector in South Africa requires the adoption of the above initiatives in order to visibly reduce its waste generation.

Recycling and re-use programs are implemented to reduce waste at hotels and include recycling programs for paper, cardboard, cans, bottles, glass, plastic and landscape waste (Chung and Parker, 2010). According to Singh *et al.* (2011:722), "recycling process is a very significant element of the sustainable waste management system that follows the principle of reducing the amount of the waste disposed by recovering the useful resources which would otherwise end up in the disposal sites". Although a number of hotels are engaging in waste management and recycling (Park and McCleary, 2010), kitchen waste is still largely ineffectively managed (Tang *et al.*, 2012). A study by Erdogan and Baris (2007) on the Turkish hotel sector reveals that majority of the hotels (92%) do not compost organic food and wastes. Park and McCleary (2010) suggest that organic composting, waste oil recycling and kitchen waste recycling can be adopted by hotels to overcome this. Vermicomposting of waste is becoming popular as the "process adds value to waste" (Singh *et al.,* 2011:719). It is a new form of composting and "involves the stabilization of organic solid waste through earthworm consumption that converts the waste into earthworm castings" (Singh *et al.,* 2011:724).

In an appraisal on environmental behavior in the Chinese hospitality industry, Min (2011) noted that responsible waste management gained the most consideration in terms of waste sorting and recycling. According to Mensah (2004), the Chicago Hyatt Regency saved $120

000 due to its waste reduction and recycling program. Han *et al.* (2011) report that the Hilton International has introduced its „eco-room‟ and 97% of the materials in the room are recyclable. A major eco-resort is the Maho Bay Camps in St John, US Virgin Islands. Maho Bay was constructed using recycled materials and obtains power from the sun and wind to generate electricity (Bostwick, 2007). A number of hotels are also implementing the „green room‟ strategy which "appeals to travelers prepared to pay a premium for an environmentally sound room or one free from chemical sensitivities and allergy-inducing properties" (Chung and Parker, 2010). Environmental best practice also lends itself to „green purchasing‟ which is a crucial component of a hotels environmental strategy (Priego and Palacios, 2008). Local purchasing of food and other materials can decrease transport distances. Producers and suppliers are also encouraged to eco-certify their products (Bohdanowicz, 2006). Green purchasing products can include toilet and tissue paper, printing paper, computers, refrigerators, employee uniforms, air conditioners, food, etc. and includes purchasing products that have minimum environmental impact in their manufacture (Tang *et al.*, 2012). An assessment of these „green purchasing‟ practices is undertaken in this study.

Alexander (2002) advises that it is imperative that hotels set up monitoring systems to observe water, energy and solid waste areas. Monitoring usage and setting goals and targets are useful in assessing environmental commitment and progress. Bohdanowicz *et al.* (2011:801) cite the following opportunities that are available to hotels to promote environmental sustainability:

- Developing EMSs that are designed to monitor and reduce energy, water and waste consumption
- Installing resource-efficient appliances based on state-of-the-art technologies (such as light-emitting diodes (LED) lighting and low-flow water fixtures to reduce energy and water usage
- Switching to renewable energy sources (wind, solar power)
- Using recycled materials
- Encouraging guests and employees to take simple steps to conserve the environment
- Using local food and beverages to reduce transport-related carbon footprint
- Comply with ecological legislation

Moreover, the proliferation of „green" has given rise to the need for a set of certification criteria, environmental accreditation schemes and agencies to govern the green technologies and environmental practices used by these hotels. Environmental accreditation schemes, also known as ecolabels, may be in the form of awards and labels and are based on specific criteria.

3.6.4 Ecolabels and Awards

An ecolabel is an example of a certified voluntary program and is often structured by organizations external to the tourism industry (Warnken *et al.*, 2005). According to Lee (2001:317), "ecolabels are „tools" used to provide information to the consumers specifying products or services have met certain levels of environmental performance". Sasidharan *et al.* (2002) maintain that ecolabels set the course for an environmentally sustainable tourism industry and "the recognition of environmental efforts by means of ecolabels and awards has gained importance in the tourism sector" (Ayuso, 2007:150). Tourism is becoming an international competitive industry and therefore, needs "globally recognizable ecolabels" (Buckley, 2001:191). Ecolabeling schemes are popular in developed nations and given that much environmental damage through tourism takes place in developing nations, the need for the ecolabeling of tourism products is vital. Sasidharan *et al.* (2002) claim that the objectives of ecolabels in the tourism industry are to:

- Encourage businesses to attain high environmental standards and reduce negative environmental impacts;
- To educate tourists on environmental issues and encouraging them to act in an environmentally-friendly manner; and
- To develop environmental standards for tourism products and services.

The industry often obtains ecolabels because it shows external recognition of environmentally sound practices, generates positive publicity, increases business from green consumers, has the power to charge premium prices and has little need for government intervention. Ecolabels necessitate the assessment of participants with the aim of creating a positive image with consumers and stakeholders (Blanco and Muller, 2009). According to Bastic and Gojcic (2012), an effective ecolabel is one that considered meaningful and useful to tourists in their purchasing choice. Lee (2001) asserts that ecolabels help educate tourists and influence their behavior and also acts as a competitive marketing tool.

The tourism industry uses ecolabels as „trademarks‟ or „logos‟ to communicate the environmental credentials of a company, with the hopes that customers develop positive attitudes towards their product or service. In the marketplace, this type of strategy can give companies a differential advantage over their competitors.

(Middleton and Hawkins, 1998:240)

Often businesses that apply for an ecolabel or award already have a record of sound environmental practices and therefore do not require a huge effort to fulfill certification criteria. Ecolabels are a more formalized method that focuses on environmental efficiency and could imply either "the state of the natural and social environment at a particular time and place, or environmental management or performance measures" (Buckley, 2001:184). Although ecolabels are voluntary, they tend to be more effective than codes of conduct because they are often verified by independent parties in the form of a compliance audit (Lee, 2001). Ecolabels follow the process of verification by an independent third party and is supported by technical advice and labels can be regained through a cyclical review (Font, 2002; Weaver, 2006).

Due to Rio Earth Summit and Agenda 21, the mid-1980s saw the emergence of ecolabels in the tourism industry and the accommodation sector and by 2002 almost 60 tourism ecolabels were recognized resulting in approximately 7 000 tourism products certified globally (Ayuso, 2007; Blanco and Muller, 2009; Sasidharan *et al.,* 2002). The first environmental certification took place in 1985 when the Blue Flags were awarded to encourage compliance on bathing water quality and was regarded as the "first milestone in environmental certification" (Font, 2002:198). The Blue Flag was founded by the Foundation for Environmental Education in Europe (FEEE) and by 2000 had certified over 1 800 beaches and 600 marinas. Since 2001, the Blue Flag has expanded outside of Europe, to South Africa and the Caribbean (Font and Mihalic, 2002). Following the Blue Flag, a number of additional tourism certification schemes have been established throughout the world. Some of these include: Green Globe 21, a certification scheme for travel and tourism; Green Key, an international ecolabel for accommodation operating in more than sixteen countries; Certificate for Sustainable Tourism aimed at hotels in Costa Rica; Ecotourism Kenya; Ecotourism Australia and the Sustainable Tourism Eco-certification Standard (STEP) (Jarvis *et al*., 2010).

The first report on ecotourism labels was published in 1998 by UNEP. Whilst the UNEP welcomed ecolabels and encouraged governments to develop them further, the UNWTO cautioned against the growing number of ecolabels and proposed an investigation into their effectiveness (Font, 2002). Font (2002:203) believes that "there are too many ecolabels, with different meanings, criteria, geographical scope, confusing messages, limited expertise and expensive systems". In a study of ecolabels in the Spanish hotel sector (Ayuso, 2007), respondents expressed difficulties in communicating ecolabels to the tourist market. This was attributed to the Spanish population having a poor knowledge of ecolabels and award schemes. Furthermore, hotel managers in Spain complained of the existence of a great variety of ecolabels which confuses consumers and questions legitimacy. Lubbert (2001) further argues that the exceedingly large number of ecolabels in the tourism industry of varying quality, contents and criteria has created customer confusion to a point where consumers are now choosing to ignore them.

Moreover, tourism is a profit-making industry and "is inevitably accused of abusing „green‟ and „eco‟ labels for its products" (Knowles *et al.*, 1999:257). Sustainable development language or eco-speak may also be used to disguise unsustainable activities known as green washing. The green movement has dominated the accommodation sector over a relatively short period of time, and "the rapid proliferation of green hotels gave birth to a wave of „greenwashing‟ campaigns (Liu and Sanhaji, 2009:64). Jacobsen (2007:106) argues that a number of tourism businesses have integrated „greenwashing‟ as part of their "image makeover strategy" which simply is an "acknowledgement of environmental problems but treatment only of symptoms". Liu and Sanhaji (2009:64) define „greenwashing‟ as the "practice of using green language in order to create a positive image without necessarily possessing any sustainable attributes". Researchers have also revealed skepticism with regards to greening efforts in the tourism industry (Best and Thapa, 2011; Brown, 1996; Saha and Darnton, 2005). Furthermore, although certain products and services may have ecol-labels awarded to them, their environmental evidence may be difficult to measure (Sharpley, 2009).

> Much „greenwashing‟ exists and there may be a bandwagon effect where lodging providers adopt the terms but often not the practices, and that sophisticated marketing techniques often allow the travel industry to appear „green‟ without making fundamental or costly reforms.

(Best and Thapa, 2011:148).

Without a certification process in place, any hotel can call itself a "green" hotel "even if it"s only claim to "green" fame was recycling" (Bostwick, 2007:2). Synergy (2000: iv) also argue that initiatives such as ecolabels are process-driven instead of performance-based and still allows "participation while still operating in an environmentally damaging environment". Ecolabels have often also been criticized for being expensive (Ayuso, 2007) and Sasidharan *et al.* (2002) notes that the financial costs of achieving ISO 14001 ranges from $500 to $15 000 and is therefore only affordable to the large hotel chains. Furthermore, ecolabels are considered to be time-consuming, they focus mainly on hotels and ecotourism providers and their focus is on environmental management, not performance (Synergy, 2000). Therefore, Buckley (2001:198) states that ecolabels tend to be more effective "if used with other environmental tools as part of an integrated strategy".

Weaver (2006:126) states that awards are similar to ecolabels in that they recognize sustainable environmental performance through evaluation and verification. However, awards are only available to a few qualifying candidates that are either nominated or apply for the award. Awards are generally awarded annually or biannually in a highly publicized ceremony (Weaver, 2006). Examples of prominent ecolabels in the tourism industry include: British Airways Tourism for Tomorrow Awards, Marriott"s Green Leaves Award, the IHRA Annual Environmental Award, Conservation International and National Geographic Traveler Magazine World Legacy Awards (Weaver, 2006).

In a comparative analysis of voluntary environmental instruments, Ayuso (2007:154) demonstrated that EMSs and ecolabels guarantee a firm"s environmental performance and "deliver an official recognition of environmental commitment". However, EMSs entail high costs and often viewed as an obstacle by managers (Kang *et al.,* 2012). Hotels face different incentives when implementing various environmental instruments and Ayuso (2007) summarizes the incentives and obstacles of various voluntary policy tools (Table 3.5). Codes of conduct are usually desirable due to the low costs associated with implementation. However, there is a general lack of knowledge of related codes. The benefits related to environmental practices include cost savings, improved image and customer demand. On the other hand, there is often lack of collaboration from customers and staff in the implementation of environmental practices. Eco-labels and awards also contribute to cost savings, respond to consumer demand and improves the firm"s image. Additionally, eco-labels and awards officially recognize a company"s commitment to the environment. In spite

of these advantages, eco-labels and awards are generally associated with high costs, lack of knowledge from consumers and related businesses and general confusion due to the increasing number of eco-labels and awards available. In addition to the benefits associated with environmental practices and eco-labels and awards, EMSs helps comply with legal requirements and improve the internal management system of a business. However, EMSs can lead to changes in management style. Other challenges related to EMSs include high costs, lack of collaboration from staff and lack of support from stakeholders (Ayuso, 2007). The study identifies current voluntary environmental tools used in the accommodation sector. Factors impacting on the use of ecolabels in hotel and lodges will also be ascertained.

Table 3.5: Analysis of voluntary environmental policy tools

Policy tool	Incentives	Obstacles
Codes of Conduct	• Low efforts and costs. • Possible delivery of specific services.	• Lack of knowledge of existing codes.
Best Environmental Practice	• Cost savings in the medium/long term. • Response to consumer demand. • Personal awareness of hotel manager. • Improvement of company image.	• Difficulties in involving hotel staff. • Lack of collaboration of customers.
Eco-labels and awards	• Cost savings in the medium/long term. • Response to consumer demand. • Official recognition of environmental commitment. • Improvement of company image.	• High costs for applying and maintaining the ecolabels. • Confusion due to existence of different ecolabel schemes. • Lack of knowledge and interest of customers and tour operators.
EMS	• Cost savings in the medium/long term. • Response to consumer demands. • Official recognition of environmental commitment. • Improvement of internal management system. • Improvement of company image. • Compliance with legal requirements.	• High cost for certification audits. • Difficulties in involving hotel management and staff. • Important change of routines and management style. • Lack of support from public authorities, suppliers and subcontractors.

Source: Modified from Ayuso (2007:151)

3.7   Examples of environmental initiatives in the hotel industry

Pizam (2009) argues that changing global circumstances will eventually compel the sector to adopt more sincere green efforts. The hotel industry is steadily showing signs of an uptake in social and environmental strategies and actions through the environmental training programs, monitoring of environmental costs and savings, green purchasing policies, recycling

programs and energy and water saving initiatives (Chung and Parker, 2010). Specific examples of the hotel sectors response to environmental initiatives are described below.

3.7.1 Hilton Environmental Reporting (HER)

The Hilton group consists of over 3 600 hotels operating in 81 countries. The company is passionately concerned with reducing resource use and conserving the environment (Persic-Zivadinov and Blazevic, 2010). The *We Care!* program focuses on energy efficiency, waste reduction, water efficiency and chemical use through the use of targets and performance monitoring (Bohdanowicz *et al.*, 2011). A performance measuring tool is essential in reducing targets and the HER was created in 2004 as an internal reporting system for monitoring environmental performance. The HER was computerized and allowed Hilton hotels in Europe to report their monthly resource use. The *We Care!* program involves all team members and according to Bohdanowicz *et al.* (2011:806):

> *In the first 12 months of the program, over 16 000 team members participated in the We care! Workshops and a further 4 000 completed the first eco-learning e-course, launched at Hilton University. A number of hotels picked up public recognition awards. All the team members worked collectively to turn off taps, opted for energy-efficient light bulbs, re-adjusted the settings of boilers and air-conditioning units, sorted waste, reached out to local communities and educated hotel guests. As a result, Hilton in Europe reduced energy consumption by 6.7% avoiding paying more than US$3 million in energy costs.*

Throughout three years of the *We Care!* Program in Europe, more than 16 000 team members were trained in workshops, 8 000 participated in eco-learning courses, and energy consumption was reduced by 15% and water consumption by 8%. The program also helped prevent 28 600 tones of CO_2 from being emitted in the atmosphere. The company also saved US$16 million in energy and water bills. Hilton attributes these environmental improvements to changes in human behavior, installation of energy and water efficient equipment and recycling projects (Bohdanowicz *et al.*, 2011). Overall, the concept behind the *We care!* Program was "not only to save resources and hence limit Hilton"s environmental footprint, but also, above all, to instigate a permanent modification of team member"s attitudes towards environmentalism through active participation and genuine empowerment" (Bohdanowicz *et al.*, 2011:812). The scheme comprises three separate forms:

- Hotel Profile: brand, city, year constructed, number of floors, floor area, number of rooms and type, restaurants, kitchens, health club, pool, on-site laundry, types of heating and cooling systems and suppliers.

- Environmental information: environmental initiatives undertaken, environmental awards received, reported legal incidents and legal actions, cleaning chemicals used, quantity of hazardous waste generated, types of vehicles, recycled materials and types of refrigerants. Information required monthly.

- Resource consumption: Consumption of electricity and water and engineering/maintenance information. Data is required monthly.

There is no evidence to indicate that the *We Care!* Program is adopted in Hilton hotels in South Africa. The principles of the *We Care!* and its current achievement in addressing environmental concern suggest that it be embraced by Hilton hotels throughout the world.

3.7.2 International Hotels Environmental Initiative (IHEI)

The Inter-continental Hotel Group developed its own internal environmental manual and later made this available to other businesses. The IHEI later formed the International Hotels‟ Environment Initiative in 1993 and transformed the Inter-Continental manual into an international guide to best practice (Knowles *et al.,* 1999). A second edition of the manual was published in 1996 and contained simple methods for benchmarking environmental performance of hotels against 100 key concerns. The IHEI also published the Environmental Action Pack for Hotels which contained checklists to assist hoteliers to assess their environmental management progress (Knowles *et al.*, 1999). The IHEI, together with the WWF created an internet-based benchmarking tool called „benchmark hotel‟ in 2001 (Bohdanowicz, 2005). This scheme is available for three types of hotels: luxury full-service, mid-range full service and small and budget. Environmental performance is assessed through questionnaires and comprises the following information:

- The profile of the hotel and its operational characteristics

- Energy management

- Potable water consumption

- Waste minimization and management

- Waste water quality

- Green purchasing

The questionnaire is thereafter analyzed and a report is generated. The hotels resource consumption is confidentially compared to that of other similar hotels (Bohdanowicz, 2005). The financial and resource saving is also calculated.

3.7.3 The Green Key Eco-rating Program

The Green Key Eco-rating Program is a rating system aimed at recognizing hotels, motels and resorts that are committed to environmental improvements (Green Key Eco-Rating Program, n.d.). Establishments undergo a comprehensive environmental self-assessment and are accordingly awarded 1 to 5 Green Key rating (Figure 3.8). The program also provides guidance on how to reduce impacts on the environment through reduction in utility consumption, staff training and supply chain management. The program is voluntary and is administered on-line. An on-site inspection is conducted on completion of the rating. According to the Hotel Association of Canada (n.d.), the Green Key Audit assesses the following five operational areas of the property: corporate environmental management, housekeeping, food and beverage operations, conference and meeting facilities and engineering. More specifically, the following areas of sustainable practices are covered in the program:

- Energy conservation
- Water conservation
- Solid waste management
- Hazardous waste management
- Indoor air quality
- Community outreach
- Building infrastructure
- Land use
- Environmental management

Five elements of this program (energy conservation, water conservation, solid waste management and environmental management) are extensively investigated in this study. The rating description of the Green Key Program ranges from 1 to 5 green keys (Figure 3.8). A hotel that has acquired 1 Green Key status has assessed its operations and has formulated an action plan to conserve resources and reduce waste generation. A hotel with 2 Green Keys has acknowledged its environmental impacts and has implemented the necessary policy and

programs to address these impacts. Sound environmental practices, environmental training and engineering programs are characteristics of hotels that have obtained 3 Green Keys. A hotel with 4 Green Keys displays national industry leadership in environmental protection with measurable results. Lastly, hotels that boast 5 Green Keys shows the highest standard of environmental and social responsibility and has in place advanced technologies policies and programs. The Green Key Eco-Rating Program confirms that a total of 2 837 hotels are currently participating in the program.

1 Green Key	• Hotel has taken steps to reduce environmental impacts by analyzing its operations and identifying opportunities for improvement. An action plan focusing on resource conservation and waste minimization has been established and is supported by a commitment to continual improvement.
2 Green Keys	• A hotel has taken great steps in identifying environmental impacts ad implement policies and programs to reduce such impacts. Commitment to continual improvement has shown effective results.
3 Green Keys	• Strong environmental programs, best management practices, training programs and engineering solutions have been implemented to benefit the environment and local community.
4 Green Keys	• Hotel has shown national industry leadership and commitment to protecting the environment through a number of diverse policies and practices. Hotel has mature programs in place that address management, employees, guests and the public and which have shown immense measurable results.
5 Green Keys	• Hotel exhibits highest standards of environmental and social responsibility throughout all areas of operations. The hotel adopts advanced technologies, policies and programs that set sustainable standards for sustainable hotel operations.

Figure 3.8: Green key rating criteria
Source: Adapted from Hotel Association of Canada (n.d.:1)

3.7.4 Green Globe 21

Green Globe 21 is an EMS standard specifically for the travel and tourism industry and combines the EMS elements of ISO 14001 with the sustainable tourism principles of Agenda 21 (Bohdanowicz, 2005; Meade and del Monaco, 2000; Meade and Pringle, 2001). Green Globe 21 is a benchmarking certification system that promotes environmentally and socio-culturally sound tourism (Carter *et al.*, 2004; Mihalic, 2000) and is "a global certification program dedicated exclusively to helping the travel and tourism industry to develop in a sustainable way" (Meade and Pringle, 2001). The scheme was developed by the WTTC and

the IHRA in 1994 and the „21" implies the aim to implement the principles of Agenda 21(Bohdanowicz, 2005; Weaver, 2006). Green Globe 21 is considered to be one of the most comprehensive environmental accreditation schemes and covers all sectors of the tourism industry (Buckley, 2001; Griffin and DeLacey, 2002) and has "placed a new found emphasis on strict standards and independent audits in an attempt to gain credibility and recognition as the premier global body for tourism certification" (Weaver, 2006:118). Membership to Green Globe 21 was first open to all travel and tourism companies or destinations with the objective to provide "low-cost, practical means for all travel and tourism companies to undertake improvements in environmental practice" (Griffin and Delacey, 2002:63).

Green Globe 21 provides certification to tourism-related organizations that are committed to environmental improvement (Chan and Ho, 2006). Green Globe 21 contains certain key action areas and companies need to indicate their annual performance targets to become a member. Membership is maintained through annual reports on targets. The Green Globe 21 framework includes environmental policy, regulatory framework, environmental performance, EMS and stakeholder consultation. Green Globe 21 launched its environmental standard in 1998, and this allowed companies to sign up and use their logo "on the basis of commitment, not performance" (Font, 2002:198) and developed a set of benchmarks specific for sub-sectors of the industry. As part of its plan to become the international environmental accreditation system, Green Globe 21 associated itself with the Sustainable Tourism Cooperative Research Center in Australia and established worldwide alliances with Pacific Asia Travel Association (PATA) Green Leaf, the Caribbean Alliance for Sustainable Tourism and Green Key (Font, 2002). Sandals Negril Beach Resort and Spa was the first all-inclusive resort to achieve Green Globe 21 Certification in 1998 (Bostwick, 2007) and by 1994 Green Globe 21 had more than 547 members in over 103 countries (Griffin and Delacey, 2002) with majority of the members being accommodation establishments. Green Globe 21 also has the support of more than twenty six tourism industry partners. The key action areas of Green Globe 21 originated from Agenda 21 (which was embraced by South Africa) and include:

- Waste minimization, reuse and recycling;
- Energy efficiency, conservation and management;
- Management of freshwater resources;
- Waste water management;
- Control of hazardous substances;

- Company transport and the environment;

- Land-use planning and management;

- Involvement of staff, customers and communities in environmental issues;

- Design for sustainability;

- Partnerships for sustainable development;

- Noise control; and

- Environmentally-sensitive purchasing policy.

(Griffin and Delacey, 2002)

Scanlon (2007:712) believes that "corporate leadership in environmental management is seen as the driving factor in the success of lodging environmental management programs". Corporations are accountable to society and Wood (1991) states that responsibilities go beyond the legal and economic to include ethical and discretionary responsibilities. Swift (2001) claims that the concept implies that a coorporation has a responsibility not only to its shareholders but alo to all stakeholders who are affected by the firm. In the past few years, an increasing number of accommodation establishments have initiated many CSR initiatives in an effort to conserve the environment and reduce social problems (Lee and Park, 2009).

Companies execute CSR activities for various benefits: to improve corporate images, to enhance the morale of their employees, to improve employee retention rates, to build sound relationships with governments and communities, and to respond to the growing expectations of customers and social groups.

(Lee and Park, 2009:105)

3.8 Corporate Social Responsibility (CSR)

CSR is also known as social responsibility (SR), corporate citizenship and corporate sustainability (Holcomb *et al.,* 2007). Although literature on CSR is scarce (Bohdanowicz, 2006), CSR is defined as "the management of a company"s positive impact on society and the environment through its operations, products or services and through its interaction with key stakeholders such as employees, customers, investors and suppliers" (Holcomb *et al.,* 2007:462). Garay and Font (2012:331) further define CSR as the "active and (sometimes) voluntary contribution of enterprise to environmental, social and economic improvement". Carroll (1979) believes that CSR is when businesses are responsible to society and should do what is expected from society. According to Garay and Font (2012) and Knowles *et al.*

(1999), competitiveness and competitive advantage is seen as the driving force behind CSR. According to Rodriguez and Cruz (2007:826), "improving the organization"s social performance means altering its behavior to reduce the harm done and to generate beneficial outcomes for society". A study conducted by Holcomb *et al.* (2007) suggests that Marriott Hotels, and Accor hotels have the highest reporting of CSR initiatives. Many hotels also report socially responsible activities in the form of charitable donations. Furthermore, a large number of hotels reported having a clear policy relating to supliers and business partners, employee volunteer programs and many companies made some mention of social responsibilty in their vision and mission statements. Esrock and Leichty (1998) found that CSR initiatives and activities were also reported on company websites.

Information on a company"s CSR activities is often used in decision making by investors, governments and consumers (Grosbois, 2012; Valiente *et al.,* 2012). There are a number of different terms used to describe a company"s societal and environmental contribution: CSR, corporate citizenship, corporate sustainability or social responsibility (Grosbois, 2012). The most widely used definition of CSR is that put forward by the World Business Council for Sustainable Development which states that "CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workplace and their families as well as the local community and society at large" (Grosbois, 2012:897). However opposing views have been highlighted in terms of the benefits of CSR.

On one hand, CSR can decrease shareholders" wealth because a commitment to environmental protection can crowd out other more productive investments, detract the firm from the earnings power of the physical assets of firm or putting companies in an economic disadvantage. However, CSR can also increase shareholders wealth because it allows firms to earn profit above the return on its tangible assets. Tackling CO^2 emissions allows firms to lower the cost of complying with future environmental regulations, drive down operating costs, improve their firm image, enhance the loyalty of key stakeholders and enhance the firm"s performance.

(Hsu and Wang, 2013:195)

Figure 3.9 indicates that large hotel groups are at the forefront of environmental management and displays the environmentally-friendly practices of the Marriott hotel group, the Accor hotel group and the Fairmont Hotels and Resorts group. The environmental actions of these groups focus largely on energy conservation, water conservation and waste management.

Additionally, the hotel chains are affiliated to various environmental accreditation schemes and awards. For example, Marriott hotels are members of Ecolab and Audubon"s Green Leaf Eco-rating Program for Hotels. A number of hotels of the Accor have received ISO 14001 accreditation and the Fairmont Hotels and Resorts group have attained a number of environmental awards aimed at natural resource conservation and management. The hotel sector has, to date, has engaged in a number of operational practices aimed at protecting the environment. Energy, water and waste management issues are the most common attribute of hotel environmental actions and programs. Graci and Dodds (2008:252) believe that hotels are not convinced to engage in sound environmental practices purely because it is "the right thing to do". Generally, the reasons why hotel managers engage in sound environmental actions is due to the perceived economic and other benefits derived from environmental management.

3.9 Reasons for hotels engaging in environmental management

Some of the key reasons for hotels engaging in sound environmental practices are legislative controls, cost savings, gaining a competitive advantage, consumer demand, improving environmental quality, employee awareness, risk management and improving investor relations (Bader, 2005; Chan and Wong, 2006; Graci and Dodds, 2008; Gustin and Weaver, 1996; Han and Kim, 2010; Litvin, 1996; Manaktola and Jauhari, 2007; Masau & Prideaux, 2003; Penny, 2007; Rahman *et al.,* 2012). Improving a hotels" environmental performance can also help create an environmentally-friendly environment for staff and customers, helps the company gain a competitive advantage and raises the corporate image of the business (Cooper, 1998; Hsieh, 2012; Mensah, 2006; Tortella and Tirado, 2011). Manaktola and Jauhari (2007:364) further believe that "becoming a green hotel can be the foundation for great marketing". In particular, the following motivations have been identified as reasons for the hotel sector to be preoccupied with environmental issues.

3.9.1 The pressure of legislation

Legislative processes in the tourism sector are wide and complex and are often revised from time to time. Chan and Wong (2006) and Graci and Dodds (2008) claim that government legislation is a key factor in compelling environmental certification in hotels and Morrow and Rondinelli (2002) concur that environmental legal compliance motivates firms to adopt an EMS. For businesses in the UK, legal compliance is the key reason for engaging in

environmental improvement programs (Jarvis *et al.*, 2010). Businesses should not consider regulation as a negative restraint on their operations, but should see it as an opportunity to save costs and gain a competitive advantage (Graci and Dodds, 2008).

3.9.2 Cost rationalization

A number of tourism firms are only interested in environmental protection only if it reduces operating costs (Burgos-Jimenez *et al.*, 2002, Stabler and Goodal, 1997) and actions taken by hoteliers are "aimed at achieving immediate economic benefits" (Bohdanowicz, 2006:679). Cost saving is considered as the most significant benefit of environmental management in the hotel sector (Blanco *et al.*, 2009; Brown, 1994; Brown, 1996; Choi *et al.*, 2009; Essex and Hobson, 2001; Han and Kim, 2010; Kirk, 1995; Penny, 2007). Scanlon (2007) and Penny (2007) believe that from a financial perspective, the hotel industry can benefit from environmental management in the reduction of operating costs, increased revenue and increased profitability. Savings can take place through efficient use of resources (energy, water, etc.). Such cost savings can improve a company's productivity and competitiveness. It has been observed by Bader (2005), Brown (1994), Kirk (1995) and Scanlon (2007) that a number of environmental protection actions in hotels are triggered by the associated cost savings and research indicates that environmentally proactive firms enjoy higher economic results (Alvarez and Cespedes-Lorente, 2001). Generally, large tourism businesses adopt rigid environmental practices to improve the economics and image of their business (Chan and Li, 2001) as there is "willingness and ability to invest in technologies that reduce cost" (Carter *et al.*, 2004:52). Large-scale tourism businesses are of the view that resource conservation and waste reduction can increase profits as "environmental sustainability also impinges on business sustainability" (Alonso and Ogle, 2010:819). According to Graci and Dodds (2008), the Holiday Inn King in Toronto saved $14 852 per year by installing low-flow showerheads and faucet aerators and the Holiday Inn in North Vancouver saved $16 000 per year on energy consumption through installing a room energy management system. Whilst Penny (2007) reveals that cost savings is the most commonly cited reason for hotels adopting environmental initiatives, Chan and Hawkins" (2010:645) study on the hotel sector in Hong Kong revealed that ISO EMS was implemented "out of a genuine concern for the environment and in response to market demands" and cost savings was not the major concern.

Marriott Hotels	• Marriott Vacation Club Resorts have 28 properties enrolled in Audubon''s Green Leaf Eco-rating Program for Hotels • Marriott''s quarters received a gold medal for Green Buildings. • Marriott ranked 7th out of 60 on the Sunday Times "Best Green Companies" and "Best for Employee Environmental engagement" • Marriott received the 2009 Tourism for Tomorrow Award for Sustainability by the WTTC. • Partnered with Ecolab to develop a water and energy management system for laundry use. Piloted in 31 hotels and is projected to save 18 million gallons of water and reduce energy use by 15-25%. • Launched the Future Fish global sustainable program aimed at helping chef source more sustainable seafood by engaging with local fisheries and fishing communities (Marriott, n.d.).
Accor	• New Planet 21 program aimed to intensify the group''s commitment to sustainable development. • Planted 2 million trees as part of their global reforestation program. • 93% of their hotels monitor and analyze water consumption on a monthly basis. • 88% of hotels have installed low-flow showers and taps. • 161 hotels have rainwater recovery systems. • 73% of hotels sort and recycle paper. • 569 Accor hotels have received environmental accreditation (ISO 14001 or EarthCheck) • 1400 Accor hotels participating in Plant for the Planet project (Accor, n.d.)
Fairmont Hotels and Resorts	• Pioneered the Green Partnership program which is a comprehensive program to reduce impacts on the planet. • Have over 50 distinctive eco-friendly hotels around the world. • In 2006 replaced 4440 bulbs with energy efficient florescent bulbs which achieved an annual cost saving of $61 000. • Installation of tap aerators reduced water consumption by 35% and saving 30 million litres of water per year. • Received the following environmental awards: • The Professional Convention Management Association Environmental Leadership Award in 2008. • The Hotelier Magazine Green Leadership Award in 2008. • Green Supplier Award in 2008. • Best Corporate Social Responsibility Platform – Worldwide Hospitality Award in 2006. • Hotel Association of Canada Energy and Environmental Award in 2005. • (Fairmont Hotels and Resorts, n.d.)

Figure 3.9: Examples of environmentally-responsible actions by hotel groups
Source: Marriott (n.d.), Accor (n.d.) and Fairmont Hotels and Resorts (n.d.)

3.9.3 *Market action and competitive advantage*

Rahman *et al.* (2012) affirm that a key advantage of environmental protection is an improved image, especially to niche markets that require environmental products. Marketing benefits are often the reason why many firms undertake environmental management and increasingly going green is becoming an effective competitive edge for the hotel sector (Gustin and Weaver, 1996; Manaktola and Jauhari, 2007; Robinot and Giannelloni, 2010). Marketing benefits include an improved image for the company (Bader, 2005; Harris, 2007), gaining competitive advantage (Lynes and Andrachuk, 2008) and the opportunity for greater destination marketing opportunities. Therefore, one of the key reasons for hotel chains to practice environmental responsibility is to improve their image (Blanco *et al.*, 2009; Brown, 1994; Brown, 1996; Essex and Hobson, 2001). Often the words „sustainability‟, „green‟ and „environmental‟ have been added to various tourism products as part of marketing strategies" (Graci and Dodds, 2008).

3.9.4 *Environmental quality of a tourist destination as a requisite for tourists*

An important factor in tourists determining their holiday destination is the quality of the environment (Bader, 2005; Mihalic, 2000). Tourists are also increasingly seeking more unspoilt physical and natural destinations and tend to avoid polluted destinations (Mihalic, 2000). Environmental preservation leads to higher customer satisfaction and loyalty which improves business performance. An attractive, clean and unspoilt environment is a crucial factor in the choice of a destination and hospitality companies have to ensure long-term environmental sustainability of their locality (Bohdanowicz *et al.*, 2011). Therefore, the manner in which the hotel sector deals with environmental issues is likely to affect their long-term competitiveness.

3.9.5 *Consumer Demand*

As consumers become more aware of the need to protect the environment, environmentalism has become a major concern in the tourism sector (Han *et al.,* 2009, Han *et al.*, 2011). There is also growing consumer pressure for hotels to adopt green principles (Graci and Dodds, 2008; Han and Kim, 2010). A study by Feiertag (1994) reveals that 75% of frequent travelers in America claim to be environmentally-minded with 54% stating that they prefer to stay in hotels that show concern for the environment. Consumers, tour operators, pressure groups, etc. appreciate businesses that demonstrate respect for the environment. Iwanowski and

Rushmore (1994) reveal that approximately 43 million ecological tourists are willing to pay up to 8.5% more for environmentally-friendly trips.

3.9.6 *Employee awareness and loyalty*

Environmental management programs often generate enthusiasm and motivate staff to work as a team (Choi *et al.*, 2009; Graci and Dodds, 2008; Rahman, *et al,* 2012). Some hotels provide incentives for staff to engage in environmental programs. For example Fairmont Hotels initiated the *Green Teams* program which involved rewards for the completion of various environmental activities. Staff were divided into teams which created friendly competition in environmental initiatives. The team that completed the most environmental activities at the end of the year won an all-expenses paid trip to the Caribbean for all ten team members (Reid, 2006). In a study on hotels in Hong Kong, Chan and Hawkins (2010) ascertained that employee"s environmental awareness was significantly enhanced by the hotel"s EMS and this led to environmental issues being considered in all their activities.

3.9.7 *Risk management*

Risk minimization is a compelling reason for hotels to engage in sound environmental practices and entails reducing the potential damage that a company could face and external hazards. For example, hotels may face closure due to food contamination, builders risk, fire or water damage. Environmental risk can range from "environmental risk through pollution and contaminated land, to regulation on producer responsibility and waste" (Graci and Dodds, 2008:263). Insurance companies are also beginning to favor businesses that demonstrate environmental concern. Chan and Wong (2006) and Han *et al.* (2011) also state that improved environmental management is also the concern of customers, suppliers, communities and environmentally conscious investors (Bader, 2005). The financing of hotels are now becoming dependent on how sustainable a development is and there is a growth of the „green" investor including banks that want to reduce exposure to environmental risk (Faulk, 2000).

Carter *et al.* (2004) and Chan (2008) further identify economic benefit, competitive advantage, market advantage, individual environmental ethic and corporate culture as motivations for improving environmental performance. Best and Thapa (2011) and Tortella and Tirado (2011) cite, amongst others, increased efficiencies, improved staff morale and improved relationships with the wider community as the benefits of hotels adopting sound

environmental practices. Despite a growing body of research, useful tools and adequate motivation, the adoption of environmental management practices is slow (Williams and Ponsford, 2008). Often, a hotel a may be prohibited from, or encounter difficulties in, adopting an EMS due to a range of barriers (Table 3.6) (Tari *et al.*, 2010).

3.10   Barriers to environmental management in the hotel sector

Some of the key factors that have been identified as barriers to EMS are lack of knowledge on conservation measures, limited staff availability (Levy and Dilwali, 2000), complexity of ISO standards, legal consequences, lack of management commitment, lack of employee commitment and cost of implementation of EMS (Quazi, 1999; Penny, 2007; Stevens *et al.,* 2012). Murillo-Luna *et al.* (2011) define external environmental barriers as environmental factors that cannot be controlled by a business and includes certifiers, economics, institutional weaknesses and support and guidance (Table 3.6). Internal environmental barriers are related to factors within the business and include resources, understanding and perception, implementation and attitudes and company culture (Graci and Dodds, 2008; Kasim, 2009).

Table 3.6: Barriers to the implementation of an EMS

External barriers	Internal barriers
• Cost of verification and certification • Certification and verification systems are often inconsistent • Uncertainty about market benefits • Institutional weaknesses • Lack of support, guidance and information • Policy and market barriers • Financial and economic barriers • High cost of environmental technologies • Other regulatory pressure • Rigidity of regulation • Uncertain about economic and environmental benefits	• Lack of human resources • Incorrect perceptions of EMS • Difficulties with the implementation of EMS • Technical and information barriers • Managerial and organizational barriers • Lack of financial resources • Understanding and perception • Little environmental motivation • Lack of employee involvement • Poor communication systems • Lack of management commitment

Modified from Murillo-Luna et al. (2011) and Kasim (2009)

3.10.1 Resources

Lack of resources is cited as one of the crucial barriers to EMS in hotels. Often a huge gap exists between environmental awareness and daily practice and this is largely attributed to "the assumed cost of environmental protection" (Erdogan and Baris, 2007:605). For EMS to be successfully implemented and maintained, money, time and people as well as other costs need to be allocated and sustained on a continual basis (Kang *et al.,* 2012). This may become a financial burden to the hotel (Kang *et al.*, 2012) as many hoteliers believe that environmental measures "are prohibitively expensive" (Bohdanowicz and Martinac, 2003:1). For example, installing certain facilities such as key card systems may require substantial amounts of money. Chan (2008:193) therefore believes that "without sufficient resources, hotels sometimes find it very difficult to achieve the desired environmental performance". The availability of such resources is also largely dependent on the commitment from top management for EMS adoption. Research indicates that usually larger tourism firms have greater advantages and opportunities to implement and benefit from sustainability practices (Chan, 2008; Holden, 2000; Vernon *et al*., 2003) as they have greater access to financial and human resources (Kasim, 2009).

According to Mensah (2005), previous research shows that it was largely the international and chain hotels that paid most attention to environmental issues as opposed to small and independent hotels (Enz and Siguaw, 1999) and "only famous five-star hotels are aggressively pursuing environmental initiatives" (Erdogan and Baris, 2007:611). Larger companies are at a more advanced stage of environmental management and have access to more financial and human resources (Kasim, 2009). Having environmental officers or a person appointed to be in charge of environmental issues is also typical in larger hotel chains. However, in most cases, hotels find it financially difficult in employing a single person for environmental responsibility (Bohdanwicz, 2006). In a study of hotels in Hong Kong, Chan (2008) concluded that implementation and maintenance costs were the greatest barrier that prevented hotels from adopting EMSs. However, Bader (2005:71) assures that sustainable practices are "generally cost-effective with short periods of payback" and "many changes will pay for itself in short time" (Persic-Zivadinov and Blazevic, 2010:167). Kirk (1995) advises that hotels should start with easy-to-achieve and low cost environmental projects, especially those hotels with tight resources.

3.10.2 Awareness and knowledge

Lack of professional advice and knowledge can result in some hotels experiencing difficulty in interpreting formal EMS standards (Chan, 2008; Erdogan and Baris, 2007; Graci and Dodds, 2008; Tzschentke *et al.*, 2008) as many managers also lack the knowledge and expertise in EMS (Chan, 2008; Chapman, 1997). A study of environmental management practices of hotels in Ghana revealed that most managers perceived environmental management as "keeping their surrounding green and attractive with flowers and other ornamental plants" (Mensah, 2006:424). Research conducted by Stabler and Goodall (1997) on environmental awareness in Guernsey hotels reveal that there is a lack of awareness of environmental issues amongst hoteliers and as a result very few have undertaken an environmental audit of the hotel. Chan and Hawkins (2010) in their evaluation of Hong Kong hotels also disclosed that most employees had to refer to literature, guidelines and posters to gain information on environmental practices. Erdogan and Tosun (2009) further conclude that a low level of awareness and knowledge on environmental issues will inevitably reduce environmental performance.

3.10.3 Regulatory frameworks

Lack of governmental regulations enforcing environmental practices are also key barriers to environmental management (Graci and Dodds, 2008) and governments input is described as being "indirect and at an arm"s length" (Bramwell and Lane, 2010:1). Although regulatory bodies have developed environmental management guidelines, they have not been strongly enforced due to "uncertainties concerning how such initiatives will be received by tourism suppliers and their clients" (Williams and Ponsford, 2008:3). Furthermore, governments are unwilling to burden tourism businesses with extra regulations as they believe this may preclude their willingness to generate tax-revenues.

3.10.4 Certifiers and verifiers

Another barrier to EMS implementation in hotels is certifiers or verifiers. According to Chan (2008:193), the certification process is "the procedure by which a third party gives written assurance to the company (that is, the hotel) that a product, process, service or management system conforms to specified requirements". The high cost of certification may be a problem for some hotels. Also, hotels are normally assessed and verified according a set of criteria and by different verifiers. Due to variation, some hotels may be misadvised.

3.10.5 Consumer demand

Businesses are reluctant to adopt sustainable practices because they believe that there is insufficient consumer interest in environmentally-friendly products. Whilst consumers have the greatest power to change the industry, there is very little demand for sustainable products (Graci and Dodds, 2008; Williams and Ponsford, 2008). Studies also indicate that environmental degradation and climate change does not influence travel purchase decisions (Anable *et al.*, 2006; Leiserowitz, 2006). Although customers are often the key drivers for the implementation of EMS, they may also show a lack of interest in a hotels environmental performance (Chan, 2008). The reaction of consumers is considered as contradictory. A large number of consumers are aware of environmental impacts and its dangers and the need to act responsibly. However, most consumers "seem unwilling to translate these concerns into meaningful personal actions by voluntarily changing their own consumption patterns" (McKercher *et al.,* 2010:299).

> *A hotel guest who is paying a lot of money for a vacation and is staying in a hotel may not appreciate the prospect of the air-conditioning or heating being turned off at certain times. Some guests are also touchy about water pressure, and do not want to use water-saving showerheads in guest bathrooms. They may even complain about the environmental measures taken at the hotel.*

> (Chan, 2008:193)

3.10.6 Coordination

There is evidently a lack of a more integrated and strategic approach to coordinate environmental management practices in the tourism sector and a "lack of leadership and shared responsibility amongst tourism"s stakeholders. Hotels fail to have a formal environmental policy in place and there is generally a lack of a dedicated staff/team in charge of environmental management (Penny, 2007). Furthermore, collaboration with external bodies such as public authorities, suppliers and subcontractors hinders the implementation of EMS. "Businesses, consumers and regulatory bodies each treat the implementation of sustainable tourism practices as a „hot potato", claiming that others have the principle responsibility for making sustainable tourism happen" (Williams and Ponsford, 2008:3).

In summary, Synergy *et al.* (2000) and Buckley (2001) have attributed lack of resources and knowledge, verification and compliance requirements and consumer recognition as hindrances to environmental management in the tourism sector. Hoteliers often perceive

environmentally-friendly alternatives as less efficient as conventional products and will have minimal impact on their business (Brown, 1996; Carter *et al.*, 2004). The challenge therefore lies in increasing hoteliers understanding of the strategic role played by environmental management in enhancing organizational effectiveness and competitiveness. This study hopes to elicit the barriers facing hotels and lodges in the implementation of EMSs. Recommendations to overcome barriers to EMS will be put forward in this study.

"A hotel with sound and reputable green practices can lower operating costs, appeal to stakeholders, enhance employee morale and consequently enjoy financial prosperity" (Han *et al.*, 2011:354). Jacobenson (2007:106) however argues that "it is the tourists" desires, choices and activities that ultimately determine the impacts of tourism" and consumers are now considered to be obstacles in the realization of environmental goals (Spaargaren and Mol, 2008). The consumer is no longer viewed "as the ‚small polluter" whose contribution can be dismissed in the light of the huge impacts of big industrial polluters" (Spaargaren and Mol, 2008:354). Consequently, environmental concerns have led to a change in consumer buying behavior and attitudes (Han and Kim, 2010) and as a result of the environmental movement in the late twentieth century, consumers have become increasingly aware of the need for protecting the environment (Andereck, 2009). This has led to the emergence of the ‚green consumer".

3.11   The green consumer

A number of studies have focused on consumer behavior towards environmentally-friendly hotels (Chen and Peng, 2012; Choi *et al.,* 2009; Han *et al*., 2009, 2010; Han and Kim, 2010; Kasim, 2004; Kim and Han, 2010; Lee *et al.,* 2010; Manaktola and Jauhari, 2007). The social identity theory is a relevant background theory to examine customer"s level of environmental concerns as "people tend to associate themselves with organizations whose identities are enduring, distinctive and capable of increasing their self-esteem" (Kang, *et al.,* 2012:565). Customers who are concerned about environmental issues tend to identify with companies that exert intense environmental practices (Sen and Bhattacharya, 2001). Another theoretical foundation for examining environmental concerns of customers is the means-end theory. Here customers" values influence their purchasing behavior and customers who are concerned about the environment are more likely to purchase green products and services (Kang *et al.,* 2012). This study hopes to confirm this.

The so-called „green consumer" refers to individuals "who's purchasing decisions are substantively influenced by ethical motives" (Weaver, 2006:62). The green tourist is largely concerned with wildlife, transport, conservation, use of resources, pollution, construction and planning and the practice of tourism firms (Faulk, 2000) and are seeking to "purchase eco-friendly products and services, preferring firms that favor environmental practices" (Han *et al.*, 2009:1). Consumers have the power to change the industry. Whilst Williams and Ponsford (2008) believe that travelers have not aggressively demanded environmentally-friendly tourism products, literature shows that tourists are becoming more environmentally aware and will now hopefully become more discerning in their choice of tourism products and destinations (Brown, 1998; Leslie, 2001; Litvin, 1996; Masau and Prideaux, 2003; Middleton and Hawkins, 1998; Turner, 1997; Wight, 1993). Chen and Peng (2012) maintain that environmental knowledge will influence consumer buying behavior.

Laroche *et al.* (2001) believe that consumers" environmentally conscious attitudes undoubtedly influence their eco-friendly purchasing behaviors. A study by Feiertag (1994) reveals that 75% of frequent travelers in America claim to be environmentally-minded with 54% stating that they prefer to stay in hotels that show concern for the environment. Mensah (2004) indicates that 90% of US hotel guests prefer to stay in hotels that adopt green management. The Kimpton Hotels and Restaurants also announced that 16% of their guests choose their hotels because of their eco-friendly practices (Butler, 2008). Fifty three percent of Brits and Australians also preferred hotels with an environmental management program (Hotel Online, 2002). Han *et al.* (2009) also found that costomers prefer green hotels and are willing to pay more for green hotel products. Manaktola and Jauhari (2007) and Kang *et al.* (2012) also reported that customers patronize hotels that implement environmentally-friendly practices. Their study further established that environmentally conscious individuals are likely to engage in eco-friendly consumer behavior. Swarbrooke (1999) reveals that seven out of ten criteria for what constituted a „quality holiday" for British tourists were environmentally-related. This study hopes to appraise the consumer behavior of hotel and lodge guests and their preference for green accommodation establishments.

However, despite consumers now adopting „greener" values, they have little sustainable tourism product options (Williams and Ponsford, 2008). Therefore, hotels and other tourism operations that are not environmentally-friendly may be face pressure from consumers to adopt environmentally-friendly management practices (Masau and Prideaux, 2003).

For example, a reduction in pollution levels will probably increase the demand from environmentally-sensitive tourists, since the ecological characteristics of products can become a new competitive argument appreciated by these „green" customers, and firms can acquire a better ecological reputation and thus force hoteliers to adapt to their new preferences, among which a greater respect for the environment stands out.

(Tari *et al.,* 2010:502)

The challenge for hotel marketers is to obtain a better understanding of the potential customers" desire for green products. Knowledge of hotel guests" environmental attitudes, demographics and eco-friendly intentions can help hotel managers understand their potential customers and formulate more effective marketing strategies (Han *et al.*, 2011). According to Clark (1999) and Erdogan and Baris (2007), many multinational companies are also implementing environmental management programs due to pressure from their customers. Moreover, consumer demand for green products has also created the need for governments and the private sector to become proactive in solving environmental problems through policies that seek to promote initiatives designed to address specific aspects of environmental performance such as energy consumption, waste reduction, water management and local purchasing (Leslie, 2001). However, Kang *et al.* (2012) dispute that consumer demand and their willingness to pay higher prices for green products is still unclear as research on these issues has produced mixed results. Research conducted by Penny (2007) on environmental management in the Macao hotel sector reveals that improving environmental performance may not increase customers satisfaction, as price is a major customer consideration in hotel choice, followed by location and service quality. A number of issues are considered when purchasing a tourism product: cost, purpose, availability, ease of use and expected benefits. Unfortunately, "environmental ethic does not appear to trump any of these purchasing factors" (Williams and Ponsford, 2008:4). Tzschentke *et al.* (2008) question whether environmental measures of consumers are an accurate reflection of their environmental concerns.
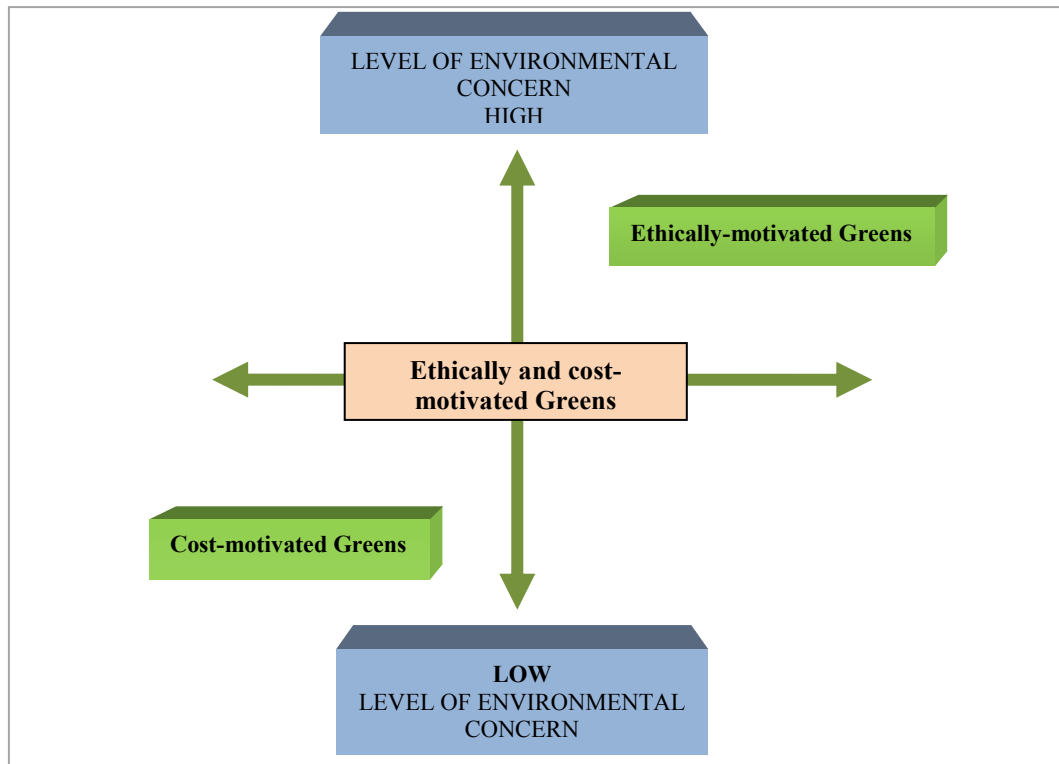
Figure 3.10: Level of concern and motivational orientation
Source: Tzschentke et al. (2008:130)

Few tourists are even aware of the impact their consumption has on destinations. Although Hines *et al.* (1987:130) maintain that pro-environmental attitudes positively influence environmentally responsible behavior, a gap also exists between environmental concern as a "high degree of environmental consciousness does not necessarily translate into pro-environmental behavior" (Tzschentke, *et al.*, 2008:127). According to Tzschentke *et al.* (2008:127), "being aware and concerned is one thing, believing that one's actions bring positive change is another; one does not imply the other". Figure 3.10 indicates an association between environmental concern and action level and suggests that higher levels of environmental concern may lead to greater levels of action. Distinctions are examined between the cost-motivated and the ethically motivated green consumers and indicate that consumers that are generally concerned about costs tend to possess a low level of environmental concern. On the other hand, consumers with a high level of environmental concern have a tendency to be motivated by ethics. Research also indicates that environmental education and awareness of consumers "does not stimulate environmentally responsible purchasing behavior" (Sasidharan, 2002:171). This study investigates the level of

environmental education and awareness of hotel and lodge guests and the extent to which this affects their responsible purchasing behavior.

Faulk (2000:5) cautions against the ambiguities regarding the term „green tourist" and suggests that "there should be distinctions or „shades of green" among tourists". Often customers are unable to identify an environmentally-friendly establishment due to their own lack of knowledge (Carter *et al.*, 2004). For example, a hotel guest who has paid large amounts of money for a hotel may not like air conditioning being switched off at certain times (Chan, 2008). Tang *et al.* (2012:3) therefore suggest that hotel operators increase their information provision and improve guest communications "to alleviate customer fears that environmentally-friendly measures will come at the expense of service quality". Min (2011) suggests that consumers be provided with informal environmental education in the form of brochures, exhibitions, seminars, ecological corners and multi-media presentations.

Despite these concerns, the emergence and growth of green products indicate that tourists are becoming more aware of sustainable and environmentally-friendly products (Bumgarner, 1994; Gustin and Weaver, 1996; Kim and Han, 2010; Robinot and Giannelloni, 2010). Furthermore, while the demand for green tourism products are not as great, tourists often do not return to destinations of poor environmental quality (Williams and Ponsford, 2008:4). It is believed that the demand for green hotel operations will increase amongst customers, and "those pioneering in related environmental work and efforts are most likely to reap most of the early benefits" (Bohdanowicz, 2006:680). Moreover, according to Bohdanowicz (2011:798), "reducing a company"s environmental impact is about introducing a genuine change, and for that change to happen it is necessary to engage all employees". Human resource management plays an imperative role in environmental management (Erdogan and Tosun, 2009; Jabbour and Santos, 2008) and the "critical factors for the success or failure of an EMS are the involvement of staff" (Ayuso, 2007:152). EMSs tend to be more successful when employees are treated as important stakeholders. Therefore employee participation is crucial and should involve teamwork, awareness and employee initiatives (Bruns, 1996; Chan and Hawkins, 2010).

3.12   The role of employees in environmental management in hotels

Tsai *et al.* (2012:1151) indicate that "assessing the hotel employees perceptions on the environmental activities of their hotel could provide hotel management with information from an insider point of view because they are the ones that transmit CSR statements to actions". They further stated that employee-related environmental practices can also enhance the employee"s responsibility towards the business. Employees are considered as being "the main experts in the way environmental dimensions can be included in fundamental organizational activities" (Bohdanowicz *et al.*, 2011:801). Hotels with environmental commitments should "invest in human capital training, education and communication to support corporate environmental management practices" (Tang *et al.*, 2012:3). Communication of motives for EMS adoption should be relayed to staff (Chan and Hawkins, 2010).

> *If an employee is genuinely concerned about the state of the environment and believes that businesses should take action against climate change and environmental degradation, he or she will naturally be more likely to identify themselves with (and gravitate towards) companies that pay due regard to ecology. Equally, ecologically responsible companies can boost employees" motivation, job satisfaction and organizational commitment.*

> (Bohdanowicz *et al.,* 2011:800)

The implementation of EMS may enhance staff morale and increases their commitment to environmental improvement (Chan and Hawkins, 2010; Choi *et al.*, 2009). Poksinska *et al.* (2003) in their study of hotels in Sweden found that employee morale was moderately improved through environmental management. Kirk (1998) revealed that environmental management in the hotel sector in Edinburgh was beneficial as it improved employee satisfaction and noted that employees at hotels welcomed the introduction of an environmental management program. A common problem however, is that often EMSs involve employees taking on more work responsibilities and staff may feel threatened if their existing responsibilities are altered or increased (Chan and Hawkins, 2010). Staff workloads may be increased due to environmental practices and this may affect their performance in normal duties. Record keeping of EMSs is imperative and this entails more documentation which is an added work task. Furthermore, environmental activities usually entail added work responsibilities which are neither recognized or formally rewarded (Bohdanowicz *et al.*, 2011). In a study on sustainable instruments in the Spanish hotel sector, Ayuso (2007) observed that employees often regarded EMSs as a threat or an additional workload.

However, communication and training eventually reduced their doubts and uncertainties about EMSs.

Education and training of employees is crucial to the success of EMSs (Chan and Hawkins, 2010; Choi *et al.*, 2009; Jovicic, 2010; Morrow and Rondinelli, 2000). A study by Bohdanowicz *et al.* (2011) on the Hilton‟s *We Care!* environmental program revealed that more than 95% of employees stated that the environmental training program helped improve their environmental awareness and behavior. Other studies also conclude an encouraging relationship between employee morale and EMS training (Enz and Siguaw, 2000; Chow *et al.*, 2007). However, some employees do not share the environmental management commitments of employers and perceive environmental training to be "boring, even time-consuming or wasteful" (Chan and Hawkins, 2010:643).

The environmental policy of a company must specify forms of environmental training employees will be offered and how they would be rewarded for their environmental actions. The Rio Summit uncovered the relevance of environmental education and training programs for achieving sustainable development and bringing out vital changes in environmental management. Sustainable tourism undoubtedly needs to be maintained by capacity building initiatives at the local, national, regional and international levels (Jovicic, 2010). Managers have to "instigate a concrete organizational culture" (Bohdanowicz *et al.*, 2011:803) and proper training will lead to behavioral changes among hotel staff (Bohdanowicz, 2006). Managers may lack competence and knowledge of environmental management or may find environmental initiatives as conflicting with profit maximization and competitive enhancement. Implementing environmental change is often complex and demanding and requires commitment from employees and the managerial team. Jovicic (2010:943) believes:

> *The environmental training program should not be designed to train specialists in ecology. Its purpose is, primarily, to increase the competence of tourism operators by providing them with environmental information which professionals can incorporate in their daily activities, which decision-makers can use in their strategic choices and which fund providers can add to their criteria for deciding whether to participate in more innovatory and environmentally-friendly projects.*

A study by Chan and Hawkins (2010) on the hotel sector in Hong Kong yielded some interesting observations on employees" perceptions of environmental management. Staff were unaware of the EMS plan and had to refer to literature, guidebooks and posters for information as they had little training. They also revealed that the EMS had increased their environmental awareness and knowledge and this knowledge was passed on to friends, family and other businesses. Employees also stated an increase in workload due to the implementation of EMS, but indicated that they did not mind as environmental protection is of great consequence. They also found it difficult to implement EMS and satisfy guest needs at the same time. Employees had the opportunity to view environmental management reviews each year and were given a chance to present their own ideas to senior management. They were also unaware of what other hotels were doing through EMS and felt that sharing of knowledge between hotels can improve current practice. Staff also felt the need for some sort of reward and incentive programs for their environmental actions. This study examines the extent of environmental training undertaken in hotels and lodges.

3.13 Conclusion

The concept of sustainability and sustainable tourism has received increasing attention in the last few decades. The 1960s and 1970s saw the foundation of the modern environmental movement due to the increasing awareness of human activity on environmental resources. In the 1980s and 1990s the concept of sustainable development was introduced by the UN. At the same time, the public and consumers were indicating a heightened concern for the hotels sector"s negative impacts of the environment. A number of environmental initiatives were advanced during the 1990s including hotel-specific environmental certification programs. Environmental efforts by hoteliers were facilitated by the numerous resources provided by international organizations, public agencies and environmental firms. Since, a number of hotels have increased their environmental efforts which focused largely on energy, water and waste management. Gradually, other areas of sustainable operations emerged and included sustainable procurement and staff training programs. CSR, as well as the implementation of other management practice such as environmental auditing and certification schemes indicates a voluntary attempt to environmental management. Environmental certification programs are used widely by hotels in South Africa and the use of environmental accreditation logos creates a favorable image for a hotel. The literature indicates that hotels face a number of different incentives and obstacles in the implementation of environment management. With the advancement of environmental practices in the hotel sector,

environmental awareness is augmented. Consequently, the public is encouraged to engage in appropriate environmental behavior, and consumers are increasingly seeking more environmentally-friendly hotels. Marketers therefore need to be proactive in informing consumers of their green facilities and practices.

CHAPTER FOUR
THE SITUATION IN SOUTH AFRICA

4.1   Introduction

The previous Chapter provided a synopsis of the main themes and debates pertinent to the topic under examination. This Chapter focuses on the South African context. Specifically, the first section presents an overview of the tourism and accommodation sectors in South Africa. This is followed by an examination of environmental management in South Africa with reference to key policies and legislation. Lastly, the initiatives towards environmental management in hotels and lodges are discussed.

4.2   The tourism and accommodation sectors in South Africa

Due to the political situation and the imposition of international sanctions, South Africa‟s tourism industry underwent a period of decline during the 1980s and therefore investment in tourism product development was low (Rogerson, 2012). During the apartheid period, large proportions of European and North American travelers avoided South Africa (Rogerson and Visser, 2004). With the release of Nelson Mandela and the discarding of apartheid and international sanctions, South Africa has witnessed a rapid growth in international tourism since 1994. By 2004, ten years after democracy, South Africa received 6.7 million international tourist arrivals (Visser, 2007). South Africa‟s hosting of the 2010 FIFA World Cup resulted in 8.1 million international tourist arrivals during that year. "Overall, between 1990 and 2010 the volume of international tourism arrivals in South Africa expanded eight-fold" (Rogerson, 2012:3). Figure 4.1 illustrates that tourist arrivals in South Africa grew by 7.4% over 2010, and 309 554 tourists arrived specifically for the 2010 FIFA World Cup. In 2011, South Africa saw just over 8 million total tourist arrivals representing a 3.3% increase in growth from 2010 (South African Tourism (SAT), 2011a). In 2010, tourism‟s contribution to the GDP of South Africa was R74 772 million (3.1%). Tourist arrivals to South Africa grew to 8 339 in 2011.
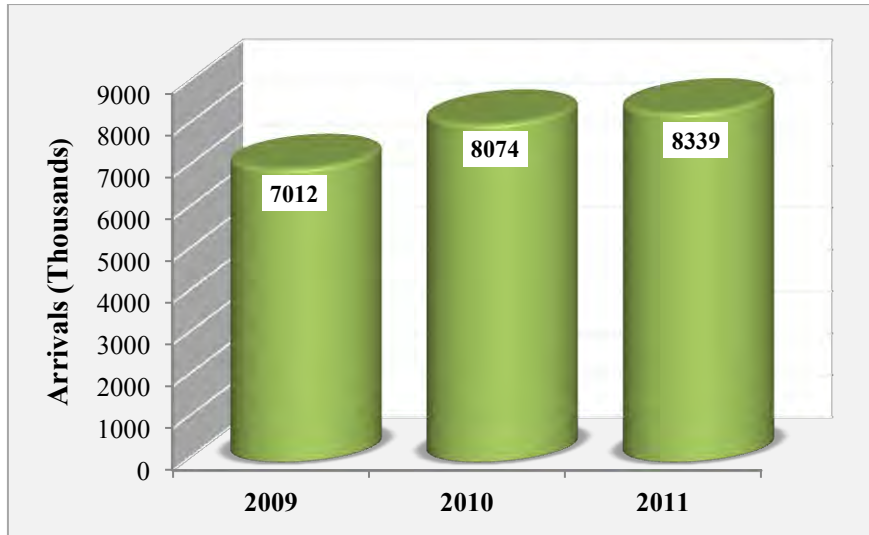
Figure 4.1: Tourist arrivals to South Africa: 2009-2011
Source: SAT (2011a:16)

In 2009, the average length of stay of international visitors was 7.5 nights. In 2011, the average length of stay increased to 8.3 nights and the total bed nights spent in South Africa was 66.2 million (SAT, 2011a). Over the last few years a number of hotels in key cities around the country have been developed to accommodate the increasing growth in occupancy rates (NDT, 2011a). The growth in tourism boosted hotel occupancy levels and this led to the development of added hotel rooms. Figure 4.2 illustrates that between 2005 and 2008 the number of hotel rooms in South Africa increased by 1 600 and the period 2008 and 2010 saw a considerable increase of 9 700 additional rooms (PricewaterhouseCoopers, 2011).
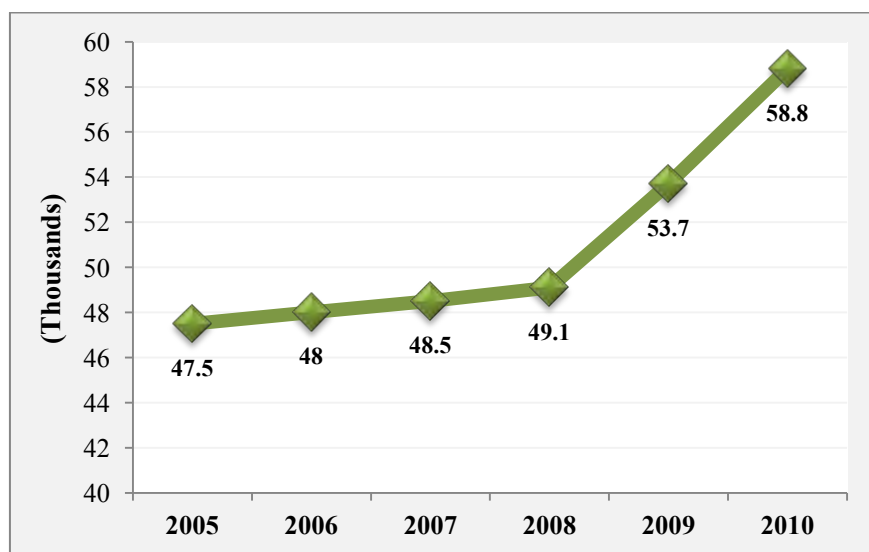
Figure 4.2: Number of hotel rooms
PricewaterhouseCoopers (2011:6)

Tourism product development such as hotels has been historically based on the domestic tourism market in South Africa. In 2010, the number of domestic tourists in South Africa was 13.5 million which far exceeds the volume of international tourist arrivals (SAT, 2011b). With hotel development largely targeted at the domestic tourism market, hotels standards were basic and did not meet international standards of hotel development. Figure 4.3 indicates that 1 star and 2 star accommodation facilities formed 82% of the hotel sector in South Africa in the 1990s. With the rapid growth in international tourism since the early 1990s, a "massive upgrading in the quality of the country's hotel industry occurred as a result of a wave of new quality hotel developments as well as refurbishment of a portion of existing hotel properties" (Rogerson, 2012:4). Between 1990 and 2010, 86% of new hotel construction was 3-5 star graded properties and by 2010, the hotel sector in South Africa had completely transformed from only 20 five star hotels in 1990 to a 162 in 2010 (Rogerson, 2012).
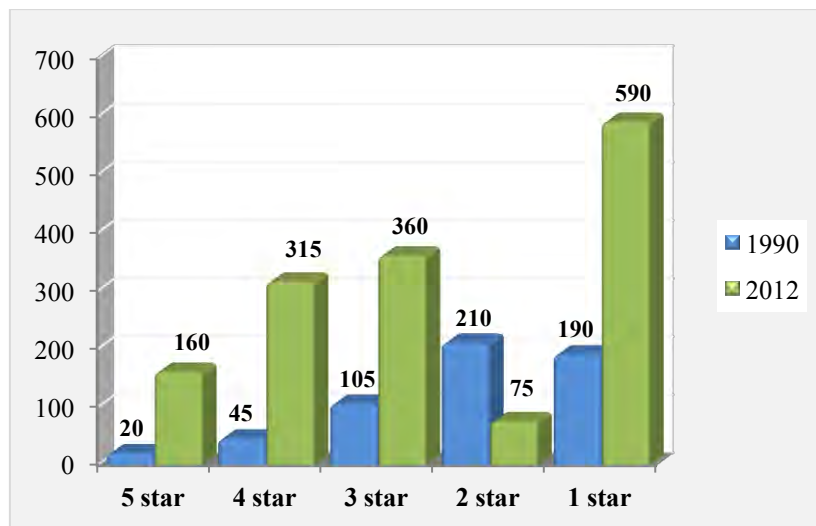
Figure 4.3: Changing quality standards in the South African hotel industry
Source: Rogerson (2012:4)

According to Figure 4.4, the size and scale of hotels also changed with the upgrading of hotels in South Africa. In the 1990s the size of hotels ranged from 11-50 rooms whilst in 2010 the average hotel size had grown to 64 rooms. The role of small hotels was reduced and there was a rapid growth in the 51-250 room hotel range. Moreover, a number of local hotel chains emerged such as Southern Sun, Protea and City Lodge, Legacy Hotels, Three Cities, Signature Life, Orion and Forever Resorts. Local ownership was strengthened due to the lack of interest from international hotel groups given the economic and political situation in South

Africa at the time. International hotel chains emerged in South Africa post-1994 and by 2010 the Sheraton, Hilton, Hyatt, Rezidor, Mecure and Taj group established hotels in South Africa (Rogerson, 2012).
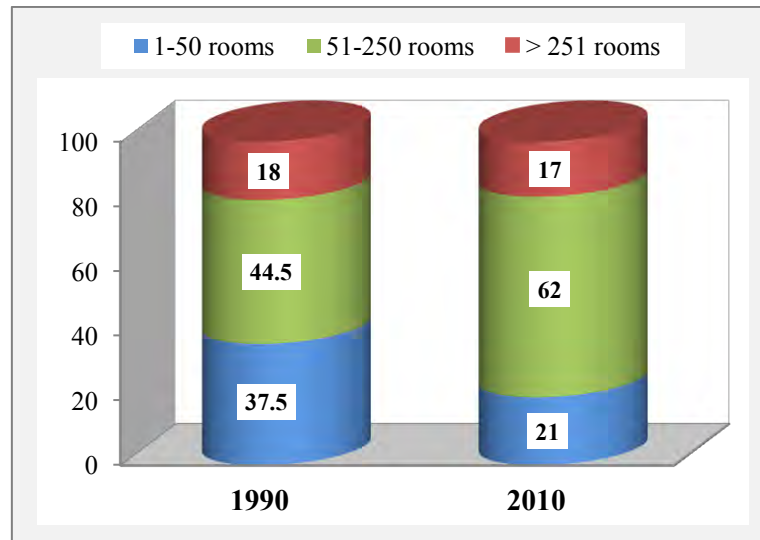
Figure 4.4: Size of hotels, 1990 to 2010
Source: Rogerson (2012)

Rogerson (2012) observes that the spatial growth of hotels in South Africa is focused around the four key urban tourism centers: Durban, Cape Town, Johannesburg and Pretoria. He claims that Cape Town and Johannesburg underwent the most rapid restructuring. Cape Town established itself as a popular destination for long-haul destinations with major attractions such as the Victoria and Alfred Waterfront, Table Mountain and Robben Island as well as an international convention center. Johannesburg is the economic hub of the country and attracts mostly business and event tourists. Larger concentrations of hotels are found in the tourism centers of Durban, Cape Town and Johannesburg.

Given the rapid growth in the South African tourism industry, after the 2009 elections, President Jacob Zuma made significant changes in the government ministries. A standalone Ministry of Tourism was established which indicates the growth and stature of the South African tourism industry, the NDT (2011b). Consequently the NDT drafted the National Tourism Sector Strategy (NTSS) to help speed up responsible tourism growth from the period 2010 to 2020 (NDT, 2011b). One of the objectives of the NTSS is to "promote responsible tourism practices within the sector" with a focus on the need for tourism businesses to incorporate responsible tourism management and practices (NDT, 2011b:23). Responsible

tourism in South Africa is aimed at reducing environmental damage and directs attention to the development and implementation of a program to measure responsible tourism (Table 4.1). Actions to achieve such a program include the establishment of minimum, universal standards for responsible tourism, create responsible tourism awareness, encourage the inclusion of responsible tourism actions in marketing activities, the development and implementation of environmental training programs, encourage green building development, assist in the implementation of environmental practices and assist in the funding of energy conservation programs for the hospitality sector.

Table 4.1: Actions to promote responsible tourism in South Africa

Action	Sub-actions
Develop and implement a program to set, adhere to and measure attainment of responsible tourism standards.	• Finalize and implement the national minimum standards for responsible tourism.
	• Promote the sector's adherence to constitutional principles and values, including race, age, gender, etc.
	• Conduct research on the current implementation of responsible tourism measures, and promote awareness among tourism businesses.
	• Encourage tourism marketing organizations to include messages about responsible tourism issues.
	• Develop universal access standards for the tourism sector
	• Develop training programs and funding mechanisms specifically aimed at green issues and products within the tourism industry, including all sub-sectors.
	• Develop and implement a voluntary accord within the tourism industry to reduce its carbon footprint in relative terms, and monitor this on an ongoing basis.
	• Facilitate the implementation of environmentally responsible practices within the tourism transport sector.
	• Work with investment facilitation entities/organizations to encourage the development of green buildings for new developments.
	• Engage relevant stakeholders to facilitate funding for energy-efficiency conversions or renewable-energy projects in the hospitality sector.

NDT (2011a:45-46)

4.3 Environmental management in South Africa

Not only does South Africa have one of the biggest per capita greenhouse gas emission rates in the word and thus needs to take drastic action to reduce this, but the country will suffer the impacts of climate change more severely than many others. The 2007 IPCC report on impacts, vulnerability and adaptation to climate change in Africa indicates that Africa's vulnerability to climate change is greater than had previously been calculated. The consequence is that sub-Saharan Africa will experience the greatest negative effects of global warming and possess the least capability and resources to adapt to these impacts. Therefore effectively addressing climate change requires a multi-pronged approach that drastically shifts from a business-as-usual approach.

(Rumsey and King, 2009:1049)

The historical growth of environmental management in South Africa was similar to that of other countries. The focus changed from "species preservation to a more comprehensive approach of habitat and ecosystem conservation to the notions of sustainable development" (Muller, 2009:68). The 1960s saw the need for a more comprehensive approach to environmental governance and the need for a national environmental strategy. The Council for the Environment was formed in the 1980s to offer advice on environmental policy issues. With the advent of democracy in 1994, the new government faced deep inequalities and an old institutional and legal fabric of environmental policy. According to the International Development Research Center (1995), the following challenges with environmental management in South Africa were identified:

- Fragmentation of policy due to the fact that almost all national government departments focus on some aspect of environmental management. As a result, resource allocation and regulation are split between different legislations and departments,

- Ineffective enforcement of legislation due to the fact that often fines are so little and therefore do not act as deterrents, departments unwilling to charge offenders and inadequate staff capacity,

- Relevant departments unable to provide reliable environmental data to the public, environmental groups and trade unions,

- Lack of trained personnel such as inspectorates and professional staff in the field of environmental management,

- Lack of public participation in environmental-related issues and very little public involvement in policy formulation and decision-making, and

- DEAT has a weak legislative authority, little executive power and lacks technical and professional staff to undertake its responsibilities.

This study therefore provides an insight into issues such environmental management policies, the enforcement of environmental legislation, environmental audits and environmental data, and environmental training and education in order to address the challenges facing environmental management in hotels and lodges.

South Africa responded to the 1992 United Nations Conference on Environment and Development with the 1996 White Paper on the Development and Promotion of Tourism in South Africa which indicated that "for South Africa, responsible tourism was not a luxury but a necessity" (Frey and George, 2010:621). The United Nations Conference on Environment and Development (UNCED) held in Rio in 1992 steered the South African government towards the sustainable utilization approach of natural resources. The White Paper proposed *Responsible Tourism* as key guiding principle for tourism development in South Africa and implies that the tourism industry has a responsibility to the environment (DEAT, 1996). The RMTSA was formulated in 2001 followed by the Responsible Tourism Guidelines in 2002 which identified specific ways in which responsible tourism can be realized. Globally the RTMSA is aligned to the goals of poverty alleviation and employment generation, as well as addressing environmental issues such as climate change and natural resource management. Cape Town hosted the first conference on Responsible Tourism in 2002 which led to the formulation of the Cape Town Declaration. Furthermore, the WSSD was also held in Johannesburg in 2002. "After successfully hosting the WSSD in 2002, South Africa has assumed a global leadership role in promoting the ideals of sustainable development" (DEAT, 2009:19).

Since 1994, South Africa"s policies have included sustainability issues and the goals of economic efficiency, social equity and environmental sustainability have been embodied in the restructuring of all South Africa"s policies. An entirely new approach to environmental management in South Africa was established with The Constitution of the Republic of South Africa, 1996 which granted the right "to an environment that is not harmful to health and well-being". Furthermore, according to van der Linde (2009:196), section 24 of the 1996 Constitution incorporated an environmental right which stated that everyone has a right to:

- Have an environment that is not harmful to their health or well-being; and

- Have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures:
  - Prevent pollution and ecological degradation,
  - Promote conservation, and
  - Secure ecologically sustainable development and the use of natural resources while promoting justifiable economic and social development.

The Environmental Conservation Act (ECA) which was ratified by government in 1989, acted as South Africa's framework law until the National Environmental Management Act (NEMA) was sanctioned in 1998 (DEAT, 2009). NEMA of 1998 was formed through a multi-stakeholder consultative policy process and is aimed at co-operative environmental governance and sets out principles and processes for decision-making, environmental governance and integration and coordination of environmental functions (Muller, 2009). According to the NEMA, „environment" refers to "surroundings within which humans exist and is made up of the land, water and atmosphere of the earth; micro-organisms, plant and animal life; interrelationships among and between them" (van der Linde, 2009:193).

The key representative for environmental governance in South Africa is the Department of Environmental Affairs and through its Environmental Quality and Protection branch, focuses on pollution and waste management, environmental impact management, air quality management and climate change and regulatory services (DEAT, 2009). Waste management and pollution addresses the development and implementation of waste management policy and legislation, rehabilitation of heavily polluted areas and the monitoring of pollution and waste. Environmental impact management concerns itself with environmental impact evaluation, the development of environmental impact management systems, managing the authorization of Environmental Impact Assessments (EIAs) and providing support services to local government. According to DEAT (2010), over that past 12 years, EIAs on more than 70 000 development activities were undertaken. DEAT ensures that environmental planning takes place in a proactive manner. Air quality management and climate change is directed at developing and managing atmospheric quality information systems, the formulation of air quality policy and regulation and managing the country's climate change program (DEAT,

2009). Regulatory issues focus on the enforcement of environmental law and compliance monitoring.

Environmental tasks are also part of other ministries in South Africa. These include the Department of Water Affairs and Forestry which focuses on water conservation, Department of Agriculture with the purpose of conserving agricultural resources, and the Department of Minerals and Energy whose objective is the sustainable utilization of mineral energy and resources. The South African National Parks (SANP), South African National Biodiversity Institute (SANBI) and the South African Heritage Resources Agency (SAHRA) are further parastatal institutions aimed at governing environmental issues in South Africa. Provincial government also plays a significant role in establishing provincial standards and supporting local government in its activities for environmental management. The environmental management role may be grouped with development planning, nature conservation and tourism. At the local government level, the principles of sustainable development and environmental management are integrated into the planning process. Local government ensures implementation of environmental policies, and compliance of Integrated Development Plans (IDP) with NEMA principles. A number of cities have developed their own environmental policies such as Cape Town‟s Integrated Metropolitan Policy and Durban‟s Metropolitan Environmental Policy.

Table 4.2: Environmental legislations and policies in South Africa

Acts of Parliament	
The National Environmental Management Act (NEMA), 1998.	• Puts forward principles on environmental management. • Establishes structures for the facilitation of environmental management.
The National Environmental Management Amendment Act, 2002.	• Outlines the control and restrictions on activities that may have adverse impacts on the environment.
The National Environmental Management Amendment Act, 2003.	• Directs attention to compliance and enforcement aspects of environmental management.
The National Environmental Management Amendment Act, 2004.	• Deals with the course of action for regulating and administering impact assessment processes.
The National Environmental Management Amendment Act, 2008.	• Empowers the Minister of Minerals and Energy to implement environmental concerns in terms of NEMA.
The National Environmental Management: Biodiversity Act, 2004.	• Reforms South African law regulating biodiversity. • Aimed at managing and conserving the biodiversity of South Africa.

National Environmental Management: Protected Areas Act, 2003.	• Aimed at preserving and conserving ecologically viable areas. • Formulation of a national register of protected areas and its management.
National Environmental Management: Protected Areas Amendment Act, 2004.	• State appointed as trustee of protected areas in South Africa.
National Environmental Management: Air Quality Act, 2004.	• Laws related to air quality and providing measures for the control of pollution and ecological degradation. • National norms and standards in the monitoring of air quality.
National Environmental Management: Integrated Coastal Management Act, 2008	• Coastal and estuarine management. • Ecologically sustainable use of natural coastal resources.
National Environmental Management: Waste Act, 2008	• Laws regulating waste management. • Norms and standards for regulating and managing waste. • Licensing and control of waste management.
Tourism Act, 1993.	• Promotion of tourism in South Africa. • Regulation of the tourism industry.
Marine Living Resources Act, 1998.	• Sustainable use of marine living resources.
Dumping at Sea Control Act, 1980.	• Regulates the dumping of substances at sea.
The Environmental Impact Assessment (EIA) Regulations, 1997.	• Regulates processes and criteria for EIA's.
Policies	
White Paper on Sustainable Coastal Development, 2000.	• Resulting from the UNCED • Prioritizes coastal management issues.
White Paper on Tourism Development and Promotion, 1996.	• Guidelines for responsible tourism development in South Africa.
White Paper on Environmental Management, 1998.	• Sustainable development approach to resource management and utilization.
White Paper on Conservation and Sustainable Use of Biodiversity, 1997.	• Promotes economic activities that conserve biodiversity.
White Paper on Integrated Pollution and Waste Management, 2000.	• Reviews existing legislation to form one single new piece of legislation pertaining to pollution and waste.

Source: Modified from DEAT (2009: 7-12)

South Africa has also enforced a number of legislations and policies to address environmental management (Table 4.2). DEAT has also made significant efforts to amend existing legislation in South Africa such as the Atmospheric Pollution Prevention Act, the ECA and the National Environmental Management: Air Quality Act. In the same year, parliament also approved the enactment of the National Environmental Management: Integrated Coastal Management Bill and the National Environmental Management: Waste Bill (Tucker and

Muleza, 2009). Evidently, South Africa has also displayed a positive attitude towards international law. According to Devine (2009:126), "international law governs relations between states and is primary concerned with their rights and duties". Treaties are a source of international law and are agreements between states and international organizations and leads to "co-operation across national boundaries". International environmental law involves environmental conservation and the control of environmental pollution. South Africa has supported a number of international environmental laws, both in pre and post-1994 era (Table 4.3). Furthermore, South Africa has hosted significant international environmental conferences such as the WSSD (2002) in Johannesburg. Additionally the country has adopted in its policies, the principles of the Rio Declarations and Agenda 21 (Devine, 2009).

Evidently, South Africa has embarked on a number of policies and legislations pertaining to environmental management in general. This study hopes to highlight the extent to which such policies and legislations have impacted on the accommodation sector in an attempt to address environmental concerns.

In 2008, the UNEP launched the Green Economy Initiative. Mohamed and Beires (2011:4) define the green economy as "substantially increased investments in economic sectors that build on and enhance the earth"s natural capital or reduce ecological scarcities and environmental risks and involve the restructuring of business, infrastructure and institutions towards more sustainable production, consumption and distribution processes". The overall objective of this initiative is to provide analysis and policy support for investment in green sectors. Basically the Green Economy Initiative focuses on growth in income and employment that reduces environmental damage (UNEP, n.d.). The KwaZulu-Natal Department of Economic Affairs and Tourism undertook a study to better understand the shift towards a green economy (Mohamed and Beires, 2011). The report indicated that there were a number of reasons for the move to green economy. These included:

- The neoliberal paradigm of economic growth has collapsed
- There is a growing global concern that the environment is reaching a stage of irreversible damage
- There is a shift in economic policy that focuses on resilience rather than growth

Table 4.3: International environmental laws supported by South Africa

Area	Environmental law
Pollution from Ships	• Convention for the Prevention of Pollution from Ships, 1973. • Convention on Civil Liability for Bunker Oil Pollution Damage, 2001. • International Convention for the Control and Management of Ships" Ballast Water and Sediment.
Dumping	• High Seas Convention, 1958. • London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.
Ozone Layer Depletion	• Vienna Convention for the Protection of the Ozone Layer, 1985. • The Montreal Protocol on Substances that Deplete the Ozone Layer, 1987.
Climate Change	• Declaration of the Hague, 1989. • United Nations Framework Convention on Climate Change, 1992. • Kyoto Protocol, 1997.
Harmful Products	• Convention on Persistent Organic Pollutants, 2001.
Hazardous Waste	• Recommendation on Principles concerning Trans frontier Pollution, 1974. • Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal, 1989.
Pollution of Antarctica	• Antarctic Treaty, 1959. • Basel Convention, 1989. • Protocol on Environmental Protection (Madrid Protocol), 1959.
Marine Living Resources	• Convention for the Regulation of the Meshes of Fishing Nets and the Size Limits of Fish, 1946. • United Nations Convention on the Law of the Sea in 1982.
Whales	• International Convention for the Regulation of Whaling, 1946.
Antarctic Living Marine Resources	• Convention on the Conservation of Antarctic Marine Living Resources, 1980. • Convention for the Conservation of Antarctic Seals, 1972.
Wild fauna and flora	• The Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973.
Biological Diversity	• The Convention on Biological Diversity, 1992.

Source: Adapted from Devine (2009)

UNEP identifies tourism as one of the main sectors that can influence the shift towards the green economy. Green rating and certification of tourism facilities has been identified as one of the priority actions by the KwaZulu-Natal Department of Economic Affairs and Tourism (Mohamed and Beires (2011). Natural resource management is extremely complex and therefore requires the co operation among a number of different sectors. Fragmentation and lack of co-ordination and co-operation in South Africa pose a major barrier to successful implementation of sound environmental principles in South Africa (Muller, 2009).

4.4 Initiatives towards environmental management in hotels and lodges in South Africa

Despite the lack environmental regulations and legislations directed at the tourism and hotel sector, South Africa demonstrates the adoption of various voluntary environmental initiatives within the tourism sector. Eco-labels, environmental accreditation schemes and environmental awards have been introduced and implemented to ascertain environmental commitment and quality assurance in the hotel sector in South Africa. Such schemes include TGSA's star grading system, FTTSA, the Heritage Environmental Rating Program, Imvelo Awards for Responsible Tourism, the Green Leaf Environmental Standard (GLES) and GreenstaySA.

4.4.1 Tourism Grading Council of South Africa (TGCSA)

The TGCSA was launched in 2000 and is recognized as the official quality assurance body for tourism products in South Africa. The aim of the TGCSA is to develop and implement a "recognizable globally benchmarked system of quality assurance" for the accommodation sector in their commitment to maintaining high standards of quality (TGCSA, n.d.:1). Accommodation establishments are graded by an Accredited Grading Assessor. The TGCSA is responsible for grading all sectors of accommodation in South Africa, which includes hotels, lodges, bed and breakfasts, country houses, guest houses, self-catering units, caravan and camping and backpackers and hostelling. Establishments are graded from 1 star to 5 star which ranges from basic facilities to very high quality facilities and is aimed at gaining consumer confidence when booking accommodation. According to TGCSA (n.d.), there are more than 20 000 accommodation establishments in South Africa, of which only 6 000 are graded. There are 819 graded accommodation establishments in KwaZulu-Natal, of which 65 are lodges and 103 are hotels.

Table 4.4: Star grading criteria and point allocation

• Standard Criteria	Points
• Building exterior	69
• Bedrooms	225
• Bathrooms	136
• Public areas	80
• General facilities	26
• Category specific criteria	Points
• Dining facilities	155
• General service	160
• Housekeeping services	70
• Additional facilities	28
• Responsible environmental and business pracices	51
• Total points	1 000

Source: TGCSA (2011:34)

The points scoring system for accommodation grading increased from the previous allocation of 460 to a maximum of 1 000 points in 2011. As indicated by Table 4.4, points are distributed between two categories, the Standard Criteria and the Category Specific Criteria. The standard criteria comprise 526 points and relate to building exterior, bedrooms, public areas and general facilities. The category specific criteria comprises 464 points and focuses on dining facilities, general services, housekeeping services, additional facilities and responsible environmental and business practice. Table 4.5 highlights the specific criteria related to environmental concerns. Water management, waste management, energy management and business practices characterizes the environmental criteria in TGCSA''s star grading criteria. Water management criteria comprise 17 points, waste management criteria constitute 16 points, energy management criteria are made up of 10 points and business practices is allocated 8 points. The availability of a recycling program was given the highest points (5). The use of dishwashers, the use of biodegradable detergents, composting of green waste and skills development and training have been allocated the high points in the assessment of environmental practices. The inclusion of environmental criteria was not a past practice and only forms part of the new grading criteria developed in 2011. However, despite

the recent recognition given to environmental concerns in accommodation quality grading, only 5.1% of the total points are attributed to environmental practices. Therefore, Ashton (2012) argues that the environmental criteria of the grading scheme, merely fulfils the criteria for green-wash.

Table 4.5: Star grading environmental practices criteria and point allocation

Responsible environmental and business practices	Points
Water management	
Water efficient dishwashers installed	4
Water saving fittings (low flow taps, aerated showers)	2
No towel change option for guests	2
No linen change option for guests	2
Re-use of grey water from laundry, showers and hand basins	2
Watering of gardens to be done early in the morning or late in the afternoon to reduce evaporation	2
In dry regions, garden landscaping should be designed to reduce water needs	1
Reduced flush or dual-flush cisterns in all or most toilets	2
Waste management	
Bio-degradable detergents	4
Green waste is composted	4
All paper products to be made from recycled paper	3
Property has a recycling program	5
Energy management	
Electrical appliances switched off between guest visits	2
Energy saving light sensors	2
Light saving sources in appropriate places	2
Energy saving light bulbs used in light fixtures	2
Solar power and heating initiatives	2
Business Practices	
Property supports local community initiatives	2
Property supports local producers and buys in bulk where possible	2
Besides job training, the property has a skills development plan for each employee and ensures that it is kept up to date and compliant with legislation pertaining to the operation of the business	4
Total points	**51**

Source: TGCSA (2011:34)

4.4.2   *Fair Trade in Tourism South Africa (FTTSA)*

The Fair Trade movement began in Europe in the 1960s and helped producers get a better deal on their goods. In 1988, the first Fair Trade label was introduced in the Netherlands. In 1990, Tourism Concern, a London-Based organization began the International Network on Fair Trade in Tourism. At the time, the organization focused largely on research. On the 13 June, 2002, FTTSA was officially launched and in October, 2003, the first four FTTSA certified establishments were announced. FTTSA offers accreditation to establishments that meet the criteria for fair and responsible tourism practices and encourages fair and responsible business practice in tourism establishments. Their assessment criteria focuses on legal issues, labor standards, human resource practices, skills development, procurement, community benefits, cultural sensitivity, environmental management, health and safety, quality and reliability, workplace culture, HIV/AIDS related issues, equity and social impacts and voluntourism. The environmental management criteria concentrates on compliance with relevant environmental legislations, incorporation of local styles into sustainable construction, the monitoring and management of water and energy, efficient waste management and the reduction of GHG. Moreover, disturbance of wildlife, investment in conservation initiatives, and improving environmental knowledge amongst staff, guests and the local community are considered in the environmental assessment of businesses (FTTSA, n.d.)

FTTSA claims that by choosing a FTTSA-certified establishment, guests can be assured their stay benefits the local community and that the establishment is managed in an ethical and environmentally responsible manner. FTTSA (n.d.) believe that there are a number of benefits a business can receive from Fair Trade accreditation. These include meeting consumer demand for responsible goods, use of the FTTSA label (Figure 4.5) to indicate commitment to sound environmental and ethical practices, improving a company"s image nationally and internationally, the ability to network with other FTTSA partners, improvement in staff morale and the inclusion of the business in the FTTSA directory.

Figure 4.5: Fair Tourism in South Africa logo
Source: FTTSA (n.d.:1)

Businesses that can apply for FTTSA accreditation comprise all types of accommodation, activities and attractions. Currently, there are 63 businesses that are awarded the FTTSA status in South Africa that proudly display the FTTSA logo (Figure 4.5). Of these, two establishments are from KwaZulu-Natal, the Three Tree Hill Lodge located in Bergville and the Sani Lodge Backpackers located in Underberg. The Three Tree Lodge is a luxury, 16 bedded lodge set in the backdrop of the Drakensberg Mountains. Their FTTSA status is attributed to their commitment to energy conservation and waste management. Moreover, the establishment offers staff training on environmental issues and increase local economic benefits by purchasing most of their goods locally. The Sani Lodge Backpackers provides affordable accommodation in the Southern Drakensberg. They focus on the development of community tourism. The lodge has advocated tree planting at local schools and is also involved in activities with WESSA.

4.4.3   Heritage Environmental Rating Program

The Heritage Environmental Management Company was established in 2002 and assists all businesses with a valuable EMS aimed at reducing the business operations impact on the environment (Heritage Environmental Management Company, n.d.). Their certification program stems from ISO140001, 9000 and 18000, Green Globe International and the IHEI and is a three-tiered approach to environmental management. The Heritage Environmental Management Company was introduced in southern Africa and South Africa in 2002 and focuses on various sub-sectors such as golf courses, banking services, tour operators, retail businesses, zoos, aquaria, conferences and events and accommodation establishments. Their

"Touch Africa Lightly" campaign addresses awareness of the impacts of tourists on the environment. Their latest campaign, *"GreenLine"*, is Africa‟s latest responsible tourism rating program that enables smaller tourism accommodation establishments of less than 20 rooms to enjoy the benefits of being environmentally responsible.

The Heritage Environmental Certification Program evaluates businesses according to four areas of operation:

- Management systems and procedures which entail the development of environmental policies and procedures.
- Resource management which focuses on the measurement of resource use.
- Management Activities such as procurement, transport, design and construction, biodiversity management, training and emergency response procedures which are integral in the implementation on an EMS.
- CSR in terms of how the business impacts on the community.

The program evaluates all businesses against a weighted score system to determine its advancement through the three tiers of the program and the benefits of Heritage certification includes:

- Businesses practice sound environmental programs;
- Higher international exposure;
- Public relation benefits and attracting new clients;
- Increase in an environmental market and ecologically aware clients; and
- Financial gain and savings through well-managed use of resources;
- Full support and assistance throughout membership;
- A manual covering the steps to developing an EMS;
- Assistance in the development of environmental policies and procedures;
- Access to a network of suppliers, service providers and experts in environmental management;
- Promotion and marketing through the website;
- Marketing through the publication of an annual Responsible Travel and Accommodation Guide;
- Use of the membership logo and marketing brand (Figure 4.6)
- On-site membership plaque and Certificate of Compliance;

- Assessment, action plans and recommendations for improvement in environmental management; and

- Assistance in human resource development.

Figure 4.6: Heritage logo
Source: Heritage Environmental Management Company (n.d.:1)

The Heritage Environmental Certification Program identifies three levels of environmental commitment: silver classification, gold classification and platinum classification. Silver classification is at an entry level where members acknowledge they have an impact on the environment and are working towards reducing these impacts. Gold classification members have a formal EMS in place and are actively applying environmental policies and procedures in their business operation to minimize environmental impacts. Platinum level is the highest level of classification and is awarded to businesses that have obtained world-class standards in their environmental practices (Heritage Environmental Management Company, n.d.).

Currently, a total number of 125 establishments have been awarded the Heritage Environmental certification in South Africa, of which 76 have obtained Silver status, 42 have Gold status and 7 have Platinum status. Table 4.6 illustrates that, in KwaZulu-Natal, a total number of 15 hotels have received Environmental Heritage certification, all of which belong to the Tsogo Sun Group. Five of these establishments have received Silver status, 9 have obtained Gold status and the Drakensberg Sun Resort prides itself with Platinum status (Heritage Environmental Management Company, n.d.).

Table 4.6: **Accommodation establishments with Heritage Environmental Rating in South Africa**

Hotel	Heritage certification status
Beverly Hills Hotels	Gold
Blackrock Casino	Gold
Cabana Beach Resort	Gold
Drakensberg Sun Resort	Platinum
Garden Court Blackrock Newcastle	Gold
Garden Court Marine Parade	Silver
Garden Court South Beach	Gold
Garden Court Ulundi	Silver
Garden Court Umhlanga	Silver
Golden Horse Casino	Silver
Southern Sun Elangeni	Gold
Southern Sun North Beach	Gold
StayEasy Pietermaritzburg	Silver
Suncoast Hotel and Towers	Gold
Umhlanga Sands Resort	Gold

Source: Heritage Environmental Management Company (n.d.:1)

4.4.4   Imvelo Responsible Tourism Awards

FEDHASA has initiated the Imvelo Responsible Tourism Awards Scheme which focuses on the awareness of environmental management across various sectors of the tourism industry. The award program was introduced in 2002 to coincide with the WSSD held in South Africa in 2002. Imvelo means „nature‟ in the Nguni language. The Imvelo Awards are aligned to the National Minimum Standard for Responsible Tourism, the Responsible Tourism Guidelines for South Africa and UNWTO‟s Global Code of Ethics. Table 4.7 identifies the different award categories offered by the Imvelo Responsible Tourism Awards scheme. Award categories are based on excellence in social involvement, environmental management, business empowerment, human resource development, single resource management and economic impact on the business. The Best Overall Management System Award is based on the extent to which a business sustainably manages the environment, whilst the Best Single Resource Management Award is aimed at energy, water and waste management.

Table 4.7: Imvelo Award Categories and 2012 winners

Award category	Criteria	2012 Winners
Best Social Involvement Program	Where companies have shown activities that integrate with the local economy	Group winner: Sun International Zambia Independent winner: Ulusaba Private Game Reserve
Best overall environmental management system	The extent to which the business is sustainably and responsibly manages the environment.	Winner: Intercontinental Sandton Towers and Sandton Sun hotel
Most empowered business	The extent to which issues of empowerment have been addressed by the company	Group winner: Tsogo Sun Group Independent winner: White Shark Adventures
Investing in people award	The extent to which business has developed human resources through education and training.	Group winner: Red Carnation Hotel Collection Independent winner: Cape Grace hotel
Best single resource management	Award focusing individually on energy management, water management and waste management	Winner: Vineyard Hotel and Spa
Best practice - economic impact	The economic impact that the business has on the local community	Group winner: Sun International Zambia Independent winner: Zalala Beach Lodge and Safaris

Source: Modified from Imvelo Awards for Responsible Tourism (n.d.:1)

In 2012, the Imvelo Responsible Tourism Awards received a record number of 234 entries. The overall winner in the 2012 Imvelo Responsible Tourism Awards was Riverside Sun Resort. Table 4.7 discloses the 2012 winners in the various Imvelo Responsible Tourism Awards categories. Although the awards are open to a number of different sectors of the tourism industry, the accommodation sector claimed the highest proportion of awards. Companies that have received the Emvelo Responsible Tourism Award can proudly display their logo to indicate their commitment towards responsible tourism (Figure 4.7).

Figure 4.7: Imvelo awards for responsible tourism logo
Source: Imvelo Awards for Responsible Tourism (n.d.:1)

4.4.5 *Green Leaf Environmental Standard (GLES)*

The GLES was initiated in 2007 by UK tour operators and the Wilderness Foundation and was piloted to South African accommodation establishments in 2008. It is an international standard which focuses on the consumption of natural resources and aims to educate and create awareness of EMSs. Developed and owned by the Wilderness Foundation, the GLES also focuses on CSR and sustainable best practice. The program operates internationally through the Wilderness Network in the United States, United Kingdom and Germany. Their national office is situated in Port Elizabeth, South Africa (GLES, n.d.). The intention of the Green Leaf Standard was to address the current environmental issues facing Africa and South Africa and providing solutions to environmental problems.

The program measures and certifies responsible economic, environmental and social best practice in various industry sectors. Within the tourism sector, GLES offers accreditation in the accommodation, tour operator, hospitality related services and events and conferencing. A team of Green Leaf verifiers independently audit the on-site environmental and social operational and design indicators of these establishments. The National Accommodation Association in South Africa (NAA-SA) has partnered with Green Leaf to enable its members to have access to Green Leaf and make use of its toolkits, best practice methods (GLES, n.d.).

Table 4.8: Green leaf environmental program levels of environmental compliance

Status	Sphere of influence	Minimum result
Silver	Core	Minimum score of 75% and above
Gold	Responsible	Minimum score 85% and above
Platinum	Restorative	Minimum score of 95% and above

Source: GLES (n.d.:1)

Figure 4.8 highlights the core standards pertaining to GLES which is recognized as the core sphere of influence, the responsible sphere of influence and the restorative sphere of influence. The core sphere of influence assesses issues such as policy, water, energy, waste, purchasing and communication within the built and operational environmental (GLES, n.d.). Elements of transportation, distribution, enterprise development, CSR and carbon reduction are measured in the responsible sphere of influence and procurement neutrality, carbon neutrality and water neutrality are examined at the restorative sphere of influence. These are

assessed within the built environment, operational environment, and the wider local and national community. In particular, GLES standards are based on water management, energy management, waste management, baseline management, green procurement, policy and effectiveness, distribution and transport, CSR, enterprise development and carbon emissions reduction (GLES, n.d.).
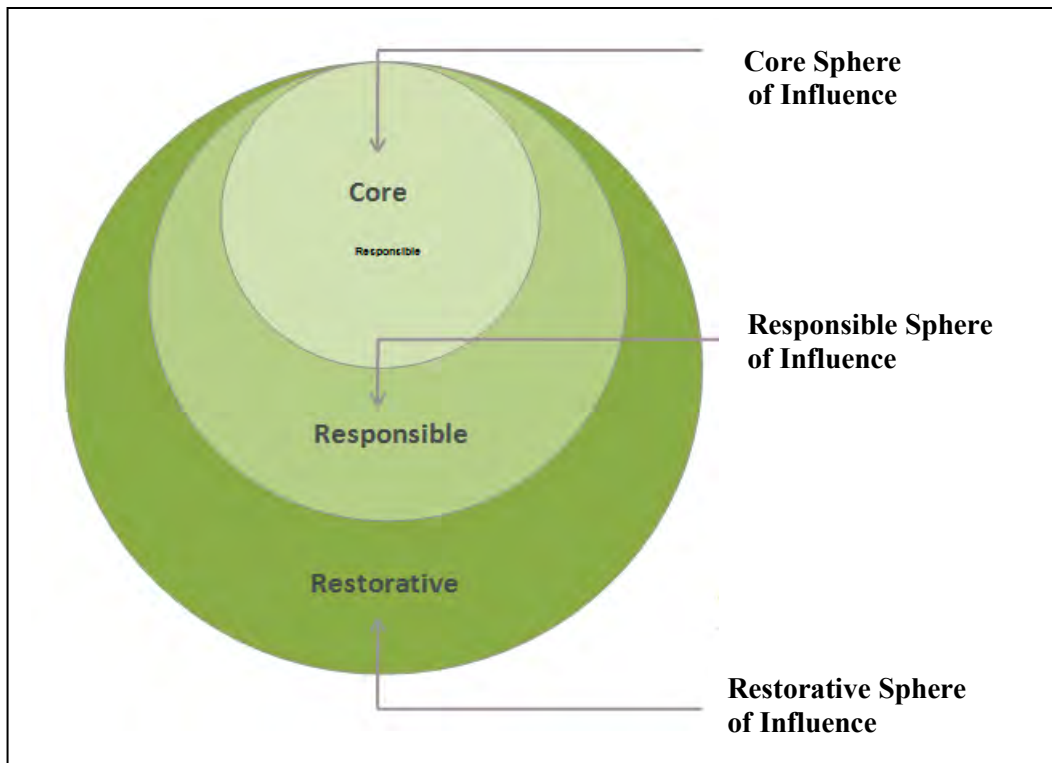
Figure 4.8: GLES standards
Source: GLES (n.d.:5)

According to Table 4.8, the program provides three status levels of environmental compliance in accommodation establishments: silver status, gold status and platinum status. Scores are assigned against the relevant criteria during the assessment process. Silver status requires a minimum score of 75% or more, gold status entails a score of 85% and above and platinum status commands a score of 95% and more (GLES, n.d.). Properties that are certified can proudly display the GLES logo (Figure 4.9). Currently, there are 102 accommodation establishments in South Africa that boast GLES certification of which 15 are hotels located in KwaZulu-Natal (Table 4.9).

Table 4.9: GLES certified accommodation establishments in KwaZulu-Natal

Property	Area
Breakers Resort	Umhlanga
Three Tree Hill	Spionskop
Alpine Heath Resort	Drakensberg
The Lodge at Prince's Grant	North Coast
The Royal Hotel	Durban
Gateway Hotel	Umhlanga
Riverside Hotel and Spa	Durban
Royal Palm Hotel	Umhlanga
The Caledon Hotel	Umhlali
The Square Boutique Hotel	Umhlanga
City Lodge	Durban
City Lodge	Umhlanga
Road Lodge	Durban
Road Lodge	Richards Bay
Road Lodge	Umhlanga

Source: GLES (n.d.:1) GreenstaySA

4.4.6   GreenstaySA

GreenstaySA emerged as a response to growing pressure for the tourism industry to reduce its environmental footprint and is geared towards improved environmental performance in the accommodation sector. The GreenstaySA tools can be used by all accommodation establishments, however small, to improve their environmental performance. Tools and resources include a self-assessment tool to assess current environmental performance and a technical manual to help in administering environmental action. The self-assessment tool incorporates seven key environmental themes: environmental management, energy and climate change, water, waste avoidance, chemicals, garden and biodiversity and building design and construction. Points are allocated for criteria based on these themes. According to GreenstaySA (n.d.), the accreditation process entails four grading levels which include:

- Entry level: which indicate a basic level of responsible environmental behavior,

- Environmentally aware: a more committed but relatively easy to achieve environmental performance which addresses water, energy and waste management,

- Environmentally responsible: level of serious environmental responsibility which is included in all areas of business operation, and

- Environmental excellence: establishment has excelled in environmental commitment with increase employee awareness and commitment.

The accreditation process involves the completion of a self-assessment questionnaire, followed by an on-site verification by independent assessors. Certified properties can display the GreenstaySA logo (Figure 4.9) indicating their commitment to environmental concerns.

Figure 4.9: GreenstaySA logo
Source: GreenstaySA (n.d.:1)

The environmental initiatives discussed above are targeted largely to the tourism and hotel sector in South Africa. These initiatives essentially address issues relating to water conservation, energy conservation, waste management, human resources, community benefits, social involvement and green procurement. This study investigates the extent to which hotels and lodges engage in such environmental initiatives.

4.5   Conclusion

The current thinking globally, is how to cope with the problem of environmental management and environmental governance. The historical development of environmental management in South Africa followed a similar path to that of other countries. The focal point evolved from species preservation, to habitat and ecosystem conservation to the concept of sustainable development. In recent years, emerging issues relating to environmental concerns have been added to the regulatory framework in South Africa. In particular, the South African government has developed numerous policies and strategies to promote environmental responsibility and reduce carbon emissions. Policies relating to waste management and pollution control are also evident in South Africa.

The restructuring of South Africa"s hotel sector between the period 1990 to 2010 forms an important aspect of the product offering. Dramatic transformation in the hotel sector during this period included major improvements to the quality and upgrading of hotel products. These new opportunities in the hotel sector attracted an expanding international tourist market. Although this has presented a lucrative economic potential for South Africa, the influx of hotel development has the potential to create environmental problems at a destination and environmental damage is exacerbated by the incremental flow of mass tourists to a region. Recognizing that the natural environment is a crucial resource for the accommodation sector, public and private sectors have been increasingly developing and adopting environmentally-friendly measures in order to reduce negative environmental impacts associated with the accommodation sector. To this end, stakeholders in the accommodation sector in South Africa are considering the adoption of environmental management systems, largely in the form of ecolabelling schemes and awards such as FTTSA, the Heritage Environmental Rating Program, Imvelo Awards for Responsible Tourism, Green Leaf Environmental Standard and GreenstaySA.

CHAPTER FIVE
STUDY SETTING AND METHODOLOGY

5.1   Introduction

McGivern (2006:4) states that "research is about enquiry; it is about a systematic investigation to find things out; it is the process by which we produce evidence or knowledge". Research entails the application of a number of methods and techniques to obtain scientific knowledge (Welman and Kruger, 1999). The research design is therefore, a crucial part of social science and its purpose is to organize the research so that it presents the data necessary to accurately and clearly answer the research problem (McGivern, 2006). Nieuwenhuis (2011a:70) defines a research design as a "plan or strategy that moves from the underlying philosophical assumptions to the selection of respondents, the data gathering techniques to be used and the data analysis to be done" and Welman and Kruger (1999:46) maintain that the research design is "the plan according to which we obtain research participants and collect information from them". Overall, the research design is dependent on the research problem, the research objectives and cost and time considerations (Burton, 2000; Sekaran and Bougie, 2009) and different studies use different research methods according to the aims of the research (Welman and Kruger, 1999). The key aim of this Chapter is to draw attention to the study area, the research design, and the steps in the data collection and analysis stages of the research.

5.2   The study setting

KwaZulu-Natal is bordered by the Indian Ocean in the east, the Drakensberg mountains in the west, the Mtamvuna River in the south and Mozambique in the north. KwaZulu-Natal is also known as the Kingdom of the Zulus and is famous for its good weather, two UNESCO world heritage sites, majestic mountains, blue flag beaches, a mix of cultures and incredible scenery and wildlife (SAT, 2011b). According to Statistics South Africa (StatsSA) (2011), KwaZulu-Natal has a population of 10.8 million people of a diverse cultural mix.

Figure 5.1: Map of KwaZulu-Natal showing tourism regions
Source: Southafrica-travel.net (n.d.:1)

The province comprises eight tourism regions: South Coast, Greater Durban, North Coast, Zululand, Elephant Coast, Pietermaritzburg, uKhahlamba Drakensberg and Battlefields (Figure 5.1). Durban is the economic hub for the province and is South Africa‟s third largest city and Africa‟s busiest port (Automobile Association Travel Guides, n.d.). The Battlefields is located in the north-eastern part of KwaZulu-Natal and is home to the largest concentration of battlefields in South Africa. The Battlefields route runs through fourteen historical towns. (SAT, n.d.). The Drakensberg area is an area of natural beauty and scenery with impressive rock formations. The area offers visitors a number of outdoor, adventurous activities (Automobile Association Travel Guides, n.d.). The Elephant Coast stretches from St Lucia to Kosi Bay in the north, the Lumbombo Mountains in the west and includes the Hluhulwe-Umfolozi game reserve and the isiMangiliso Wetlands park. The area comprises a number of game and wildlife reserves and is popular for its wildlife and birdlife diversity. The Midlands region is located in the south central part of KwaZulu-Natal. Pietermaritzburg is the main town in the region and is famous for antique shops, markets, galleries and museums. The

Midlands Meander is the first art and crafts route developed in South Africa. The North Coast is also known as the Dolphin Coast and the area is known for its beautiful beaches and resorts. The North Coast also boasts a number of challenging golf courses. The South Coast is also referred to as the Hibiscus Coast and stretches from Umkomaas to the Eastern Cape. The area is synonymous for the sardine run, golf courses, whales and dolphins and sandy beaches and is known for its outdoor and eco-adventure activities. Popular towns in the region include Margate, Port Shepstone, Shelley Beach and Port Edward. Zululand lies to the north of the province and borders on Swaziland and the Indian Ocean. The area is rich in culture and history and is also home to a number of game reserves. Ulundi is the administrative center of Zululand (Automobile Association Travel Guides, n.d.). These tourism regions offer a number of tourism accommodation establishments, ranging from basic to luxury. This study will focus on star-graded hotels and lodges within these eight tourism regions in KZN.

Table 5.1: KwaZulu-Natal: Foreign and Domestic Tourist Statistics for 2010

	Domestic	Foreign
Number of visitors annually	±8.3 million trips	956 550 million
Average spend per visitor	±R710	±R7 215
Total market value	±R5.6 billion	R8.75 billion
Average length of stay	4.6 nights	6.8 nights
Main overseas source markets	KwaZulu-Natal, Gauteng	UK, US, France, Germany, Australia

Source: Modified from Tourism KwaZulu-Natal (TKZN) (2011)

KwaZulu-Natal is the second largest contributor to South Africa‟s GDP and KwaZulu-Natal is a popular tourist destination for both domestic and international visitors due to its pleasant climate, spectacular mountain ranges, beaches, games reserves, battlefields and diverse cultures (TKZN, n.d.). KwaZulu-Natal received the highest proportion of domestic tourists (26.7%) compared to other provinces and this translated to 27.5 million total annual bed nights. According to Table 5.1, 8.3 million visitors traveled domestically within KwaZulu-Natal in 2010 and 956 550 of international tourists visited KwaZulu-Natal. However, the total market value was higher for international tourists (±R8.75 billion) compared to domestic tourist market (±R5.6 billion). The average length of stay in the province was 4.6 nights for domestic tourists and 6.8 nights for international visitors. Figure 5.2 displays the share of bed

nights per province in South Africa. Gauteng has the highest share of bed nights (32.8%), followed by the Western Cape (29.4%). KwaZulu-Natal receives 11.7% of total bed nights in South Africa. According to SAT (2011), KwaZulu-Natal received 16.8% of all foreign tourist arrivals in 2011 which quantified to 1 551 525 bed nights.
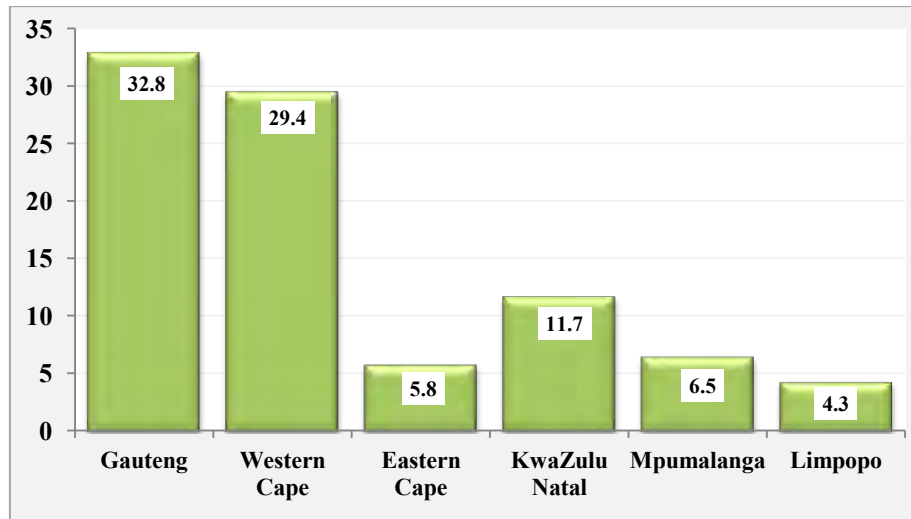
Figure 5.2: Share of bed nights by province - 2007
Kohler (2010:8)

Figure 5.3 indicates that South Africa offers a wide range of accommodation choices for tourists and includes hotels, lodges, guesthouses, bed and breakfasts, self-catering units, camping sites, and backpacker lodges. A large proportion of visitors (40%) utilize visiting friends and relatives (VFR) accommodation. Hotels form the largest proportion (19.7%) of formal accommodation used by visitors to KwaZulu-Natal, followed by self-catering establishments (14.5%) and guesthouses (9.5%). Hotels range from small private hotels to large national hotels that boast international standards.

Figure 5.3: Accommodation usage by international tourists to South Africa - 2011
SAT (2011b:19-20)

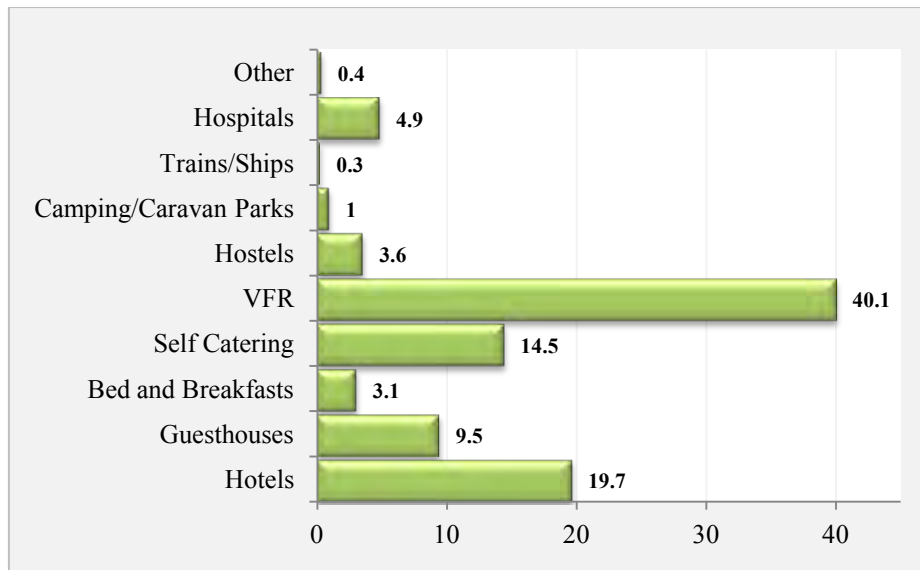Accommodation in South Africa and KwaZulu-Natal is star-graded from 1 to 5 stars by the TGCSA. Star grading is an independent quality assessment that confirms what facilities one can expect at an accommodation establishment. One star hotels indicate very basic facilities and 5 star hotels indicate the highest quality. A summary of the grading criteria and point allocation is presented in Table 4.4 of Chapter 4. The Zulu Kingdom has a variety of accommodation establishments ranging from luxury to budget and includes bed and breakfasts, guesthouses, hotels and self-catering accommodation (TKZN, n.d.). The accommodation sector is an integral component of the tourism industry. KwaZulu-Natal comprises 14% of accommodation establishments in South Africa. Table 5.2 indicates that KwaZulu-Natal has a total number of 2 251 accommodation establishments of which 767 are graded by the TGCSA. Self-catering units form the highest sector of accommodation establishments, followed by bed and breakfasts and then guesthouses.

Table 5.2: KwaZulu-Natal Accommodation Supply Statistics

Establishment type	Total	Graded
Hotels	213	77
Guesthouses	338	156
Lodges	164	65
Bed and Breakfasts	697	272
Caravan and Camp sites	94	11
Self-catering	705	179
Youth hostels/backpackers	40	7
Total	**2251**	**767**

Source: Adapted from TKZN (2011:8) and TGCSA (n.d.:1)

The study focuses on star-graded lodges and hotels in KwaZulu-Natal. Hotels and lodges are defined as formal accommodation establishments offering full or limited services, with lodges usually being located in natural areas (TGCSA, n.d.). Table 5.3 shows the provincial distribution of star graded hotels and lodges in South Africa. At the time of the study, 387 lodges and 532 hotels in South Africa had been star graded by the TGCSA (TGSCA, n.d.). KwaZulu-Natal comprised 65 star graded lodges and 77 star graded hotels. According to the TGCSA (TGCSA, n.d.), hotels and lodges comprise the formal service accommodation sector. TGCSA defines a hotel as that which offers formal accommodation with full or limited service, has a reception area and dining facility and a minimum of 6 rooms. A lodge is also defined as a formal accommodation establishment providing full or limited service and is located in natural surroundings.

Table 5.3: Provincial distribution of star graded lodges and hotels

Province	Lodges	Hotels
Eastern Cape	51	58
Free State	8	24
Gauteng	40	153
KwaZulu-Natal	65	77
Limpopo	76	30
Mpumalanga	50	27
North West	22	27
Northern Cape	48	19
Western Cape	27	117
South Africa	387	532

Source: TGCSA, 2012

5.3 Research methodology

This section examines the research design, data collection procedures and data analysis techniques used in this study

5.3.1 Research aim and objectives

The first stage in the research process is to select a research area which basically entails "the delineation of a problem area and the description of one or more research problems" (Welman and Kruger, 1999:11). The aim of this research was to investigate the nature and extent of environmental management in hotels and lodges in KwaZulu-Natal and to ascertain the contribution of these hotels and lodges to responsible tourism. Moreover, the study aims to examine hotel managers" and guests" awareness, attitudes and perceptions of environmental management issues and associated environmental practices in the hotel and lodge sector in KwaZulu-Natal. The research approach adopted in this study was chosen to address the research questions which emanate from the aims and objectives of the research presented in the first Chapter.

5.4 Research design applied in the study

Effective research and quality data depends on a good research design (McGivern, 2006). The study design used is the mixed methods approach which basically is "a procedure for collecting, analyzing and „mixing" both quantitative and qualitative data within a single study to understand a research problem more completely" (Ivankova *et al.,* 2011:263). The mixed method approach can assist in obtaining in-depth knowledge of trends, generate and test theories, examine different perspectives and understand relationships between variables. The process of using different combinations of methods is called triangulation (Babbie and Mouton, 2003; Burton, 2000). Triangulation also enables the researcher to examine whether inferences based on qualitative data are supported by a quantitative view, and vice versa (Maree and van der Westhuizen, 2011). The intention was to corroborate findings according to three different approaches in order to clarify and validate data (Figure 5.4). According to Carley (1981:174):

> *Objective social indicators are based on counting the occurrences of a given social phenomenon, and subjective social indicators are based on reports from individuals about their feelings, perception and responses. Neither type, used alone, has managed to give us an accurate „window" on reality, and they are best developed and used in conjunction.*
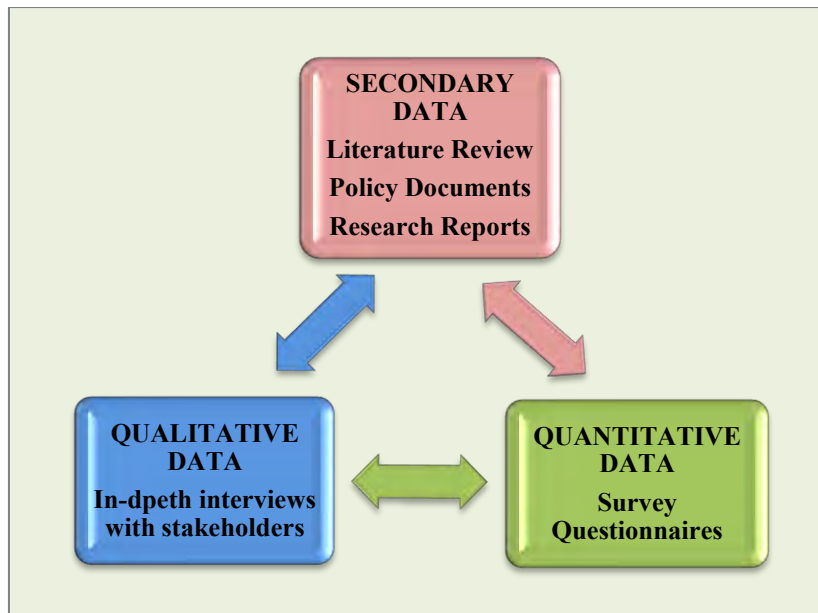
Figure 5.4: Multiple sources of information
Source: Author"s compilation

Qualitative research endeavors to collect "rich descriptive data" and is primarily concerned with investigating the "why" questions of research (Nieuwenhuis, 2011b:50). According to Bless *et al.* (2006), quantitative research methodology depends on measurement and the use of various scales, with an emphasis on the quantification of constructs and the use of statistics. Quantitative research is used to describe patterns and explain relationships between variables (Ivankova, *et al.,* 2011; McGivern, 2006). The mixed method approach for this study entailed the triangulation of qualitative data, quantitative data and secondary data. Qualitative data was obtained through in-depth interviews with the tourism industry stakeholders. Quantitative data was elicited from hotel managers and hotel guests through survey questionnaires. A review of relevant literature, policy documents and research documents formed the source of secondary data for the study.

5.5   Sampling methods used

Often the population is so large that practically it is impossible to conduct research on all participants and therefore researchers have to obtain information from a sample of the population (Welman and Kruger, 1999). Sampling "is about selecting, without bias and with as much precision as resources allow, the elements from which or from whom we wish to collect data (McGivern, 2006:274). It is imperative that the sample characteristics are as close

to those of the population (May, 2001). The appropriate sampling method to be used will depend on the research objectives, time and cost (Page and Meyer, 2000; Pieterson and Maree, 2011). For the qualitative data collection, respondents were selected by non-probability, purposive sampling. According to Nieuwenhuis (2011a:79), purposive sampling means that "participants are selected because of some defining characteristics that make them the holders of the data needed for the study".

For the quantitative data a comprehensive list of star-graded hotels and lodges in KwaZulu-Natal was obtained from the TGCSA. Hotels and lodges included in the study were selected according to hotel grading ranging from 1 star to 5 star categories as graded by the TGCSA. A total of 142 star-graded accommodation establishments were identified for the study which comprised of 65 lodges and 77 hotels (Table 5.2). A census of all star-graded hotels and lodges were included the study and therefore a total of 141 hotel managers were targeted. A census is usually undertaken when the number of relevant cases in a specific population is small (Burton, 2000).

Table 5.4: The star grading of hotels and lodges in KwaZulu-Natal and in the study sample

Star grading	Number in KwaZulu-Natal	Number in the study	% of total	% in study
1 star	5	5	100	8.3
2 star	4	4	100	6.7
3 star	76	27	35.5	45
4 star	45	20	44.4	33.3
5 star	12	4	33.3	6.7
TOTAL	**142**	**60**	**42**	**100**

According to the TGCSA (n.d.), there are currently 77 star-graded hotels and 65 star graded lodges in KwaZulu-Natal. Table 5.4 displays the distribution of star-graded hotels and lodges in KwaZulu-Natal. All 1 star and 2 star hotels and lodges in KwaZulu-Natal were included in the study sample. Three and 4 star hotels and lodges comprise the majority segment (121) in KwaZulu-Natal, of which 78.3% were included in the study. A total number of twelve 5 star hotels and resorts are found in KwaZulu-Natal and 33.3% of these were represented in the study.

In terms of hotel guests, a simple random sample of twenty hotels and lodges were included in this component of the study. Simple random sampling has the "least bias and offers the most generalizability" (Sekaran and Bougie, 2009:270) and is representative of the population (Welman and Kruger, 1999). The convenience sampling method was used to draw a sample of 20 guests from each of the selected accommodation establishments over the period of one month. Thus, 400 guests were targeted for the study. Convenience sampling is a type of non-probability sampling and is often used to select guests based on the fact that they were easily and conveniently available (Pieterson and Maree, 2011; Sekaran and Bougie, 2009, Welman and Kruger, 1999).

5.6 Data Collection

When we engage in research to explore a research problem, "we collect data from our objects of enquiry in order to solve the problem concerned" (Welman and Kruger, 1999:46). Selecting the most suitable data collection method is often a dilemma for researchers. To overcome this, researchers need to examine the theoretical debates that the research is seeking to address and explore how various data collection methods can deliver the required information (Burton, 2000). Primary and secondary sources of data were used in the study. Primary data is information that is acquired first-hand by the researcher and secondary data refers to information from sources that already exist (Sekaran and Bougie, 2009). Sources of primary data for the study were obtained through survey questionnaires and interviews.

5.6.1 Secondary data

Data is rarely exhausted after its primary application and may be useful at a later date (McGivern, 2006). Research entails embarking on empirical work and collecting data that helps us to either initiate, refute or organize our theories (May, 2001). Also, many research questions are sourced from previously conducted studies (Black, 2002). A preliminary literature review was conducted to source the research problem and the research topic. Thereafter, an in-depth and extensive literature review was conducted throughout the research process through relevant books and journals. This enabled the researcher to determine the originality of the research problem and also to identify "gaps" in the literature which helped determine the scope and context of the study. The literature review also showed how various past studies related to each other and also revealed how this study tied in with them. Documents formed a source of data gathering for this research. Such written data sources

included published and unpublished documents, reports, newspaper articles and any other document that is associated with the study and was analyzed through the process of content analysis (Gomm, 2008; McGivern, 2006). Secondary sources of data also included a review of existing literature and research reports, policy documents and official statistics. Official statistics is data collected by the state and its agencies and is based upon the use of surveys and included data from StatsSA, Department of Tourism, Department of Environmental Affairs, SAT and TKZN (May, 2001).

5.6.2 Primary data

Primary data is data that is collected directly from first-hand experience. Primary data formed the key source of data in this study and was obtained through survey questionnaires and key informant interviews.

5.6.2.1 Survey Questionnaire

A popular instrument for quantitative methodology is the survey questionnaire which is an excellent tool for measuring attitudes and orientations of a population (Babbie and Mouton, 2003) and making descriptive assertions (Babbie, 1990). Pieterson and Maree (2011:155) define survey research as "the assessment of the current status, opinions, beliefs and attitudes by questionnaires or interviews from a known population". Survey research is often regarded as being quantitative and is depicted as "being sterile and unimaginative but well suited to providing certain types of factual, descriptive information – the hard evidence" (De Vaus, 2002:5). In essence, survey questionnaires are used to obtain information such as biographical particulars, typical behavior, opinions and beliefs and attitudes (de Vaus, 2002; Welman and Kruger, 1999). There are three types of questionnaires that can be used for data collection in surveys: the mail or self-completion questionnaire, the telephone survey and the face-to-face interview schedule (May, 2001). In this study, quantitative data was collected through web-based and self-completion questionnaires. The structured questionnaires contained largely close-ended questions such as list questions, category questions, quantity questions and grid questions (Pieterson and Maree, 2011). Close-ended questions take up less time than open questions and are relatively easy to analyze (McGivern, 2006). The majority of the close-ended questions were in the form of attitude scales. According to Welman and Kruger (1999:155), attitude scales are based on "different assumptions about the relationship between individuals; attitudes and their responses to items". The questionnaire included

various environmental statements using a five-point Likert scale which provides an ordinal measure of a respondent‟s attitude (Burton, 2000; Pieterson and Maree, 2011; Sekaran and Bougie, 2009) and places "people‟s answers on an attitude continuum" (May, 2001: 104). The summated or Likert scale is the most commonly used type of scale in social science research as it is easier to compile compared to other attitudinal scales (Welman and Kruger, 1999).

de Vaus (2002) refers to close-ended questions as „forced questions‟. According to Babbie (1990) and Gomm (2008), close-ended questions are popular in survey research as responses are uniform and easily processed. They also allow for comparability between respondents answers (May, 2001). Additionally, biographical questions or "classification questions" (May, 2001:101) were enclosed at the end of the questionnaire to help determine the profile of the sample. A few open-ended questions were included in the questionnaire and this gave the respondents the opportunity to express themselves and answer in a manner that suited their interpretation (May, 2001). Open-ended questions are also used when it is "difficult to anticipate all possible responses" (Welman and Kruger, 1999:172). The researcher had to make sense of the open-ended responses, develop suitable categories and then code the categories for statistically analysis (Burton, 2000). Open-ended questions are considered as vital questions on the survey as they offer "important and unpredictable insights into human behavior" (Burton, 2000:339). Questionnaires were administered to hotel managers (Appendix 1) and hotel guests (Appendix 2).

a) Hotel Managers

Self-administered questionnaires were targeted at hotel managers and were considered a suitable instrument because it is cheap, quick, assures anonymity and provides easy access to a population that is geographically dispersed (Burton, 2000). In self-completion questionnaires, a covering letter indicating the objective of the study as well as the need for cooperation and the assurance of anonymity is essential (May, 2001). The general managers of the selected hotels and lodges were contacted telephonically and informed about the purpose of the study and asked to participate in the study. The email addresses of the managers were derived during the telephonic conversation. The study used web page based surveys. An email was sent to managers and supervisors of the selected hotels and lodges which required them to access a link to a web page which contained the questionnaire. Email and web surveys are fairly easy to set up and administer and is able to reach a widely

dispersed population (McGivern, 2006). The online user-administered questionnaire was chosen for a number of reasons. Firstly, the population was distributed over a large geographical area and it was not feasible to travel to administer the questionnaires. Secondly, the use of an online survey reduced the cost paper, postage and employing researchers to administer the questionnaires. Thirdly, the online surveys tended to have a quicker response rate. Lastly, the database of hotels and lodges revealed email addresses and websites necessary for online surveys. The questionnaire ensured the respondent"s confidentiality and anonymity. The researcher had to monitor the time of the week and month to ensure that questionnaires were not emailed to hotel managers during their busy period. The questionnaire was compiled using the Google Documents internet survey software package. The questionnaire comprised two sections. Section one entailed questions related to the nature of the hotel facility, ownership type, classification and services offered. Section two examined environmental practices within the hotel and the managers" perceptions of environmental management and related policy. Questions on environmental practices were categorized as follows: environmental protection programs, solid waste management, purchasing activities, and energy and resource conservation. This assisted the researcher to draw conclusions about the hotel sectors" reaction to local and global environmental concerns and to elicit information on environmental management practices at their hotel, reasons for adopting environmental management programs, factors inhibiting involvement in environmental management and general awareness and attitudes towards responsible environmental management. A follow-up emailing was undertaken four weeks after the first mailing. The follow-up email thanked the respondents that participated in the study and reminded the non-respondents of the importance of their participation.

b) Hotel Guests

The second set of questionnaires examined the attitudes and behaviors of consumers towards environmental practices in hotels and lodges. This structured questionnaire focused on: guests" perceptions of the hotel sector"s use of sustainable practices, guests" attitudes towards green practices in hotels and lodges, preferences when travelling, environmentally-friendly practices adopted personally, importance of selected responsible criteria of hotels, and the socio-demographic profiles of guests. A large portion of the questionnaire comprised of Likert scales which is used to gauge opposite extremes in thinking, with a neutral mid-point, and is usually on a five-point scale. The questionnaires were handed to hotel and lodge guests for self-completion.

5.6.2.2 Semi-structured/key informant interviews

Qualitative research is concerned with a detailed description and understanding and is most suitable in descriptive and explanatory research enquiries (McGivern, 2006). Qualitative data for the study was obtained through in-depth, semi-structured interviews (Appendix 3) with key stakeholders from relevant industry associations, governments departments, NGOs and voluntary organizations. This included TKZN, TGCSA, FEDHASA, NDT, SATSA, FTTSA, the Heritage Environmental Management Company and the Housekeepers Association of Southern Africa. Interviews "yield rich insights into people"s biographies, experience, opinions, values, aspirations, attitudes and feelings" (May, 2001:120). May (2001) claims that there are four types of interviews used in social research: the structured interview, the semi-structured interview, the unstructured interview and the focus group interview. Interviews provide a "wealth of rich data" (Burton, 2000:212). Semi-structured interviews were used in the study as they present a versatile way of collecting information (Welman and Kruger, 1999) and enables the researcher to "corroborate data emerging from other data sources" (Nieuwenhuis, 2011b:87). They offer flexibility in the form and nature of questions that can be asked and the respondents answers often determine the direction of questions (Burton, 2000; Page and Meyer, 2000; Sekaran and Bougie, 2009). Additionally, semi-structured questionnaires enable the interviewer to probe the respondent to clarify vague responses or to elaborate on incomplete answers and are considered a versatile way of collecting data (Burton, 2000; Welman and Kruger, 1999). May (2001:123) concurs that they are "semi-structured by a thematic guide with probes and invitations to expand on issues raised". An interview schedule or interview guide was used as a line of enquiry since "it"s is best to embark on a personal interview equipped with some form of question list" (Page and Meyer, 2000:41). The interview guide includes "a list of topics and aspects which have a bearing on the given theme and which the interviewer should bring up during the course of the interview" (Welman and Kruger, 1999:167). The interviews elicited information on perceptions pertaining to environmental issues in the lodge and hotel sector, future strategies and measures, and related policies and regulations. Semi-structured interviews allows the interviewee to express in-depth ideas in his or her own way (Finn *et al.,* 2000) and allows the researcher to "see the world through the eyes of the participant" (Nieuwenhuis, 2011b:87). The main advantage of personal interviews is that the interviewer is in complete control of the interview situation. The researcher was also able to use probes to clarify misunderstandings on the part of the respondent and also explained questions that may have

appeared to be vague and unclear. Information obtained was therefore of a good quality and personal interviews resulted in higher response rates.

5.7   Data Analysis

Today, almost all analyses of survey data are analyzed through the computer using various versions of statistical analysis software (May, 2001). Quantitative analysis of survey data requires answers to be converted to numbers through a process called coding. The data collected from the survey questionnaires was edited, coded and processed using the Statistical Package for Social Scientists (SPSS). Babbie (1990:239) asserts that "the heart of survey analysis lies in the twin goals of description and explanation" and de Vaus (2002:203) maintains that "before analyzing data we must be clear about the question we are trying to answer". Data was analyzed through descriptive statistics to organize and summarize the data in a meaningful way (Black, 2002; Pieterson and Maree, 2011). Univariate and bivariate analysis were conducted to analyze key variables and show relationships between variables (de Vaus, 2002; Sekaran and Bougie, 2009). Univariate analysis is concerned with describing the survey sample, whilst bivariate analysis is aimed at exploratory issues (Babbie, 1990). Bivariate analysis entails exploring relationships between variables and observing the extent to which one variable is influenced by another (Burton, 2000; May, 2001). Data was presented in written statements, tables, cross-tabulations and graphs. The advantage of graphically presenting data is that the main characteristics of the distribution can immediately be observed. Furthermore, graphs can "make the material in reports more interesting, easier to understand and it can convey quickly and easily a lot of detailed, even complex data" (McGivern, 2006:519).

Qualitative data for the study included interview transcripts. The first step of the qualitative data analysis was data reduction which entailed the process of "selecting, coding and categorizing the data" (Sekaran and Bougie, 2009:370). The data was further analyzed through a process known as inductive analyses whereby "research findings emerge from the frequent, dominant or significant themes inherent in the raw data (Nieuwenhuis, 2011b:99; Burton, 2000) and the "scanning the content for recurrent themes/concepts" (Page and Meyer, 2000: 129). All text and data was further sorted and coded according to thematic ideas or thematic analysis (Gomm, 2008). This process is known as open coding (Nieuwenhuis, 2011b) and is an iterative process as the researcher had to repeatedly return to the data to recognize themes and patterns. The descriptive summaries of participants were brought into

the existing theories of environmental management in the hotel sector, and revealed a corroboration with existing knowledge, as well as new understanding to the body of knowledge.

5.8   Conclusion

The intention of this Chapter was to present and discuss the various research methods and techniques used in obtaining information necessary to address the research questions and objectives. The empirical investigation in this study was conducted using both qualitative and quantitative methods to sufficiently unpack the underlying meanings and processes of the experiences, perceptions and concerns of both guests and hotel managers on environmental management issues. The questionnaire survey conducted on both hotel and lodge guests and hotel and lodge managers consisted of both open-ended and close-ended questions to gather the necessary quantitative data and to also afford respondents an opportunity to add whatever information they deemed important. Semi-structured interviews were also held with stakeholders from various related organizations and institutions to ascertain their viewpoints on environmental management in the hotel sector. The collection and analysis of the secondary data, on the other hand, was mainly a desk-top exercise. The researcher had to undergo a rigorous validation process which entailed continuous checking, questioning and theoretically interpreting the findings obtained. Statistical and content analysis procedures were applied in the data analysis and interpretation phase.

CHAPTER SIX
DATA ANALYSIS AND DISCUSSION

6.1   Introduction

The study setting and the methodological process of the study was presented in the previous Chapter. This Chapter provides the analysis of data acquired from hotel managers and hotel guests. The data is presented thematically in order to address the research questions and establish links between the different data contexts. This Chapter discusses the profile of hotels and lodges in the study. Attitudes towards environmental management, factors influencing environmental management and an in-depth analysis of the hotels" and lodges" environmental actions are thereafter presented and discussed. The incentives for environmental management and barriers facing hotels and lodges in implementing environmental action are also evaluated. Hotel guests" attitudes and actions towards environmental management are also discussed. The analysis is undertaken theoretically in relation to the objectives of the study presented in Chapter 1.

6.2   Hotel Profile

Mensah (2006) and Alvarez *et al.* (2001) argue that it is imperative to identify and evaluate the characteristics of hotels as this affects environmental actions. The profile of hotels and lodges in the study was analyzed according to size, star grading, chain and facilities. The data presented in Table 6.1 examines the hotel and lodge characteristics in terms of size, star grading, brand and facilities. The ensuing sections of this Chapter will clearly reveal how these characteristics affect environmental management practices and actions within hotels and lodges

Table 6.1: Hotel and lodge profile

Hotel and lodge characteristics		%
Hotel and lodge size **(n=60)**	1-50 rooms	68.3
	51-100 rooms	18.3
	101-200 rooms	11.7
	More than 200 rooms	1.7
	Total	**100**
Hotel and lodge grading **(n=60)**	1 star	8.3
	2 star	6.7
	3 star	45.0
	4 star	33.3
	5 star	6.7
	Total	**100**
Hotel and lodge brand **(n=60)**	Independent hotels and lodges	70.0
	Signature Life Hotels	3.3
	Tsogo Sun	8.3
	Protea Hotels	5.0
	Sun International	1.7
	City Lodge	8.3
	Gooderson Leisure	3.4
	Total	**100**
Hotel and lodge facilities **(n=60)** *(multiple responses)*	Restaurants	85.0
	Swimming pool	76.7
	Gymnasium	15.0
	Spa	26.7
	Shops	18.3
	Conference rooms	71.7
	Golf	6.7
	Water sports	8.3
	Business center	26.7

6.2.1 Hotel size

Hotels and lodges included in the study varied in size and capacity. Table 6.1 indicates that a large proportion of hotels and lodges in the study (68.3%) had between 1 to 50 rooms, 18.3% had between 51 to 100 rooms, and 11.7% had between 101 to 200 rooms. Only 1.7% of hotels and lodges in the study had more than 200 rooms. As discussed in Chapter 4, hotels in South Africa experienced a significant transformation between 1990 and 2010 and the size and scale of hotels changed with the upgrading of hotels in South Africa. In the 1990s the size of hotels ranged from 11-50 rooms whilst in 2010 the average hotel size had grown to 64 rooms. Rahman *et al. (*2012) believe that the willingness to engage in environmental

concerns depends on the size of a hotel and larger facilities naturally entail greater consumption of water and energy and more waste generation. Their study concludes that larger hotels are stronger adopters of green practices than smaller hotels. Correspondingly, Figure 6.1 shows that environmental audits were undertaken by 46.3% of hotels and lodges that comprised of 1-50 rooms, 63.6% of hotels and lodges with 51-100 rooms and 85.7% of hotels and lodges with 101-200 rooms. All hotels and lodges with more than 200 rooms conducted an internal environmental audit. These results indicate a direct relationship between hotel size and the number of times the hotel has undertaken an internal environmental audit. Evidently environmental audits were undertaken largely by larger hotels and lodges compared to smaller hotels and lodges in the study. Smaller hotels and lodges tend to have a „knee jerk reaction" to environmental management which is possibly due to the lack of awareness of environmental issues and associated high costs. Tzschentke *et al.* (2008:127) argue that environmental action in smaller firms entail "simple, low-cost measures".
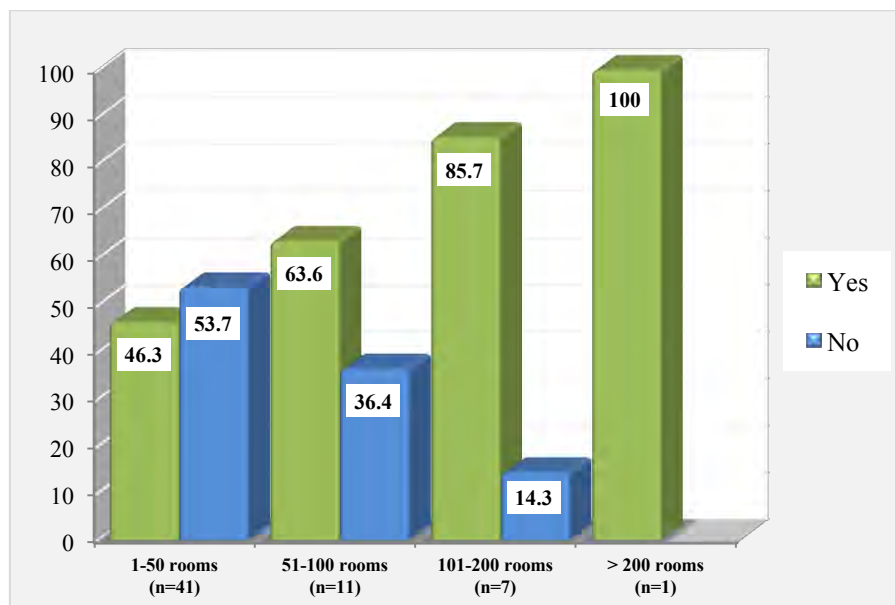

Figure 6.1: Hotel has had an internal environmental audit by hotel size

6.2.2 Hotel star grading

In terms of star grading, the largest proportion of hotels and lodges (45%) was 3 star hotels and lodges and 4 star hotels and lodges (33.3%). The study further consisted of 8.3% of 1 star hotels and lodges, 6.7% of 2 star hotels and lodges and 6.7% of 5 star hotels and lodges (Table 6.2). These statistics are in proportion to the total number of star graded hotels and

lodges in KwaZulu-Natal presented in Chapter 5 (Table 5.4). The latter part of this Chapter further discusses the relationship between the star grading of establishments and environmental management.

Table 6.2: Star graded hotels and lodges in the study

Star grading	Number in the study	% in study
1 star	5	8.3
2 star	4	6.7
3 star	27	45
4 star	20	33.3
5 star	4	6.7
TOTAL	**60**	**100**

6.2.3   Hotel chain

According to Table 6.1, 70% of hotels and lodges in the study do not belong to a hotel chain and 30% belonged to a chain. Table 6.3 refers to only those hotels and lodges that belonged to a chain, that is, 18 of the 60 hotels and lodges included in the study. A number of national and international hotel chains are found in South Africa. Of the chain hotels and lodges in the study, the largest proportion (8.3%) were from the Tsogo Sun and City Lodge groups, followed by Protea Hotels (5%), the Gooderson Leisure group (3.4%), Signature Life hotels (3.3%) and Sun International (1.7%). Table 6.3 illustrates the distribution of hotel chains in KwaZulu-Natal and in the study. All of the City Lodge hotels and Signature Life hotels in KwaZulu-Natal participated in the study. More than half of the Tsogo Sun group (71%) formed part of the study sample whilst half of the Signature Life group engaged in the study. Fifty percent of the Sun International hotels, 40% of the Gooderson Leisure and 30% of Protea Hotels participated in the study. Since a saturation sampling approach was adopted and all star-graded hotels and lodges were approached to participate in the study. The response rates indicate that larger hotel and lodge chains are willing to participate in the study.

Table 6.3: Hotel and lodge chains in KwaZulu-Natal and in the study

Hotel chain	Number in KwaZulu-Natal	Number in the study	% of total
African Pride Hotels	2	0	0
City Lodge	5	5	100
Don Suite Hotels	1	0	0
Fairmont Hotels and Resorts	2	0	0
Hilton	1	0	0
Gooderson Leisure	5	2	40
Signature Life	2	2	100
Tsogo Sun	7	5	71
Three Cities	9	0	0
Sun International	2	1	50
Protea Hotel	10	3	30
Premier Hotels and Resorts	2	0	0
Peermont Hotels	1	0	0
Orion Hotels and Resorts	1	0	0
Total	**50**	**18**	**36**

6.2.4   Hotel facilities

Hotels and lodges in the study comprise a number of different facilities. According to Table 6.1, restaurants (85%), swimming pools (76.7%) and conference rooms (71.7%) were the most common facilities amongst hotels and lodges in the study. Other facilities found in hotels and lodges included business centers (26.7%), spas (26.7%), shops (18.3%), gymnasiums (15%), water sports (8.3%) and golf courses (6.7%). Figure 6.2 reveals that restaurants were a common facility among all star graded hotels and lodges in the study. More specifically, restaurants were found in 100% of 1 star hotels and lodges, 75% of 2 star hotels and lodges, 92.6% of 3 star hotels and lodges and 80% of 4 star hotels and lodges. Fifty percent of 5 star hotels and lodges housed restaurants and this may be due to the fact that many 5 star establishments tend to outsource their dining options. Swimming pools were also common amongst all star graded hotels and lodges and were existent in all 5 star properties. Sixty percent of 1 star hotels and lodges had swimming pools. Spa facilities were only present in 3 star, 4 star and 5 star hotels and lodges in the study with highest percentage (50%) found in 4 star hotels and lodges. Golf courses were the least common facility found in

hotels and lodges, and were only present in 3 star and 4 star hotels and lodges. The number and type of facilities in a hotel or lodge influences its environmental footprint. For example, golf courses and swimming pools are associated with high water consumption. The creation of golf resorts are also known to have a devastating impact on the environment as they there is contamination from pesticides and insecticides, habitat destruction and large amounts of water consumption. For example, Gossling *et al. (*2012) claim that an 18-hole golf course in the Mediterranean is sprinkled with 0.5 to 1 million m^3 of fresh water per year. They further claim that more than 3 000 new golf courses had been developed between 1985 and 2010 in Europe and the US. Since 1995, the number of golf courses in Europe has doubled and every day "an estimated 2.5 billion gallons of water are used to irrigate the world"s golf courses" (Eriksson *et al.,* 2009:12). The relationship between facilities and environmental impacts is discussed later in this Chapter.
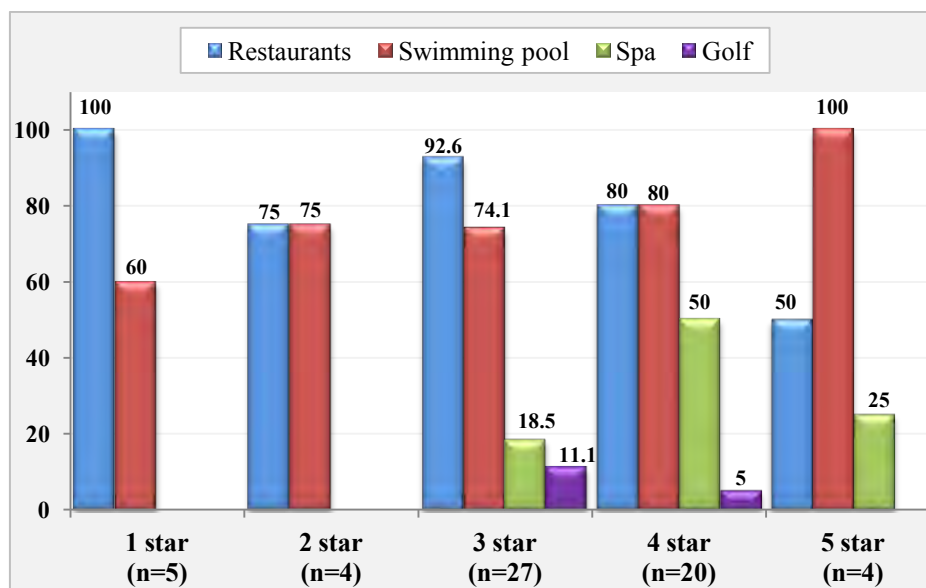

Figure 6.2: Hotel and lodge facilities by star-grading

6.3 Hotel manager's attitude towards environmental issues

The study encouragingly found that 91.7% of hotel managers stated that environmental management was an important issue for their hotel (Figure 6.3). The apparent support of environmental issues in hotels and lodges may be attributed to the rapid rise of environmental awareness globally and in South Africa. Recognizing the importance of environmental issues is an important stepping stone in the attainment of sustainable development. This trend is also encouraging a positive attitude in the hotel industry, as indicated in the literature review Chapters, which is crucial to the success of environmental management.

Comparable results were obtained in a study of Swedish and Polish hotels (Bohdanowicz, 2006), European hotels (Bohdanowicz and Martinac, 2003), the London hotel sector (Knowles *et al.,* 1999) and in the Red Sea hotels (Kattara and Zeid, 2002). Research on attitudes towards environmental management in the ABC Hotel, Hong Kong by Chan and Hawkins (2010) revealed that the hotel implemented an EMS out of genuine concern for the environment and not because of financial savings. However, Despretz (2001) cautions that no hotel makes a large investment purely for environmental reasons. Business benefits are more crucial to hoteliers. For example, an environmental audit at the Kingfisher Bay and Resort found that "client satisfaction through quality service „paid the bills, not environmentalism" (Whiley and Knight, 2004:57).
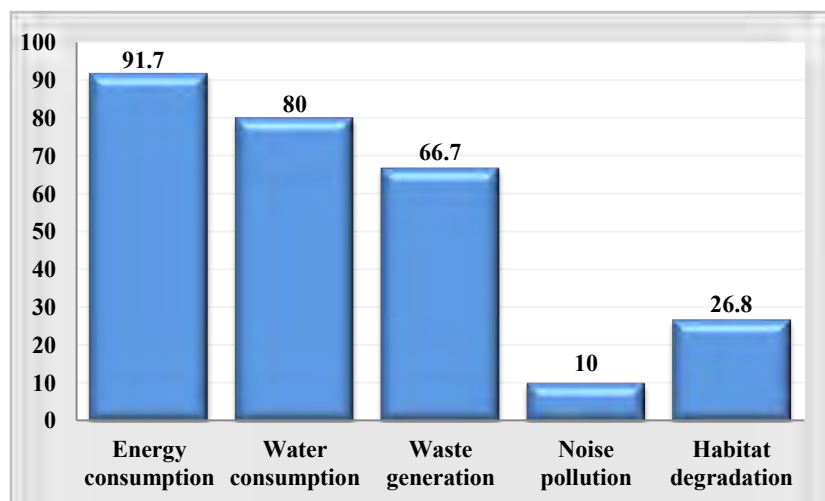

Figure 6.3: Perceived environmental impacts of hotels and lodges (n=60)
(Multiple responses)

Kasim (2009:710) describes a lodging property as a "small community that purchases goods and services, creates and disposes waste, uses electricity and water, and just like any individual, leaves a distinct environmental footprint". The study clearly indicates that hotels and lodges undoubtedly have a negative impact on the environment. According to Figure 6.3, hotel managers identified energy consumption (91.7%), water consumption (80%) and waste generation (66.1%) to be the key detrimental impacts of hotels and lodges on the environment. Correspondingly, Kasim (2009) found that 73% of hotels in Kuala Lumpur are aware that hotels have a negative impact on the environment. Round-the-clock operations of hotels often results in a high consumption of water and electricity and waste generation

(Ayuso, 2007; Bohdanowicz, 2006; Chan and Hawkins, 2010; Meade and del Monaco, 2000). Noise pollution from hotels and lodges was viewed as having the least impact on the environment.
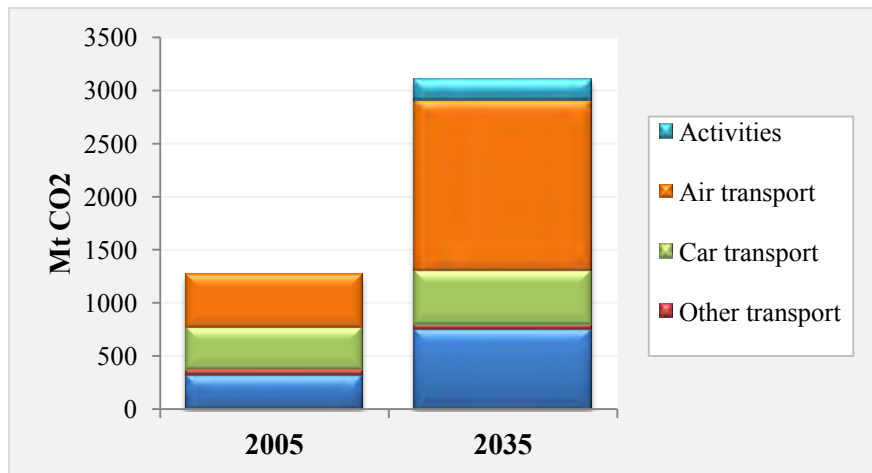

Figure 6.4: CO₂ Emissions from Global Tourism 2005 and 2035
Source: Wiberg (2009:69)

Bohandowicz and Martinac (2007) and Kirk (1998) argue that in terms of energy consumption, hotel facilities rank amongst the top five in the commercial and service building sector. As indicated in Chapter 3, the hotel and catering sector is the third largest consumer of energy from the services sector. A number of researchers have focused their study on energy usage in the hotel sector and have found that energy usage is one of the main concerns for most hotels (Ali *et al.,* 2008; Bohdanowicz *et al.,* 2001; Khemiri and Hassairi, 2005; Ndoye and Sarr, 2003; Yang, 2010). According to Richins and Scarinci (2009), electricity comprises almost 60% of a hotel‟s utility cost. Ali *et al.* (2008), Tang *et al.* (2012) and Roller and Dombrovski (2010) claim that heating, ventilation and air conditioning consumes the highest amount of electricity in hotels. Consequently, energy consumption results in a large amount of carbon dioxide emissions. As mentioned in Chapters 3 and 6, the main contributors to CO^2 emissions are in relation to transport (air and car in particular) and the accommodation sector. Emissions from the accommodation sector are likely to increase by 170% by 2035. Therefore, environmental management practices undertaken by hotels tend to mainly focus on energy conservation (Bowe, 2005; Kirk, 1995; Knowles *et al.,* 1999; Penny, 2007; Shiming and Burnett, 2002). The latter part of this Chapter provides a more extensive discussion of energy conservation measures adopted in hotels and lodges in this

study. Although the CO_2 emission levels of each hotel and lodge was not established, almost all respondents (91.7%) agreed that energy consumption was a major environmental concern. This reinforces the trends evident in Figure 6.4 which shows that CO_2 emission is a major concern in relation to tourism globally. It is recommended that studies be undertaken to calculate the carbon footprint of the accommodation sector specifically.

Eighty percent of hotel managers in the study believe water consumption to be a substantial environmental impact of hotels. Tourist"s water consumption can generate problems of overexploitation or depletion especially in places where water resources are scarce. Tourists usually consume more water when they are on holiday than when they are at home. A study on Spanish hotels indicates that the water consumption by tourists is 440 liters per day which is double the local demand (Tortella and Tirado, 2011). Five star hotels tend to consume the most amount of water (Hamele and Eckardt, 2006). According to Kasim (2007) and Min (2011), only 5% of a hotel"s water consumption is used for eating and drinking while the larger part is used for showering, bathing, laundry and dishwashing. Water consumption at hotels is further influenced by hotel attributes such as size and existence of facilities such as swimming pools, spa facilities and golf-courses and occupancy levels. Also, the more meals a hotel serves, the higher the water consumption, and hotels that follow the „all-inclusive" principal consume considerably higher levels of water (Bohdanowicz and Martinac, 2007; Deng and Burnett, 2002; Gossling, 2001; Tortella and Tirado, 2011). For example, Chapter 3 shows that in hotels in Zanzibar water use was an exceptionally high 931 liters per guest per day. This is attributed to the fact that most hotels in Zanzibar follow the all-inclusive standard (Gossling *et al.,* 2012).

Figure 6.3 shows that 66.7% of hotel managers considered waste generation from hotels and lodges to be a detrimental impact on the environment. Hotels consume various types of recyclable and non-recyclable natural environmental resources and this results in solid, liquid and gaseous discharges and emission and waste generation has the most visible effect on the environment. Bohandowicz and Martinac (2003) and Bohdanowicz (2005) claim that a hotel guest usually produces 1 kg of solid waste per day and approximately 60% of this waste is recyclable and re-usable. A detailed discussion of waste management practices adopted by hotels and lodges in the study is presented in the latter part of this Chapter.
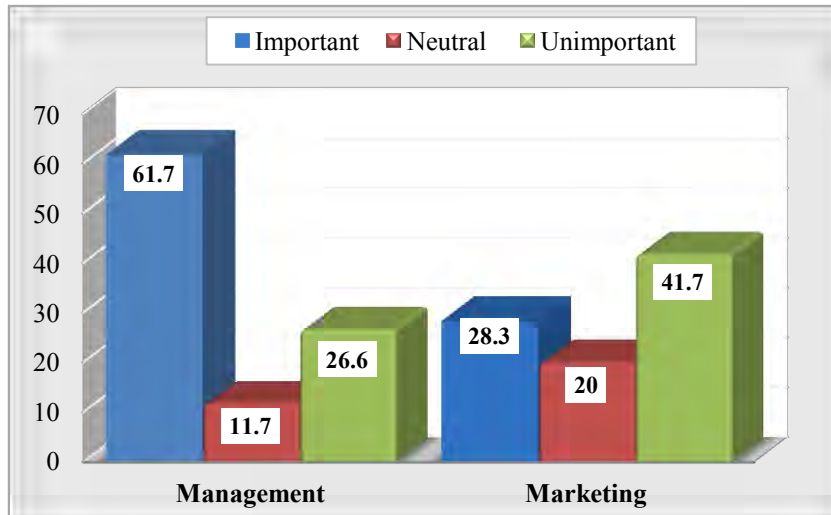
Figure 6.5: Importance of environmental issues in the marketing and management of the hotel (n=60)

According to Figure 6.5, environmental issues are more important in the management rather than in the marketing of a hotel. The data indicates that 61.7% of hotel managers considered environmental issues important in the management of hotels and lodges and 28.3% were of the view that environmental factors were important in the hotel‟s marketing efforts. The inclusion of environmental issues in the marketing of hotels and lodges was deemed unimportant by 41.7% of hotel managers. Becoming a green hotel or an eco-friendly hotel can become the basis for an effective marketing strategy and marketing a green hotel can help position the establishment noticeably in the marketplace. Environmental performance can also be used as a differentiation strategy when two products are viewed as equal and one is advanced by environmental performance. In this case, environmental credentials can be used to influence customer choice. Kattara and Zeid (2002) claim that promoting an eco-friendly hotel is important for hotel marketing. Therefore, it is crucial that hotels incorporate environmental actions in their marketing campaigns. Johnson and Ebrahimpour (2009:500) note:

Due to customer‟s apparent indifference, hoteliers are currently assigning eco-friendliness a low priority in their marketing efforts. This indifference is leading to a lack of demand, which means that there is no motivation for hotels to become environmentally-friendly.

6.3.1 Factor influencing environmental management in hotels and lodges

According to Table 6.4, customer desire for environmentally-friendly products, compliance with current environmental regulations and the ability to earn public recognition were considered as the most influential factors influencing environmental management at hotels and lodges in this study. Customer willingness to pay higher prices for environmentally-friendly products and services was considered to have the least influence in environmental management.

Table 6.4: Factors influencing environmental management at hotels and lodges (n=60)

	No influence	Some influence	Strong influence
Customer desire for environmentally-friendly products	30.0	11.6	58.4
Customer willingness to pay higher prices for environmentally-friendly products and services	60.0	25.0	15.0
Ability to earn public recognition with environmentally-friendly actions	21.7	48.3	30.0
Complying with current environmental regulations	8.3	31.7	60.0
Improving environmental performance to keep up with competitors	33.3	28.3	38.3

More than half of respondents (58.4%) indicated that customer desire for environmentally-friendly products will influence environmental management activities at their hotels and lodges (Table 6.4).While the findings of this study concurs with finding of previous studies (Graci and Dodds, 2008; Han and Kim, 2010; Kasim, 2004), they also contrast with other studies that indicate guests often make it difficult to implement environmental measures (Chan and Hawkins, 2010). Often, a striking a balance between service quality and environmental protection is difficult to achieve. Bohdanowicz and Martinac (2003) and Brown (1996) maintain that hotels are generally resistant to environmental management as they fear it reduces service quality. For example, in Malaysia, 57% of hotels guests preferred freshly laundered towels daily (Kasim, 2004). Johnson *et al.* (2009:499) states that a paradox exists with consumers and the environment as "consumers expect the natural beauty to remain, but are not willing to help it remain because they are not ready to sacrifice their hotel experience for environmental practices". They further state that environmental changes in hotels are unlikely to occur unless "consumers are willing to exchange the comforts they abuse for environmentally-friendly programs". These findings are reinforced by a key informant from the accommodation sector who indicated that although a good environmental image is beneficial for hotels, not all hotel guests may appreciate a hotel"s environmental

efforts. Bohdanowicz (2006) argues that lack of awareness on consumer attitudes, opinions and behavior about environmental issues can essentially impact on hotelier's adoption of green practices.

Hotels and lodges in the study further indicated that the ability to earn public recognition from environmentally-friendly actions will have some influence (48.3%) and a strong influence (30%) on environmental management in hotels and lodges (Table 6.4). Additionally, 91.7% of managers indicated that complying with environmental regulations will influence them to engage in environmental management with 31.7% indicating that environmental regulations will have some influence and 60% stating it will have a strong influence. Legal compliance has been noted as the one of the main motivations to adopt environmental practices (Bonilla-Priego *et al.,* 2010; Morrow and Rondinelli, 2002). However, Chan and Hawkins (2012) found that none of the informants at the ABC Hotel in Hong Kong considered environmental legislation as a factor influencing the adoption of EMSs. This is possibly due to the fact that strict environmental regulations for the hotel sector are not substantial in Hong Kong (Chan and Hawkins, 2012). Voluntary approaches to environmental management are considered more suitable compared to legislative and policy complications (Hall, 2000; Woodward, 1996). Also, environmental legislation often applies to hotels at the development stage and rarely during the operational stage (Bosselman *et al.,* 1999; Whiley and Knight, 2004).

Table 6.4 reveals that 60% of hotel managers are of the opinion that the willingness of guests to pay a higher price for environmentally-friendly hotels and lodges has no influence on environmental management. This is possibly due to the fact that managers are aware that guests are generally unwilling to pay higher prices for green hotels and lodges. Whilst Dodds and Joppe (2005) found that only up to 5% of the travel market would pay higher prices for sustainable products, the PATA (2007) found that in Asia 52% of visitors were willing to pay up to 10% extra for environmentally-friendly products. According to Han *et al.* (2009) and Manaktola and Jauhari (2007), green hotel prices do not differ greatly from non-green hotels. However Rivera (2002) found that Costa Rican hotels that were enrolled in sound environmental programs were associated with higher prices. Moreover, Figure 6.6 illustrates that lower star rated hotels and lodges (1 star and 2 star) in the study believed that customers willingness to pay higher prices for environmentally-friendly goods had little or no influence on them. All managers of 1 star hotels and lodges and 75% of managers of 2 star hotels and

lodges in the study stated that customer's willingness to pay higher prices for an environmentally-friendly hotel had no influence on their decision to go green. However, managers of 3 star hotels and lodges (59.3%), 4 star hotels and lodges (50%) and 5 star hotels and lodges (50%) indicated that customer's willingness to pay higher prices for environmentally-friendly hotels and lodges will influence their decision to go green.
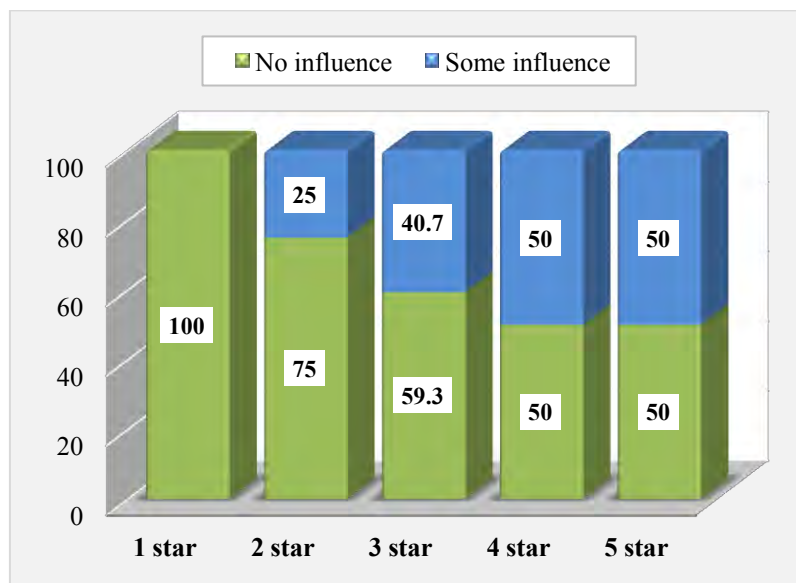

Figure 6.6: Influence of customer's willingness to pay higher prices for environmentally-friendly hotels and lodges by star grading (n=60)

Table 6.4 further displays that keeping up with competitors was regarded as having some influence (28.3%) and a strong influence (38.3%) in the hotel manager's decision to adopt environmental practices. More specifically, hotels and lodges with a higher star grading indicated that competitors had a greater influence compared to hotels and lodges with a lower star grading (Figure 6.7). This is possibly due to the fact that, as indicated in Table 6.1, there are significantly more 3, 4 and 5 star hotels and lodges in KwaZulu-Natal, thereby increasing competition. According to Chan and Wong (2006), Manaktola and Jauhari (2007) and Wolfe and Shanklin (2001), hotels have recently begun to advance themselves in environmental issues in order to gain a competitive advantage.
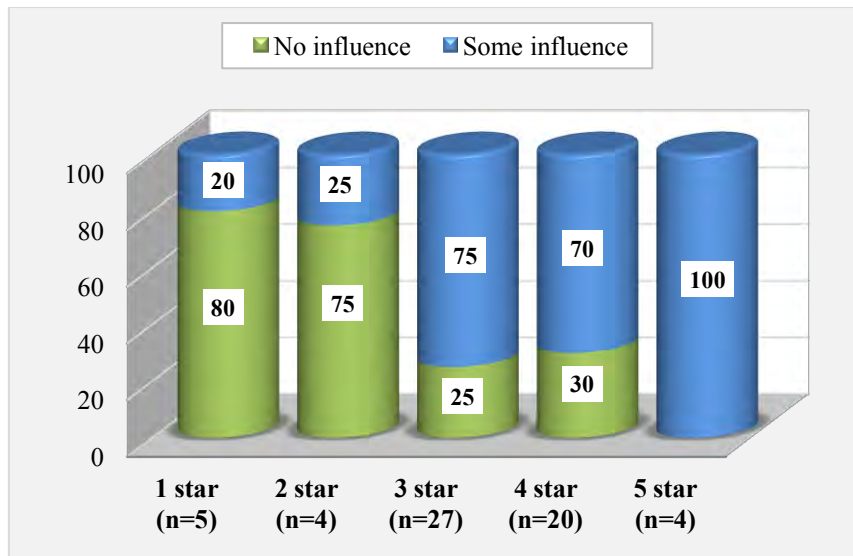
Figure 6.7: Influence of competitors by star grading

6.3.2   Stakeholders that influence environmental management in hotels and lodges

According to Grosbois (2012:896), "over the last two decades the public, governments, customers and other stakeholders have been demonstrating growing awareness of the social and environmental consequences of human activity in general, and business operations in particular". According to Figure 6.8, stakeholders that have the most influence on the environmental actions of hotels and lodges in the study are customers (76.6%), the media (71.7%), government (70%), employees (70%), environmental organizations (65%), corporate management (63.3%), shareholders (61.7%) and competitors (60%). The least influential stakeholders were the local community (56.7%), trade associations (55%) and suppliers (45%).

In terms of the influence of customers, while there are some people who are not impressed with luxury if it violates the principle of environmental friendliness, there are many others that seek, as part of the hospitality experience, to be pampered with high-pressure showers, freshly laundered linen and a limousine to take them to the airport (Kattara and Zeid, 2002:156). According to McKercher *et al.* (2010:313), consumer behavior may be the biggest challenge in environmental action since "consumers may be a harder sector to influence" and environmental actions "may be viewed as a drop in standards" (Tzschentke *et al.,* 2008:169). As noted by one stakeholder in the study:

The international visitor is very conscious of frequenting „green" establishments. Incoming tour operators prefer to send clients to establishments with a „green" ethic. However, when the client is inconvenienced by austerity measures which might be in place because of drought, power cuts and the like, their own „green" ethic becomes selfishly less important.
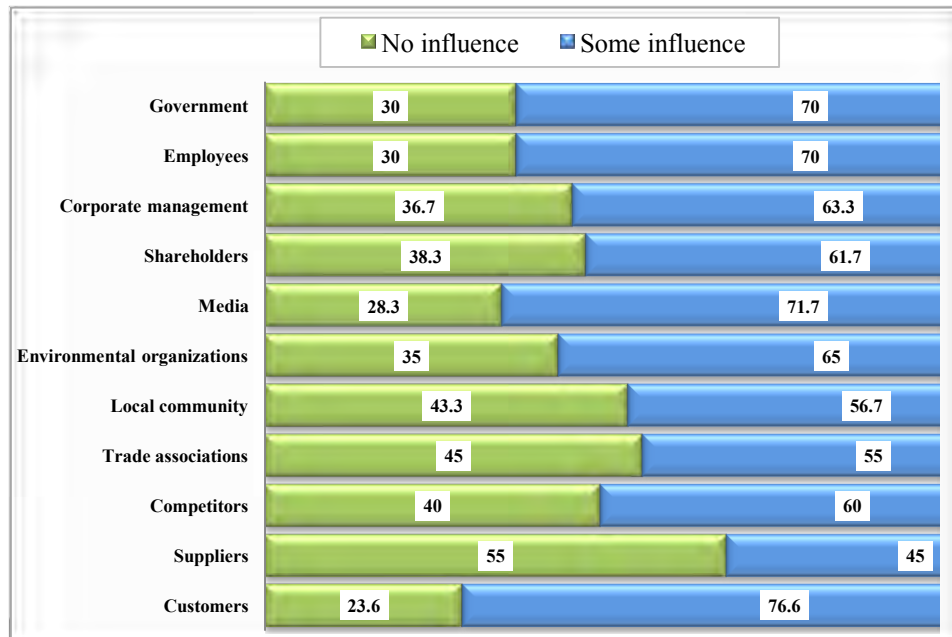

Figure 6.8: Stakeholders that influence hotels and lodges to improve its environmental performance (n=60)

Therefore, customers have the ability to significantly influence a hotel"s decision to go green and Brace (2007:17) believes that "hotels will only change if the consumer does". The study confirms that customers are the most influential stakeholders in hotels" and lodges" adoption of green practices as perceived by hotel managers in the study. These findings correspond with the view of Johnson and Ebrahimpour (2009:500) who affirm that "change in hotels will not occur until consumers are willing to exchange the comforts they abuse for environmentally-friendly programs".

Figure 6.8 illustrates that 70% of hoteliers in the study regard government as influential in the adoption of environmental management. Generally, governments have become aware of the need for environmental protection measures and have responded with the formulation of relevant legislation and regulations. A study conducted by Dodd *et al*. (2001), indicate that hotels in Mexico pursued environmental practices due to political and legal pressures. Hotels

in Europe (Bohdanowicz, 2005) and in the US (Enz and Sigauw, 1999) also tend to engage in environmental practices due to pressures of government legislation. Zurburg *et al.* (1995) found that legislation was the main motive for environmental action in American hotels. However whilst hotels in some countries are faced with legal and political pressures to comply with environmental regulations, a number of hotels throughout the world are not complying with laws on environmental regulation due to the lack mechanisms to enforce such laws. Often a political and cultural environment does not ensure the appropriate application of regulations and enforcement of laws.

The study further indicates that 70% of hotels and lodges consider employees to be an influential stakeholder in environmental management. Tsai *et al.* (2012:1151) advocate that "assessing the hotel employees perceptions on the CSR activities of their hotel could provide hotel management with information from an insider point of view because they are the ones that transmit CSR statements to actions". Environmental management programs tend to generate better results when employees are considered as major stakeholders and Bohdanowicz *et al.* (2011:801) affirm that "employees are the main experts in the way environmental dimensions can be included in fundamental organizational activities". Chan and Hawkins (2010) assert that an EMS at the ABC Hotel in Hong Kong enhanced employee awareness on environmental issues and environmental protection was now considered in whatever they did. However, Ayuso (2007) claims that often employees see environmental tasks as an additional workload.

Corporate management, shareholders, environmental organizations and competitors also have a fair level of influence on a hotel‟s decision to go green. The local community, trade organizations and suppliers were seen as being least influential in the implementation of environmental issues at hotels and lodges. Brown (1996) claims that generally hotels are not under any pressure from stakeholders to engage in environmental actions. Correspondingly, Kasim (2009) reported that 77% of hotels in Kuala Lumpur indicated that they were not pressured external stakeholders to engage in environmental action. However, other researchers argue that one of the key forces for obtaining environmental performance is the influence of various stakeholders such as customers, suppliers, consumer groups, communities and investors (Clark, 1999; Pouliot, 1996).
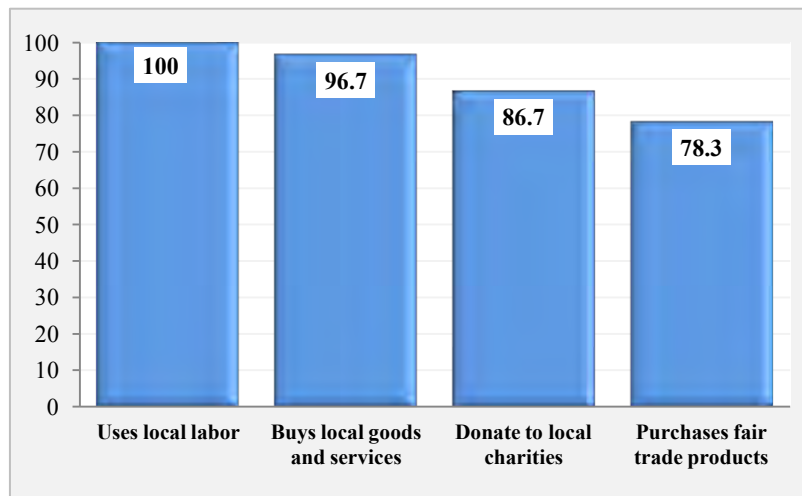
6.3.3. CSR activities of hotels and lodges

Figure 6.9: Social responsibility practices of hotels and lodges (n=60)
(multiple responses)

CSR is the voluntary contribution of businesses to social, economic and environmental improvement. Given that CSR activities largely entail the inclusion of environmental actions and activities, it was deemed useful to include an appraisal of CSR practices of hotels and lodges. Globally, companies are urged to look beyond maximizing profits and to include environmental and social objectives in their management style (George and Frey, 2009; Grosbois, 2012; Huimin and Ryan, 2011). Figure 6.9 illustrates that hotels and lodges in KwaZulu-Natal have made significant progress in terms of their CSR actions. The high level of CSR activities of hotels and lodges in the study can be attributed to global pressure on companies to become socially responsible, consumer demand for responsible products and the increase in CSR awareness and application. The UN has set out the *UN Guiding Principles on Business and Human Rights* and appeals to the tourism industry to engage in business responsibility that respects human rights (Tourism Concern, 2012). "Due to hospitality‟s high visibility around the world, the industry has not only the potential to save millions of dollars by „going green‟ but also become a channel for social change" (Kang *et al.,* 2012:564).

All hotel managers in the study claimed to use local labor. However, this study does not probe the extent and nature of local labor used which was deemed beyond the scope of the study and not directly related to the objectives formulated. Tourism‟ biggest cash injection into the local economy is from wages to local staff and therefore the importance of local

employment should not be ignored. According to Rogerson and Visser (2004), the 1998 Job Summit in Johannesburg highlighted the tourism sector as having the greatest potential to reduce unemployment and hotels in South Africa have made significant progress in terms of local employment. The Western Cape‟s Mount Nelson Hotel offers a four year training program to three chefs and four hotel management candidates from disadvantaged communities. The Sandal Montego Bay in Jamaica offers training to young local community members in all aspects of resort operations. On completion of the training program, apprentices are either employed at Sandals or are given certificates and recommendations to work at other hotels (Ashley *et al.,* 2006). Whilst the study reveals that all hotels and lodges in the study use local labor, it must be noted that jobs offered to locals are often low-skilled and low-paying. For example, it was found that in Kenyan hotels 36% of locals were hired as maintenance officers, 36% as cooks and 12% as cleaners. In Spain, 59% of hotels employ locals from the surrounding community (Garay and Font, 2012).

Figure 6.9 reveals that 96.7% of hotels and lodges in the study claim to buy local goods and services. The hotel sector has significant linkages with a number of sectors in the local economy. Money spent by tourists on the local economy directly increases the household incomes in communities. A study of hotels on Kenya‟s coast revealed that tourist class hotels bought their food products and roofing material from the local community (Irandu, 2006). Leslie (2007) found that majority of accommodation establishments in Cumbria, England purchased their goods from the local community and Garay and Font (2012) found that 80% of hotels consumed local products in Catalonia, Spain. In the Dominican Republic, Outback Safaris offers local rural excursions and the rural people earn approximately US$1 300 per month from the sale of local products to tourists (Ashley e*t al.,* 2006). In Barbados, beauty products made with locally grown herbs is supplied to the Sandy Lane Hotel and Spa. The Sandals Resort Farmers Program in Jamaica initiated by the Sandals Group started in 1996 with only ten farmers supplying two hotels with fresh produce. The program grew substantially and by 2004 more than 80 farmers were supplying hotels across Jamaica. Local farmer‟s sales increased more than 55 times in three years. However, one of the major challenges with the purchase of local goods and services is that often the quality, quantity and reliability of supply is inadequate. At the same time local producers cannot access finance to improve their production process. Furthermore, tourism businesses in Cape Town maintain that local suppliers are associated with insufficient quality standards and quality capacity and will only use local suppliers once these issues have been addressed (Frey and George, 2010).

According to Figure 6.9, 86.7% of hotels and lodges in the study donate to local charities. A number of hotel chains in South Africa have contributed to local community projects and charities. The Three Cities group of hotels and lodges in South Africa has embarked on an educational project, „Make a Difference", that assists disadvantaged learners from the Ifafa Junior Primary school on the KwaZulu-Natal south coast. Three Cities has purchased amenities for Grade R learners and have repaired the school‟s jungle gym (Three Cities, 2011b). City Lodge hotels in association with Food and Trees for Africa have introduced the *"I‟m Kind"* program. The program has set up a fully-fledged garden and a number of new trees at the Mother Touch Academy at Diepsloot. Guests making online bookings on the City Lodge website can select Food and Trees for Africa of Hospice and City Lodge makes a donation on their behalf (Reynard, 2012). Protea Hotels is proudly associated with the „Reach for a Dream‟ project that helps children who have been diagnosed with life-threatening diseases. Protea hotels have helped raise awareness and funds for this cause. Additionally, the hotel group is associated with the *"Afrika Tikkun – Developing Communities in South Africa"* program. Protea hotels has donated R155 000 to this organization to be used for child and youth development and equipment and resources for a new classroom and principals office. In 2003, Protea Hotels also initiated a bursary fund to support previously disadvantaged students attending any national hotel school. To date, the fund has contributed R1 887 000 in the development of 142 students (Protea Hotels, n.d.). Tsogo Sun‟s flagship entrepreneurial development program *"Book-A-Guesthouse"* offers training and development support to women in the tourism industry to successfully operate their own guesthouses and bed and breakfast establishments. Over the past seven years the program has supported more than 62 such establishments. Tsogo Sun also provided R7 million in seed capital to a 100% black owned bookstore called SKOOBS which contains a coffee shop and over 6 000 book titles (Tsogo Sun, n.d.). Spenceley (2007) examined the extent to which tour operators in South Africa were engaging in responsible environmental practices and found that 66% of tour operators in South Africa stated that they had positive impacts on local communities through employment creation, purchasing local products and using local services. However, high crime rates, low skills, poor service quality and language barriers may act as challenges to CSR in South Africa (George and Frey, 2010).

Friedman (1982) and Marcus and Goodman (1986) strongly opposed the integration of CSR into core business as they believed that CSR entailed businesses sacrificing their business and profits for citizenship and wasting the time of managers and company funds. However, a

number of studies showed a positive relationship between CSR and business profitability (Lee and Park, 2009, Moore, 2001). Whilst Frey and George (2010) claim that only 2% of tourism establishments worldwide are participating in responsible tourism, Bohdanowicz *et al.* (2011) claim that hotels have made substantial progress with CSR and were the pioneers amongst all businesses to apply comprehensive CSR activities as part of their business management. According to Grosbois (2012), 109 of the largest 150 hotel companies in the world reported some degree of CSR. Lee and Heo (2009) claim that CSR has a positive effect on customer satisfaction. According to Knowles *et al.* (1999), 64% of hotels in London indicated that reducing social inequality is important for hotels. Grosbois (2012) found that popular CSR goals amongst hotels were improving the quality of life in local communities and involving employees in CSR activities. Similarly Kabir (2011) found that community involvement issues were the key CSR activities of hotels in Swaziland and according to Kasim (2004), Hilton Corporation, Accor Group and the Marriott Group provided the comprehensive information on their CSR activities on their websites (Figure 3.9). Approximately 80% of these chains engaged in social responsibility linked to charitable donations with lesser attention given to green issues.

6.3.4 Environmental management processes undertaken by hotels and lodges

Results in Table 6.5 indicate that the most widespread practices undertaken include encouraging employees to get involved in environmental management (80%), giving preference to environmentally-friendly products (78.3%) and educating guests on environmental management (60%). More than half (53.3%) of the hotels and lodges have an environmental action plan in place, 41.7% monitors and records environmental performance and 56.7% includes environmental responsibility in their marketing material. To a lesser degree, other types of environmental actions were implemented by hotels and lodges and these include having a documented environmental policy (28.3%), having an EMS (30%), having an environmental officer (36.7%), obtaining guests" opinions on environmental issues (36.7%), having environmental standards for suppliers (23.3%) and having a green purchasing policy in place (26.7%). The least practiced environmental action by hotels and lodges was the publication of environmental information in public reports (17.7%), the attainment of environmental accreditations (18.3%) and rewarding staff for their environmental efforts (13.3%).

Table: 6.5: Hotel's environmental practices by hotel star grading (in %)

Environmental Practices	1 star (n=5)	2 star (n=4)	3 star (n=27)	4 star (n=20)	5 star (n=4)	Total (n=60)
Hotel has a documented environmental policy						
Yes	20	0	40.7	20	25	28.3
No	80	100	59.3	80	75	71.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has an EMS						
Yes	20	0	29.6	40	25	30
No	80	100	70.4	60	75	70
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has an environmental officer in charge of environmental management						
Yes	20	0	51.9	25	50	36.7
No	80	100	48.1	75	50	63.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has an environmental action plan						
Yes	20	25	59.3	55	75	53.3
No	80	75	40.7	45	25	46.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel monitors and records environmental performance						
Yes	0	0	48.1	55	25	41.7
No	100	100	51.9	45	75	58.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel educates guests on environmental management						
Yes	20	50	59.3	70	75	60
No	80	50	40.7	30	25	40
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel gets guests" opinions on environmental issues						
Yes	40	0	51.9	30	0	36.7
No	60	100	48.1	70	100	63.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has environmental standards for suppliers						
Yes	0	0	29.6	20	50	23.3
No	100	100	70.4	80	50	76.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel publishes environmental information in public reports						
Yes	0	0	22.2	15	25	16.7

No	100	100	77.8	85	75	83.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has environmental accreditations						
Yes	0	0	37	25	25	18.3
No	100	100	63	75	75	81.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel gives preference to environmentally-friendly products						
Yes	40	50	77.8	90	100	78.3
No	60	50	22.2	10	0	21.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel rewards staff for environmental efforts						
Yes	20	25	18.5	5	0	13.3
No	80	75	81.5	95	100	86.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Includes environmental responsibility in its marketing material						
Yes	60	25	48.1	70	75	56.7
No	40	75	51.9	30	25	43.3
Total						
Hotel has a green purchasing policy						
Yes	0	25	33.3	25	25	26.7
No	100	75	66.7	75	75	73.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel encourages all employees to get involved in environmental management						
Yes	60	100	74.1	85.0	100	80
No	40	0	25.9	15.0	0	20
Total	**100**	**100**	**100**	**100**	**100**	**100**

6.3.4.1 *Environmental practices of hotels and lodges*

This section examines the different environmental practices undertaken by hotels and lodges in the study and includes: environmental management systems, environmental policy, the monitoring of environmental performance, environmental accreditations and ecolabels, and green products and suppliers.

a) Environmental managements systems

Chan and Hawkins (2010) and Ayuso (2007) maintain that EMSs appeared in the 1990s as one of the most valuable tools for sustainable development and were developed as a response to pressure for environmental improvement. An EMS is a popular tool for managing a business" environmental issues in a systematic manner and is becoming an important part of business management. For example, as part of the licensing agreement the Boardwalk Casino and Entertainment World in Nelson Mandela Bay had to comply with a list of conditions. Conditions of License include: implementing an internationally accredited EMS, continuous improvement of environmental matters, an annual environmental performance report and regular EMS audits. The Boardwalk Casino and Entertainment World has to date successfully achieved all these conditions (Sun International, 2011a). Despite the importance of EMSs, Table 6.4 reveals that only 30% of hotels and lodges in the study had an EMS in place. Similar results were obtained from research conducted on hotels in Turkey where 32% of hotels were found to have an environmental management policy, program or EMS in place (Erdogan and Baris, 2007). The high cost of EMS has possibly resulted in a low level of EMS in hotels and lodges in KwaZulu-Natal. Often hotels get specialized consultants to formulate and implement an EMS with certification conducted by external auditors. The costs for this in Spain for example, ranges from €3 500 to €7 500 for the initial certification and between €1 500 to €2 500 for ensuing certification audits (Ayuso, 2007). Therefore, high costs are often a major obstacle to the implementation of an EMS. Another reason for the low level of EMS in hotels may be due to the lack of knowledge on EMSs. For example, Chan (2008) found that despite implementing a number of environmental practices, many hotel managers did not know what a formal EMS was. Also, hotel managers in England were found to have low levels of awareness of EMSs and practices and initiatives (Leslie, 2001). A number of companies are engaging in EMS as a response to pressure groups (Clark, 1999) and there is a lack of pressure from hotel stakeholders to implement an EMS in South Africa.

b) Environmental policy

Research on accommodation establishments in England indicate limited attention given to a written environmental policy (Leslie, 2001). Similarly, the data in Table 6.5 indicates that only 28.3% of hotels and lodges in the study have a documented environmental policy in place. This can be attributed to the fact that hotels and lodges lack the financial resources to establish such policies. Furthermore, hotels and lodges may lack the skills and expertise to

formulate environmental policies. Also, due to the lack of regulations pertaining to environmental management in the hotel sector, a number of hotels and lodges do not give importance to environmental policies. Similar findings were made in a study of hotels in Anatolia where 43% of accommodation establishments had a written environmental policy in place. Best and Thapa (2011) also confirmed that 47% of hotels in the Caribbean had an environmental policy and in the Macao hotel sector, Penny (2007) found that 29% of hotel managers reported having an environmental policy in place. In the London hotel sector, Knowles *et al.* (1999) observed that only 19% of hotels had an environmental policy in place whilst in the Swedish hotel sector, 57% of hotel managers reported having an environmental policy as part of their business plan (Bohdanowicz, 2006). Different studies on the Irish, Edinburgh and London hotel sector revealed that an average of 25% of hotels had a written environmental policy in place (Kirk, 1995; Knowles *et al.,* 1999). Other researchers found opposing results. A study by Clark and Siddal (2001) demonstrate that 80% of European hotels had an environmental policy and in Ghana, 83% of 3-5 star hotels claimed to have an environmental policy in place (Mensah, 2006).

The major areas of concern in the environmental policies are energy conservation, water conservation, waste management and overall reduction in operational costs. However, the formulation of policies does not necessarily guarantee its implementation. Although many hotels and lodges in the study do not have an environmental policy in place, 53.3% of them do have an environmental action plan.
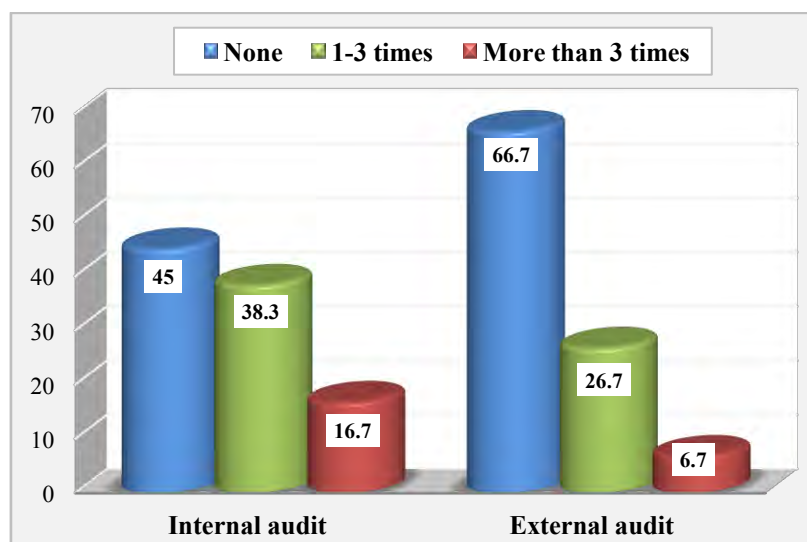
Figure 6.10: Number of environmental audits undertaken by the hotel in the past two years

Goodall (1994) argues that environmental audits are a useful tool in determining the environmental impact of hotels and Leslie (2001) asserts that environmental auditing is the most cited self-regulatory process of measuring environmental performance. Figure 6.10 indicates that internal environmental audits were undertaken more extensively than external audits by hotels and lodges in the study. In particular, 66.7% of hotels and lodges did not undergo an external environmental audit and 45% have never undertaken an internal environmental audit in the past two years. This may be attributed to lack of knowledge on environmental audits and the fact that many hotels and lodges are not affiliated to environmental accreditation schemes, as these schemes necessitate an environmental audit. Furthermore, an environmental audit is a procedure that is usually difficult to apply as there is considerable amount of time and resources needed. Contracting external auditors are usually costly and are often seen as an obstacle to environmental management. As indicated earlier in relation to the study, large hotel chains routinely conduct environmental audits, however, smaller establishments do not.

Similarly, past research indicates that 19% of hotels in London (Knowles *et al.,* 1999) and 10% of accommodation establishments in Cumbria, England had undertaken environmental audits (Leslie, 2007). On a more positive note, the Intercontinental Hotel Group undertakes environmental audits to regularly monitor its branch hotels" environmental performance (Kasim, 2004). Also, according to a study undertaken by Tang *et al.* (2011) on energy conservation in Taiwan hotels, all hotels had monthly departmental audits to assess the effectiveness of their energy conservation and carbon reduction programs. These audits have helped hotels to take the necessary corrective actions.

c) *Monitoring and recording environmental performance*

Monitoring and recording environmental performance is crucial to the successful implementation of environmental measures. Table 6.5 reveals that 41.7% of hotels and lodges in the study monitors and records their environmental performance. Very few hotels in Queensland collected data on water and energy consumption and waste management (Warnken *et al.,* 2005). Hotels can benefit considerably by reporting their environmental performance and environmental information on the hotel"s website can help inform the public. The internet is becoming a popular means of disseminating information and corporate websites report their environmental objectives, commitments and performance to a number of

stakeholders. Hsieh (2012) also found that larger hotel corporations are more likely to exhibit their environmental information on their websites.

Although some hotels and lodges may have an environmental policy in place, they have not integrated environmental reporting as part of its control system. A study of accommodation establishments in England revealed that managers considered environmental reporting to be insignificant compared to addressing customer complaints and increasing profitability (Leslie, 2001). Similar findings were made in the Canadian hotel sector (Graci and Dodds, 2008). According to Hsieh (2012:109), environmental reports are "publicly available, freestanding documents that companies use to communicate environmental performance to their stakeholders". Only 16.7% hotels and lodges in the study publish their environmental efforts in public reports. When environmental audit reports remain internally within the hotel, it becomes difficult to compare with other hotels. Grosbois (2012) found that 41% of hotels explicitly stated their environmental commitments and provided information on environmental initiatives.

Senior management at the ABC hotel regularly reviewed the progress of the company"s EMS. The management reviews were based on audit reports submitted my EMS managers. The audit reports and findings are kept by the company for years, as part of what the management of ABC hotel refers to as the constantly improving circle. Some company documents showed that the main purposes of the review was to change the policies, objectives, targets and other elements of the company"s EMS to achieve the ISO-required continual improvement.

(Chan and Hawkins, 2012:414)

d) *Environmental accreditations and ecolabels*

Environmental accreditations or eco-labels are voluntary instruments that inform consumers that a product or service has met certain levels of environmental performance and can be used to identify best practice in an organization (Hsieh, 2012). Figure 6.11 indicates that environmental certification is dominant in the accommodation sector of the tourism industry (Wiberg, 2009). Of all the tourism sectors that have received environmental certification, 68% comprise the accommodation sector, followed by destinations (18%), tour operators (7%), sports/leisure facilities (5%) and the transport sector (2%). Despite the lack of legislative control in many countries, hoteliers have responded to environmental management through voluntary accreditation schemes, codes of conduct and environmental certification

(Honey and Rome, 2000; Font, 2002). However, whilst awareness of environmental issues is evident in the hotel sector, responsive action is low. Table 6.4 shows that 81.7% of hotels and lodges in KwaZulu-Natal did not hold any environmental accreditations. These results are congruent with that of Erdogan and Baris (2007) who found that 90% of hotels in Ankara, Turkey had no environmental accreditations and no links to environmental organizations. Only 26% of Polish hotels claimed to have environmental certifications (Bohdanowicz, 2006) and almost 70% of the Spanish population are unaware of existing ecolabels (Ayuso, 2007).
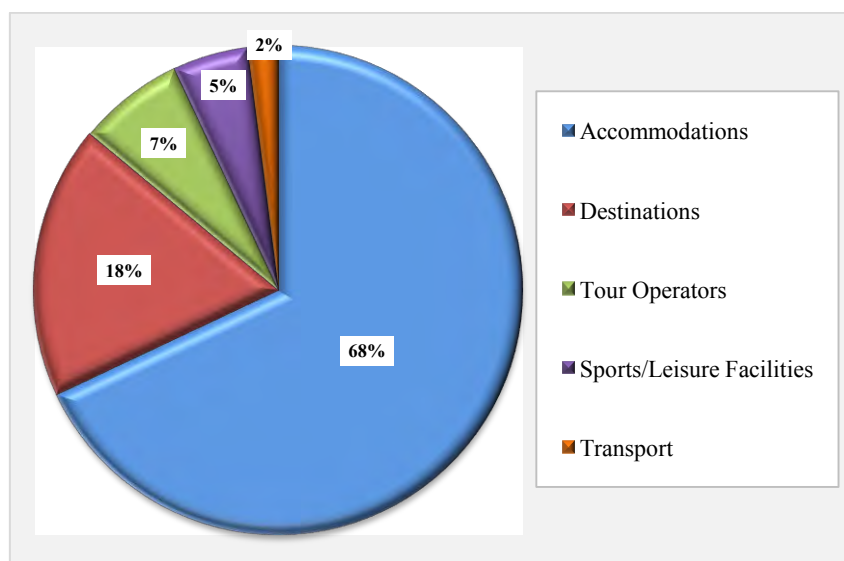
Figure 6.11: Tourism Sectors Certified
Source: Wiberg (2009:78)

The lack of environmental accreditations for hotels and lodges in the study can be attributed to cost of accreditation schemes, lack of time and resources to pursue such schemes, limited knowledge and awareness of accreditation schemes, lack of assistance from local authorities, poor consumer knowledge, and the economic climate. Without expertise advice or knowledge, hotels and lodges may struggle to implement accreditation schemes and hotels and lodges may have difficulty in interpreting the guidelines of such schemes. Furthermore, often in developing countries small-scale, privately-owned enterprises have difficulty in meeting the strict criteria and standards of accreditation schemes. For example, only 14% of tourism businesses in Cape Town were able to able to meet the rigid criteria of FTTSA and a number businesses argued that FTTSA accreditation process was complicated and costly (Frey and George, 2010). A key informant from the accommodation sector stated that maintaining the current TGCSA standards is costly and hotels and lodges will not be able to hold on to their star grading is standards are not maintained. Therefore, Sasidharan *et al.*

(2002) believe that in future, accreditation schemes may be forced to lower their certification standards in order to increase participation. This view was supported by a key informant from the hotel sector who believed that environmental certification schemes are not always straightforward and tend to have complex entry barriers which entails high costs.

Jarvis *et al.* (2010) believe that developing and implementing schemes is not always easy and it is usually the transnational corporations that implement such schemes. Furthermore, there is often lack of consensus amongst various stakeholders on the standards and indicators used for various accreditation schemes. Often hotels and lodges that apply for environmental accreditations such as ecolabels and awards already have in place a record of good environmental performance making it easier to fulfill the certification criteria. The tourism industry has also been accused of abusing ecolabels and although hoteliers may encourage conservation of the environment, the basis of the industry is consumerism (Knowles *et al.,* 1999). Also the sudden proliferation of ecolabels, awards and accreditation schemes may have confused consumers that they tend to ignore them.

Green accreditation schemes help hotels to reduce their carbon footprint. For example, in 1995 the Hilton‟s Scandic group pioneered the 95% recyclable room which won a number of environmental awards, including the IHRA Environmental Award in 2002. South Africa has a number of accreditation schemes and ecolabels for the hospitality industry. Currently are number of hotels and lodges in South Africa are certified FTTSA, Heritage Environmental Rating Program, Imvelo Responsible Tourism Awards, the GLES, and GreenstaySA. Tsogo Sun has requested that its environmentally responsible business practices be measured and tracked at all its properties by the Heritage Environmental Rating Program. Heritage audits are undertaken annually at each Tsogo Sun property to ensure adherence and compliance with environmental standards and procedures (Heritage Environmental Rating Program, n.d.).

Environmental awards are also popular forms of accreditation schemes. The Fairmont Hotels and Resorts have received a number of environmental awards: the Professional Convention Management Association Environmental Leadership Award (2008), Hotelier Magazine (2008), Inaugral IMEX Green Supplier Award (2008), Canada‟s Most Earth-Friendly Employers (2008), Awarded Chain Leadership Award – Overall Innovation (2007), Best Corporate Social Responsibility Platform – Worldwide Hospitality Awards (2006), Energy and Environmental Award – Hotel Association of Canada (2005) (Fairmont Hotels and

Resorts, n.d.). The Drakensberg Lifestyle Resort won the 2011 Imvelo Award for Responsible Tourism as the best single resource management program in energy management and the Vineyard Hotel and Spa received the same award in 2012. The Imvelo Best overall environmental management system was awarded to the Intercontinental Sandton Towers and Sandton Sun hotel in 2012 (Imvelo Awards for Responsible Tourism, n.d.).

e) *Green products and suppliers*

The success of environmentally responsible practices is dependent on a positive relationship with suppliers (Geffen and Rothenberg, 2000; Kernel, 2006) and the purchasing of environmentally-friendly products can significantly help reduce a hotel's carbon consumption and GHG emissions. Table 6.5 indicates that while 78.3% of hotels and lodges in the study prefer environmentally-friendly products, only 23.3% set environmental standards for suppliers and a mere 26.7% have a green purchasing policy in place. An opposing scenario was found in Sweden where green purchasing was cited as the second most important environmental activity for hotels. Their green purchasing focused on purchasing bio-degradable detergents and chemicals and purchasing in bulk (Bohdanowicz, 2006). Marriott Hotels only purchase Cradle to Cradle-certified wall coverings and carpeting as these are made of 30% recycled content (Marriott, n.d.). Conversely, only 4% of Croation hotels had a green purchasing policy in place (Persic-Zivadinov and Blazevic, 2010) and hotels in Scotland claimed that there was often a lack of availability and reliability of green suppliers (Tzschentke *et al.,* 2008). According to Penny (2007:292), hotel managers perceive environmentally-friendly products and raw materials to be expensive, and would only consider using these "if the price was right". Since environmentally-friendly products are often perceived as less efficient, suppliers should provide good quality alternative green products. According to Stabler and Goodall (1997:24), "suppliers cannot just simply pay lip service to environmental objectives, they must show that they are proactive".

6.3.4.2 Staff involvement in environmental practices

The study reveals that 80% of hotels and lodges encouraged employees to get involved in environmental practices. This is a positive trend since 70% of hotels and lodges believe that employees are most influential in environmental actions of the hotel (Figure 6.8). A number of studies have investigated the relationship between EMSs and employees. Poksinska *et al.* (2003) and Holt (1998) found that employee morale was moderately improved with EMS, Rondinelli and Vastag (2000) argued that employees became more aware of environmental matters; and Kirk (1998) claimed that employee satisfaction improved overall with environmental management. Employee morale was also improved through environmental management in Sweden (Poksinska *et al.,* 2003), in the United Kingdom (Holt, 1998) and in Edinburgh (Kirk, 1998). Staff at the Drakensberg Lifestyle Resort in KwaZulu-Natal conform to the resorts environmental promise with initiatives such as SOS (switch something off). Monthly feedback sessions are also held with staff to get feedback on the environmental programs (Tsogo Sun, 2012). Marriott International, ranked 9th in the Sunday Times Best Green Companies in Britain in 2011, also won „Best Employee Environmental Engagement Award‟ for two consecutive years and offers an ongoing program of environmental activities for employees. Chan and Hawkins (2010) found that the implementation of the ISO EMS at the ABC hotel in Hong Kong substantially improved and enriched employee awareness of environmental issues and also instilled in employees a sense of pride for their company‟s environmental achievements. Employees also claimed that ISO 14001 created a better and safer working environment for them. Employees are also generally willing to participate in environmental efforts to improve the credibility of the hotel. On the other hand, staff at the ABC hotel in Kong Hong also considered environmental actions as an additional workload. They indicated that EMS implementation increased their workload and managers who were tasked with environmental responsibilities claimed that the extra workload negatively affected their efficiency.

Often environmental management tasks form an additional duty for existing hotel staff which necessitates the appointment of a designated environmental officer. This study indicates that 36.7% of hotels and lodges had an environmental officer in charge of environmental management. Comparable results were found in Swedish hotels where 28% of hotels had a designated person in charge of environmental issues (Bohdanowicz, 2006) and in Anatolia, 55% of hotels claimed that they did not have a staff responsible for environmental management (Erogan and Tosun, 2009). Also the economic climate makes it financially

difficult to employ a person with the sole responsibility for environmental matters. Furthermore, such job positions are considered insignificant for hotels that do have an interest in environmental issues. Conversely, a number of hotels globally have created new management positions and committees to address environmental issues. For example, the Hyatt Regency Scottsdale introduced an environmental program manager"s position at the hotel and the Hyatt Regency Chicago holds a position for a recycling manager. The Colony Hotel in Maine has a position of a recycling chief to oversee their recycling department and positions of director of environmental programs and manager of environmental operations to research, develop and implement environmental programs (Enz and Sigauw, 1999).

Table 6.5 shows that overall, 51.7% of hotels and lodges in the study provide environmental training to staff. In Ghana, Mensah (2006) found that 83% of hotels offer environmental training to staff. Education and training are imperative in the successful implementation of environmental programs (Morrow and Rondinelli, 2002; Tang, *et al.,* 2012; Rondinelli and Vastag, 2000). Figure 6.12 portrays staff environmental training in major departments within the hotel and illustrates that the highest proportion of staff training took place in the housekeeping department (80%) followed by the food and beverage department (75%) and the food production department and maintenance departments (66.7%). The security department received the lowest level of staff training (43.3%). The housekeeping department in a hotel is associated with high consumption of water and energy and the generation of solid waste. Furthermore, Table 3.3 indicates that kitchens (food and beverage department) are considered as energy intensive areas in a hotel (Bohdanowicz *et al.,* 2012). Kitchens produce vast amounts of organic waste which needs to be effectively managed. Therefore, environmental training within this department is vital.
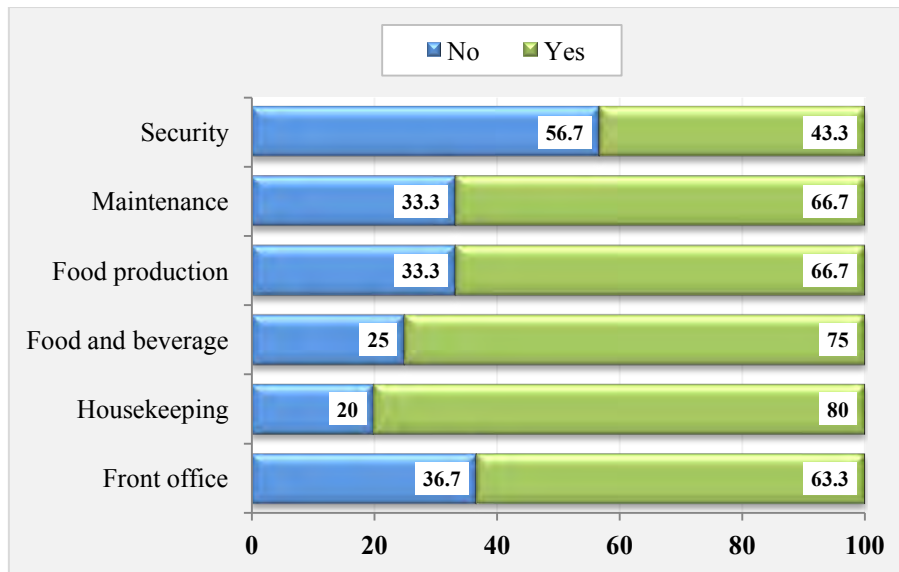
Figure 6.12: Employees that received environmental training in past 12 months per department (n=60)

Tsogo Sun is committed to education and development and in 2010, 95% of its permanent employees received environmental training. The Tsogo Sun Waterfront hotel is involved in a food waste composting enterprise and ongoing training on waste reduction and recycling is given to the entire hotel team (Tsogo Sun, 2011a). The hotel also launched an environmental awareness education program to educate managers on sustainable practices. This knowledge is then passed on from the managers to all employees at hotels. Also, at Sun Internationals Boardwalk Casino and Entertainment World, approximately 421 staff have completed the Kundiza Environmental Training Program (Sun International, n.d.). The Western Cape Provincial Department of Environmental Affairs and Development Planning also announced a plan to train employees to reduce the hotel‟s carbon footprint and targeted 1 000 staff by 2011 (Alfreds, 2010).

Chan and Hawkins (2010; 2012) maintain that environmental plans are more effective when employees are treated as major stakeholders. In order to support the growth of quality tourism development and effective environmental management, adequate environmental education and training of tourism personnel is essential. Some hotels may not give priority to environmental training as they perceive it to be time-consuming, boring and wasteful to employees. For example, employees received very little training on environmental practices at the ABC Hotel in Hong Kong, and had to obtain their environmental knowledge from external sources (Chan and Hawkins, 2010). Correspondingly, a study of hotels in Central Antolia indicate that majority of accommodation establishments did not provide any

environmental education activities for their employees and guests (Erdogan and Tosun, 2009). It was found that only 15% of hotels in Ankara, Turkey provided environmental education to staff (Erdogan and Baris, 2007) whereas Hsieh (2012) observed that 38% of hotels provided environmental education for employees.

Table 6.5 shows that only 13.3% of hotels and lodges reward employees for their environmental efforts. According to Bohdanowicz *et al*. (2011), environmental policy should specify environmental how staff will be rewarded for their environmental actions. Environmental actions must be evaluated through a control system and a reward system must be put into place. Offering incentives to staff and guests also help motivate environmental behavior. Findings of a study on attitudes towards EMS in the ABC Hotel in Hong Kong demonstrate that hotel employees anticipated some form of reward for their environmental activities as they believed their environmental practices contribute to the hotels financial savings (Chan and Hawkins, 2010). Each month at the Sun City resort an environmental award called the Sun City Eco Warrior Award is awarded to staff members "whom have gone the extra mile for the environment" (Sun International, 2011b:18). The winners receive a badge to be worn and stand a chance of obtaining the Eco Warrior of the Year Award at the annual Sun City Achievers Award ceremony. Sun City also awards the floating Green Team trophy each month to the Green Team that showed the most passion for managing the environment (Sun International, 2011b).

6.3.4.3 Guest involvement in environmental management

Influencing the environmental behavior of guests is an important aspect of environmental management. Hotels and lodges can use newspapers, posters, flyers or annual reports to provide environmental information to guests and the general public. According to Table 6.5, 60% of hotels and lodges educate guests on environmentally-friendly practices whilst only 36.7% of hotels and lodges obtain guests" opinion on environmental issues. These findings are congruent with the situation in Ghana where 67% of hotels were found to have educated guests on environmental issues (Mensah, 2006). Knowles *et al.* (1999) found that 50% of the hotels in London brought environmental issues to the attention of hotel guests and more than 70% of hotels in the Red Sea considered flyers as an important means to communicate and enhance environmental awareness (Kattara and Zeid, 2002). However, in hotels in Ankara, Turkey only 27% of hotels provided environmental educational material to guests (Erdogan

and Baris, 2007) and accommodation establishments in the Lake District National Park in England did not make guests aware of environmental issues. Erdogan and Tosun (2009) assert that hotels in Central Antolia did not communicate any environmental awareness to guests.

The Drakensberg Lifestyle Resort informs guests of its environmental plan through the use of its EARTH books (Tsogo Sun, 2012). The Sun City resort creates awareness by allocating green themes to the international and environmental calendar. Activities and events are organized around these themes and are facilitated by the resort"s green teams. Such events are attended by both guests and employees. Guest are encouraged to participate through communication via general manager letters, stickers and posters. Staff communication of green activities is done through noticeboards, banners and posters, videos, meetings, emails and newsletters (Sun International, 2011a). Guests" opinions on environmental issues are considered integral in the implementation of EMSs. A stakeholder in the study stated:

> *Hotels are a very strategic platform for educating people (their patrons) and can play a great role in enlightening them about environmental issues, actively or passively.*

Overall, hotels and lodges with a higher star grading have facilities that consume larger quantities of natural resources. The high consumption of water and energy by upscale hotels has commands a higher involvement in environmental actions. A number of studies indicate that higher quality establishments have a higher environmental performance (Alvarez *et al.,* 2001; Bohdanowicz, 2005; Buckley and Araujo, 1997; Erdogan and Baris, 2007; Kasim, 2009). The findings presented in Table 6.6 concur with this view and indicates that 1 star and 2 star hotels and lodges show minimal evidence of environmental management. Environmental practices such as monitoring and recording of environmental performance, setting environmental standards for suppliers, publishing environmental information in public reports and being affiliated with environmental certification schemes are non-existent in 1 star and 2 star hotels and lodges. All 2 star hotels and lodges further confirm an absence of a documented environmental policy, an EMS, an environmental officer and environmental information sharing with guests and stakeholders. Similarly, in a study of hotels in Ghana, Mensah (2006) found that budget hotels had a far lower (5%) involvement in environmental practices compared to 3-5 star hotels (42%). However, Brace (2007:14) argues that "there is

still so much more that hotels, especially at the luxury end, can do as luxury hotels are the great sinners when it comes to the environment".

As indicated earlier in this Chapter, 3 star, 4 star and 5 star hotels and lodges showed the greatest participation in environmental initiatives in the study. Three star hotels and lodges indicated the highest involvement in the following environmental practices: a documented environmental policy (40.7%), an environmental officer (51.9%), obtaining guests" opinions on environmental issues (51.9%), publishing environmental information in public reports (60%) and membership of environmental certification schemes (29.6%). Four star hotels and lodges in the study surpassed all other category of hotels and lodges in the monitoring and recording environmental performance (55%). Five star hotels and lodges displayed high environmental commitment merely in terms of having an environmental action plan in place (75%) and setting environmental standards for suppliers (50%). Communicating environmental information to guests and stakeholders was a practice undertaken by majority (75%) of 4 star and 5 star hotels and lodges. The study also revealed that 3 to 5 star hotels and lodges were more inclined to give preference to environmentally-friendly products, educate guests on environmentally-friendly practices and set environmental standards for suppliers.

Table 6.6: Hotels' and lodges' environmental practices by hotel chain

Environmental Practices	Independent hotels and lodges (n=42)	Chain hotels and lodges (n=18)	Total (n=60)
Hotel has a documented environmental policy			
Yes	16.7	55.6	28.3
No	83.3	44.4	71.7
Total	**100**	**100**	**100**
Hotel has an environmental officer			
Yes	23.8	66.7	36.7
No	76.2	33.3	63.3
Total	**100**	**100**	**100**
Hotel has an EMS in place			
Yes	26.2	38.9	30.0
No	73.8	61.1	70.0
Total	**100**	**100**	**100**
Hotel has environmental accreditations			
Yes	21.4	38.9	26.7
No	78.6	61.1	73.3
Total	**100**	**100**	**100**
Hotel monitors and records environmental			

performance			
Yes	35.7	55.6	41.7
No	64.3	44.4	58.3
Total	**100**	**100**	**100**
Hotel provides environmental education to staff			
Yes	59.5	72.2	63.3
No	40.5	27.8	36.7
Total	**100**	**100**	**100**
Hotel encourages all employees to get involved in environmental practices			
Yes	78.6	83.3	80
No	21.4	16.7	20
Total	**100**	**100**	**100**
Hotels and lodges reward employees for their environmental performance			
Yes	7.1	27.8	13.3
No	92.9	72.2	86.7
Total	**100**	**100**	**100**
Hotel visibly communicates environmental efforts to guests and shareholders			
Yes	59.5	66.7	61.7
No	40.5	33.3	38.3
Total	**100**	**100**	**100**
Hotel gets guest opinion on environmental issues			
Yes	33.3	44.4	36.7
No	66.7	55.6	63.3
Total	**100**	**100**	**100**
Hotel communicates with customers and informs them on environmental issues			
Yes	38.1	55.6	43.3
No	61.9	44.4	56.7
Total	**100**	**100**	**100**
Hotel educates guests on environmentally-friendly practices			
Yes	57.1	66.7	60
No	42.9	33.3	40
Total	**100**	**100**	**100**
Hotel has a green purchasing policy			
Yes	21.4	38.9	26.7
No	78.6	61.1	73.3
Total	**100**	**100**	**100**
Hotel publishes environmental information in public reports			
Yes	9.5	33.3	16.7
No	90.5	66.7	93.3
Total	**100**	**100**	**100**
Hotel has environmental certification schemes			
Yes	11.9	33.3	18.3
No	88.1	66.7	81.7
Total	**100**	**100**	**100**

According to Bohdanowicz (2006) and Rahman *et al*. (2012), chain hotels are more likely to adopt environmental practices as they generally have the resources to do so. Other researchers have correspondingly noted that whilst independent hotels may engage in environmental programs, only larger establishments have been found to be at the forefront in environmental management (Alverez *et al.,* 2001; Kasim, 2004; Kasim, 2009; Mensah, 2006). This may be attributed to the need for chain hotels and lodges to establish and project a good corporate image. Similar findings were found in the study as illustrated in Table 6.6. Evidently hotels and lodges that belonged to a chain demonstrated a higher involvement in all environmental management practices. Activities and initiatives where chain hotels and lodges far exceeded participation compared to non-chain hotels and lodges were: documented environmental policy, environmental officer, monitors and records environmental performance, rewards employees for their environmental commitment, and publishes environmental information in public reports. The most encouraging environmental practice undertaken by 78.6% of independent hotels and lodges in this study was encouraging all employees to get involved in environmental management.
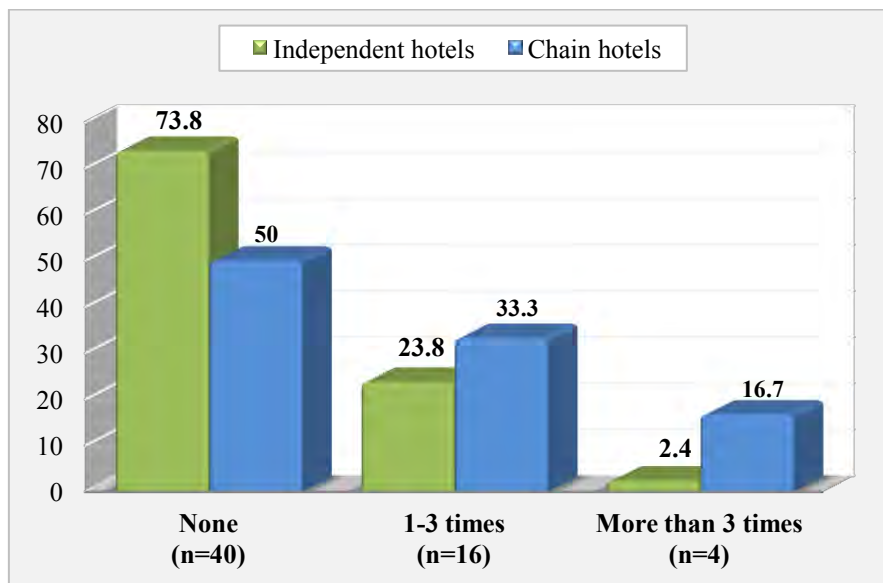
Figure 6.13: Number of times hotel has undertaken an external environmental audit by hotel chain

6.3.4.4 Energy management practices in hotels and lodges

Research undertaken by Becken *et al.* (2003); Gossling *et al.* (2004) and Chung and Parker (2010) indicate that hotels are associated with the largest energy use compared to all other accommodation establishments. Heating, cooling and lighting account for the largest portion of energy consumption in hotels. Hotels in the Mediterranean were found to have high energy consumption due to a high demand for cooling (Bohdanowicz and Martinac, 2007). Energy consumption in hotels is affected by a number of factors: size and luxury level of the hotel, climatic conditions, location, guest profiles, types and number of services and activities and age and condition of existing energy systems. Graci and Dodds (2008) argue that it is possible to reduce energy usage in a hotel by 20-40% without compromising the functionality of the hotel. The concept of low-carbon tourism emerged at the World Economic Forum „*Go to Lo-carbon Travel and Tourism Industry"* in 2009 and focuses on low carbon emission and less pollution in the transportation, accommodation, sightseeing and entertainment sectors of the tourism industry (Tang *et al.,* 2011).

Table 6.7: Energy management practices by hotel star grading

Environmental Practices	1 star (n=5)	2 star (n=4)	3 star (n=27)	4 star (n=20)	5 star (n=4)	Total (n=60)
Hotel uses solar energy						
Yes	40	50	18.5	10	50	21.7
No	60	50	81.5	90	50	78.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel uses key cards in guest room						
Yes	0	75	37	5	0	23.3
No	100	25	63	95	100	76.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has an energy management policy						
Yes	20	25	48.1	60	75	50
No	80	75	51.9	40	25	50
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel uses energy saving light bulbs						
Yes	100	100	96.3	100	100	98.3
No	0	0	3.7	0	0	1.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has an energy management policy						
Yes	20	25	48.1	60	75	50
No	80	75	51.9	40	25	50
Total	**100**	**100**	**100**	**100**	**100**	**100**

Lighting is the second largest energy-consuming system in a hotel (Alexander, 2002) and therefore is a common area of energy saving potential. Table 6.7 shows that the most common energy saving practices undertaken by majority of the hotels and lodges (98.3%) in the study was the use of energy-saving light-bulbs. In research conducted by Edorgan and Tosun (2009), Min (2011), Min (2001) and Tang *et al.* (2012), energy efficient lighting was also cited as the most common energy-saving method in hotels. In 2006, the Breakers Palm Beach Resort in Florida installed 10 000 energy efficient light bulbs in 560 rooms (Richins and Scarinci, 2009). In the Corfu Island, Greece, 79% of hotel managers reported installing energy-saving lamps (Nikolaou *et al.,* 2012). Bohdanowicz *et al.* (2001) claim that the payback period for installing energy-saving lighting equipment is typically less than three years. For example, the Sheraton Tacoma Hotel installed 2 000 compact fluorescent light bulbs which resulted in a cost saving of US$15 000 and a payback period of 18 months (Alexander, 2002). However, research undertaken by Ali *et al*. (2008) show that only 8.5% of hotels in Jordan have installed energy-saving light bulbs and 54% of these hotel managers were willing to change to energy-saving light bulbs.

In South Africa, over 17 000 energy-saving lights have been installed at the Hilton Sandton, Hilton Durban and Hilton Cape Town. This initiative is expected to reduce energy use by more than 2 600 000 kWh per year and a reduction of approximately 2 700 tonnes of CO_2 annually (Alternative Energy Africa, n.d.). According to Carnie (2011), South Africa'' energy minister announced at the 17th Conference of the Parties of the UN Framework Convention on Climate Change (COP17) that South Africa hopes to be the first country in Africa to phase out and eventually ban all high energy consuming light bulbs by 2016. This phasing out project forms part of a partnership between the UNEP and the Phillips and Osram lighting groups.

Solar power is a limitless natural resource and generates huge economic and environmental benefits. A common method of harnessing solar power is through the use of photovoltaic panels. Tang *et al*. (2011) advise that hotels should take full advantage of solar energy. However, only 21.7% of hotels and lodges in the study claimed to use solar power as an alternate source of energy. Similar findings were made by Mensah (2006) where only 8% of hotels in Ghana had installed a solar hot water heating system and Bohdanowicz and Matinac (2007) found that very few hotels in the Mediterranean used solar energy. Also, hotels in Central Antalio declined to use solar panels as they considered these to be rather expensive

(Edorgan and Tosun, 2009) and hoteliers are not convinced that they are a viable investment. However, one hotel manager in the study stated:

> *In relocating the laundry in-house we took the opportunity of introducing solar energy to provide all our hot water needs. Initial results are spectacular as one solar panel is providing all our hot water needs and our five treatment rooms at our spa. One unexpected benefit is that by feeding (free) hot water directly into the washing machine, we have halved the washing cycle, saving electricity and water in the process. Further use of solar power for other areas on the property such as heat pump technology will be implemented in the coming months.*

Cheung and Fan (2013) argue that a relatively large investment in solar-based renewable energy is required and the payback period is usually more than five years. However, Nikolaou *et al.* (2012) found that just over half the hotels in Corfu Island, Greece, installed water solar heaters. In Istanbul, Turkey, an investment in 40 solar panels was found to have a payback period of two years. More than 135 Accor hotels around the world are equipped with solar panels to produce hotel water (Accor, n.d.). According to Graci and Dodds (2008), the Comfort Inn and Suites, Alberta have installed a roof-based solar energy system, at a cost of $1.4 million which heats and cools the hotel and also converts waste energy from the hotel's other systems. This system stores energy and enables the hotel to operate for about two weeks without sun. Proximity Hotel in North Carolina was the first hotel in the US to achieve the Leadership in Energy and Design (LEED) Platinum status. LEED is a voluntary certification of green buildings and is established in 135 countries. The Proximity hotel uses 39% less energy than a similar hotel and 60% of the hotel's water heating is obtained from thermal panels on the roof (Persic-Zivadinov, 2010). More than 50% of the electricity is produced from solar energy at the Aurum Lodge in Canada (Alexander, 2002) and at the St Julians, Malta, 25% of the resorts energy is derived from their solar energy system (Bader, 2005).

South Africa receives intense solar radiation throughout the year (Donev *et al.,* 2012) and is "endowed with renewable energy resources" (Pegels, 2010:4952). South Africa ranks amongst the world's 20 biggest GHG emitters (Department of Environmental Affairs, 2011). According to the World Wildlife Fund of South Africa (WWF-SA) (2012), it is disappointing to note that South Africa has only deployed 220 000 solar water heater systems instead of the intended one million and "so far the potential for solar energy use as an alternative to fossil fuels remains largely underutilized" (Donev *et al.,* 2012:3003). The WWF-SA (2012) also

expressed concern that the President''s State of the Nation address did not adequately reflect the transformation into a green economy and associated investments and infrastructure for a low-carbon economy. The solar and wind energy industries in South Africa have also targeted the creation of 50 000 green jobs by 2020 (Independent Online (IOL) Scitech, 2011). The Green Economy Accord was signed at South Africa''s National Parliament on the 17 November 2011. Some of the commitments of South Africa''s Green Economy Accord include: the installation of one million solar water-heating systems in the country by 2014, government to acquire 3 725 megawatts of renewable energy by 2016; a „roof top" program to install 300 000 solar PV power generation units by 2020; a regulatory environment for the biofuels industry; and review of rails system and provision of mass transportation systems to reduce the use of private cars (South African Government Information, 2011). The South African Renewables Initiative (SARi) aims to support the development of large-scale renewable energy in South Africa (WWF, 2012a). Additionally the South African Low Carbon Action Plan provides a framework and the relevant tools for a low carbon economy (WWF, 2011). Donev *et al.* (2012) argue that solar water heating is well developed in countries where government has provided the relevant incentives and policies.

According to Table 6.7, only 23% of hotels and lodges in the study use key-card energy control systems in guestrooms. Likewise, a large proportion of hotels in Turkey claimed that they did not have key-card lighting controls in their hotels (Erdogan and Tosun, 2009). Conflicting results were obtained in the hotel sector in Ankara, Turkey (Erdogan and Baris, 2007) and in Greece (Nikolaou *et al.,* 2012) where more than 80% of hotels and lodges reported having energy-saving control systems and key-card systems in rooms. The Holiday Inn in Northern Vancouver installed a room energy management system with occupancy sensors. This system reduced 28% of its energy consumption with a cost saving of USD$16 000 annually (Graci and Dodds, 2008). A fairly large proportion of hotels and lodges in the study (82%) review their utility bills to monitor energy consumption. In a study of hotels in the Red Sea, 83% of managers confirmed that reviewing utility bills and keeping a file of all utility charges was an important practice to monitor resource consumption (Kattara and Zeid, 2002). The study reveals that 82% of hotels in the study use energy-efficient appliances. Similarly, 83% of hotels in Ghana used energy-efficient appliances (Mensah, 2006) and Leslie (2001) found an increase in energy-efficient equipment with the replacement of older equipment.

A number of hotels in Taiwan use heat pump systems to generate air conditioning and hot water (Tang *et al.,* 2011). Ali *et al*. (2008) also found that 93% of hotels in Jordan were maximizing their use of natural light. The Hilton Worldwide Global Sustainability Initiative aims to reduce energy consumptions and CO_2 emissions by 20% and water consumption by 10% by 2014 (Bohdanowicz *et al.,* 2011). According to TKZN (2007), owners of the Table Bay Hotel in Cape Town, the Palace of the Lost City at Sun City and the Pezula Resort Hotel in Knysna have initiated a carbon neutral program called Leading Green. For every online guest booking made, these companies donate R3.50 to the Sustainable Travel International, a non-profit organization. Fairmont Hotels and Resorts have also shown an ongoing commitment to energy conservation. At the Fairmont Chateau Lake Louise in Canada, 50% of the establishments energy needs is derived from wind and run-of-river electricity generation. Sun City, a Sun International resort was also able to decrease its energy consumption by 32.1% in 2010/11 (Sun International, 2011b).

The Living Planet Report indicates that the biggest challenge for South Africa is to offset carbon emissions as the countries heavily depends on fossils fuels and the burning of coal for electricity (WWF-SA, 2012). South Africa has the fourth largest carbon footprint in Africa (Etheridge, 2012). According to the Global Environmental Performance Index 2012, South Africa is "the biggest emitters of GHGs in Africa, the biggest polluters on the continent and rank number 11 in the world when it comes to pollution" (Rondganger, 2012:1). WWF-SA (2010a:1) states that "South Africa now faces real threats to its food, water and energy security, but also has an unsurpassed opportunity to forge a green, low-carbon economy". Therefore South Africa‟s vision for 2015 is a „Low Carbon and Climate Resilient Tourism Sector‟ and the NDT together with Eskom conducted nine provincial roadshows to create awareness on energy saving (NDT, 2011b). Part of the South African government‟s New Growth Plan also focuses on the reduction of emissions through renewable energy, green transport and the built environment (IOL Scitech, 2011). Furthermore, a revised policy on a carbon tax for South Africa will be published in 2012 for a second round of public comment (WWF, 2012a). This is seen as a positive contribution by government in addressing climate change. "A carbon tax is a way of putting a price on GHGs so that the market activities responsible for emissions take into consideration the external costs of their actions" and this will encourage more efficient use of natural resources (WWF, 2012a:10). The carbon tax is based on the „polluter-pays‟ principle where those responsible for polluting pay for the

damage to the natural environment and this moves shows South Africa"s commitment to a low-carbon economy. However, Bond (2012:2) states:

> *It is well and good to protect nature through imposing a prohibitive fine and ban on those who pollute, or demanding and "ecological debt" repayment from companies and governments that take too much of the shrinking carbon space left in the environment. It is another thing, however, to treat nature as "capital" for which a fee for use is offered by deep-pocket polluters to continue business as usual.*

The WWF-SA (2010b:1) also encourages that South Africa generates 50% of its energy from renewable resources by 2030. South Africa"s New Growth Path estimates that at least one third of new electricity will come from renewable resources in the coming decades (IOL Scitech, 2011). Furthermore, the Green Economy Accord for South Africa was signed at COP17 in November 2011. The plan aims to move the country towards lower carbon intensity while increasing jobs and industrial development (Johns, 2011). According to South African Government Information (2011), the Green Economy Accord contains the following commitments:

- Government will secure 3 725 megawatts of renewable energy for the national grid by 2016,

- The solar and wind energy industries will develop a „roof-top" program to install 300 000 solar PV power generation units for residential, commercial and industrial buildings by 2020 and in so doing will create 50 00 green jobs,

- Government will also support the installation of one million solar water heating systems by 2014,

- The state-owned Industrial Development Corporation will provide up to R25 billion (over US$3 billion) for investments in green economy activities over the next five years, and

- Business will work to improve the environmental performance of existing production facilities and will develop benchmarks for energy efficiency.

Due to the high carbon footprint of many countries including South Africa, it is encouraging to note that government is actively engaging in the conservation of energy resources. This study reveals that energy management is one of the most actively promoted environmental initiative by both government and the private sector.

According to Table 6.7, the use of solar energy was largely evident in 1 star (40%), 2 star (50%) and 5 star (50%) hotels and lodges. Only 18.5% of 3 star hotels and lodges and 10% of 4 star hotels and lodges made use of solar energy. Seventy five percent of 2 star hotels and lodges used key cards in guestrooms whilst this practice was non-existent in 1 star and 5 star hotels and lodges. A larger proportion of higher graded hotels and lodges (more than 48%) had an energy management policy in place. The use of energy-saving lights was a common practice for all star-graded categories of hotels and lodges in the study. Nikolaou *et al.* (2012) found that 80% of managers in 5 star hotels and lodges, 57.2% of managers in 4 star hotels and lodges and 39.7% of managers in 3 star hotels and lodges have adopted the key card systems. Opposing results have been found in this study where the key card system was found to be in place for 75% of 2 star hotels and lodges and 37% of 3 star hotels and lodges. Only 5% of 4 star hotels and lodges had key card systems in place, and the absence of key card systems was reported in 1 star and 5 star hotels and lodges.

Table 6.8 displays the energy management practices undertaken by chain hotels and lodges and independent hotels and lodges in the study. The presence of an energy management policy, energy saver control systems in guestrooms, and key card systems in guestrooms is significantly higher in chain hotels and lodges compared to independent hotels and lodges. The reviewing and monitoring of energy bills is carried out by the majority of both hotel categories. This is possibly due to the fact that this practice does not entail the need for additional human and financial resources and is considered as an effective, yet inexpensive, environmental practice. Although chain hotels and lodges have shown a greater involvement in environmental actions, the use of solar energy and alternative energy sources is practiced significantly more for independent hotels and lodges than chain hotels and lodges.

Table 6.8: Energy management practices by hotel chain

Environmental Practices	Independent hotels and lodges (n=42)	Chain hotels and lodges(n=18)	Total (n=60)
Hotel has an energy management policy			
Yes	40.5	72.2	50
No	59.5	27.8	50
Total	**100**	**100**	**100**
Hotel uses solar energy			
Yes	26.2	11.1	21.7
No	73.8	88.9	78.3
Total	**100**	**100**	**100**
Hotel uses key cards in guestrooms			
Yes	16.7	38.9	23.3
No	83.3	61.1	76.7
Total	**100**	**100**	**100**
Hotel reviews energy bills			
Yes	81.0	83.3	81.7
No	18.9	16.7	18.3
Total	**100**	**100**	**100**
Hotel uses alternative energy sources			
Yes	54.8	27.8	46.7
No	45.2	72.2	53.3
Total	**100**	**100**	**100**

6.3.4.5 Waste management practices

Tsogo Sun (n.d.) have highlighted the following interesting environmental facts on waste:

- Recycling 1 ton of paper saves 17 mature trees, 26 597 liters of water and 4000 kilowatt hours of electricity.

- Enough plastic is produced in the US each year to shrink-wrap half of South Africa.

- Enough plastic bottles are thrown away each year to circle the earth 4 times.

Table 6.9: Waste management practices by hotels and lodges (n=60)

Waste management activity	Yes	No
Hotel and lodge reduces packaging by purchasing in bulk	83.1	16.9
Hotel and lodge uses environmentally-friendly cleaners and detergents	78.3	21.7
Hotel and lodge uses recycled paper	68.3	31.7
Hotel and lodge practices solid waste separation	66.7	33.3
Hotel and lodge implements recycling programs	66.7	33.3
Hotel and lodge has a program to minimize waste	61.7	33.3
Hotel and lodge purchases materials with recyclable properties	60.0	40.0
Hotel and lodge installs recycle bins to encourage recycling	58.3	41.7
Hotel and lodge installs soap and shampoo dispensers	56.7	43.3
Hotel and lodge composts organic and food waste	45.0	55.0

Table 6.9 shows that 83% of hotels and lodges in the study purchased goods in bulk to reduce the generation of packaging waste. Sixty six percent of hotels in Ghana purchased in bulk to reduce packaging (Mensah, 2006). More than half of the hotels in Poland and Sweden purchased in bulk to reduce the amount the packaging waste (Bohdanowicz, 2006). According to Radwan *et al.* (2012), waste management should start at the point of purchasing, and green purchasing reduces waste at the source. Buying in bulk avoids unnecessary packaging. Bohandowicz and Martinac (2003) and Bohdanowicz (2005) claim that a hotel guest usually produces 1 kg of solid waste per day and approximately 60% of this waste is recyclable and re-usable. Table 6.8 shows that more that 65% of hotels and lodges in the study engage in recycling activities. In terms of recycling efforts, one hotel manager in this study stated:

Regular refuse separation and removal of organic waste is used for compost to grow own herbs and vegetables, tags off tins are collected for a Wheelchair donation project; glass and cans removed to recycling plant. Recycled glasses are used in lodges, Green Glass from cut bottles at Bush Camp, and melted glass blown in Swaziland (Ngwenya Glass) at Safari Lodge.

The Fairmont Hotels and Resorts have been active in waste management programs. The Fairmont Chateau Lake Louise in Canada has purchased a biodiesel refinery unit and converts unusable oil products from the kitchens into biodiesel. The biodiesel provides fuel to two shuttle buses that are used on the property. This initiative enables the hotel to recycle 130 000 kg of used cooking oil each year (Fairmont Hotels and Resorts, n.d.). The Hyatt Regency

Chicago has a fully staffed recycling department that sorts tons of waste each year and recycles paper products. Through their effective recycling program the hotel was able to recycle 1 400 tons of cardboard, 896 tons of glass, 630 tons of newspaper, 329 tons of magazines and 33 tons of aluminum cans (Enz and Siguaw, 1999). In 2009, the Langham Place Hotel Mongkok Hong Kong recovered approximately 77 tonnes of waste paper for recycling which prevented the release of 370 tonnes of CO_2 emissions (Cheung and Fan, 2013). Hilton Worldwide has invested in the Global Soap Project, which is a non-profit organization that collects and recycles leftover soap from hotels. The project began in 2009 and processes and remolds the soap into bars and distributes them to developing countries that are faced with hygiene and sanitation challenges. Since commencement, the project has dispensed 25 tons of soap to poor communities in 20 countries.

In South Africa, the Sun City resort also converts a large amount of unused cooking oil into biodiesel and since its inception, the resorts biodiesel plant has produced 1 874 liters of useful fuel (Sun International, 2011b). Sun International‟s Fish River Sun has a thorough waste recycling program in place. Part of this program entails the monthly input of waste statistics into the database. Waste statistics are recorderd according to the following categories: total waste, waste per day, waste per room, recycled waste per category, hazardous waste, non-recyclable waste, total recycled and percentage recycled (Sun International, n.d). According to the first Annual Plastics Recycling survey conducted by the South African Plastic Recycling Organization, there has been a 32% increase in the amount of plastics recycled between 2005 and 2009. This amounted to 165 772 tons of recycled plastic packaging. The study also indicates that there are approximately 220 plastics recycling manufacturers in South Africa which create 4800 direct jobs and 35 000 indirect jobs. The recycling of plastics in South Africa is therefore vital for employment creation, reduction of carbon footprints and the re-use of non-renewable resources (Business Report, 2011).

South Africa‟s Waste Act prescribes a number of tools for government to manage waste and includes both command and control and co-regulatory tools (Molewa, 2012). South Africa has made significant progress in the control of waste since 1994. The NEMA was formulated in 1998 and provided a legislative framework for the control of environmental waste. The National Waste Management Act in South Africa was passed in 2009 and laid the foundation for businesses to minimize their waste through recycling. One of the aims of this legislation is to move waste away from landfill sites and to direct it onto local and global recycling markets

instead (Business Report, 2012). The South African Waste Pickers Association was formed in 2009 for waste pickers at landfill sites and its membership has grown from 10 000 in 2009 to 25 000 in 2012 (Business Report, 2010). Currently there are approximately 88 000 South Africans that make a living from waste picking (Khuzwayo, 2011).

Hotels in Taiwan have adopted the „3R‟policy for waste management. This entails reducing, recycling and re-using waste materials such as paper, plastic, glass and waste oil in hotels (Tang, *et al.,* 2011). Similarly, research on environmental management performance on hotels in the Gold Coast region of Australia revealed that more than 70% of respondents separated recyclable materials (Buckley and Araujo, 1997). However, recycling firms are virtually nonexistent in Turkey (Erdogan and Tosun, 2009) and many hotels may consider recycling to be costly or they may lack the technology to perform such operations. Despite the increase in recycling practices by hotels, McKercher *et al.* (2010:313) caution that "recycling is a start, but it does not address the deeper issue of overconsumption in the first place" and Wolff (2005:27) argues that "all the recycling in the world will not do an ounce of good if we do not individually and collectively purchase products made from recycled-content material". Some hotel managers in the study also indicated that they are greatly reducing the use of paper and are switching to e-brochures.

Table 6.9 shows that organic and food waste is composted by 45% of hotels and lodges in the study. According to Meade and del Monaco (2000), organic waste comes primarily from kitchen and landscaping and comprises 50% of a hotel‟s solid waste which can be easily composted. Food waste forms a large proportion of waste generated by hotels and lodges and generally comes from over-preparation, Table scraps and cooking losses (Alexander, 2002). Composting is considered to be the best way to dispose of food waste (Radwan *et al.,* 2012) and Taylor (2011) also asserts that compost heaps are an excellent way to dispose of vegetable kitchen waste. The 11 acres of organic gardens at the Colony Hotel in Maine is fertilized by the composting of the hotels kitchen waste (Enz and Siguaw, 1999). The Tsogo Sun Waterfront in Cape Town, in conjunction with Food for Life has also embarked on a food waste composting project (Tsogo Sun, 2011a). Staff at the Mackaya Bella Guest House in KwaZulu-Natal recycle all organic material. Egg shells, fruit and vegetable peels and used ground coffee are placed in bins and filled with composting worms (Ord, 2011). The Mount Nelson Hotel in the Western Cape has a worm farm in place which converts food leftovers into compost which is used to fertilize the hotel‟s garden (Mount Nelson Hotel, n.d.).

Contradictory findings emerged from a similar study on hotels in Ankara Turkey where majority of hotels (92%) reported that they did not compost organic and food waste (Erdogan and Baris, 2007). Only 16% of hotels in Ghana composted food waste (Mensah, 2006). Although Radwan *et al.* (2012) note that there has been an increased implementation of composting by food service outlets, a number of hoteliers in Wales did not compost their organic waste as they did not know how to compost and often hotels may consider composting to be costly or they may lack the technology to perform such operations.

Waste sorting was carried out by 67% of hotels and lodges in the study. Likewise, the majority of hotels (80%) in Sweden have a waste-sorting program in place. At the Kingfisher Bay Resort and Village in Australia, waste is separated, compacted and sent to the mainland (Faulk, 2000). Research on environmental management performance on hotels in the Gold Coast region of Australia revealed that more than 70% of respondents separated recyclable materials (Buckley and Araujo, 1997). Conversely, only 31% of hotels in Poland have engaged in waste-sorting and recycling (Bohdanowicz, 2006) and waste separation is also the least applied practice in the Red Sea hotels (Kattara and Zeid, 2002). According to Graci and Dodds (2008), Radisson SAS hotels, in the absence of a waste-sorting program, reported their unsorted waste materials to be 3.1 kg per guest per night. Scandic Hotels on the other hand have an extensive waste management program in place and has reported an average of 0.5 kilograms of unsorted waste per guest per night. The Sun City resort successfully manages its waste through its separation at source (s@s) project which currently recycles 59.4% of the resort‟s waste (Sun International, 2011b).

This study reveals that 78% of star-graded hotels and lodges in KwaZulu-Natal use environmentally-friendly cleaners and detergents (Table 6.9). This is encouraging to note, as chemically-based cleaners and detergents are detrimental to the environment through contamination of water sources. In Dublin 50% chemical and laundry supplies were reduced by 50% (Bader, 2005) and 58% of hotels in Ghana used environmentally-friendly detergents (Mensah, 2006). Overall, a number of hotels worldwide have engaged in waste management practices. Medina (2009) asserts that over 2 million visitors stay in Bali‟s 1 000 hotels each year. The total waste generated per room is about 9 kg per day. A local NGO in Bali known as the Wisnu Foundation launched the Hotel Waste Management Program in 1995 to reduce the generation of hotel waste and pollution. The program included strategies such as new purchasing and consumption processes, the re-use of materials, recycling plastic, paper, glass

and metal, treating waste water on-site, and salvaging food waste for pigs and cows. Ten of Bali''s largest hotels entered into contracts with Wisnu. A monthly statement on how much waste was generated and the potion that was recycled and composted was provided to each hotel. The Protea Hotel Fire and Ice in Cape Town has put in place a purified water system in conference venues which will eventually prevent tons of plastic water bottles from reaching landfill sites.

However, waste management is not considered a priority for a number of hotels and lodges. Environmentally-sound waste management practices are simply non-existent in hotel in Central Antolia (Edorgan and Tosun, 2009). Kasim (2009) claimed that majority of hotels in Kuala Lumpur did not take measures against solid waste and waste water pollution. Similar findings were made by Irandu (2006) where 50% of hotel managers in Kenya indicated that they did not make use of wastewater at all. This is possibly attributed to the fact that facilities and equipment required to recycle waste water and solid waste is expensive (Kasim, 2009).

Table 6.10: Waste management practices by hotel star grading

Waste management practices	1 star (n=5)	2 star (n=4)	3 star (n=27)	4 star (n=20)	5 star (n=4)	Total (n=60)
Hotel uses recycled paper						
Yes	60	50	63	80	75	68.3
No	40	50	37	20	25	31.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel installs soap and shampoo dispensers						
Yes	40	50	55.6	70	25	56.7
No	60	50	44.4	30	75	43.3
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has a wastewater treatment in place						
Yes	0	0	18.5	45	25	25
No	100	100	81.5	55	75	75
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel composts organic and food waste						
Yes	40	25	33.3	55.0	100	45
No	60	75	66.7	45	0	55
Total	**100**	**100**	**100**	**100**	**100**	**100**

According to Table 6.10, the most common waste management practice undertaken by all hotels was the use of recycled paper, followed by the installation of soap and shampoo dispensers. Wastewater treatment facilities were not popular amongst hotel and lodges in the study. Four star hotels and lodges outperformed all other star-graded establishments in terms of waste management. More than half of all star-graded hotels and lodges indicated the use of recycled paper as a waste management practice with the largest being in 4 star (80%) and 5 star (75%) hotels and lodges. The installation of soap and shampoo dispensers was largely carried out by most four-star hotels and lodges (70%). A mere 25% of 5 star hotels and lodges installed soap and shampoo dispensers to reduce waste. None of the 1 star and 2 star hotels and lodges had a waste-water treatment in place. This may be attributed to the high costs associated with the purchase and installation of waste-water treatment facilities. Lack of knowledge on waste-water treatment may also be the reason for the non-existence of such facilities in hotels and lodges.

The findings indicated in Table 6.11 show that waste management activities is a common practice in both independent and chain hotels and lodges. Overall, similar proportions of waste management activities were found for both hotel groups. Waste separation was undertaken by 66.7% of independent and chain hotels and lodges. Recycled paper was utilized by 77.8% of chain hotels and lodges and 64.3% of independent hotels and lodges. A larger proportion (77.8%) of chain hotels and lodges implemented recycling programs compared to independent hotels and lodges (61.9%). Independent hotels and lodges indicate a higher involvement in the composting of organic food waste (50%), the installation of soap and shampoo dispensers (64.3%), and the installation of recycling bins (59.5%). The use of soap and shampoo dispensers may reduce the luxurious associated with 5 star hotels and lodges.

Table 6.11: Waste management practices by independent and chain hotels and lodges

Waste management practices	Independent hotels and lodges (n=42)	Chain hotels and lodges (n=18)	Total (n=60)
Hotel practices solid waste separation			
Yes	66.7	66.7	66.7
No	33.3	33.3	33.3
Total	**100**	**100**	**100**
Hotel uses recycled paper			
Yes	64.3	77.8	68.3
No	35.7	22.2	31.7
Total	**100**	**100**	**100**
Hotel compost organic and food waste			
Yes	50	33.3	45
No	50	66.7	55
Total	**100**	**100**	**100**
Hotel implements recycling programs			
Yes	61.9	77.8	66.7
No	38.1	22.2	33.3
Total	**100**	**100**	**100**
Hotel installs soap and shampoo dispenser to reduce waste			
Yes	64.3	38.9	56.7
No	35.7	61.1	43.3
Total	**100**	**100**	**100**
Hotel installs recycle bins to encourage recycling			
Yes	59.5	55.6	58.3
No	40.5	44.4	41.7
Total	**100**	**100**	**100**

6.3.4.6   Water management practices

Bodanowivz (2006) maintains that water consumption is influenced by the type, standard, size and service and facilities of a hotel. "South Africa is among the most water stressed nations in the world" (The Star, 7 March 2012:1) and the WWF-SA (2012) advises that attention be paid to infrastructure development in the water sector as majority of waste water plants in South Africa are falling short of their discharge standards and are polluting water sources. According to Pegels (2010:4946), "even without climate change, South Africa might utilize most of its surface water resources within a few decades". Black and King (2009) identified South Africa as one of the tourism countries that will be chronologically short of

water by 2050. Goodwin (2007) claims that tourists consume up to 300 liters (up to 880 liters for luxury tourism) and generate around 180 liters of wastewater per day. Sloan *et al*. (2009) and Tang *et al*. (2011) claim that the application of simple technologies can help reduce water usage at a minimal cost. More than 60% of hotels in Sweden are equipped with water-efficient devices in an effort to conserve water (Bohdanowicz, 2006).

Table 6.12: Water conservation practices of hotels and lodges (n=60)

Water conservation practices	Yes	No
Hotel and lodge implements a linen and towel re-use program	88.3	11.7
Hotel and lodge educates customers and staff on how to conserve water	78.0	22.0
Hotel and lodge chooses low maintenance landscaping plants to reduce water use	66.7	33.3
Hotel and lodge reviews utility bills to monitor water consumption	68.3	31.7
Hotel and lodge installs low-flow showerheads	63.3	36.7
Hotel and lodge implements water-efficient gardening programs	60.0	40.0
Hotel and lodge has dual-flush toilets	46.7	53.3
Hotel and lodge installs low-flow taps	40.0	60.0

Table 6.12 reveals that 88.3% of and in the study implement the linen and towel re-use program. Through this program, guests are given a choice about having their towels changed. Bohdanowicz and Martinac (2007) argue that in-house laundry facilities significantly increase resource consumption as one kilogram of laundry uses 2-3kWh of energy and 20 to 30 liters of water. According to Min (2011), an active linen and towel re-use program can save up to 160m³ of water per day. The towel-reuse program is also a well-established activity in most European countries as this saves water, energy and detergents (Bohdanowicz, 2006; Edorgan and Tosun, 2009). The majority of hotels in Ghana (Mensah, 2006), China (Min, 2011) and Taiwan (Tang *et al*., 2012) have a linen and towel re-use program in place. Through the *Conserving for Tomorrow* laundry scheme, Intercontinental Hotels Group saved 52.6 million gallons of water. The Accor Group of Hotels have implemented the Ozone Laundry System which washes laundry at a lower water temperature (reducing fuel or gas by 85-95%), minimizes water use and reduces chemical use (Brace, 2007). However, in a study of hotels in the Red Sea the least applied environmental practice was providing guests with the option to reuse linen and towels (Kattara and Zeid, 2002).

Landscaping can greatly reduce the water usage through measures such as include planting drought resistant plants and grass, use of irrigation systems with electronic controllers and moisture sensors, and the use of rain or greywater for irrigation. Table 6.11 reveals that 60% of hotels and lodges in the study practiced water efficient gardening. In the Croatian hotel sector, Persic-Zivadinov and Blazevic (2010) found that 72% of 4 and 5 star hotels and lodges and 15% of 2 and 3 star hotels and lodges designed water efficient landscapes by using native plants and irrigating at dawn and dusk. The Mackaya Bella guesthouse in KwaZulu-Natal is also actively engaging in "gardening without footprint" (Ord, 2011:1). The garden at the guesthouse is totally indigenous. In winter the vegetable garden does not require any water as it is mulched and covered with pieces of coconut husks that retain the moisture. At the Sun City Resort, 51% of the resorts landscaping water needs were met from the recycling of grey water (Sun International, 2011b). To avoid water evaporation from gardens, the Hyatt Regency in Scottsdale adapted its above-ground irrigation system to an underground system (Enz and Siquaw, 1999). In terms of water efficient gardening, 82% of Accor hotels use locally adapted plants and 53% use eco-friendly gardening products (Accor, n.d.).

Low flow showerheads are specialist shower heads which reduces the water used but retains the strength of the flow. According to Alonso and Ogle (2010), Deng and Burnett (2002) and Meade and del Monaco (2001), the most common water conservation measures used in hotels include the installation of low-flow showerheads, tap aerators and electronic sensors to control water usage. The study concludes that 63% of hotels and lodges in the study use low-flow showerheads and 40% use low-flow taps. However, Table 6.12 shows that only 25% of 5 star hotels and lodges in the study installed low-flow showers. This is possibly due to the fact that luxury hotels and lodges are hesitant to implement environmental measures as they fear this would negatively affect guest comfort and satisfaction as hotels usually "base their business on perceived opulence, luxury and grandeur (Graci and Dodds, 2008:254). Chan (2008:193) also indicates "some guests are also touchy about water pressure, and do not want hotels to use water-saving showerheads in guest bathrooms". The Holiday Inn on King in Toronto reported a saving of Canadian $14 852 per year by installing low flow showerheads and tap aerators (Graci, 2002). However, only 58% of 3-5 star hotels in Ghana installed low-flow shower-heads compared to 70% in budget hotels (Mensah, 2006).

One hotel manager in the study indicated:

Aside from light bulbs changed throughout the hotel, new eco-friendly showerheads have been installed in the bathrooms, saving the hotel a massive 50% in water consumption and energy bills each and every month. Not only do they save money, but the new showerheads offer guests a spa like experience second to none.

Reviewing and monitoring water bills is often a first step towards managing water consumption. Water bills give the necessary information and provide useful insights into how much water is used in the hotel. The study indicates that 68% of hotels and lodges in KwaZulu-Natal review their utility bills to monitor water consumption. Sandals Negril beach resort and spa, Jamaica has low flush toilets, aerators and low flow devices, water saving showerheads and through regular monitoring, in three years total water consumption reduced by 28.6%. In 1998, water consumption per room per night was 458 gallons and currently it is 356 gallons. However, more than 70% of hotels in Jamaica do not monitor their utility bills and simply paid for their electricity and water bills.

Table 6.12 shows that less than half of the hotels and lodges in the study (47%) have dual-flush toilets. This may be ascribed to the fact that dual-flush toilets are costly to install. Also, a number of hotels may have already had in place conventional toilets and will only possibly replace these with dual-flush toilets during revamping of hotels. Dual-flush toilets were installed by 25% of hotels in Ghana (Mensah, 2006) and by the majority of hotels in Taiwan (Tang *et al.,* 2012). Urinals and automatic flushing toilets are often criticized for consuming large volumes of water. For example, the THC Rotorua Hotel in New Zealand had urinals that flushed automatically every nine minutes regardless of whether it was used or not. Each flush uses 1 liter of water amounting to 1 580 liters of water per day. To overcome this, the hotel installed detectors that sensed when the urinals were used and allowed flushing at a specific time after use. This reduced water consumption from 66 liters per hour to 40 liters per hour (Alexander, 2002). Older toilets and urinals use 3 or more gallons of water per flush. New, more efficient toilets use 1.6 gallons of water or less per flush, and urinals use about 1 gallon of water per flush. The Renaissance Reading hotel in the UK installed waterless urinals and the new system saved the hotel 81 440 liters per urinal per annum. It was encouraging to note that 80% of hotels and lodges in the study educated customers and staff on how to conserve water. According to Bohdanowicz (2005), the Green Hotel Association reports that between 70-90% of guest participate in water conservation programs which relates to a saving of US$6.50 per day per occupied room.

Table 6.13: Water management practices by hotel star grading

Environmental Practices	1 star (n=5)	2 star (n=4)	3 star (n=27)	4 star (n=20)	5 star (n=4)	Total (n=60)
Hotel implements a linen and towel reuse program						
Yes	60	100	85.2	95	100	88.3
No	40	0	14.8	5	0	11.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel installs low flow shower heads						
Yes	60	50	74.1	60	25	63.3
No	40	50	25.9	40	75	36.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel installs low-flow taps						
Yes	0	50	48.1	40	25	40
No	100	50	51.9	60	75	60
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel educates customers and staff on how to conserve water						
Yes	80	75	77.8	75	100	78.3
No	20	25	22.2	25	0	21.7
Total	**100**	**100**	**100**	**100**	**100**	**100**
Hotel has dual-flush toilets						
Yes	0	25	37	70	75	46.7
No	100	75	63	30	25	53.3
Total	**100**	**100**	**100**	**100**	**100**	**100**

According to Table 6.13, all star graded hotel categories showed a high application of the linen and towel re-use program and in educating customers and staff in water conservation. In terms of having a water conservation program in place and the installation of dual-flush toilets 1 and 2 star hotels and lodges showed the least commitment compared to higher-graded establishments. None of the 1 star hotels and lodges had dual-flush toilets, low-flow taps and a water conservation program in place. This may be attributed to the fact that high-graded establishments have the human and financial resources to install such devices compared to establishments with a lower star grading.

Table 6.14: Water conservation practices by independent and chain hotels and lodges

Environmental Practices	Independent hotels and lodges (n=42)	Chain hotels and lodges (n=18)	Total (n=60)
Hotel has a water conservation program in place			
Yes	45.2	55.6	48.3
No	54.8	44.4	51.7
Total	**100**	**100**	**100**
Hotel implements a linen and towels reuse program			
Yes	85.7	94.4	88.3
No	14.3	5.6	11.7
Total	**100**	**100**	**100**
Hotel installs low-flow showerheads			
Yes	59.5	72.2	63.3
No	40.5	27.8	36.7
Total	**100**	**100**	**100**
Hotel installs low-flow taps			
Yes	38.1	44.4	40.0
No	61.9	55.6	60.0
Total	**100**	**100**	**100**
Hotel has dual-flush toilets			
Yes	47.6	44.4	46.7
No	52.4	55.6	53.3
Total	**100**	**100**	**100**
Hotel reviews utility bills to monitor water consumption			
Yes	61.9	83.3	68.3
No	38.1	16.7	31.7
Total	**100**	**100**	**100**

According to Table 6.14, apart from the installation of dual-flush toilets, chain hotels and lodges showed a higher involvement in all aspects of water conservation. A water conservation program was found to be in place for 55.6% of chain hotels and lodges and 45.2% of independent hotels and lodges whilst 94.4% of chain hotels and lodges had a linen and towel re-use program compared to 85.7% of independent hotels and lodges. A larger proportion (72.2%) of chain hotels and lodges installed low-flow showerheads compared to independent hotels and lodges (59.5%) and low-flow taps was found in 44.4% of chain hotels and lodges and 38.1% of independent hotels and lodges. The review of utility bills to monitor water consumption was undertaken largely by chain hotels and lodges (83.3%) than independent hotels and lodges (61.9%).

In a study of North American hotels, Rahman *et al.* (2012) found that chain hotels were more environmentally efficient than independent hotels in areas such as donating used furniture and appliances, using emails to reduce paper usage, use of green chemicals and cleaners, buying in bulk and re-using linen. They also provided guests with tips for water and energy saving to a greater extent than independent hotels. Chain hotels also tend to have a higher knowledge and greater awareness of environmental issues and often their head offices develop and enforce environmental legislation and provide their staff with environmental training.

> *In an independently owned hotel, the manager or owner generally enjoys considerable freedom to operate his or her facility. As a result, the extent to which the property is sensitive to environmental concerns depends on the operator"sknowledge, attitude, and willingness to act. Conversely, the environmental policies and initiatives implemented by chain-affiliated hotels are developed at the corporate level and maintained across the entire chain.*

(Rahman *et al*. 2012:721)

Hotel Energy Solutions (2011) argue that the hotelier"s attitude and knowledge is crucial in the implementation of environmental programs in independently managed hotels and independent hotels require more support than chain hotels to administer environmental programs. Furthermore, larger hotels and lodges tend to have more visible impacts of the environment, they have more experience in coping with the pressures of multiple stakeholders, and they have greater access to resources. For example, Gossling *et al.* (2012) argue that higher standard accommodation facilities tend to consume higher volumes of water.

Globally, a number of international hotel chains such as Fairmont, Four Seasons, Hilton, Intercontinental, and Marriott are substantially involved in sustainable environmental practices (Persic-Zivadinov and Blazevic, 2010). For example, in 2009, Hilton Worldwide initiated *Lightstay* which is a sustainability tracking system. Since the implementation of *Lightstay*, Hilton Worldwide has saved more than $74 million due to reductions in energy use, carbon input, waste output and water use (Alternative Energy Africa, n.d.). Moreover approximately 3 750 Hilton properties in 85 countries have earned the ISO 14001 environmental certification. The Accor Group has 4 200 hotels in 90 different countries and opened their environmental office in 1994 and embarked on the Earth Guest program that focused on people and the environment. Currently, 85% of their hotels have water flow

regulators and 82% have compact florescent lamps. Accor was also the first hotel group ever to undertake a study that looked at the Group's impacts on the environment in terms of energy, water consumption and contamination and waste (Accor, 2011).

6.3.5   Benefits of environmental management for hotels and lodges (n=60)
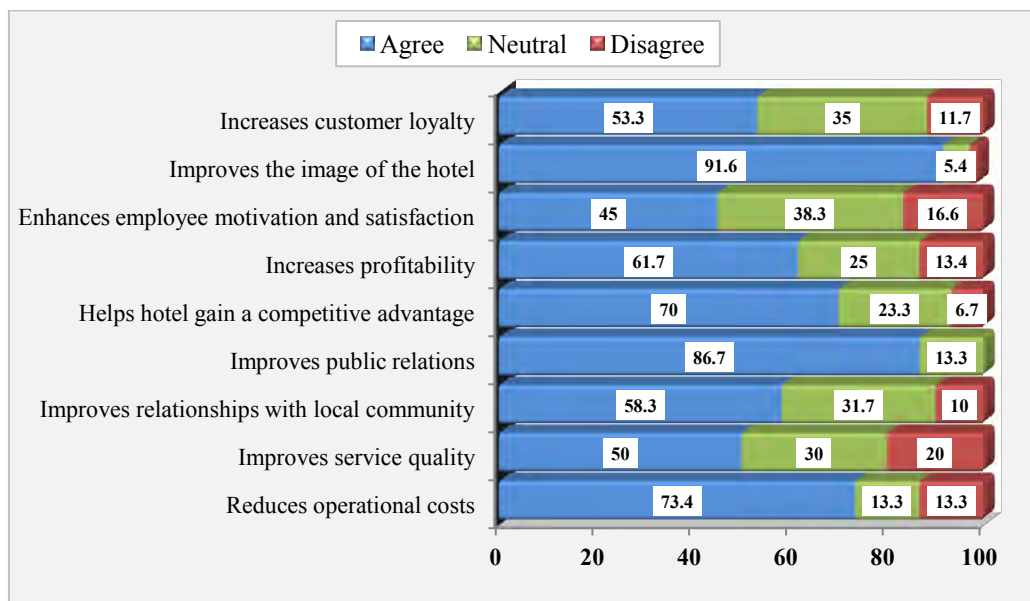
Figure 6.14: Perceived benefits of environmental management (n=60)

In terms of the benefits of environmental management, Figure 6.14 indicates that improving the image of the hotels and lodges was the most cited benefit (91.6%) of environmental management for hotel managers. This was followed by improving public relations (86.7%), reducing operational costs (73.4%), helping a hotel gain competitive advantage (70%), increasing profitability (61.7%), improves relationships with the local community (58.3%), improving customer loyalty (53.3%). Neutral responses in Figure 6.14 are probably due to a lack of knowledge on the question posed to the respondent. More than half of the hotels and lodges (53%) in the study viewed increasing customer loyalty as a benefit of environmental management. Similar studies showed contrary findings. Penny (2007) found that hotel managers disagreed that environmental performance increased customer loyalty. According to Kasim (2009), more than half of hotel managers of Kuala Lumpur hotels indicated that energy and water savings would not be appreciated by customers. Tzschentke *et al.* (2008:172) claim that this may be attributed to the drop in standards that guests may usually

associate with an environmentally-friendly establishment and the hotel''s fear of falling short of guest''s expectations:

> *Guests like to be pampered away from home. Hints of luxury such as fresh towels every day can be ways of fulfilling that need. Depriving the customer of such treats may detract from the overall experience. Disapproval of measures such as towel-reuse may be interpreted as reluctance on the part of customers to give up their „right'' to luxury.*

Han and Kim (2010:667) note that although green elements of a hotel may sometimes be offset for an inferior quality product or service, "green attributes in a hotel should not be seen as an alternative to quality of service". Empirical information demonstrates that environmentally-conscious customers are occasionally willing to do without a little convenience but are unwilling to continually sacrifice quality, luxury and conveniences (Diekmann and Preisendorfer, 2003; Kasim, 2004; Manaktola and Jauhari, 2007; Rahman *et al.,* 2012). Therefore, environmentally-friendly hotels and lodges have to maintain high levels of service quality in order to retain its customers (Han and Kim, 2010). Figure 6.14 shows that only half the hotels and lodges in the study stated that environmental management improves service quality in hotels and lodges. Michael Lambert, Chief Executive Officer of the Three Cities Group believes that it is possible for hotels to maintain their levels of luxury while reducing their environmental impact. He argues that excellent service and attention to detail are the key ingredients for luxury and these qualities have no impact on the environment. The Three Cities Gateway Hotel is a landmark green hotel and has been labeled as one of the greenest hotels in South Africa – and is most definitely not lacking in luxury finishes (Three Cities, 2011a). Customer loyalty is also linked to level of environmental awareness and Graci and Dodds (2008) believe that and consumer demand and loyalty only increases as their level of environmental awareness increases. Figure 6.18 correspondingly reveals that lack of consumer demand for environmentally-friendly products is not a barrier for majority of hotels and lodges in the study.

A good company images creates a competitive advantage and environmental actions also lead to increased competitiveness in hotels (Brown, 1994; Brown, 1996; Kirk, 1995; Essex and Hobson, 2001; Rivera, 2002). Improving the image of hotels and lodges was cited by 92% of managers in the study as the key benefit of environmental management. Also, 70% of hotels and lodges believed that environmental management gave their hotel a competitive advantage. According to a study undertaken by Penny (2007) on environmental management

in the Macao hotel sector, managers strongly believed that environmental management would bring about economic benefits and contribute to the hotel's brand image and competitiveness. Environmental performance of hotels is beneficial to the image of the company and its competitive advantage especially when faced with pressure from stakeholders (Gustin and Weaver, 1996; Wolfe and Shanklin, 2001). For example, in 1997 the Canadian government announced that it would only use the services of domestic hotels that had in place sound environmental management programs, thereby compelling the industry to become environmentally conscious (Graci and Dodds, 2008). However, Jarvis *et al.* (2010:85) note that due to claims of green-wash and consumer skepticism, "most ecolabels in tourism and hospitality are run as public relations exercises for funding bodies to show that they are doing their bit". A key informant from the industry sector claimed that often a mistake is made by describing a „green" hotel as an environmentally-friendly establishment. Being green or sustainable denotes economic viability, social inclusion and conservation of the natural environment.

The majority of hotels and lodges (73%) in the study (Figure 6.14) cited a reduction in operational costs as a key benefit of environmental management while 61.7% cited an increase in profitability as a benefit. Similar findings were made in a number of other studies (Bohanowicz and Martinac, 2003; Brown, 1994; Brown, 1996; Essex and Hobson, 2001; Kirk, 1998; Leslie, 2001, 2007; Rivera, 2002; Tzschentke *et al.*, 2008). This clearly indicates that environmental management in linked to profitability and the efficient use of resources can help reduce costs and increase profitability in a hotel. Cost savings can therefore be an incentive for hotel managers to engage in environmental practices. In a study of UK hotel environmental policies, Kirk (1995) found that hotels largely engaged in environmental practices to due financial rewards. Bohdanowicz *et al*. (2011) claim that the Hilton hotel group in Europe reduced its energy consumption by 6.7% which equated to a saving of US$3 million, whilst Liu and Sanhaji (2009) maintain that Marriott's energy saving program resulted in a cost saving of almost US$6 million. In 2006 the Fairmont Hotels and Resorts replaced 4 440 light bulbs with energy efficient florescent bulbs which achieved an annual cost saving of $61 000 (Fairmont Hotels and Resorts, n.d.). Cost savings and subsequent increase in profitability was similarly cited in other studies as the key motivation for environmental action (Ayuso, 2007; Brown, 1994; Kirk, 1995). There is also a widespread perception that adoption of environmental practices is relatively expensive. However, even though set up costs may be high for certain environmental initiatives, "the economic benefits

usually outweigh the cost of implementation" (Graci and Dodds, 2008:259). Stabler and Goodall (1997:24), however, cautions that a number of business"s environmental actions are not the result of environmental concern. Rather they are "cost-saving measures which happen to have environmental payoffs". Contrary to these findings, the ABC Hotel in Hong Kong implemented the ISO EMS out of genuine concern for environment, rather than for cost savings (Chan and Hawkins, 2010).

This study indicates that 45% of hotels and lodges believed that a benefit of environmental management was an enhancement of employee satisfaction. Often employees are not motivated to support environmental measures if customers did not demand such products. Often employees view environmental practices as an added responsibility with added tasks to their existing workload and may have difficulty in "balancing good good-quality service to hotel guests and the required environmental performance" (Chan and Hawkins, 2010:643). Furthermore, employees also require sufficient resources to undertake their environmental tasks and employee participation is vital for the achievement of environmental goals and environmental programs can motivate staff to work towards a common goal for the company. For example, Fairmont Hotels in 1998 formed „Green Teams" and offered rewards for environmental actions. One of their programs *„Seeing the Forest AND the Trees",* created friendly competition between the Green Teams. At the end of year, the top Green Team won a trip to the Caribbean for all ten team members. Employee suggestions also helped improve the program (Graci and Dodds, 2008). Also, 70% employees at the ABC Hotel in Hong Kong expressed the view that EMS instilled in them a stronger team spirit and improved their job satisfaction.

6.3.6 Barriers to environmental management
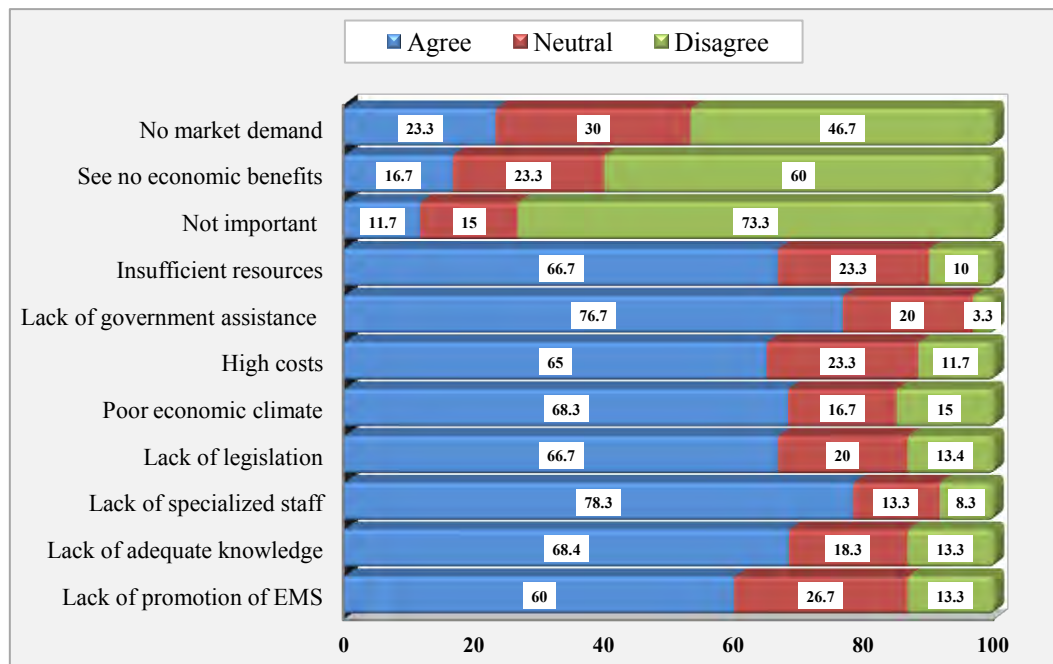
Figure 6.15: Barriers to environmental management (n=60)

Internal barriers to environmental management include lack of resources, employee attitude, cost of implementation, negative attitudes about environmental issues, technical and information barriers, lack of understanding and know-how and lack of consumer demand for environmentally-friendly products. External barriers include industry regulations, lack of support and guidance, economic climate, institutional weakness, uncertainty about benefits and policy and market barriers. As illustrated in Figure 6.15, lack of specialized staff was the main barrier to environmental management for most hotels and lodges (78.3%) in the study followed by lack of government assistance (76.7%), lack of adequate knowledge (68.4%), poor economic climate (68.3%), insufficient resources (66.7%), lack of legislation (66.7%), and lack of promotion of EMS (60%). Also, all barriers to environmental management were mentioned more by lower graded hotels and lodges compared to higher graded hotels and lodges (Table 6.15). A stakeholder in this study indicated:

> *Although there is fantastic management of the conservation areas, lack of expertise, skills and financial resources to adequately deal with all environmental requirements in our modern society which is being pressured to review these areas and take more responsibility in dealing with environmental issues. Our organization requires assistance and direction to implement and finance meaningful projects ... and then to utilize these projects for public relations and marketing opportunities.*

More than 65% of respondents in the study indicated that high costs and lack of resources was a major barrier to the implementation of environmental management practices (Figure 6.15). One manager stated that "with rising costs and increasingly opulent demands by tourism grading, economics prevents establishments from being as environmentally-responsible as one would like to be". Another hotel manager in this study said:

> *Environmental aspects are very important but ultimately it comes down to bottom line and cash flow. We have implemented some policies where we can but the major items (heat pumps, energy-efficient controls for lighting and air conditioner systems in the rooms, etc.) require a large capital outlay which for a small standalone unit in tough financial times is simply not viable. At this time they are wish lists which will be acted upon as the business climate improves. Job creation and retention is more important in the short-term than spending large amounts of capital on energy saving measures.*

Resources such as staff, time, money and the purchase of equipment need to be allocated for environmental management activities and programs. Without sufficient resources, hotels and lodges may find it difficult to attain environmental goals. Hotels in Hong Kong identified lack of resources as one of the barriers to EMS (Chan, 2008). The study also indicated that the added cost associated with environmental measures was a major drawback in its implementation. Similar results were obtained by for hotels in Europe (Bohandowicz and Martinac, 2003; Bohdanowicz, 2006), in China (Min, 2011), in Sweden (Bohdanowicz *et al.,* 2004), in Scotland (Tzschentke *et al.,* 2008) and in Spain (Ayuso, 2007). Independent hotels and lower graded hotels in Europe and the US claimed that lack of financial resources were a huge barrier to environmental management (Johnson *et al.,* 2009).

The successful implementation of an EMS requires the input of money, time and people. Stabler and Goodall (1997:30) maintain that capital expenditure is essential to obtain environmental goals. However, "if the lump sum can be recouped via reduced running costs then the investment is worthwhile". Tzschentke *et al*. (2008:173) claim that the financial resources of businesses determines the extent of environmental management and "where there is little income coming in, green issues tend to go a bit on the back burner, whereas if business is good these issues tend to come bubbling up the priority scale". A study by George and Frey (2010) reveals that tourism businesses in Cape Town are reluctant to engage in responsible tourism management as they consider it to be expensive and tedious. They indicated that costs associated with responsible tourism management included inferior quality standards of smaller suppliers and costs related to operational systems such as waste

management systems. Brown (1996) claims that environmental requirements restrict targets for profitability in a hotel, and the financial standing of a hotel is vital regardless of its environmental standing. Persic-Zivadinov and Blazevic (2010:170) claim that hotel managers are of the view that "green costs more and does not have an economically attractive payback". Conversely, only 36% of hotel managers in the Red Sea stated that applying environmental actions represented a high cost for the hotel (Kattara and Zeid, 2002).

According to Figure 6.15, lack of specialized staff (78.3%) and lack of adequate environmental knowledge (68.4%) were cited as barriers to environmental management for hotels and lodges in the study. Hotels often lack professional advice, information and the expertise on environmental assessment and management and often hotel managers may have to perform their current duties as well as simultaneously serve as environmental officers. This increases workloads and affects performance. The WTTC (2009) reported that very few accommodation establishments, especially in developing countries, have the knowledge and skills to pursue environmental initiatives. This poor level of understanding and awareness of environmental initiatives may explain the slow environmental transformation of tourism businesses in South Africa as lack of skills and specialist knowledge on environmental issues can impact negatively on a business"s environmental performance. Managers of hotels in Hong Kong claimed that they did not have experienced environmental consultants to assist them develop environmental programs (Chan, 2008). It is therefore advisable that when embarking on green measures companies should solicit the assistance of an environmental specialist.

Regulatory instruments provide the foundation for sustainability. However, lack of government assistance (76.7%) and lack of a legislative framework for environmental action (66.7%) were mentioned as key barriers to environmental management by hotels and lodges in the study (Figure 6.15). A key informant from the government sector also indicated that government has the power to create an environmentally-friendly legal framework and ensure enforcement of it. Zurburg *et al*. (1995) argue that the main motivation for environmental action in American hotels is the legislation. Lack of relevant environmental legislation and low regulatory pressures can therefore impede the advancement of environmental actions. Yeld (2007) notes that although South Africa claims to have made significant progress in terms of environmental management policies in the last decade, the general state of South Africa"s environmental is deteriorating. Environmental legislation differs between countries.

Kasim (2009) found that 92% of hotels in Kuala Lumpur stated that national and state governments needed to do more towards environmental actions. According to Kattara and Zeid (2002), the majority of hotel managers in the Red Sea hotels stated that government should be responsible for improving environmental practices in hotels. Bohdanowicz (2006) claims that legislation, government support and national environmental concerns of a country can significantly affect environmental approaches by hotels. According to Graci and Dodds (2008:262), "regulatory pressure is the way the world is, it"s going to be mandatory one day soon". Brace (2007) believes that the one of the key reasons why hotels, especially luxury hotels, do not engage in sound environmental practices is due to the lack of legislation, and without legislations they can only sign up to voluntary schemes. A stakeholder in this study stated:

> *If we are to confront and deal effectively with the major environmental priorities facing South Africa, we need to improve implementation and enforcement significantly; increase and consistently monitor information and make it accessible; build the capacity of local government; and shoulder our joint responsibility to make development more sustainable.*

However, regulatory advancement does not necessary relate to environmental action. For example, according to EIA regulation in Anatolia, hotels that comprise more than 50 guestrooms must prepare an EIA report. Despite this, a number of hotels have not met the legal requirements with only 20% of hotels having undertaken an EIA report (Erdogan and Tosun, 2009). This indicates that regulations and legal provision have little or no value unless enforcement is carried out. Furthermore, although environmental regulations in Turkey are fairly advanced, there are major problems with monitoring and application of regulations (Erdogn and Tosun, 2009). In a study of Kenyan hotels, 36% of hotel managers stated that government should provide incentives for environmentally sustainable hotels, 29% indicated that government should introduce environmental policies to limit the number of visitors and their impacts and 21% suggested heavy penalties for environmental offenders or the introduction of an eco-tax (Irandu, 2006). A study conducted by Tzschentke *et al.* (2008) on barriers to green action in tourism firms in Britain heavily criticized local authorities for their apathy in encouraging responsible environmental behavior and their lack of support to businesses wanting to engage in environmental management. According to Faulk (2000), subsidies and controls are highly effective ways to get companies to get engage in environment practices. Kasim (2009) also argues that often developing countries lack civil

movements and governmental pressure, and where environmental regulations do exist, they are usually complex, conflicting and vague. Frey and George (2010) also disclosed that the majority of tourism businesses in Cape Town believe that government is not assisting them implement environmental practices. They also claim that 44% of tourism businesses have little or no understanding of the RMTSA of South Africa which is a formal policy on which the sustainable tourism transformation is based.

"As multinational corporations increasingly dominate the emerging terrain of global environmental governance, the UNEP came to view „the sustainability crisis as the biggest ever market failure‟" (Bond, 2012:1). According to WWF (2012b:9), governments were not determined to address climate change and negotiations at COP17 were seen as "failing to reflect the urgency that science shows us is necessary to address climate change". WWF argues that the responsibility of this inadequacy is the result of a handful of governments (US, Japan, Russia and Canada) who have continuously resisted to address climate change. According to Monbiot (2012a:1):

> *The efforts of governments are concentrated not on defending the living Earth from destruction, but on defending the machine that is destroying it. Whenever consumer capitalism becomes snarled up by its own contradictions, governments scramble to mend the machine, to ensure – though it consumes the conditions that sustain our lives – that it runs faster than ever before.*

Similarly, the failure at the 2012 Earth Summit has heightened the inadequacy of governments in addressing the global environmental problem.

> *This week's earth summit in Rio de Janeiro is a ghost of the glad, confident meeting 20 years ago. By now, the leaders who gathered in the same city in 1992 told us, the world's environmental problems were to have been solved. But all they have generated is more meetings, which will continue until the delegates, surrounded by rising waters, have eaten the last rare dove, exquisitely presented with an olive leaf roulade. The biosphere that world leaders promised to protect is in a far worse state than it was 20 years ago. Is it not time to recognize that they have failed? Was it too much to ask the world‟s governments, which performed such miracles in developing stealth bombers and drone warfare, global markets and trillion-dollar bailouts, that they might spend a tenth of the energy and resources they devoted to those projects on defending our living planet? It seems, sadly, that it was".*

<div align="right">(Monbiot, 2012b:1)</div>

According to Yale University"s 2012 Global Environmental Index, South Africa ranked 128th out of 132 countries despite the country having some of the most advanced environmental legislation in the world. The environmental measures used in the global environmental index include health, water, food security, biodiversity and climate change. The measured ratings on South Africa were: air effects on humans (78th), water quality (86th), biodiversity and habitat conservation (86th), environmental burden of disease (113th), climate change (114th) and effects of air on ecosystems (121st). In 2002 South Africa ranked 47th out of 142 countries (Venter, 2012; Rondganger, 2012). The ratings indicate that over the past 12 years South Africa ignored the well-being of its ecosystems while focusing merely on development. Also, the implementation of environmental legislation in South Africa seems to deficient. The poor ranking in the Global Environmental Index also "flies in the face of international accords that South Africa is signatory to: in 2010, South Africa signed the Convention on Biodiversity which committed us to halving the current rate of biodiversity loss" (Rondganger, 2012:1).

According to Figure 6.16, only 23.3% of hotels and lodges in the study stated that a lack of customer demand is a barrier to environmental management. However, according to Johnson *et al.*, (2009) and Pryce (2001), the main barrier to environmental management in Europe and US hotels is lack of demand from customers. Lack of consumer demand results in managers giving environmental management a low priority in the management of their hotels. A stakeholder in this study claims that obstacles to progress of sustainable tourism include:

> *Lack of awareness amongst tourists and therefore many are unwilling to pay premium price for a sustainable holiday experience, business information gaps on the perceived investment costs, limited access to finance by micro and medium sized enterprises or lack of policy integration across key sectors such as tourism, transport, energy and management.*

Figure 6.15 shows that only 11.7% of hotels and lodges indicated that environmental management was unimportant to their business. Approximately 25% of hotel managers in Guernsey in the UK believed that environmental performance was not important for their business (Stabler and Goodall, 1997). A conservative 16.7% of hotels and lodges in the study saw no economic benefits to environmental management. These findings are contrary to those made by Essex and Hobson (2001) who found that 50% of accommodation establishments claimed that environmental actions did not bring about financial returns.
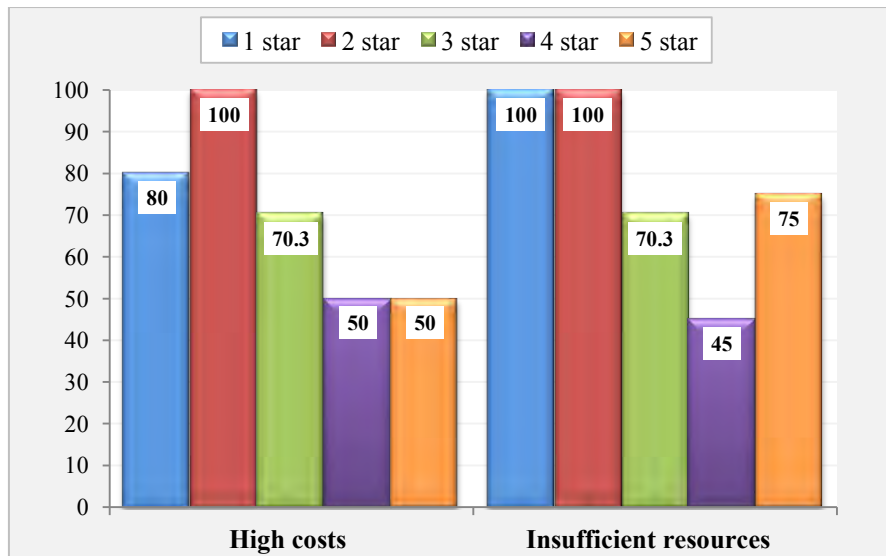
Figure 6.16: Costs and resources as a barrier to environmental management by hotel star grading

According to Figure 6.16, a higher proportion of lower graded establishments (1 and 2 star) indicate that costs and insufficient resources are barriers to environmental management. 80% of 1 star hotels and lodges and all 2 star hotels and lodges claimed that high cost of implementation was a barrier to environmental management. Insufficient resources were cited as a barrier to environmental management for all 1 star and 2 star hotels and lodges in the study. Findings by Erdogan and Tosun (2009) correspondingly reveal that high star accommodation establishments in Anatolia have a higher environmental performance. Alvarez *et al.* (2001) claim that the reason for this is that higher category hotels (4 and 5 star) have more resources to engage in environmental management compared to lower category hotels. In South Africa, Ashton (2012) notes that quality assurance grading by the TGCSA is accessible to the larger establishments and is essentially tailored around their needs. Furthermore, between 2009 and 2011, the cost for star grading increased by approximately 100% for small establishments which consequently saw a 22% drop in membership since the introduction of the new fees.

6.3.7   Future concerns for hotel managers

Table 6.15 illustrates that overall, business sustainability (98.3%), service quality (96.7%) and financial requirements (96.7%) were the main concerns faced by hotels and lodges in the study. Environmental concern was considered as somewhat important to 26.7% of hotels and lodges and important to 68.3% of hotels and lodges. Global expansion was the least (81.7%)

concern for hotels and lodges. In a study of hotels in Kuala Lumpur, Kasim (2009) found that 73% of hotel managers considered environmental management as a strategic decision for their hotels. One manager in this study stated that "the impact the hotel has on the micro and macro environment is considered when we make decisions. However, the financial impact is more important than that of the environment".

Table 6.15: Concerns faced by hotels and lodges

	Not important	Somewhat important	Important
Global expansion	18.3	41.7	40.0
Financial requirements	3.3	30.0	66.7
Environmental concern	5.0	26.7	68.3
Service quality	3.3	8.3	88.3
Information technology	6.7	35.0	58.3
Sustainability	1.7	15.0	83.3

The hotel sector has clearly become part of the green revolution as many hotels have increased their environmental commitment largely in the form of energy management, water management, waste management and CSR programs. However, some hoteliers are still resistant to environmental management for a number of reasons, one of which is the doubt surrounding the hotel guests" demand for environmentally-friendly products. Hotel managers need to therefore fully understand the relationship between hotel guests" attitudes towards environmental management and purchasing needs.

6.4 Hotel guests' perceptions of environmental management

According to Jacobsen (2007:106), "it is the tourists" desires, choices and activities that ultimately determine the impacts of tourism". Chan (2008:193) states that "customers normally are the key driver for the adoption of EMS and have influence far beyond any of the other stakeholders". A key component of the objectives outlined in this study is to examine guests" perceptions towards environmental issues.

6.4.1 Guest profile

Dolnicar (2010), Dolnicar *et al.* (2008) and Mehmetoglu (2010) contend that the most important variables in assessing environmental behavior are: age, gender, education, income and political orientation.

Table 6.16: Demographic characteristics of guests

Hotel characteristics		%
Age of respondents (n=400)	21-30 years	17.5
	31-40 years	32.5
	41-50 years	23.8
	51-60 years	20.7
	More than 60 years	5.5
	Total	**100**
Education level of respondents (n=400)	Completed school	9.2
	Certificate/diploma	21.0
	Degree	23.8
	Post-graduate degree	46.0
	Total	**100**
Gender of respondents (n=400)	Male	43.0
	Female	57.0
	Total	**100**

More than half (56.3%) of guests in the study were between 31 to 50 years old and only 5.5% were more than 60 years old. Age is an important consideration in environmental purchasing and it is estimated that older customers are more inclined to purchase environmentally-friendly products (Roberts, 1996; Vining and Ebreo, 1990). However, Jurowski *et al.* (1997) found that younger tourists valued environmentally-friendly practices to a greater extent than older tourists. This may be possibly attributed to the fact that the younger generation is far more exposed to environmental issues. The gender distribution of guests in the study was 57% female and 43% male. In terms of educational traits, 46% of guests had a post-graduate

degree, 23.8% had a degree and 21% had a certificate or diploma. A small proportion of guests (9%) had no post school qualifications. In terms of hotel preferences, 49.8% of guests prefer 4 and 5 star hotels and lodges and 30.3% prefer 1 to 3 star hotels and lodges. Twenty percent of guests indicated that star grading did not matter in their hotel preference. Leisure was cited by 48% of guests as the main reason for visiting hotels and lodges. Business reasons were noted by 15.5% of guests whilst 36.5% indicated that both business and leisure were the reasons for visiting hotels and lodges. The latter part of this Chapter examines the relationship between demographic characteristics of guests and their views on environmental management.

6.4.2 Guests' attitudes towards environmental issues
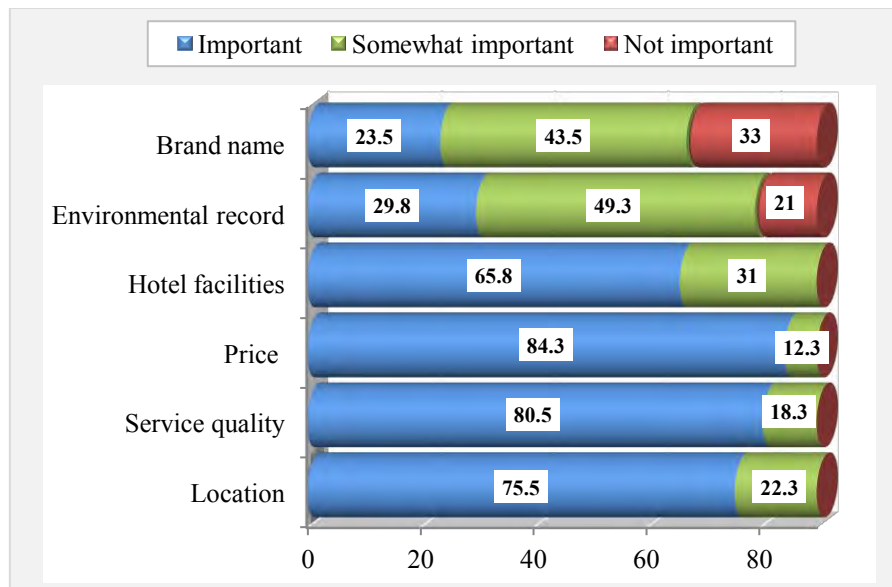
Figure 6.17: Important attributes in hotel choice (n=400)

Figure 6.17 reveals the attributes that guests consider when choosing a hotel. The key attributes important in hotel choice, as stated by guests in the study, were price (84.3%), service quality (80.5%) and location (75.5%). In a study of European hotels, Bohdanowicz and Martinac (2003) found that location of the hotel and its quality of services was considered to be the most significant factors affecting customer choice. Service quality and price was also stated as the most important criteria in hotel choice in Malaysia (Kasim, 2004). The availability of hotel facilities was of lesser importance, mentioned by 65.8% of hotel guests in the study. Thirty three percent of guests considered the brand name of a hotel as

unimportant. The environmental record of a hotel was considered an important attribute in hotel choice by 29.8% of guests and somewhat important by 43.5% of guests. The only attributes that were considered not important in hotel choice were brand name (33%) and environmental concern (21%). As one guest indicated:

I am always impressed with indications of environmental awareness, even small measures, for example, attempts to avoid unnecessary laundering of linen by requesting guests to indicate when they require linen change; a fixed soap dispenser in showers rather than individual little containers for each guest. I confess I am not au fait with industry awards for environmental efforts. My prime drivers when selecting are as indicated: location, cost and service.

Manaktola and Jauhari (2007) found that 22% of hotel guests in Delhi searched for environmental information in choosing hotels and lodges, 55% paid attention to environmental initiatives and 23% did not care about environmental information. Fifty percent of tourists to Norway revealed that environmental performance was a deciding factor in destination choice (Jacobsen, 2007). Font and Wood (2007) cited a study undertaken by the English Tourism Council in 2002 which claimed that 58% of visitors would choose an accommodation establishment that was committed to the environment. Although earlier analysis shows that 76.6% of hotel managers in the study maintained that customers were the most influential stakeholder in the adoption environmental management practices, Figure 6.17 indicates, only 29.8% of guests in the study indicated that environmental record was not important in their choice of hotels and lodges. However, 67.8% of guests indicated that they would *prefer* to stay in environmentally-friendly hotels and lodges (Table 6.17).

According to Han *et al.* (2011), guests that are more educated seek more environmentally-friendly experiences. Figure 6.18 correspondingly indicates that the environmental record in hotel choice is associated with educational level. Higher qualifications indicate a higher preference for environmental record in hotel choice. Of those that considered environmental record an important criteria in hotel choice, 81.5% had a post-graduate degree, 80% had a degree, 79.8% had certificate or diploma and 62.1% completed school (Figure 6.18).
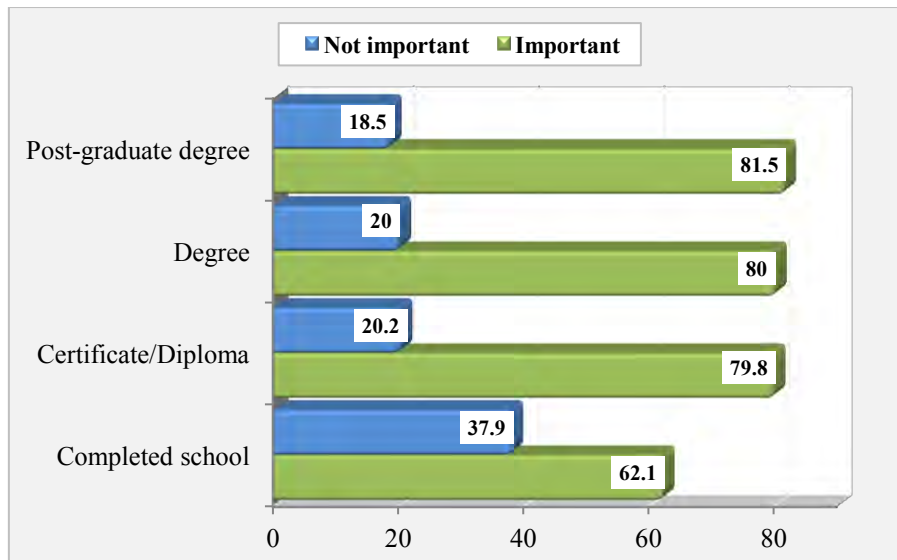
Figure 6.18: Importance of environmental record in hotel choice by education level (n=400)

Uncertainty on the part of consumer behavior creates a quandary for hotel businesses. Graci and Dodds (2008) maintain that while hotel guest may select their initial visit to a hotel based on location, price and amenities, returning customers will focus on the level of environmental commitment of the hotel. One way of getting guests to cooperate is through education and awareness. This entails also informing guests on the rationale behind environmental practices. A study conducted by Manaktola and Jauhari (2007) on factors that influence consumer attitude towards green practices in the accommodation sector in Delhi, India, revealed that 22% of guests look for visible, tangible evidence and information of a hotel"s commitment to the environment when deciding to stay at a hotel.

> *In the hotel industry, the impact of customer demands and legislation are not as important as in other industries. Although having an environmentally-friendly image is definitely a plus, not all hotel guests appreciate environmental best practices implemented by a hotel, as some may place their needs and expectations above those of environmental concern.*
>
> (Chan and Hawkins, 2012:410)

Table 6.17: Guest attitude towards environmental management

	Agree	Neutral	Disagree
Prefer to stay in environmentally-friendly hotels and lodges	67.8	23.6	8.6
Prefer hotels and lodges with environmental awards/accreditations	53.8	34.8	11.6
Willing to pay a higher price for green hotels and lodges	22.1	25.3	52.6
Green hotels and lodges compromise luxury and comfort	18.0	29.5	52.5
Green hotels and lodges are of a lower quality	9.1	21.5	69.4
Do not care if a hotel is environmentally-friendly	15.6	26.3	58.1
Current star rating criteria should include green issues	74.1	18.0	7.9
We are approaching the limit of the number of people the earth can support	63.1	27.8	9.1
The so called „ecological crisis" facing humankind has been greatly exaggerated	17.8	27.8	54.4
Humans are severely abusing the environment and there is an urgent need to conserve our natural resources	86.3	7.5	6.2
Hotels and lodges should be rated according to their environmental actions	64.3	26.0	9.7

Whilst earlier analysis in this Chapter discloses that customers are most influential in a hotels decision to go green and therefore where competition is strong, hotels and lodges can position themselves as environmentally-friendly, creating a niche opportunity and targeting environmentally conscious guests, Table 6.17 indicates that 67.8% of the guests interviewed preferred to stay at environmentally-friendly hotels and 53.8% prefer hotels and lodges with environmental accreditations. A survey by the English Tourist Council (Tzschentke *et al.,* 2008) found that 80% of tourists would prefer environmentally-friendly hotels if given a choice and 70% of US travelers prefer green accommodation establishments (Gustin and Weaver, 1996). In a study of hotels in Delhi, India, Manaktola and Jauhari (2007) found that consumers looked for tangible evidence of a hotels environmental commitment in the form of visible communication and display of green practices, participation in environmental accreditation schemes, establishment of a recycling program and the use of environmentally-friendly products. The visibility of environmental actions instills a higher degree of confidence in consumers. According to Aker (2008:56), "there is an ever-increasing segment of the population looking for properties that are incorporating green and sustainable business practices. It"s not a trend that is going to go away".

However, Chan and Hawkins (2012) found that although a green image was an added bonus, not all guests favor environmentally-friendly hotels as their needs and expectations are based on other concerns. For example, Watkins (1994:70) found that "whilst 74% of respondents view themselves as environmentally-minded consumers, only 54% consider themselves to be environmentally-minded travelers". Only 55% of hotel guests in Malaysia cared about the environmental attributes of a hotel (Kasim, 2004) and approximately 48% of tourists in Northern Norway indicated an above average concern for the environment (Jacobsen, 2007). The industry believes that there is no huge demand out there for environmentally-friendly products and the industry does not have "a lot of people banging on the door asking for greener holidays" (Rowe, 2011:1). On the other hand, guests are sometimes doubtful of the reliability of a hotel"s environmental commitment. A guest in this study stated:

Personally I am skeptical about hotel's credibility to their environmental responsiveness. For example, many hotels I think, implement and market their strategies to water and energy conserving practices within their rooms, but will waste abundant water over-irrigating higher water-need plants in their decorative landscapes, and waste energy heating swimming pools, lighting gardens all night, etc. I am not sure that they are auditing their total environmental impact and addressing their environmental strategies for saving water and electricity holistically.

Accordingly, 74.1% of guests stated that the current star grading system should incorporate environmental issues and 64.3% believe that hotels and lodges should be graded according to their environmental actions (Table 6.17). The current star grading system in South Africa is criticized for not giving importance to green credentials of a hotel and only "fulfill the criteria of green-wash" (Ashton, 2012:1). Little attention is given to solar water heating, LED lighting, recycling, and natural ventilation. Instead, as indicated in Chapter 4, TGCSA"s grading criteria allocates a high scoring for towels being washed daily and for the presence of dishwashers and large fridges, all of which are against the greening on the environment (Table 4.4 and Table 4.5) (Ashton, 2012).

Table 6.17 shows that 69.4% of guests do not consider green hotels and lodges to be of a lesser quality and 52.5% do not believe that green hotels and lodges compromise luxury and comfort. However, striking a balance between service quality and environmental protection is often difficult to achieve. While the findings of this study concurs with finding of previous studies (Graci and Dodds, 2008; Han and Kim, 2010; Kasim, 2004), they also contrast with some studies that indicate guests often make it difficult to implement environmental measures

(Chan and Hawkins, 2010). Hotels may be hesitant to implement environmental measures as they fear this would negatively affect guest comfort and satisfaction. In Malaysia, 57% of hotel and lodge guests preferred freshly laundered towels daily (Kasim, 2004). Johnson *et al.* (2009:499) state that a paradox exists with consumers and the environment as "consumers expect the natural beauty to remain, but are not willing to help it remain because they are not ready to sacrifice their hotel experience for environmental practices". They further state that environmental changes in hotels are unlikely to occur unless "consumers are willing to exchange the comforts they abuse for environmentally-friendly programs". Lack of awareness on consumer attitudes, opinions and behavior about environmental issues can essentially impact on hotelier's adoption of green practices. Therefore, guests should be provided with adequate information to alleviate fears that environmental practices is at the expense of service quality.

According to Table 6.17, a high proportion (52.6%) of guests in the study were not willing to pay higher prices for environmentally-friendly hotels and lodges. Only 22.1% of the guests indicated a willingness to pay more for environmentally-friendly hotels and lodges. According to Fairweather *et al.* (2005), 61% of hotels guests in New Zealand, majority of them who were English, reported that they would choose an environmentally-friendly hotel and were even willing to pay a higher price for such hotels. Similarly, research conducted by Masau and Prideaux (2003) on the Kenyan hotel sector revealed that 66% of guests were willing to pay a higher price for an environmentally sound hotel. According to Guadalupe-Fajardo (2002), a study conducted by Small Luxury Hotels of the World indicated that 75% of American tourists are willing to pay up to $150 or more per night for a two-week stay in an environmentally responsible hotel. Iwanowski and Rushmore (1994) found that in the US 43 million ecological tourists are prepared to pay up to 8.5% more environmentally-friendly trips. Approximately 95% of tourists in Indonesia and 79% in Thailand were also willing to pay an additional tax to support environmental conservation (Dodds *et al.,* 2010). These findings support other studies that indicate a willingness amongst tourists to pay more for environmentally-friendly accommodation (Bumgarner, 1994; Gustin and Weaver, 1996). Therefore hotels and lodges that are not environmentally-friendly may face consumer pressure to increase their environmental performance.

Whilst some researchers indicate that consumers are willing to pay higher prices for greener hotels (Freeman, 1989; Klein, 1990; Manakotla and Jauhari, 2007; Kang *et al.,* 2011; Han *et*

al. 2010; Kostakis and Sardianou, 2012) other studies indicate otherwise with guests unwilling to pay extra money for environmental practices (do Valle *et al.*, 2012; Wood, 1990; Sims, 1993; Johnson *et al.*, 2009; Middleton and Hawkins, 2003; Watkins, 1994). One guest in study indicated:

> *Hotel products are usually inflated because of environmental operations. If it worked the opposite way, then far more people would be in favor. Often people just cannot simply afford the costs.*

Research by Gustin and Weaver (1996) indicates that 73% of respondents considered themselves to be environmentally aware consumers and 71% indicated that they are likely to stay at hotels and lodges that implement environmental programs. However, although guests preferred green hotels they were unwilling to pay a higher price for it. Kang *et al.* (2012:566) also notes that "a customer"s positive perception of CSR does not necessarily lead to actual purchasing decision". Dodds and Joppe (2005) found that up to 5% of the travel market would pay higher prices for sustainable products. In Portugal, Do Valle *et al.* (2012) found that only 15% of tourists were willing to pay tourist accommodation tax. Twenty eight percent of Canadian travelers (Graci and Dodds, 2008) and 30% of US hotel guests (Kang *et al.,* 2012) claimed that they would pay a premium price for ethical and sustainable hotels. In Delhi, only 15% of hotels guests were willing to pay more for an environmentally-friendly hotel, 33% of guests felt that consumers and the hotel should absorb environmental costs, while 52% of guests believed that these costs should undertaken by hotels (Manaktola and Jauhari, 2007). Tzschentke *et al.* (2008) found that passing the cost onto consumers was viewed as a constraint. According to Han *et al.* (2009), and Manaktola and Jauhari (2007), green hotel prices do not differ greatly from non-green hotels. However, Rivera (2002) found that Costa Rican hotels that were enrolled in sound environmental programs were associated with higher prices. Moreover, Blanco and Muller (2009) claim that empirical findings indicate that hotel with higher environmental credentials tend to charge higher room prices.
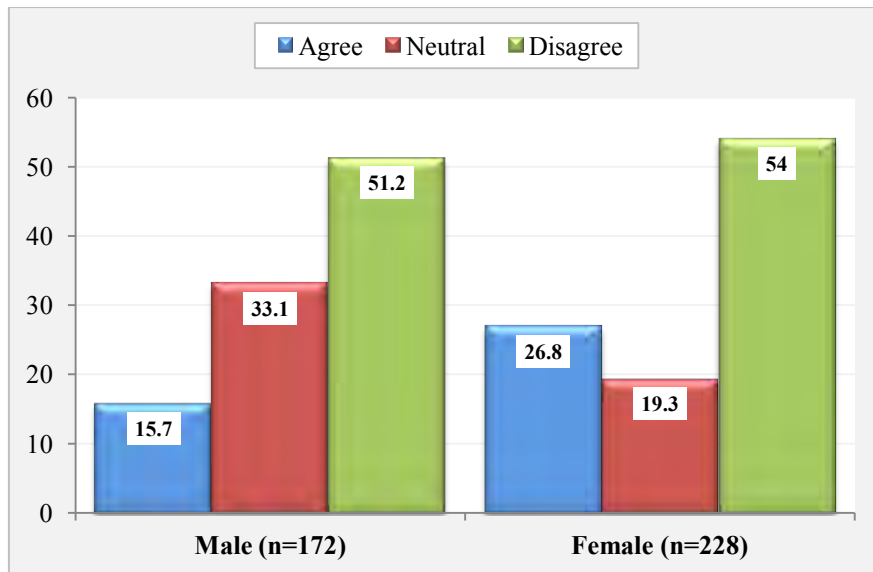
Figure 6.19: Willingness of guests to pay higher prices for environmentally-friendly hotels and lodges by gender

Social theory suggests that men and women show disparate behavior in society and gender behavior in relation to consumer behavior has been extensively researched (Han *et al.,* 2010). Miao and Wei (2012) claim that although women had a lesser degree of environmental knowledge than men, women showed a greater concern for the environment. In accordance with these findings, Figure 6.19 reveals that a higher percentage of women (26.8%) in the study were willing to pay higher prices for environmentally-friendly hotels and lodges compared to men (15.7%). Han *et al*. (2011), do Valle, *et al*. (2012) and Tsagarakis *et al*. (2011) found that women were more environmentally conscious and the intention to pay for environmentally products was higher for women whilst Kostakis and Sardianou (2012) found that men were more willing to pay extra for green hotels than women.
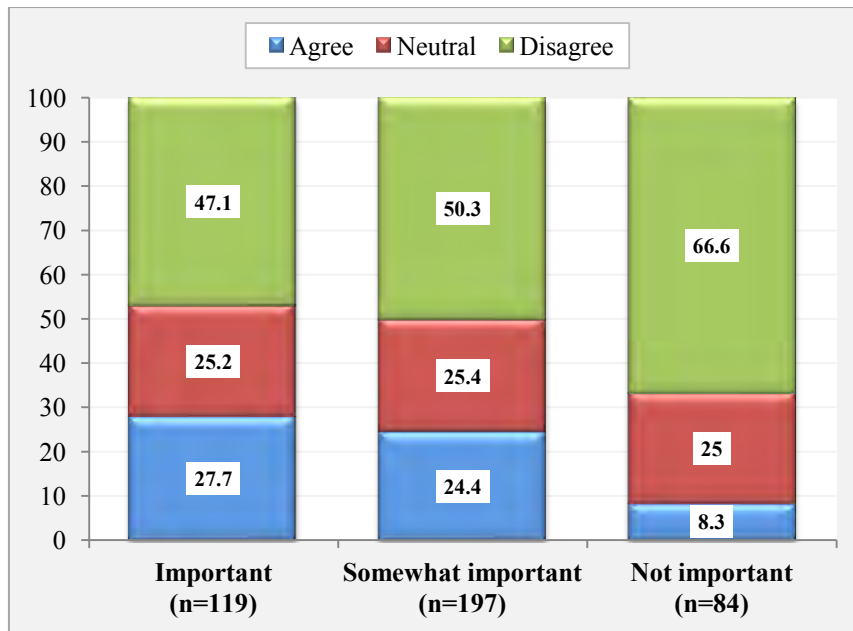
Figure 6.20: Importance of environmental record in hotel choice by willingness to pay higher prices for environmentally-friendly products

Figure 6.20 shows a relationship between importance of environmental record in hotel choice and willingness of guests to pay higher prices for environmentally-friendly products. The highest percentage of guests that were willing to pay higher prices for green hotels and lodges were those that considered environmental record in their choice of hotels and lodges. Those guests that viewed environmental concern as unimportant in hotel choice were the least willing to pay higher prices for environmentally-friendly hotels and lodges. Kang *et al.* (2012) argue that one way to alleviate the high costs associated with environmental measures is to charge a premium price for green hotels. However, previous studies on consumers" willingness to pay higher prices for green hotels and lodges has yielded mixed results. Hoteliers therefore have their reservations about going green (Bohanowicz, 2006; Manaktola and Jauhari, 2007). Consumers also believe that the hotel has the responsibility to fund environmental initiatives (Gustin and Weaver, 1996).
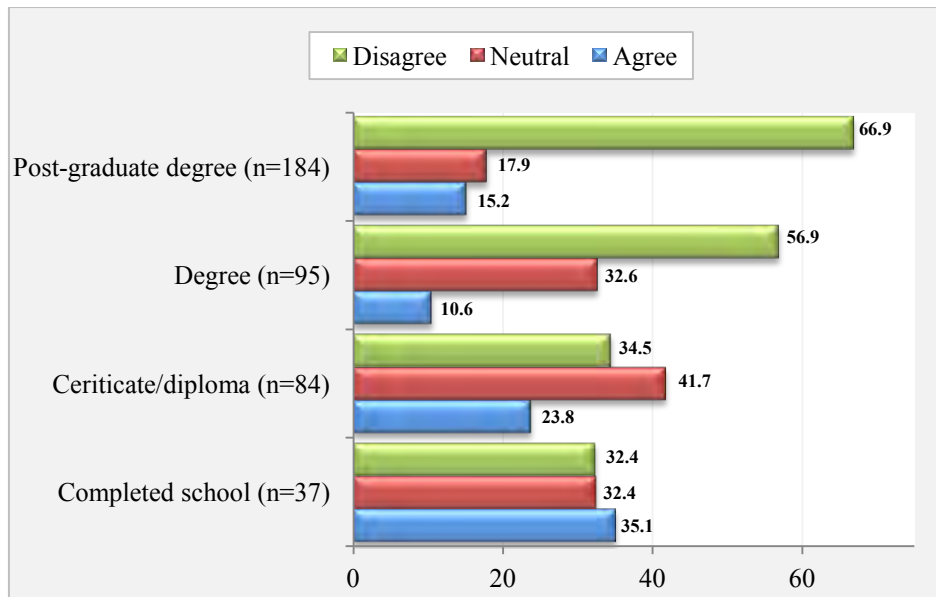
Figure 6.21: The ecological crisis facing humankind has been greatly exaggerated by education level

Whilst 86.3% of guests believe that humans are abusing the environment more than half of the respondents in the study believe that the current ecological crisis is being exaggerated. Clearly, Figure 6.21 indicates that this viewpoint is related to the guest‟s educational level. Guests with a higher educational level believe that the ecological crisis facing humankind is not being exaggerated. Global warming and climate change are vague concepts with consequences perceived to be in the future. Consumers lack clarity on these issues and it is therefore challenging to measure customers attitudes and behavior when the subject is open to interpretation. Guests are important stakeholders in influencing the environmental decision of hotels but often guests do not have adequate information to make environmentally-sound decisions. Therefore, guests should be provided with more environmental education and awareness. Although a growing number of consumers are aware of the dangers of environmental damage, most of them are unwilling to change their purchasing decisions or personal consumption patterns. The gap between environmental awareness and action is common and often environmentally appropriate behavior is not consistent.

Table 6.18: Factors that may reduce level of satisfaction and comfort at a hotel (n=400)

	Agree	Neutral	Disagree
Dimming of lights in public areas	46.5	11.5	42.0
Low-flow showers	56.6	13.8	29.6
Low-flow taps	50.1	13.0	36.9
Re-use of towels	49.1	11.3	39.6
Re-use of linen	48.1	14.3	37.6
Restricted use of air conditioning	55.8	22.0	22.2
Use of showers instead of baths	31.0	20.8	48.2
Use of local goods and services	25.0	19.3	55.7
Use of recycling bins	17.3	12.8	69.9

Although preceding discussion in this Chapter shows that 63.3% of hotels and lodges in the study installed low-flow showerheads, 40% installed low-flow taps, and 88.3% implemented a towel re-use program, Table 6.18 reveals that guests cited low-flow showers (56.6%), low-flow taps (50.1%) and re-use of towels (49.1%) as environmental practices that may reduce their level of satisfaction and comfort at a hotel. Guests also cited the restricted use of air-conditioning (55.8%) as having a negative effect on quality and satisfaction at a hotel. Whilst a study of hotel guests in France revealed that green attributes does contribute to customer satisfaction (Robinot and Giannelloni, 2010) opposing viewpoints have also surfaced.

> *Unfortunately, although the public"s attitude is changing, the market is segmented. While there are some people who are not impressed with luxury if it violates the principle of environmental friendliness, there are many others that seek, as part of the hospitality experience, to be pampered with high-pressure showers, freshly laundered linen and a limousine to take them to the airport.*
>
> (Kattara and Zeid, 2002:156)

Consumer behavior may be the biggest challenge in environmental action since "consumers may be a harder sector to influence" and environmental actions "may be viewed as a drop in standards" (Tzschentke *et al.,* 2008:169). According to Tzschentke *et al.* (2008:174), the main area of concern in the implementation of environmental practices is its impacts on the levels of customer satisfaction and "falling short of guests" expectations was a recurrent fear" hotel managers were faced with and "striking the right balance is where the difficulty lies". Although consumers may be willing to buy environmentally-friendly products, they may be resistant as they may not want to sacrifice convenience, accept lower performance levels or

pay higher prices (Manakotla and Juahari, 2007; Kasim, 2004). Liu and Sanhaji (2009:68) argue that hotels and lodges are generally reluctant to engage in environmentally responsible practices "for fear of interfering with guests" comfort". Luxury and comfort is as conflicting with environmental protection (Bohandowicz and Martinac, 2003; Alverez-Gil and Cespedes-Lorente, 2001) and consumers generally want to escape daily responsibilities during their travels (Johnson and Ebrahimpour, 2009). Therefore, hotels doubt the need to become environmentally-friendly since consumers do not demand such products (Johnson *et al.,* 2009). Brace (2007:17) believes that "hotels will only change if the consumer does" and Kasim (2004) argues that environmental concern does not necessarily translate into green buying behavior. Furthermore, despite the belief that local goods and services are associated with a lower quality, only 25% of guests indicated that the use of local goods and services will reduce their level of satisfaction and comfort in a hotel.
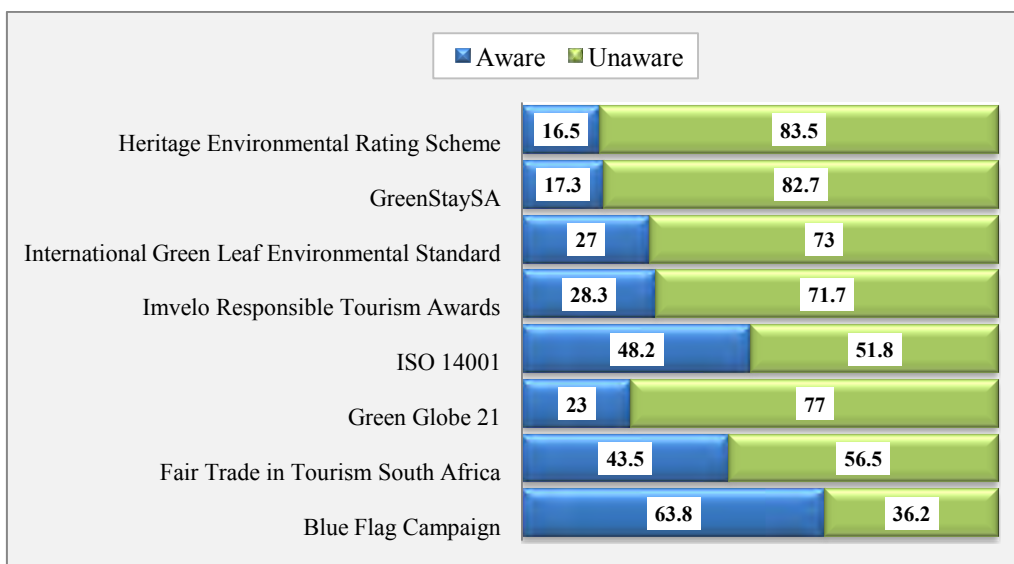
Figure 6.22: Awareness of hotel environmental accreditation/award programs

In the absence of ecolabels, consumers will have to do their own research on the environmental credentials of businesses. Therefore ecolabel schemes are advantageous for consumers. However, Buckley (2012) claims that very few tourists look for ecolabels in their purchasing behavior. Figure 6.22 clearly reflects guest"s lack of knowledge in environmental accreditation programs. Most guests were aware of the Blue Flag campaign which is possibly due to the media coverage on the controversial issues regarding Blue Flag beaches in Durban. The ISO14001 was familiar to 48.2% of guests in the study and 43.5% of guests were aware of the FTTSA program. The reason for the greater awareness of ISO 14001 is due to its

popularity and the fact that it is a global accreditation program that applies to a number of different industry sectors. The key reason for its popularity globally is that the system depends less on government regulations and more on voluntary efforts within an organization. A fairly large proportion of guests (43.5%) are aware of the FTTSA program. This may be due to the fact that FTTSA is in existence for almost 10 years in South Africa and to date there are 63 accommodation establishments that boast the FTTSA logo. However, despite the fact that the Heritage Environmental Rating program is present in South Africa for 10 years and currently 125 establishments have Heritage Environmental status, only 16.5% of guests are aware of this program. This is even more surprising given that Tsogo Sun, a popular hotel chain in South Africa, are leaders in the Heritage Environmental Rating program. Green Globe 21, of which only 23% of guests in the study is aware of, is the only single ecolabel that is appropriate for all forms of tourism worldwide. Guest awareness of other environmental programs in South Africa is fairly limited. For example, 17.3% of guests are aware of GreenstaySA, 27% are aware of International Green Leaf Environmental Standard and 28.3% are aware of the Imvelo Responsible Tourism Awards.
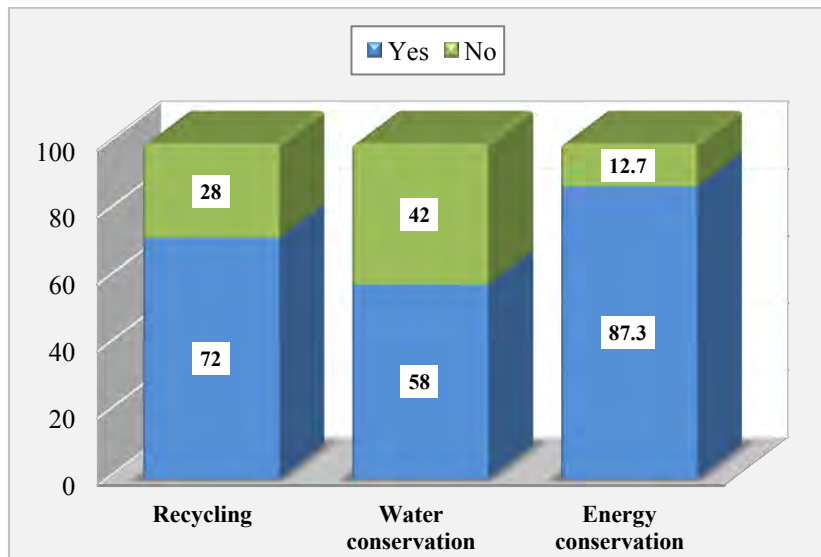
Figure 6.23: Environmental practices personally undertaken by guests

Figure 6.23 reveals that hotel and lodge guests personally engage in environmental practices. Energy conservation was the most prevalent environmental practice personally undertaken by 87.3% of guests in the study. A study undertaken by Kostakis and Sardianou (2012) indicates that 71% of tourists in Crete, Greece had implemented an

energy conservation program at home. Tsagarakis *et al.* (2011) found that turning off lights when they were not needed was the most common energy saving action practiced by guests at their homes. Recycling was undertaken by 72% of guests in the study and water conservation was the least practiced by 58% of guests. Tsagarakis *et al.* (2011) found that the most common energy saving action of tourists at their homes was turning off lights when they were not needed (81%) and closing windows and doors when heating/cooling devices were switched on (60.6%). According to Miao and Wei (2012), people are less pro-environmental when they travel. One guest in the study stated:

It is important for hotels to put up signs all over the hotel to remind guests about being environmentally-friendly and the need for saving water, electricity and recycling of waste. Hopefully this concept will be taken home and they will educate others as well.

6.5   Conclusion

The implementation of environmental management has only recently become a core practice for some hotels. Despite this, in order to develop a context for environmental management in hotels, two critical issues need to be considered. Firstly, hotels are profit driven businesses where managers need to make financially responsible decisions. Secondly, the sector offers a service to guests and therefore managers need to make decisions based on the optimization of customer comfort and satisfaction (Best and Thapa, 2011). This Chapter provided a comprehensive analysis of environmental strategies and practices in the hotel sector in KwaZulu-Natal as well as an evaluation of hotel guests" perceptions towards environmental issues. The analysis was based on an in-depth examination of primary data obtained from surveys and key informant interviews and secondary data from relevant texts, organizational reports, press releases, media statements, and scholarly journals. A number of similarities and differences were noted between hotel managers and hotels guests in terms of environmental concerns. According to the findings, environmental management in hotels and lodges in KwaZulu-Natal ranges from basic approaches to advanced levels of implementation. Motives for and constraints to environmental management faced by hotels and lodges have also emerged from the data analysis which helps evaluate whether or not a hotel is able to engage in environmental activities. A certain amount of skepticism has also surfaced with regards to the sincerity of environmental actions in hotels and lodges. However, it is hopeful that changing global circumstances will eventually compel the hotel sector to implement more

extensive environmental management programs out of legitimate concern for the environment. Hoteliers need to understand the relationship between their business and the environment and "reducing a company"s environmental impact needs a *genuine* change" (Bohdanowicz *et al.,* 2011:800). The detailed data analysis of environmental management in hotels and lodges has positioned the researcher to discuss significant findings and to put forward well-informed recommendations.

CHAPTER SEVEN
SUMMARY, RECOMMENDATIONS AND CONCLUSION

7.1   Introduction

The key environmental issues contended with in this study was based on managers, stakeholders and guests perceptions of environmental management in the hotel sector. From the hotel manager˙s perspective, these issues included elements of EMSs that are currently in place, benefits of such systems and barriers facing the implementation of environmental action in hotels and lodges. From the viewpoint of guests and stakeholders, general attitude and level of awareness of environmental management was elicited. The key aim of the study was to contribute to the body of knowledge on this subject area by comparatively evaluating the environmental management perspectives of hotel managers, industry informants and hotel guests in relation to deliberations articulated in previous Chapters. This Chapter encapsulates the fundamental results of the study and suggests recommendations in relation to the review of the key research findings, the conceptual framework and the theoretical structure. The study focused on an evaluation and description of environmental management in the hotel sector in KwaZulu-Natal in an attempt to provide insight on the issues and concerns facing the sustainable future of this sector.

7.2   Summary of key findings

This section summarizes the key findings of this study in relation to the research objective highlighted in Chapter one. The intention is to carefully address the research questions in the light of these findings in order to pave a way for the recommendations and ultimately accomplish the purpose of this research. The study revealed a number of observed similarities as well as differences between different hotel categories and between the perceptions of the various stakeholders.

7.2.1   Objective one: The nature and extent of environmental management practices in hotels and lodges in KwaZulu-Natal

The purpose of this objective was to focus on environmental management practices such as energy consumption, water consumption, waste management and the control of pollution in hotels and lodges. Knowledge on environmental policies, EMSs and environmental accreditation schemes and their implementation process were also examined.

7.2.1.1 Characteristics of hotels and lodges

The largest proportion of hotels and lodges in the study comprised of small hotels and lodges (1-50 rooms). The study found that larger hotels and lodges were stronger adopters of EMSs and practices. High costs of environmental actions make it affordable to large-scale operations and the high costs associated with stringent accreditation standards and environmental protection schemes discourage a number of smaller businesses from participation. The study also compared environmental characteristics between hotel categories. The majority of hotels and lodges in the study belonged to the 3 star and 4 star accommodation rating category. These results are congruent with the distribution of star graded hotels and lodges in KwaZulu-Natal. Results indicate that higher graded establishments (3-5 stars) showed greater environmental commitment compared to 1 star and 2 star hotels and lodges. It was also found that higher graded establishments have higher water and energy usage facilities such as swimming pools, golf courses and restaurants and therefore consume greater amounts of energy and water. This lends itself to a higher involvement in environmental measures.

Seventy percent of hotels and lodges in the study did not belong to a hotel chain. Of those that did belong to a hotel chain, the largest proportion of those that participated in the study was from the Tsogo Sun group. The results of the study indicate that chain hotels and lodges are stronger adopters of environmental practices compared to independent hotels and lodges. This is particularly due to the fact that chain hotels and lodges have more resources to engage in environmental measures which are not easily available to independently-owned properties.

7.2.1.2 Attitude towards environmental management

Hotel managers displayed an optimistic attitude towards environmental management and the majority of hotel managers indicated that environmental management was an important issue. Overall, hotel managers perceived energy consumption, water consumption and waste generation as the main environmental impacts of hotels and lodges. Energy usage is believed to constitute approximately 60% of a hotel"s utility cost (Richins and Scarinci, 2009) and heating, ventilation and air-conditioning are considered to be the largest consumers of energy in a hotel. Water consumption by hotels and lodges is considered to a serious threat to water resources. Hotels and lodges with facilities such as golf courses, swimming pools, restaurants

and spa facilities tend to have high water consumption levels. Hotels and lodges generate large amounts of solid waste which is considered detrimental to the environment.

Although hotel managers expressed concern for the environment and its protection, in the desire to be socially acceptable, respondents may have overstated their environmental commitment. Furthermore, there seems to widespread awareness of environmental issues among hotel managers but this does not always translate into environmental action. Managers also indicated that environmental management was considered more in the marketing rather than in the management of hotels and lodges. Although green marketing can help favorably position a hotel in the marketplace, the incorporation of environmental issues in marketing material was considered unimportant by 41.7% of hotel managers in the study. However, more than half of the hotel managers claimed that they included environmental responsibility in their marketing material. Hoteliers argue that low consumer demand for environmentally-friendly products has created little motivation for hotels to market green credentials (Johnson and Ebrahimpour, 2009).

7.2.1.3 CSR actions of hotels and lodges

Hotels and lodges in the study showed a positive contribution to CSR actions. All hotels and lodges claimed to use local labor, bought goods and services from the local community, donated to local charities and purchased fair trade products. The hotel sector has important linkages with local businesses and the support of local businesses increases these linkages in the local economy. In spite of their strong support of local businesses, hotels and lodges were however concerned about quality standards of local products. In addition to contributing to local employment, a number of hotels and lodges in the study offered hotel related training programs to candidates from disadvantaged communities. Donations to local charities included cash donations as well as the contribution to community development projects. A number of these projects were aimed at reduced at reducing social and economic inequality in communities. The study found that hotels and lodges that belonged to large corporations and chains were more inclined to engage in CSR activities.

7.2.1.4 Environmental management actions of hotels and lodges

Overall, 3 star, 4 star and 5 star establishments and chain hotels and lodges revealed the highest participation in environmental actions. Most of the hotels and lodges indicated that they encouraged staff to get involved in environmental management and provided

environmental training to staff. This is encouraging given that the majority of hotels and lodges believed that employees are influential stakeholders in environmental management. Training was provided largely in the housekeeping department, food and beverage department and maintenance department. On the other hand, staff indicated that environmental activities increased their workload at hotels and lodges and they believed that appointing a designated person in charge of environmental programs will help alleviate this problem. A large proportion of hotels and lodges gave preference to environmentally-friendly products. However, a few hotels and lodges had environmental standards for suppliers in place and a green purchasing policy. Often the lack of cooperation with suppliers and subcontractors can hinder the implementation of environmental actions in hotels and lodges. More than half of the hotels and lodges indicated that they educate guests on environmental issues. Hotels bring environmental issues to the attention of guests through flyers, brochures, signage and websites. In terms of guest participation in environmental programs, different programs may offer different levels of guest participation. However, Ricaurte (2012) questions whether environmental programs should simply encourage guest participation or whether they should make participation mandatory.

Although relatively few hotels and lodges had an EMS in place, an environmental action plan was in place for more than half of the hotels and lodges in the study. Hotels and lodges displayed environmental intentions which were mainly targeted at energy, water and waste reduction and these are directly related to cost savings. Hotels and lodges lacked a more strategic and integrated approach to environmental management and this is evidenced by the fact that a small proportion of hotels and lodges had a documented environmental policy in place. Since the 1990s, EMSs have been increasingly applied to the hotel sector. The involvement of hotel management and staff is crucial for the successful implementation of an EMS. In some hotels and lodges, lack of awareness, interest and commitment may hinder the effective execution of an EMS. Globally, accreditation and verification of environmental credentials in the form of ecolabels and awards, has helped in the recognition of environmental standards and actions in hotels. However, the majority of the hotels and lodges in the study did not have any environmental accreditations. Ecolabels and EMSs are considered the most competent voluntary environmental policy instrument and can serve as a valuable tool in educating and informing guests on the environmental attributes of a hotel and they also help a hotel gain competitive advantage. A number of environmental schemes such as FTTSA, Heritage Environmental Rating Program, Green Globe and ISO 14001 offer a

considerable amount of expertise and resources. Hotels and lodges that usually have environmental accreditations are exposed to more environmental information which has helped them implement environmental management at their properties. Furthermore, environmental accreditations require annual recertification which compels a hotel to continuously improve its environmental actions. The low level of involvement in environmental certification schemes reflects that hotels and lodges have little intention of using such schemes as gaining competitive advantage. Unlike environmental best practices, ecolabels and EMSs are associated with high costs and complexities. Consequently, the resource insufficient small-scale establishments are unable to make the costly technological investments for environmental management and are thus precluded from meeting the high standards and criteria of ecolabels and accreditation schemes. There is much scientific uncertainty and unreliability with regard to environmental assessments of ecolabels and this tends to affect the level of stakeholder participation.

Evaluating the success of environmental actions requires careful monitoring. Less than half of the hotels and lodges in the study monitor and record their environmental performance. A small proportion of hotels and lodges publish their environmental efforts in public reports. Hotels and lodges that do publish their environmental efforts often do so through their websites. The majority of hotels and lodges in the study have not undertaken an external environmental audit in the past two years, and less than half of hotels and lodges did not undergo an internal environmental audit. Here again, chain hotels and lodges showed a higher participation in environmental auditing compared to independent hotels and lodges. Performing an audit is the first step in the evaluation of a hotel"s environmental performance and helps propose possible improvements. Certification schemes require an environmental audit be undertaken and given that a number of hotels and lodges are not affiliated to environmental accreditation schemes, environmental auditing was not a popular practice amongst hotels and lodges. Also, environmental audits entail large amounts of time and resources making it difficult for most hotels and lodges to implement.

Hotels and lodges tend to display the same types of priority areas for environmental management: water, energy and waste management. Generally, energy saving is an increasingly popular environmental action among hotels and lodges due to its associated cost savings. Energy saving practices were undertaken by the majority of hotels and lodges in the study. The most common energy saving measure practiced by 98% of hotels and lodges in the

study was the use of energy-saving light bulbs. This is encouraging given that South Africa intends on phasing out and ultimately banning all energy-consuming light bulbs by 2016 (Carnie, 2012). A large percentage of hotels and lodges also reviewed their utility bills to monitor energy usage and have installed energy-efficient appliances. Only half the hotels and lodges had an energy management program or policy in place. A small proportion of hotels and lodges used solar energy and key card control systems. Implementation of energy saving practices were higher for star-graded and chain hotels and lodges. However, a higher proportion of independent hotels and lodges used solar power compared to chain hotels and lodges. Overall, although energy efficiency to some extent is practiced, renewable sources of energy are not utilized.

The uncontrolled use of a number of natural resources has resulted in the generation large quantities of solid waste. Waste management practices were widely undertaken by majority of hotels and lodges in the study. Common practices included reducing packaging and buying in bulk, use of environmentally-friendly cleaners and detergents, use of recycled paper, solid waste separation and recycling programs. Hotels and lodges showed the least commitment to the composting of organic food and waste. A larger proportion of independent hotels and lodges composted organic and waste food and installed soap and shampoo dispensers compared to chain hotels and lodges. Four star hotels and lodges showed a higher involvement in waste management compared to other star graded hotels and lodges in the study.

Water consumption tends to be highest in rooms, laundry facilities and kitchen facilities. The linen and towel re-use program was cited as the most common water conservation action practiced by most hotels and lodges in the study. Low flow showerheads have been installed in more than half of the hotels and lodges in the study. Less than half of the hotels and lodges had installed low-flow taps and dual-flush toilets. Low flow taps and dual flush toilets were non-existent in all 1 star hotels and lodges. The reviewing and monitoring of water utility bills was undertaken by 68% of the hotels and lodges. The majority of hotels and lodges educated staff on how to save water. One star and 2 star hotels and lodges showed the least commitment to water conservation measures. None of the 1 star hotels and lodges had dual-flush toilets, low-flow taps and a water conservation program in place. Similarly, independent hotels and lodges revealed a lesser involvement in water conservation measures compared to chain hotels and lodges. A number of studies demonstrate that the viability of tourist

destinations is highly dependent on water quality and supply (Essex *et al.,* 2004; Rico-Amoros *et al.,* 2009) and Gossling *et al.* (2012:9) maintain that water consumption by hotels is much higher that household consumption and "holidaymakers have a ‚pleasure" approach to the shower and bath" and generally use more water than they would normally. As a water-stressed country, South Africa requires more responsible initiatives aimed at conserving water.

7.2.2 Objective two: Factors that motivates hotels and lodges to adopt environmentally-friendly practices

The purpose of this objective was to gain an understanding of what motivates hotel and lodge managers and influences their decisions to engage in environmentally responsible practices. Stakeholders that influence environmental management decisions were also examined in this objective. The benefits associated with environmental management in hotels and lodges were further assessed.

Improving the image of the hotel and improving public relations was cited as the main benefits of environmental management by majority of hotels and lodges in the study. A good company image is one of the most valuable assets a hotel can have and a positive company image can also achieve a competitive advantage in the market. Most hotels and lodges indicated that environmental management helped a hotel gain a competitive advantage, reduced operational costs and increased profitability. Erdogan and Baris (2007) maintain that the hotels and lodges sector is usually only interested in environmental actions if it reduces operational costs and often economic benefits are considered to be the primary motivation for hotels to implement environmental management programs. Half of the hotels and lodges indicated that environmental management was beneficial in the improvement of service quality. The enhancement of employee motivation and satisfaction was considered to be the least beneficial factor of environmental management for hotel managers in this study.

Complying with environmental regulations was considered to be the most influential factor for most hotels and lodges to engage in environmental management. Environmental regulations and legislations have been a strong motivator in environmental management in hotels. Although hotels and lodges are not directly regulated, they are affected by various environmental regulatory changes. Hotels and lodges should anticipate future regulatory

changes and should be aware that these regulations will not act as a negative control on hotels and lodges. Most hotels and lodges indicated that customer desire for environmentally-friendly products will influence their decision to go green. However, a large proportion of managers considered customers" willingness to pay higher prices as the least influential factor in their decision to engage in environmentally-responsible practices. Few hotel managers indicated that public recognition, promoting an environmentally-friendly image and keeping up with competitors were influential in their environmental management decisions.

Stakeholders have an important role to play in a hotel"s environmental efforts and hotels and lodges usually engage in environmental practices as a result of pressure from different stakeholders. Customers were seen to be the most influential stakeholder in improving environmental performance. Government, employees and the media were also viewed as being highly influential in the hotels and lodges decision to implement environmental management. Suppliers, the local community and trade organizations were viewed as being the least influential stakeholder in environmental management.

7.2.3   Objective three: Barriers to environmental management in hotels and lodges

The reasons for the lack of proactive environmental behavior are complex. Often hotel managers are keen to engage in responsible environmental practices but are unable to do so due to certain impediments. The focus of this objective is to understand the barriers that are faced by hotels and lodges in the implementation of EMSs and measures. Hotels and lodges are faced with external environmental barriers which cannot be controlled by the hotel and external environmental barriers which are firm-specific. The barriers to environmental management identified in this study are both internal and external. In order for the hotel sector in South Africa to advance in environmental management, a number of barriers need to be overcome. Discrepancy between attitudes and actual practice exists whereby hotel managers are supportive of environmental management but their actual dedication is limited by the barriers with which they are faced. Overall, lack of adequate environmental knowledge and expertise, combined with lack of resources and the general lack of interest from government was seen as major constraints to environmental management in hotels and lodges in the study. Lack of specialized staff and lack of government assistance was considered to be the main barriers faced by most hotels and lodges in the implementation of environmental management. Other significant barriers included lack of adequate knowledge, poor economic climate, lack of legislation, high costs, and insufficient resources. The majority of 1 star and 2

star hotels and lodges identified costs as a barrier to environmental management. The study also indicates that a number of hotels and lodges in KwaZulu-Natal are unaware of the saving potential associated with environmental programs.

7.2.4 Objective four: Awareness and attitudes of guests towards responsible environmental management

The purpose of this objective was to identify and evaluate guests" perceptions towards environmental issues. Recognizing the seriousness of environmental problems has made people become more environmentally sensitive. Guests are consumers of hotel goods and services and therefore their commitment to green consumption patterns will ultimately influence the environmental performance of the hotel sector. Demographic characteristics of consumers such as age, gender, education and income are considered significant factors in understanding consumer behavior. More than half of the study sample comprised of guests between the ages of 31 to 50 years. The gender distribution of guests was 57% female and 43% male. Results further indicate that a higher proportion of females were willing to pay more for environmentally sound hotels and lodges compared to males. The majority of guests had post school qualifications and almost half the guests in the study preferred to stay in 4 star and 5 star hotels and lodges. Price was a key attribute considered by most hotels guests in choosing a hotel. Service quality and location of the hotel were also cited as important attributes in hotel choice. Brand name and environmental concern were the least important factors that guests considered when selecting hotels and lodges.

Most guests indicated that they preferred to stay in environmentally-friendly hotels and lodges. The majority of these guests were highly educated. More than half of the hotel guests preferred to stay in hotels and lodges that had environmental accreditations. A large proportion of guests believed that the current star-grading should include green issues and further maintained that hotels and lodges should be graded according to their environmental actions. A small percentage of guests were willing to pay higher prices for environmentally-friendly hotels and lodges. Of these, many were those who indicated that environmental concern was an important concern in hotel choice. Very few guests believed that green hotels and lodges are of a lesser quality and compromise luxury and comfort. Although most guests believed that humans are severely abusing the environment and there is an urgent to conserve resources, more than half of them believed that the current environmental crisis is being exaggerated.

Most guests stated that the restricted use of air conditioners, low-flow showers and taps and the re-use of towels may reduce the level of guest"s satisfaction and comfort in a hotel. Although some consumers may be willing to purchase environmentally products, a number of guests were not willing to adopt pro-environmental behavior. Guests showed a limited awareness of national environmental accreditations schemes and a higher awareness of international accreditations schemes. Guests were least aware of the Heritage Environmental Rating Scheme, GreenstaySA, International Green Leaf Environmental Standard, the Imvelo Responsible Tourism Awards and Green Globe 21 and showed higher levels of awareness of the Blue Flag Campaign, ISO 14001 and FTTSA. The study found that guests claimed to engage in environmental practices at home. Energy management was practiced by most guests followed by recycling at home. Water conservation was the least reported environmental action undertaken by guests at home.

7.2.5   Objective five: The legal and institutional frameworks for environmental management in South Africa

This objective included examining various policies, legislations and regulations pertaining to environmental management in the accommodation sector in South Africa. Environmental management in the country is governed by the Department of Environmental Affairs. South Africa has become increasingly aware of the importance of environmental regulations and legislations and has made several legal provisions on environmental conservation. The ECA of 1989 formed the environmental legislative framework for the country. It was replaced by NEMA in 1998. South Africa developed and implemented the 1996 White Paper on the Development and Promotion of Tourism in South Africa which entailed a responsible approach to tourism development. The Constitution of the Republic of South Africa, 1996 also incorporated elements of environmental well-being which focus on pollution prevention, conservation promotion and ecologically sustainable development. The Responsible Tourism Guidelines was formulated in 2002. Additionally, South Africa has a number of other legislations and policies that address environmental management. These focus on protected areas, air quality management, coastal management, integrated pollution and waste management, tourism, living resources, EIAs and the conservation of biodiversity. South Africa has also supported a number of international laws pertaining to climate change, pollution, hazardous waste, marine resources and biodiversity. Recently, South Africa has put into action the Green Economy Initiative which was launched by UNEP in 2008.

The study revealed little compliance with such legislations. Few businesses tend to conform to environmental legislations as little or no methods of enforcement exist. According to Venter (2012), in terms of the 2012 Global Environmental Performance Index, South Africa ranks 128 out of 132 countries. In 2002, South Africa ranked 47th out of 142 countries. Rondganger (2012) maintains that in the past two decades, South Africa‟s natural environment has deteriorated nearly the fastest of most countries in the world. South Africa is also the biggest emitters of GHGs in the world and is ranked number 11 in the world when it comes to the generation of pollution. Despite the many progressive environmental laws and legislations that South Africa has in place, governments have ignored a number of environmental concerns. According to WWF-SA (2012), government has acknowledged the need for tax on carbon emissions to penalize carbon intensive products and services and implement a "polluter pays" approach. Challenges facing environmental management in South Africa include fragmented policy, ineffective enforcement of legislation, lack of environmental data, lack of trained personnel and a weak legislative authority.

The study supports some aspects the conceptual framework for the study. In terms of the EMT, responsibilities for ecological transformation are given to the private sector. As indicated in the study and in the EMT theory, government is relieved of much of the environmental responsibilities and the market is considered more efficient in addressing environmental issues. Moreover, EMT does not reflect command and control mechanism of governance and the study clearly reveals that current environmental practices in the hotel sector reflects a bottom-up, voluntary and self-regulatory approach. Also, while it is widely acknowledged that sustainable operations in the hotels and lodges sector must be achieved; environmental policies fall through in addressing how the environmental crisis can be surpassed. Furthermore, a comprehensive set of environment indicators for the hotel sector does not exist. Although most hotels and lodges regard themselves as environmentally-friendly, they did not have a strategic, proactive approach to sustainable development. In the study, the role of government in sustainable environmental practices was also criticized. There was general disapproval that government placed a high priority for economic development at the cost of the environment and the lack of clear environmental legislation.

7.3 Recommendations

Results indicate that whilst many hotels and lodges are concerned about environmental issues, most attention is paid to maximizing profits through environmental measures. Reducing a hotel‟s environmental impact should be about introducing a *genuine* change. Also, "much ‚green washing‟ exists and there may be a bandwagon effect where lodging providers adopt the terms but often not the practices" (Best and Thapa, 2011:148). Hotels are generally positive towards environmental issues. However, positive responses are not necessarily translated into business practice. Although hoteliers support environmental management their commitment is influenced by existing barriers and resource availability, consumer demand and government intervention.

7.3.1 Environmental management actions

Hotel managers in KwaZulu-Natal were found to be at a stage of recognizing the significance of environmental initiatives and having initiated a number of environmentally-friendly activities. However, due the number of barriers facing hotels and lodges in the implementation of environmental programs, a number of hotels and lodges have not begun to adequately address environmental concerns. There is an urgent need to increase the level of environmental awareness amongst hoteliers in KwaZulu-Natal and a comprehensive program of information needs to be disseminated to hotel managers. Hotels should have a deeper sense of obligation in protecting the environment and its resources. Hotel managers also need to possess the necessary environmental knowledge and skills to be successful in implementing EMS as a strong management support of environmental programs will also positively influence environmental performance. Given that a small proportion of hotels and lodges in the study had a designated environmental officer in place it is recommended that hotels and lodges consider establishing an independent EMS specialist or department. The commitment of top management in the implementation of an EMS is a critical factor and the availability of resources usually relies on top management. Therefore, the hotel management team must commit to environmental management and provide the necessary support and resources. Environmental concerns should be proactive rather than reactive. Reactive approach verifies existing management systems and encourages organizational change. Current environmental initiatives merely entail low energy lighting, recycling and linen and towel re-use. A comprehensive energy management program must be integrated into the hotels and lodges overall management system. Such a program should include purchasing and budgeting

policies, action plans, staff training programs, environmental monitoring and auditing and an assessment and evaluation of energy use.

Environmental actions through processes such as auditing, measuring, monitoring and reviewing is less widely known and practiced. Environmental audits were found to be an uncommon practice in all hotels and lodges. Environmental monitoring systems need to be set up for hotels and lodges to encourage regular monitoring and reporting of environmental measures. Useful indicators must be put into place to monitor resource usage and it is important to develop effective benchmarks for evaluating environmental performance. Public reporting should also be encouraged. There is a general lack in the dissemination of environmental information to stakeholders. Environmental manuals for the hotel sector should be produced and should include examples of good practice to assist in the implementation of practices. Results of the study also question the efficacy of communication strategies used to convey environmental information. There should be higher levels of communication of environmental issues to guests and the general public in the form of brochures, signage, guidebooks, accreditation schemes, award programs, flyers and websites. Industry partners such as suppliers and subcontractors must be persuaded to comply with environmental regulations. Suppliers and subcontractors must be able to abide by environmental standards and comply with related environmental legislation. Small business participation in environmental management is also encouraged. Apart from just formal environmental audits, a hotels environmental performance should also be evaluated by stakeholders. The assistance and support from industry trade organizations cannot be ignored. Green groups can also assist in promoting environmental management in hotels and lodges.

Recurrent and in-depth environmental training is crucial in establishing employee commitment as environmental training helps enhance employee awareness and knowledge. Environmental programs can be used as a tool to motivate employees to work towards a common goal. The financial savings earned from environmental actions can also be used as incentives or rewards for staff. Having an incentive program in place to reward employees for their environmental efforts may solicit better participation in environmental management programs.

New and cost-effective technologies to address environmental concerns must be developed given that the costs of implementing environmental action was cited as a barrier to

environmental management for a number of hotels and lodges in the study. It is advisable that hotels and lodges start with low cost and simple environmental actions. High investment projects should be implemented thereafter once benefits of environmental management have become known. A failure to realize the economic benefits of environmental management programs is also a reason for low levels of adoption. Therefore environmental management must be promoted as a cost reducing opportunity.

According to Donev *et al.* (2012), South Africa has in excess of 320 days of sun per year and therefore the country needs to speed up technologies for solar power. After the Copenhagen Accord, South Africa pledged a 34% reduction of emissions by 2020. With the increasing energy demands and the current power shortfall in South Africa, the need for renewable energy sources is critical. Currently, the potential for solar energy use is underutilized. Due to the rapid growth in global tourism, and the inclination for accommodation facilities of a high standard, the pressure on water resources will undoubtedly increase at destinations. The sector therefore needs to vigorously adopt water management practices. For gardens and landscaping water use, water consumption can be reduced by choosing drought resistant plants, use of irrigation systems with electronic controllers, the use of rainwater or grey water for irrigation. Hotels should avoid developing large pools and water features should also be avoided. Guestrooms should have low flow showers and taps as well as dual flush toilets. Kitchens can install water efficient dishwashers and taps with flow control regulators. Although a number of waste management practices are undertaken by hotels and lodges in the study, improvements in the area of organic waste composting is required.

Accreditations schemes have been considered as promising self-regulatory environmental measures and should be widely encouraged. However, internationally accepted environmental accreditation programs should be favored, as there are a number of small, unknown, meaningless ecolabels that are proliferating the industry. However, an important contribution has been in the area of CSR. Hotels and lodges need to realize that CSR activities can present a powerful public relations strategy for hotels and lodges which in turn can lead to competitive advantage and financial rewards. It is imperative that the hospitality sector creates strong linkages with other sectors to ensure utilization of local products and services. Furthermore, quality standards for local products and services must be regulated to ensure guest satisfaction. Industry needs to also engage supply chains as suppliers are faced with sustainability challenges and collaboration between suppliers and hotels must be

encouraged. Environmental and professional organizations should target unaffiliated hotels and lodges given that their environmental knowledge and implementation is lower compared to chain hotels and lodges. Larger hotels and lodges should work with small and medium companies to share knowledge and best practice.

7.3.2 Influence of consumers on environmental management in hotels and lodges

Customer demand for environmentally-friendly products is like to bring about the most visible change in environmental commitment for hotels and lodges. Therefore the challenge lies in influencing consumers. Consumers can either engage voluntarily or they may be forced to by government-imposed programs such as carbon taxation. Educational campaigns should therefore be targeted to the general public so as to increase consumer demand for environmentally-friendly hotels and lodges as the lack of environmental education is largely responsible for a lack of demand from consumers. While hotels and lodges may be willing to implement environmental measures, they fear that this may create the risk of losing customers due to misperception of a reduction in service quality. Therefore, hotels and lodges are somehow not convinced that environmental management is the right thing to do. The challenge for hotel managers is to try and integrate environmental procedures without compromising quality. It is therefore imperative that hotels and lodges educate guests of environmental issues and encourage responsible behavior of guests. Guests should be invited to participate in ecological activities. Knowledge on various consumer segments is also important to encourage sustainable behavior. Hotels and lodges should actively advertise their environmental efforts to influence the customer decision-making process as lack of communication of information to guests impedes environmental progress. Provision of environmental education and accreditation schemes in brochures, guidebooks and websites can provide potential guests with added information to assist in their selection. Moreover, traveler‟s decision-making process needs further investigation.

There is also a need to eliminate consumer skepticism of environmentally-friendly products. This will allow hotels and lodges to implement green measures without causing negative perception and dissatisfaction to guests. Marketers of green should actively position their products to the environmentally conscious consumer. At the same time, marketers should inform the less environmentally conscious guest of the need to conserve the environment and the benefits of their contributions towards environmental management. This will motivate

greener habits of consumption and will help transform green products into commercially attractive options.

7.3.3   Role of government

The tourism industry is often not on the regulatory agenda and in many countries has not been recognized as an important economic sector, let alone an environmental issue. Government and industry leaders have been largely ineffective in advocating environmental performance in hotels and lodges. Given that there is currently no specific environmental legislation pertaining to the accommodation sector, environmental practice is diminutive. The mainstreaming of environmental management in the hospitality sector requires government intervention and legislation as self-regulation and certification are considered ineffective. Most hotels and lodges in the study indicated that government legislation will be influential in the implementation of environmental management programs. Government should therefore be more aggressive in implementation laws and regulations pertaining to the hotel sector. Government regulations can help encourage hotels and lodges to commit to the sustainable development of communities and the natural environment. Governments need to move away from descriptive policies and principles and should focus on setting targets and instigating environmental programs. Therefore, there is a need for a thorough review of all rules, legislation and regulations related to environmental protection in the tourism and hotel sector, as legislation will clearly play a vital role in the advancement of environmental action. In turn, the hotel industry can assist to actively shape policy and legislation.

Environmental taxes can be an effective instrument in environmental policy. Governments should contemplate an environmental tax on environmentally harmful activities and at the same time taxes for polluters should be raised. Tax rates should be determined by the level of environmental damage caused by a hotel. Green hotels and lodges should be offered a variety of reimbursements and lower tax rates. Tax relieves can prompt hotels and lodges to invest in energy saving technologies.

The hotel industry in South Africa is currently not regulated for waste, water and energy use. Government should therefore conduct regular state of the environment reports, setting environmental targets for the hospitality sector and establishing relevant programs, introduce environmental grading schemes and ecolabels, implement tighter building regulations,

implement environmental action loans schemes since environmental actions require substantial capital outlay. Hotels and lodges should anticipate mandatory environmental regulations in the near future and therefore early environmental practice would be beneficial to the company. Government should conduct environmental audits and establish environmental grading schemes or programs for the hotel sector.

Government and other environmental organizations should increase their efforts in providing hotels and lodges with the appropriate information and knowledge. They should also develop and implement awareness programs and encourage environmental training programs for management and staff. Government should also consider an environmental action loan scheme given the high costs associated with specific environmental measures. Financial rewards can also be made to companies that excel in environmental management. Financial aid for environmental management is a key consideration for governments especially during difficult economic times.

The lack of a legislative framework for environmental management and the lack of enforcement of legal rules make the attainment of environmental management in the hotel sector difficult. The stricter enforcement of current laws is needed as well as the development of more appropriate industry specific legislation. More efforts need to put in addressing the lack of proper industry specific environmental policy. Effective EMSs will undoubtedly require government intervention and regulations. There may also be the need for "command and control" regulations. However, environmental management in the hotel sector should not only be the responsibility of governments. Rather, it should involve cooperation with all stakeholders as the study clearly notes that customers, media, government, employees, environmental organizations, corporate management, shareholders and competitors are influential stakeholders in their adoption of environmental management.

7.4 Limitations of the study and recommendations for future research

While the survey targeted hotel managers and hotel guests to obtain their environmental management awareness, they may have not fully understood the concept and meaning of environmental management related issues. The study may also endure a social desirability bias with hotel managers and guest providing socially acceptable responses. The sample of hotels and lodges in the study represents a small percentage of hotels and lodges in South Africa making it difficult to generalize these findings to the entire industry. It is therefore

recommended that a further study be undertaken with a larger sample which should include all accommodation sectors of the industry.

Employees should also be invited to participate in a similar study. The scope of this study focuses on KwaZulu-Natal. A broader analysis of hotels and lodges throughout South Africa will be useful in enhancing the generalization reached in this study. A longitudinal research approach is also suggested to observe and evaluate environmental management programs over a period of time.

7.5 Conclusion

The study indicates that managers of hotels and lodges in KwaZulu-Natal are at the stage of recognizing the significance of environmental management and are initiating environmental awareness and behavior. Environmental management concentrates largely on energy, water and waste management as well as CSR activities. The study also provides valuable insights that may assist in the development of environmentally sustainable policies and practices for the hotel sector in KwaZulu-Natal. Although hotel managers recognize the importance of environmental management, they are unwilling to implement environmental actions due to resource constraints. Environmentally responsible practices need to reflect cost savings for it to be incorporated into the hotel industry. The research further indicates that consumer demands are also leaning towards greener consumption. Also, it is important to acknowledge that consumer demand for green products is likely to bring about significant changes in environmental management in hotels and lodges. The study also revealed that very few hotels and lodges have the knowledge and motivation to develop and implement clear and measurable environmental goals and action plans. Indeed, what is emerging from the study is the gap between theory and practice. Whilst a large proportion of hotel managers and hotel guests acknowledged the detrimental impacts of the industry on the environment, there is limited evidence of these concerns being translated into actions. Managers tend to be reactive rather than proactive in their environmental approach. Environmental issues are largely taken to advance the objectives of the business rather than out of genuine concern for the environment. The results of the study suggest that the accommodation sector, government and guests re-evaluate their current level of environmental commitment to aspire to higher levels of commitment as the future of the hotel sector calls for environmental considerations in all aspects of its development and operation.

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APPENDIX 1

Hotel Guest Questionnaire

1. **What type of accommodation do you usually stay in?**

☐ 1-3 star	☐ 4-5 star	☐ Does not matter

2. **Indicate the main purpose of your stay**

☐ Business	☐ Leisure	☐ Business and leisure

3. **Rate the importance of the following attributes when choosing a hotel.**

	Not Important	Somewhat Important	Important
Hotel location	☐	☐	☐
Service quality	☐	☐	☐
Price	☐	☐	☐
Hotel facilities	☐	☐	☐
Environmental record	☐	☐	☐
Hotel brand	☐	☐	☐

4. **The following attributes are important to me in a hotel**

	Not Important	Somewhat Important	Important
Hotel supports local businesses	☐	☐	☐
Hotel employs people from the local community	☐	☐	☐
Hotel has energy saving features	☐	☐	☐
Hotel has water saving features	☐	☐	☐
Hotel educates on environmental issues	☐	☐	☐
Hotel provides staff with environmental training	☐	☐	☐
Hotel visibly communicates environmental actions	☐	☐	☐
Hotel has a recycling program in place	☐	☐	☐
Hotel uses environmental reputation in their marketing	☐	☐	☐
Hotel donates to local charities	☐	☐	☐

5. Rate your level for agreement with the following statements

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I prefer to stay in an environmentally-friendly hotels	☐	☐	☐	☐	☐
I prefer hotels with environmental accreditations	☐	☐	☐	☐	☐
I am willing to pay higher prices for environmentally-friendly hotels	☐	☐	☐	☐	☐
Environmentally-friendly hotels compromise luxury and comfort	☐	☐	☐	☐	☐
Environmentally-friendly hotels are of a lower quality	☐	☐	☐	☐	☐
I don't care if hotel adheres to environmentally-friendly practices	☐	☐	☐	☐	☐
Current star rating should incorporate environmental issues	☐	☐	☐	☐	☐
We are approaching the limit of the number of people the earth can support	☐	☐	☐	☐	☐
The ecological crisis facing mankind is being exaggerated	☐	☐	☐	☐	☐
Humans are abusing the environment and there is a need to conserve it	☐	☐	☐	☐	☐
Hotels should be rated according to their environmental actions	☐	☐	☐	☐	☐

6. Indicate your level of agreement in terms of….

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Dimming of lights in public areas reducing level of satisfaction and comfort	☐	☐	☐	☐	☐
Low-flow showers reduces level of satisfaction and comfort	☐	☐	☐	☐	☐
Low-flow taps reduces level of satisfaction and comfort	☐	☐	☐	☐	☐
Re-use of towels reduces level of satisfaction and comfort	☐	☐	☐	☐	☐
re-use of linen reduces satisfaction and comfort	☐	☐	☐	☐	☐
Restricted use of air conditioning reduces level of satisfaction and comfort	☐	☐	☐	☐	☐
Use of showers instead of baths reduces level of satisfaction and comfort	☐	☐	☐	☐	☐
Use of local goods and services reduces level of satisfaction and comfort	☐	☐	☐	☐	☐
Use of recycling bins reduces level of satisfaction and comfort	☐	☐	☐	☐	☐

7. **Are you aware of the following environmental accreditation schemes and ecolabels**

	Yes	No
Blue Flag Campaign	☐	☐
Fair Trade in Tourism South Africa	☐	☐
Green Globe 21	☐	☐
ISO 14001	☐	☐
Imvelo Responsible Tourism Awards	☐	☐
Aware of International Green Leaf Environmental Standard	☐	☐
Aware of GreenstaySA	☐	☐
Aware of Heritage Environmental Rating Scheme	☐	☐

8. **Which of the following environmentally-friendly practices do you personally undertake/participate in?**

	Yes	No
Recycling	☐	☐
Water conservation and re-use	☐	☐
Energy conservation	☐	☐
Proper disposal of waste	☐	☐
Buy local goods and services	☐	☐

VISITOR PROFILE
9. **Age group:**

☐ 18 – 20	☐ 21 – 30	☐ 31 – 40	☐ 41 – 50	☐ 51 – 60	☐ 61 – 70	☐ >70

10. **Gender:**   ☐ Male   ☐ Female

11. **Highest level of education attained**

☐ No formal education	☐ Completed school	☐ Certificate/diploma
☐ Undergraduate degree	☐ Postgraduate degree	☐ Other:

APPENDIX 2

Hotel Manager Questionnaire

1. Indicate the chain to which this hotel belongs.

☐	Does not belong to hotel chain	☐	Sun International
☐	Tsogo Sun	☐	Three Cities
☐	Protea Hotels	☐	City Lodge
☐	Holiday Inn	☐	Fairmont Hotels and Resorts
☐	Other, please specify:		

2. Please indicate the category of this hotel

☐ 1 star	☐ 2 star	☐ 3 star	☐ 4 star	☐ 5 star

3. How many guestrooms does this hotel have?

4. How long has this hotel been in operation at this location?

☐ Less than 1 year	☐ 1-5 years	☐ 6-10 years	☐ 11-15 years	☐ More than 15 years

5. Indicate the key market this hotel attracts.

☐ Business	☐ Leisure	☐ Business and leisure

6. This hotel offers the following facilities: *(multiple responses permitted)*

☐	Restaurants	☐	Swimming pool	☐	Gymnasium
☐	Spa	☐	Shops	☐	Conference rooms
☐	Golf	☐	Water sports	☐	Business centre
☐	Other, please specify:				

7. Are environmental issues a significant concern for your hotel? ☐ Yes ☐ No

8. What do you perceive to be the key environmental issues in this hotel?

☐	Energy consumption	☐	Water consumption
☐	Waste generation	☐	Noise pollution
☐	Habitat degradation	☐	Other, specify:

9. How important are environmental considerations in the *management* of this hotel?

☐ Very important	☐ Important	☐ Neutral	☐ Unimportant	☐ Very unimportant

10. If „important", how are environmental issues considered in the management of this hotel?

_____
_____
_____
_____
_____

11. How important are environmental considerations in the *marketing* of this hotel?

☐ Very important	☐ Important	☐ Neutral	☐ Unimportant	☐ Very unimportant

12. If „important", how are environmental issues considered in the marketing of this hotel?

_____
_____
_____
_____
_____

13. Please indicate the extent to which each of the following factors have influenced environmental management at your hotel?

	No influence	Some influence	Strong influence
Customer desire for environmentally-friendly products and services	☐	☐	☐
Ability to earn public recognition with environmentally-friendly actions	☐	☐	☐
Promoting an environmentally-friendly image to interest groups	☐	☐	☐
Complying with current environmental regulations	☐	☐	☐
Improving environmental performance to keep up with competitors	☐	☐	☐

14. Over the past two years, how many times has this hotel conducted an internal environmental audit?

☐ None	☐ 1-3 times	☐ More than 3 times

15. Over the past two years, how many times has this hotel conducted an external environmental audit?

☐ None	☐ 1-3 times	☐ More than 3 times

16. In terms of social responsibility, does this hotel:

	Yes	No
Use local labor?	☐	☐
Purchase Fair Trade products?	☐	☐
Buys local goods and services?	☐	☐
Donate to local charities?	☐	☐

17. Approximately what proportion of employees at this hotel has received environmental training in the past 12 months?

	0%	1-25%	26-50%	51-75%	76-100%
Front office	☐	☐	☐	☐	☐
Housekeeping	☐	☐	☐	☐	☐
Food and beverage	☐	☐	☐	☐	☐
Food production	☐	☐	☐	☐	☐
Maintenance	☐	☐	☐	☐	☐
Security	☐	☐	☐	☐	☐

18. To what extent has each of the following groups influenced your hotel to improve its environmental performance?

	No influence	Some influence	Strong influence
Customers	☐	☐	☐
Suppliers	☐	☐	☐
Competitors	☐	☐	☐
Trade associations	☐	☐	☐
Local community	☐	☐	☐
Environmental organizations	☐	☐	☐
Media	☐	☐	☐
Shareholders	☐	☐	☐
Corporate management	☐	☐	☐
Employees	☐	☐	☐
Government	☐	☐	☐

19. In terms of awareness and commitment to environmental issues, does this hotel,

	Yes	No
Have an environmental policy in place?	☐	☐
Have an officer in charge of environmental management?	☐	☐
Have and environmental management system in place?	☐	☐
Have environmental accreditations?	☐	☐
Have an environmental action plan?	☐	☐
Gives preference to environmentally-friendly products?	☐	☐
Familiarize itself with environmental regulations and legislations?	☐	☐
Monitor and record environmental management performance?	☐	☐
Provide environmental education to staff?	☐	☐
Encourages all employees to get involved in environmental management?	☐	☐
Rewards employees for their contribution to environmental management?	☐	☐
Supports the local community in which it is located?	☐	☐
Include environmental issues in marketing material?	☐	☐
Visibly communicates environmental efforts to guests and stakeholders?	☐	☐
Get guest's opinion on environmental practices?	☐	☐
Participates in environmental meetings and workshops?	☐	☐
Inform customers on environmental issues?	☐	☐
Educates guests on environmental issues?	☐	☐

20. Please indicate your level of agreement with the following statements concerning the environmental impacts of this hotel.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
High levels of energy consumption	☐	☐	☐	☐	☐
High levels of water consumption	☐	☐	☐	☐	☐
High levels of solid waste	☐	☐	☐	☐	☐
High levels of hazardous waste	☐	☐	☐	☐	☐
High levels of litter	☐	☐	☐	☐	☐
High levels of noise pollution	☐	☐	☐	☐	☐
Habitat degradation	☐	☐	☐	☐	☐
Loss of biodiversity	☐	☐	☐	☐	☐

21. With regards to energy efficiency, does this hotel….

	Yes	No
Have an energy management policy?	☐	☐
Use energy-saver control systems in rooms?	☐	☐
Use solar energy?	☐	☐
Purchase low energy consuming materials?	☐	☐
Use energy-saving light bulbs?	☐	☐
Use key-card energy control systems in rooms?	☐	☐
Review utility bills to monitor energy consumption?	☐	☐
Use energy-efficient appliances?	☐	☐

22. With regards to waste management, does this hotel …

	Yes	No
Have a program to minimize waste?	☐	☐
Practice solid waste separation?	☐	☐
Use recycled paper?	☐	☐
Composts the organic and food waste?	☐	☐
Purchase materials with recyclable properties?	☐	☐
Cooperate with recycling firms?	☐	☐
Reduce packaging by purchasing in bulk?	☐	☐
Implement recycling programs?	☐	☐
Use environmentally-friendly cleaners and detergents?	☐	☐
Install soap and shampoo dispensers to reduce waste?	☐	☐
Install recycle bins to encourage recycling?	☐	☐
Have a waste-water treatment in place?	☐	☐

23. With regards to water management, does this hotel …

	Yes	No
Have a water conservation program in place?	☐	☐
Install water efficient devices?	☐	☐
Implements a towel re-use program?	☐	☐
Install low-flow showerheads?	☐	☐
Install water-efficient appliances?	☐	☐
Install low-flow taps?	☐	☐
Implements water-efficient gardening programs?	☐	☐
Educate customers and staff on how to conserve water?	☐	☐
Choose low maintenance landscaping to reduce water consumption?	☐	☐
Have dual-flush toilets?	☐	☐
Review utility bills to monitor water consumption?	☐	☐

24. For your hotel, please indicate whether or not the following environmental practices and programs have been implemented?

	Yes	No
Well defined environmental goals	☐	☐
Documented environmental policy	☐	☐
Green purchasing policy	☐	☐
Environmental standards for suppliers	☐	☐
Publishing of environmental information in public reports	☐	☐
Environmental training for employees	☐	☐
Incentives for employees for their environmental contribution	☐	☐
Environmental certification schemes	☐	☐

25. Indicate the extent to which you agree with the benefits that environmental management can bring to this hotel.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Reduces operational costs	☐	☐	☐	☐	☐
Improves service quality	☐	☐	☐	☐	☐
Improves relationships with local communities	☐	☐	☐	☐	☐
Improves public relations	☐	☐	☐	☐	☐

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Helps hotel gain a competitive advantage	☐	☐	☐	☐	☐
Increases profitability	☐	☐	☐	☐	☐
Enhances employee motivation and satisfaction	☐	☐	☐	☐	☐
Improves the image of the hotel	☐	☐	☐	☐	☐
Increases customer loyalty	☐	☐	☐	☐	☐

26. Indicate the extent to which you agree with the following factors that act as a barrier to environmental management at this hotel

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Lack of promotion of Environmental Management Systems	☐	☐	☐	☐	☐
Lack of adequate knowledge and technical skills for environmental management	☐	☐	☐	☐	☐
Lack of specialized staff for environmental management	☐	☐	☐	☐	☐
Lack of a clear legislative framework	☐	☐	☐	☐	☐
Economic climate does not give priority to environmental management	☐	☐	☐	☐	☐
There are no benefits to implementing environmental management	☐	☐	☐	☐	☐
High costs associated with environmental programs	☐	☐	☐	☐	☐
Lack of government assistance in environmental management	☐	☐	☐	☐	☐
Insufficient resources to allocate to environmental management	☐	☐	☐	☐	☐
Not important to this type of hotel	☐	☐	☐	☐	☐
See no economic benefits	☐	☐	☐	☐	☐
No market demand for environmentally responsible hotels	☐	☐	☐	☐	☐

27. Which of the following incentives are likely to influence your hotel to adopt environmental protection measures?

	Yes	No
Free environmental management advise and knowledge	☐	☐
Evidence of reduced costs	☐	☐
Availability of specialist staff for environmental management	☐	☐
Grants to implement environmental management	☐	☐
Reduced taxes	☐	☐

Operating subsidies		☐	☐
Availability of specialized staff for environmental management		☐	☐
Clear legislative framework		☐	☐

28. How would you rate the following strategic issues for hotel managers in the future?

	Important	Somewhat important	Important
Global expansion	☐	☐	☐
Financial requirements	☐	☐	☐
Environmental concern	☐	☐	☐
Service quality	☐	☐	☐
Development of information technology	☐	☐	☐
Business sustainability	☐	☐	☐

Respondent Profile

29. Indicate the number of years you have been employed at this hotel.

☐	Less than 1 year	☐	1-5 years
☐	6-10 years	☐	11-15 years
☐	16-20 years	☐	More than 20 years

30. Please indicate the department in the hotel in which you have the most experience.

☐	Sales and marketing	☐	Food and beverage
☐	Front desk	☐	Human resource
☐	Finance	☐	Maintenance
☐	General management	☐	Other

31. Please indicate your age

☐	Under 30 years	☐	31-35 years
☐	36-40 years	☐	41-50 years
☐	51-60 years	☐	More than 60 years

32. Please indicate your gender

Male	Female

33. Please provide any further comments you have with regards to environmental management in hotels.

_____
_____
_____
_____
_____
_____