

Environmental Commitment in the Tourism Accommodation Industry In Sanya, China.

by

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## **Author's Declaration**

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

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## **Abstract**

This study focuses on environmental commitment in the tourist accommodation industry, with particular emphasis on a case study of Sanya, Hainan, China. Both the beneficial and detrimental attributes of tourism accommodations are discussed in this thesis. On a worldwide basis, negative environmental and social impacts associated with the accommodation industry have spurred the formation of many non-regulatory initiatives aimed at improving the sustainability of accommodations and their related activities. Furthermore, as China is a country that is relatively new to tourism and is affected by burgeoning growth, it is imperative to determine the level of environmental commitment in the industry. Through this analysis, potential methods can be assessed that can be imperative in moving the tourism accommodation industry in Sanya, and subsequently worldwide, towards sustainable action.

In order for the latter to occur, a study was conducted in 2004-05 to identify the motivating, organizational and impeding factors that affect the level of environmental commitment in the Sanya accommodation industry. These factors were assessed using qualitative and quantitative data collection and analysis in an attempt to provide insight into the gap between attitude and action in relation to sustainability in the tourist accommodation industry. This thesis discusses the major conclusions derived from this study and provides insight as well as recommendations as to what affects the level of environmental commitment in an accommodation facility and how this information can be utilized to motivate sustainability.

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## **Dedication**

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## **Chapter 1**

### **Introduction**

Since the Rio Earth Summit in 1992, the environmental and social impacts of the tourism industry and specifically the accommodation industry have come to the forefront of global issues. Tourism, as an economic sector that needs to be managed sustainably, has been discussed at length through global conventions, policies within the United Nations and at the individual country level (Butler 1993; Bohdanowicz 2005; Bramwell and Lane 1993; Ioannides 1996; Hunter Jones et al 1997; Krippendorf 1982; Sharpley 2000; McElroy & Albuquerque 1992; Dodds 2005). Yet sustainability considerations have been mainly conceptual to date and have not yet been translated into industry-wide practice. This has been the case in China, where tourism demands far exceed the coping ability of tourism destinations and the demonstrated level of environmental commitment has been low (Jie Wen and Tisdell 2001).

This study focuses on environmental commitment in the tourist accommodation industry, with particular emphasis on a case study of Sanya, Hainan, China. Both the beneficial and detrimental attributes of tourism accommodations are discussed in this thesis. On a worldwide basis, negative environmental and social impacts associated with the accommodation industry have spurred the formation of many non-regulatory initiatives aimed at improving the sustainability of accommodations and their related activities. Furthermore, as China is a country that is relatively new to tourism and is affected by burgeoning growth, it is imperative to determine the level of environmental commitment in the industry in order to assess the potential methods used to move the tourism accommodation industry in Sanya and subsequently worldwide, towards sustainable action. In order for the latter to occur, the motivating, organizational and impeding factors that affect the level of environmental commitment in an accommodation facility will be assessed in Sanya in an attempt to provide insight into the gap between attitude and action.

## 1.1 The Tourism Industry

Although some contest whether tourism should be regarded as an industry, tourism is commonly recognized as one of the world's largest industries and continues to expand at a rapid rate (UNWTO 2006). In many cases, tourism development has been a profitable economic tool, making it an alluring industry and form of development for many countries and regions around the world. However the benefits are also often accompanied by many negative effects that result in impacts, both of an environmental and social nature (Theobald 1998; Bohdanowicz 2005; Dodds 2005). Tourism is a significant global industry with a profound impact on the environment (Bruner et al. 1999; WTTC 2002). The magnitude of this industry is demonstrated by World Tourism Organization statistics (WTO) indicating that by the year 2010, international tourist arrivals will surpass more than one billion tourists (Bruner et al. 1999). In 2006, the World Travel and Tourism Council (WTTC) projected that the direct and indirect impacts of tourism were expected to contribute 10.3 percent of the global Gross Domestic Product and create nearly 10 million new jobs for the world economy for a total of 234.3 million jobs (WTTC, 2006). Despite the potential for incorrect and inflated measurements, these figures illustrate the global importance of tourism.

As discussed by numerous authors, the development and long term success of the tourism industry depends on a constant availability of natural and cultural resources. The appeal of a destination is based on the pristineness and authenticity of these resources, yet these resources are also what is affected most by overexploitation and degradation (Murphy 1998; Butler 1993; Butler 1998; Bohdanowicz 2005). As tourism is a resource intensive industry, this has resulted in a significant ecological footprint (Bohdanowicz 2005). Given tourism's significance to global and local economies and its impact on the natural and social environment, the need to implement sustainable practices has come to the forefront of global issues (Stipanuk 1996; Murphy 1998; Theobald 1998; Pryce 2001; Hunter 2002; Mastny 2002; WTTC 2002; Dodds 2003; Dodds 2005; Dodds 2007; Butler 1993; Bramwell and Lane 1993; Ioannides 1996; Hunter Jones et al 1997; Krippendorf 1982; Sharpley 2000; McElroy & Albuquerque 1992).

## **1.2 An Overview of Environmental Commitment in Tourism**

At the United Nations conference in Rio de Janeiro in 1992, tourism was identified as one of the five main industries in need of achieving sustainable development (Theobald 1998; Budeanu 1999; Pryce 2001). In order for the tourism industry to move towards sustainability, practices must be altered in all facets of the industry; however, an emphasis should be placed on accommodation facilities which are a major sub-sector of this industry (Alvarez Gil et al. 2001).

The accommodation sector is comprised of widely differing forms of serviced sleeping facilities such as hotels, motels and guesthouses of varying ownership, size, grade, amenities and clientele (Holloway 1985). On an individual basis, these facilities do not usually cause gross environmental pollution or consume vast amounts of resources. Collectively, however, they have a significant effect on global resources and destination degradation (Kirk 1995; Alvarez Gil, et al. 2001).

In the last decade, a number of environmental and social initiatives have been implemented by progressive accommodation companies and industry associations. Sustainable practices have been encouraged because of the industry's significant impact on the environment and its reliance on the maintenance of a pleasant setting. Several tourism organizations are professing adherence to more sustainable forms of tourism which aim to safeguard natural and cultural heritage (Stabler and Goodall 1997). A recent UN publication (UNEP 2005:18-19) lists twelve aims of a sustainable tourism agenda and offers guidelines about their pursuit. These aims are economic vitality, local prosperity, employment quality, social equity, visitor fulfillment, local control, community wellbeing, cultural richness, physical integrity, biological diversity, resource efficiency and environmental purity. The World Travel and Tourism Council (WTTC) indicates that there have been advances towards such goals and this is apparent in the tour operations, airline and hotel sectors (WTTC, 2002; Henderson 2007).

Despite the fact that most operators acknowledge the importance of the environment to their business, sustainable practices are not widespread in this sector (Anguera et. al. 2000; Pryce 2001). The words "sustainability" and "green" have been attached to several tourism products and destinations, especially as part of marketing strategies and certification programs, however how "sustainable" or "green" a tourism

product or destination is has not always been clear. Sustainability is now seen as a buzzword, rather than an action plan (Henderson 2007). There are also impeding factors such as cost and the complex, varied structure of the industry that hinder the ability of individual companies to make strides towards sustainability (Henderson 2007, Anguera et al. 2000; Pryce 2001). Much still needs to be done industry-wide and due to the tourist accommodation industry's impact on the environment, it is important to understand why the implementation of environmental and social initiatives has been relatively limited. It is also necessary to consider how this industry might be encouraged to implement more sustainable practices (Diamantis 1999; Bramwell and Alletorp 2001; Pryce 2001). This study seeks to determine what influences environmental commitment in a tourist accommodation facility.

### **1.2.1 Environmental Commitment in the Tourist Accommodation Industry**

Environmental commitment can be broadly based on the definition of corporate social responsibility (CSR). CSR is defined as the “actions that appear to further the social good, beyond the interests of the firm and that which is required by law” (McWilliams and Siegal 2001: 117). It encompasses the notions of business ethics and the importance of stakeholders besides owners, investors and any shareholders (Schmidheiny et. al 1997; Henderson, 2007). The rationale is that businesses have responsibilities other than those which are commercial in nature and should give due regard to the well-being of society which extends to a healthy physical environment (Hopkins 1999; Henderson 2007). CSR maintains a company perspective and questions of profitability remain at the forefront. As many tourism organizations cannot be considered a firm in the traditional sense due to their small and medium-sized nature, the concept of environmental commitment will be used in this thesis. Key aspects of environmental commitment are environmental conservation, alongside respect for the individual and society, and incorporating the triple bottom line which addresses environmental, social and economic returns (Henderson 2007).

For the purpose of this thesis, environmental commitment “is specifically defined as a set of initiatives aimed at mitigating a firm's impact on the natural and social environment” (Bansal and Roth 2000:717). The environmental commitment initiatives examined in this study consist of:

- Environmental strategy;
- Organizational change and change in corporate culture;
- Regulatory compliance;
- Voluntary initiatives;
- Energy efficiency;
- Water conservation;
- Waste management;
- Hazardous waste management and disposal;
- Promotion of sustainable tourism;
- Green conferences;
- Supplier take-back initiatives;
- Guest and employee education;
- Community outreach and support;
- Philanthropic donations and partnerships;
- Ongoing, continuous improvement; and
- Corporate ethics

(Henriques and Sadorsky 1999; HAC 2000; Alvarez Gil et al. 2001; Fairmont 2001; Lynes 2004; Henderson 2007).

In this study, organizational responses to sustainability concerns in tourism will be analyzed and evaluated to determine what factors influence environmental commitment in accommodation facilities in Sanya and, by extension, elsewhere.

### **1.3 Exploring Environmental Commitment in the Tourist Accommodation Industry of Sanya, Hainan, China**

China was selected as the location for this research due to the limited understanding of stakeholder-organization relationships and their effects on environmental commitment in Asia (Cheyne and Barnett 2001; Pine 2002). Despite China's transitioning business culture from a command economy to a free market economy, the forecasted increase of foreign investment in accommodations, the projection that China will become an increasingly popular tourist destination and its

recent focus on environmental protection, the important and evolving business-environment relationship in China has not received much attention in the literature (Yu and Huat 1995; Cheyne and Barnett 2001; Child and Tse 2001; Pine 2002). This is especially so in the case of the service sector. Much of the business, tourism and environmental management literature has examined the stakeholder-organization dynamic and its effect on environmental commitment in Western manufacturing firms (Alvarez Gil et al. 2001). The current study examines environmental commitment in a service industry of a region with a transitioning economy that is gaining momentum in foreign markets (Sautter and Leisen 1999; Cheyne and Barnett 2001) .

Sanya was selected as the place to undertake a case study for numerous reasons. Due to the rapid economic expansion of the manufacturing and tourism industries, China is experiencing considerable environmental damage. As the environment is the core asset of the tourism industry, China should have a vested interest in protecting its natural and cultural assets (Pryce 2001). To address this, China designated the Province of Hainan, the research site for this study, as the first eco-province in China. The eco-provincial designation was developed to attract economically productive and ecologically efficient industries to the area while protecting the culture and physical beauty (Xie and Wall 1999). Sanya is an important tourism destination in Hainan due to its natural and cultural attractions and burgeoning accommodation industry (Xie and Wall 1999). Despite the environmental achievements in Hainan however, sustainability problems remain, such as mismanagement of infrastructure, pollution and rapid expansion without proper planning (Xie and Wall 1999). This research will contribute to the understanding of what influences environmental commitment in one of Hainan's major industries, tourist accommodations.

#### **1.4 Need for Research**

Despite the multitude of studies conducted on corporate sustainability and environmental management, there is still limited insight into the relationship between environmental performance and organizational behaviour. It is not fully understood why some organizations are more environmentally proactive than others and what drives enhanced environmental performance in an organization. It is especially pertinent to study these aspects on an industry and regional basis (Kirk 1995; Mauser 2001; Tinsley

2002). It is not clear from the literature whether the factors affecting increased environmental performance are similar throughout all industries and regions, or industry and region specific (Alvarez Gil et al. 2001; Rivera 2001). Recent research suggests that there are different factors that affect environmental commitment for different sectors. As a result, generic lists of drivers are open to criticisms of reductionism, consolidating the argument that further research is required on specific sectors (Lynes and Dredge 2003; Rivera and DeLeon 2005; Salzmann et al. 2005).

In the vast body of literature regarding environmental commitment and corporate social responsibility, much of the literature has concentrated on manufacturing industries (Lynes and Dredge 2003). Service industry studies have received little attention in the literature despite the increasing environmental importance of the tourism industry and, more specifically, the accommodation industry's impacts on the environment. The environmental effects of this industry are neglected in the literature and it is important to understand why the implementation of environmental and social initiatives have been limited (Mitchell et al. 1997; Berman et al. 1999; Cashore and Vertinsky 2000; Mauser 2001; Rivera 2002a). It is also necessary to consider how this industry might be encouraged to introduce more sustainable practices (Diamantis 1999; Bramwell and Alletorp 2001; Pryce 2001). An analysis of the factors that affect the level of environmental commitment in the accommodation industry is pertinent in developing strategies for action.

A great number of studies have examined internal and external drivers and barriers to environmental commitment; however, the extant research lacks clarity as to how motivations differ and what contexts lead to particular motivations (Bansal and Roth 2000). There is also a lack of studies that have accounted for both industry and country effects (Salzmann et al. 2005). Much of the academic literature and media reporting about environmental commitment is set within a Western context and the cases examined are usually from Europe and North America (Henderson 2007). Exploring the interactions of cultural dimensions and environmental commitment could be instrumental in understanding what factors can lessen the gap between attitudes and actions (Bansal and Roth 2000).

## **1.5 Research Objectives**

This study examines the factors that influence environmental commitment in the tourist accommodation industry. The motivating, organizational and impeding factors are identified and analyzed to determine what influences environmental commitment in the tourist accommodation industry in general, and, more specifically, in the context of China. The findings of this research will contribute to addressing methods to decrease the gap between attitude and action in relation to sustainability in the tourist accommodation industry. To accomplish these goals, this study explores four main research objectives:

1. To review the business, tourism and environmental management literature to identify and consolidate the motivating, organizational and impeding factors that affects the level of environmental commitment in the tourist accommodation industry;
2. To conduct an inventory of the tourist accommodation industry in Sanya, China. The inventory is three-fold and consists of collecting data on the organizational factors, stakeholders and level of environmental commitment. The inventory will identify organizational factors such as ownership, age, size, management structure, clientele, location and star rating of the facilities in addition to stakeholders and their degree of salience and level of environmental commitment in the Sanya accommodation sector;
3. To analyze how various motivating, organizational and impeding factors influence environmental commitment in the tourist accommodation industry; and
4. To utilize the data to identify strategies to increase the level of environmental commitment in the tourist accommodation industry.

The objectives are met through the application of both qualitative and quantitative research methods.

## **1.6 Research Approach**

This research is exploratory, descriptive, action-oriented and prescriptive in nature. It is exploratory as it explores the factors that influence the level of environmental commitment in the tourist accommodation industry generally and specifically in China. It is descriptive as it describes the tourist accommodation industry in Sanya, China and the various factors that influence environmental commitment in the industry. It is action-oriented, as it engages stakeholders through site visits, stakeholder consultation sessions and workshops to discuss partnership development. It is prescriptive as it explores how to



use what has been learned from this study to increase the level of environmental commitment in the tourist accommodation industry.

Data for this project was collected using a multi-method research approach (Sommer and Sommer 1991). The research was multi-stage and multi-method as it involved collecting and analyzing data using a variety of methods in phases where one informed the next sequentially. A combination of primary and secondary data and both qualitative and quantitative research techniques, such as a literature review, questionnaires, interviews, stakeholder consultation meetings and observation were employed. The data was analyzed using methods which allowed the author to identify themes and conceptual categories and build upon existing knowledge.

### **1.7 Structure of Dissertation**

This chapter has introduced the general purpose and topic area of the study as well as the gaps in the literature that motivated this study. In Chapter 2, the literature and theories related to the factors that influence environmental commitment are examined. Stakeholder theory, neo-institutional theory and the resource based theory of the firm are discussed in general and within the context of environmental commitment in tourism. Environmental management models are also discussed to further identify and shape a theoretical framework that identifies the motivational, organizational and impeding factors that influence environmental commitment in the accommodation industry. Chapter 3 consolidates the business and environment literature and provides a comprehensive discussion of the factors that influence environmental commitment in an organization. Chapter 4 explains the need for a qualitative and quantitative research approach and discusses the methodology used. Chapter 5 describes the research setting of Sanya. This chapter outlines tourism development and the accommodation industry in China and provides background to the study area. Chapters 6 and 7 discuss the results of the study. Chapter 8 discusses the key findings and links these findings to recommendations for action. Chapter 9 presents the conclusions of the study.

## **Chapter 2**

### **What Influences Environmental Commitment in Organizations? A Review of the Literature**

The aim of this chapter is to explore the environmental management, business and tourism literature to identify the motivating, organizational and impeding factors that affect the level of environmental commitment in the tourist accommodation industry. This chapter begins with a broad discussion of sustainability and its application to tourism, followed by a discussion of the environmental and social impacts of the tourist accommodation industry. Environmental commitment initiatives to date are discussed in order to provide context to this study and illustrate the gap between attitude and action in this sector. In order to identify the factors that affect environmental commitment in this industry, three business theories are examined in addition to a number of environmental management models and their pertinence to the tourist accommodation industry is discussed. This chapter satisfies the first objective of this thesis as it provides a review of the current literature to identify the motivating, organizational and impeding factors that affect the level of environmental commitment in tourism accommodations.

#### **2.1 Sustainability and Tourism**

Twenty years have passed since the 1987 World Commission on Environment and Development (WCED), where sustainable development had initially become a major global concern. At this event, the deteriorating condition of the world's natural resources inspired an agreement among world leaders that sustainable development should be the central principle of governments, private institutions and organizations (WCED 1987). This event brought attention to the fact that the destruction of the natural environment is clearly associated with the effects of human economic activities and developments (Middleton 1998). The concept of sustainable development, defined as "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs" provided an alternative to past development schemes that were less practical as they were based largely on economics without sufficient thought to the

long-term viability of the development and its externalities (WCED, 1987). Unlike these previous theories of development, sustainable development incorporated ecological, social and economic aspects and became the new global agenda for change (WCED 1987; Becherel and Vellas 1999; Sharpley and Telfer 2002).

Subsequent to the World Commission on Environment and Development (for tourism is not mentioned in their documentation), the United Nations has viewed tourism as a key sustainable development issue in light of the industries' both beneficial and destructive nature. Tourism is a service delivered by people that provides experiences and involves the transportation of participants, their accommodation and entertainment, giving rise to potentially disruptive side-effects. The capacity of tourism to impact destination economies, societies, cultures and environment, both positively and negatively, is well documented and its adverse repercussions have exposed the industry to strong criticism (Anguera et al. 2000; Dodds 2003; Henderson 2007; Butler 1993; Bramwell and Lane 1993; Ioannides 1996; Hunter Jones et al. 1997; Krippendorf 1982; Sharpley 2000; McElroy and Albuquerque 1992). The other side to this argument however is that tourism can supply much needed infrastructure, income and employment which will boost destination economies and raise standards of living. In addition, if planned properly, tourism can also protect resources and help finance conservation (Swarbrooke 1999; Dodds 2003; Dodds 2007; McElroy 2002a; Henderson 2007). Given this dichotomy, tourism was identified as one of the five main industries in need of achieving sustainable development at the United Nations conference in Rio de Janeiro in 1992 (Theobald 1998; Budeanu 1999; Pryce 2001).

In 1995, the World Tourism Organization, the World Travel and Tourism Council and the Earth Council published Agenda 21 for the Travel and Tourism Industry. The aim of this document was to establish systems and procedures to incorporate sustainable development considerations into the decision-making processes of tourism enterprises. It emphasized the importance of partnerships between government and industry, and demonstrated the benefits of making the whole industry sustainable and not just the niche ecotourism sector (Pryce 2001).

Subsequently, sustainable development has become the foundation and framework for tourism planning in many contexts (Dredge, 2006). It has also become a

buzzword in development studies in general and tourism research in particular.

“Sustainability, sustainable tourism and sustainable development are all well-established terms that have been used loosely and often interchangeably in the literature” (Liu 2003:461). Yet these studies and subsequent discussions have led to several definitions and interpretations of sustainable tourism, resulting in confusion in the industry and slow implementation of the concept (Godfrey 1998; Hunter 2002). These definitions range from tourist-centric, economically-focused points of view that pay little attention to natural resource demands to a more eco-centric, multi-sectoral approach that focuses on resource management as the primary factor (Hunter 2002). These variants do not commonly identify socio-cultural aspects that are imperative to incorporate into a definition of sustainable tourism. A definition that incorporates all aspects of sustainable development, including economic, environmental and socio-cultural aspects, in the context of tourism is necessary. Butler’s (1993) definition of sustainable development in tourism is the most comprehensive definition that incorporates all three facets. Butler defines sustainability development in relation to tourism as:

Tourism which is developed and maintained in an area (community, environment) in such a manner and such a scale that it remains viable over an indefinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits successful development and well being of other activities and programs (Butler 1993:29).

This definition of sustainable tourism can be applied to all tourist destinations, mass or alternative, built or in the planning stages, and to all types of tourism products. It enables a practical approach to incorporating sustainability in tourism planning and development rather than a very theoretical definition that does not incorporate all tourism activities. It is through this definition that the premise of acquiring a sustainable tourism industry for the well-being of the global environment can be understood.

The need for practicality is also discussed by Liu (2003). According to Liu (2003), there is an urgent need to develop policies and measures that are not only theoretically sound but also practically feasible. “Without the development of effective means of translating ideals into action, sustainable tourism runs the risk of remaining irrelevant and inert as a feasible policy option for the real world of tourism development.

In particular, ways of applying the principles of sustainable development to mainstream, conventional mass tourism should be studied” (Liu 2003:472)

## **2.2 Impacts of the Tourist Accommodation Industry**

In order for the tourism industry to move towards sustainability, practices must be altered in all facets of the industry. Accommodations are a major sub-sector of the tourism industry and have a significant impact on the environment. Thus, efforts to increase sustainability should be focused on this sector (Alvarez Gil et al. 2001; Pryce 2001).

The accommodation industry is comprised of widely differing forms of serviced sleeping facilities such as hotels and motels with varying ownership, size, grade, amenities and clientele (Holloway 1985). On an individual basis, accommodation facilities do not cause gross environmental pollution or consume vast amounts of resources; however, collectively they have a significant effect on global resources and destination degradation (Kirk 1995; Alvarez Gil et al. 2001). Accommodation operations involve activities that individually have lower environmental impacts than, for example, manufacturing, and are thus arguably difficult to identify and regulate (Cespedes Lorente et al. 2003). Collectively, however, the operations of the tourist accommodation industry exert a significant impact on global resources (Kirk 1995; Gossling et. al, 2005). According to Gossling et. al, 2005 “ the average energy consumption per bed per night in hotels might be in the order of 130 MJ. Hotels use generally more energy per visitor, as they have energy intense facilities, such as bars, restaurants, and pools, and more spacious rooms” (Gossling et. al. 2005:6). A study conducted by Bohdanowicz 2005 also identified that accommodation facilities are resource intensive and that waste generation is one of the most visible effects on the environment. One estimate identified “that an average hotel produces in excess of one kilogram of waste per guest per day” (Bohdanowicz 2005:190). To further demonstrate the environmental impacts of accommodation facilities, Table 2.1 identifies the main environmental impacts from accommodation services and development. In destinations that do not have the required infrastructure and systems to manage these impacts, severe degradation of the environment can occur.

**Table 2.1. The Environmental Impacts of Accommodation Facilities**

<b>Service/Activity</b>	<b>Description</b>	<b>Main Environmental Impacts</b>
<b>Administration</b>	Hotel management Reception of clients	Energy, water and materials (mainly paper) Generation of waste and hazardous waste (toner cartridges)
<b>Technical Services</b>	Equipment for producing hot water and heating Air conditioning Lighting Swimming pools Green areas Mice and insect extermination Repairs and maintenance	Energy and water consumption Consumption and generation of a wide range of hazardous products Air and soil emissions Generation of waste water Pesticides use
<b>Restaurant/bar</b>	Breakfast, lunch, dinner Beverages and snacks	Energy, water and raw materials consumption Packaging waste Organic waste
<b>Kitchen</b>	Food conservation Food preparation Dish washing	Consumption of energy and water Packaging waste Oil waste Organic waste Generation of odours
<b>Room Use</b>	Use by guests Products for guests' use Housekeeping	Energy, water and raw materials consumption Use of hazardous products Generation of waste packaging Generation of waste water
<b>Laundry</b>	Washing and ironing of guest clothes Washing and ironing of hotel linens	Consumption of energy and water Use of hazardous cleaning products Generation of waste water

<b>Service/Activity</b>	<b>Description</b>	<b>Main Environmental Impacts</b>
<b>Purchasing</b>	Selection of products and suppliers Storage of products	Generation of packaging waste Hazardous substance leakages
<b>Activities</b>	Indoor activities Outdoor activities	Energy, water and raw materials consumption Local impacts on ecosystems Noise Generation of municipal waste
<b>Transport</b>	Transport of guests, employees and suppliers	Energy consumption Air emissions
<b>Additional Services</b>	Construction of new areas or services Repair of existing areas or services	Energy and water consumption Significant consumption of raw materials and hazardous products Significant generation of construction waste Generation of hazardous waste

Source: Anguera et. al. 2000: 165.

This table only portrays impacts to the natural environment; however, accommodation facilities also affect the socio-cultural and economic environments of local communities. Impacts include changing the nature of the local economy, acculturation, displacement, increase in traffic and denying access to public areas such as beaches (Agarwal 2002; Dodds 2005; McElroy 2002; UNEP 1996; Dodds 2007; Swarbrooke 1999)

### **2.3 Environmental Commitment in the Tourist Accommodation Industry**

In the last decade, a number of environmental commitment initiatives have been implemented by enlightened tourism industry associations, accommodation companies and individual facilities. A number of environmental guidelines have been developed by various tourism organizations, such as the International Hotel and Restaurant Association, the American Hotel and Lodging Association and the International Hotel Environment Initiative (IHEI) (Bohdanowicz 2005). Tourist accommodation companies are also preparing their own action plans and training programs in environmental

protection (Bohdanowicz 2005). The Inter-Continental Hotels Group and Fairmont Hotels have been noted as leaders in environmental commitment in the tourism industry. Yet despite the fact that most operators acknowledge the importance of the environment to their business, sustainable practices are not widespread in this industry (Anguera et al. 2000; Pryce 2001). This can be attributed to a number of reasons. The concept of a sustainable facility is not easily grasped by many facility operators, as this industry bases its business on perceived opulence, luxury and grandeur (Iwanowski and Rushmore 1994). The lack of government regulations on the tourism industry and the focus on voluntary initiatives have resulted in low regulatory pressures (Anguera et al. 2000; Pryce 2001). In this industry, there is also a significant number of small and medium-sized accommodation facilities that do not see the benefit of implementing environmental commitment initiatives (Pryce 2001). Finally, customer demand for sustainable accommodation facilities has not been strong enough (Pryce 2001). For these reasons, there is a gap between attitude and action in the accommodation industry (Iwanowski and Rushmore 1994; Anguera et al. 2000; Pryce 2001).

This gap however is not founded on the principles of managing a successful enterprise for economic gain. The opportunities for improving environmental practices in the accommodation industry are numerous and many make good business sense. Wight (1994) identified differences between accommodation facilities involving ten times more consumption of energy to accomplish the same activities. To be energy efficient in today's society is smart business practice not only for the direct economic benefits but for the related benefits that result such as competitiveness and reputation (Wight 2004). The IHEI reports that medium-sized hotels (50-100 rooms) consume 507 litres of water per person per day while those located in one well-regarded, environmentally concerned area such as the Balearic Islands report consumption of 250 litres of water per day (Cespedes Lorente et al. 2003). A study by Bohdanowicz 2005 identified that "a large proportion (50-60 percent) of the waste materials in an accommodation facility can be recycled or reused. For example, it has been discovered that the average quantity of unsorted waste materials for Radisson SAS hotels was reported as 3.1 kilograms per guest night in 2002. On the other hand, Scandic Hotels, which has an extensive waste management program, reported an average of 0.515 kilograms of unsorted waste per guest per night" (Bohdanowicz 2005:190). These examples illustrate that the gap between attitude and



action needs further exploration since, from a business viewpoint, not implementing environmental initiatives leads to inefficient operations. This thesis will examine the motivating, organizational and impeding factors that can address the slow uptake of environmental commitment in the tourist accommodation industry. The remainder of the chapter will provide theoretical context for the research.

## **2.4 Concepts and Approaches to Address Environmental Commitment in Tourist Accommodation Facilities**

A number of factors influence why accommodation facilities may or may not adopt environmental initiatives. These factors can be identified and explained using a number of concepts and approaches found in the business and environmental management literature. Stakeholder theory, neo-institutional theory and the resource based theory of the firm provide evidence of how certain factors affect the level of environmental commitment in an organization. Stakeholder theory suggests that the influence of external entities leads to the implementation of environmental commitment initiatives. This reflects the firm manager's perception of stakeholder salience. If a manager does not perceive stakeholder demands as being salient, then the influence of the stakeholder will be weak. Neo-institutional theory suggests that an organization's decisions to implement environmental initiatives are not only based on economic rationality but also the desire for social legitimacy. This theory states that if institutional pressures are present and demand an increase in the level of environmental commitment, an organization will conform and try to meet these demands. The resource based theory of the firm suggests that financial considerations are the main motivating factor for an increased level of environmental commitment in an organization. Organizations strive to be competitive in the market and this can result in increasing the level of environmental commitment to differentiate the firm and increase profit. The organization thus implements environmental initiatives.

These theories provide an explanation of what motivates organizations to increase their level of environmental commitment. Organizations are motivated by satisfying stakeholder demands, obtaining social legitimacy and increasing profit, yet this is only one piece of the puzzle. Other organizational and impeding factors play a role in influencing or hindering the implementation of environmental commitment in an

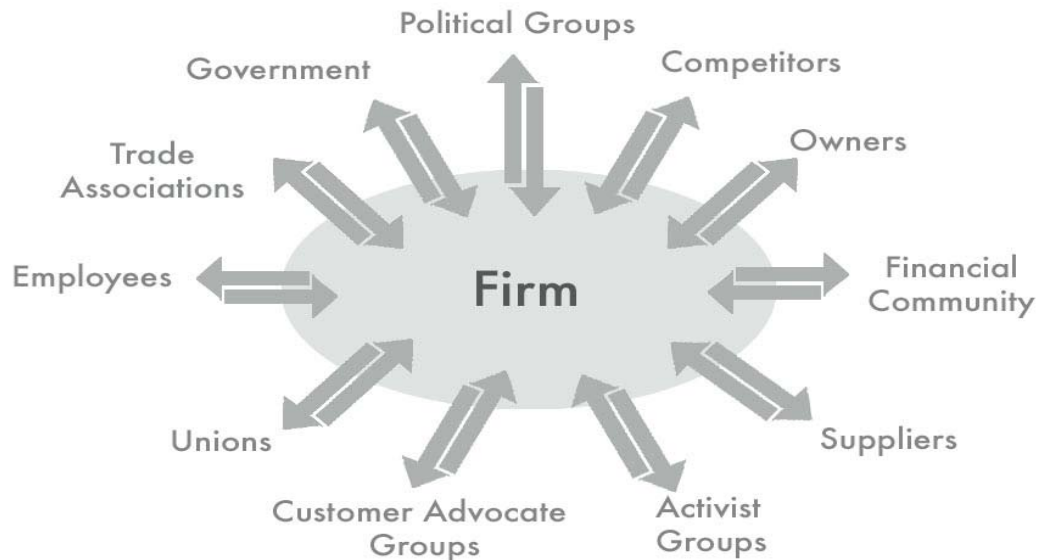
organization. These factors are identified throughout the various studies examined and are used to exemplify the pertinence of the aforementioned theories. A combination of factors working independently and interdependently is responsible for the level of environmental commitment in an organization.

#### **2.4.1 Stakeholder Theory**

Stakeholder theory has evolved over the years to explain the stakeholder-organization relationship. This theory, however, has traditionally focused on the responsibilities of the firm towards its stakeholders. In recent years attention has turned towards stakeholder identification, responsibilities and salience in order to understand the influence of stakeholders and their management implications (Donaldson and Preston 1995; Mitchell et al. 1997).

The idea that organizations have stakeholders has now become commonplace in management literature. A stakeholder is defined as “any group or individual who can affect or is affected by the achievement of an organization’s objectives. Thus a group or individual qualifies as a stakeholder if it has a legitimate interest in aspects of the firm’s activities and has either the power to affect the firm’s performance or has a stake in the firm’s performance” (Freeman 1984:55; Savage et al. 1991; Donaldson and Preston 1995; Mitchell et al. 1997; Berman et al. 1999; Henriques and Sadosky 1999; Alvarez Gil et al. 2001; Cheyne and Barnett 2001; Harvey and Schaefer 2001). This is a broad definition as it leaves the notion of stake and the field of possible stakeholders open to include virtually anyone. Freeman (1984) illustrates this definition with the development of a stakeholder map for a large firm.

**Figure 2.1. Stakeholder Map of a Large Firm**



Source: Freeman (1984): 55

This definition of stakeholder does not discuss the implication or necessity of reciprocal impacts, as occurs in most situations involving relationships, transactions or contracts. Only those who cannot affect the firm (have no power) and are not affected by it (have no claim or relationship) are excluded. In order to understand the impacts of stakeholders on an organization, it is important to adopt a broad definition in order to encompass all possible relationships and associated claims and interests. However, a broad definition makes it difficult for many organizations to identify and manage their stakeholders as this implies that the number of stakeholders is vast and many organizations do not believe that all affected parties should be considered stakeholders (Mitchell et al. 1997).

Defining stakeholders is a way to broaden management's vision of its roles and responsibilities beyond the profit maximization function to include all interests and claims of non-stockholding groups. Stakeholder theory does not simply describe existing situations or predict cause-effect relationships, it also recommends attitudes, structures

and practices which, collectively, constitute stakeholder management (Donaldson and Preston 1995; Cheyne and Barnett 2001).

#### 2.4.1.1 Defining Stakeholder Influence

Analysts argue that there are complex stakeholder-organization dynamics that dictate which stakeholders are the most influential and receive the bulk of the attention. All stakeholder interests must be recognized for the good of the organization. Nevertheless, stakeholders' interests do not play an equal role in the decision-making process. Stakeholder-manager relationships, both actual and potential, need to be evaluated to better understand who and what really counts. Mitchell et al. (1997) developed a theory of stakeholder salience within the general context of stakeholder theory, to identify an organization's stakeholders and their associated influences. This theory attempts to define how stakeholders affect the decision-making process of an organization.

#### 2.4.1.2 Theory of Stakeholder Salience

The theory of stakeholder salience is based on three attributes: power, legitimacy and urgency (Mitchell et al. 1997). Salience is defined as the degree to which managers give priority to competing stakeholder demands (Mitchell et al. 1997). Most theories of a firm only account for legitimacy and power but this theory includes urgency which is the degree to which stakeholder claims call for immediate attention. This adds a catalytic component to the theory of stakeholder identification, because urgency demands attention (Mitchell et al. 1997). Table 2.2 defines the three attributes in the context of this theory.

**Table 2.2. Definitions of Stakeholder Attributes**

<b>Attribute</b>	<b>Definition</b>
<b>Power</b>	A relationship among social actions in which one social actor, A, can get another social actor, B, to do something that B would not have otherwise done. This is the ability of those who possess power to bring about the outcomes they desire
<b>Legitimacy</b>	A generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions.
<b>Urgency</b>	The degree to which stakeholder claims call for immediate attention. Based on time sensitivity which is the degree to which managerial delay in attending to the claim or relationship is unacceptable to the stakeholder and criticality which is the importance of the claim or the relationship to the stakeholder.

Source: Mitchell et al. (1997): 869

This theory also identifies the importance of managers. Managers are the only group of stakeholders who enter into a relationship with all other stakeholders and have direct control over the decision-making process of the firm. It is the firm's manager who determines which stakeholders are salient and therefore receive attention. This theory posits that managers who want to achieve certain results pay particular attention to various classes of stakeholders, that managers' perceptions dictate stakeholder salience, and that the various classes of stakeholders may be identified based upon the possession, or attributed possession, of one, two or all three of the attributes (Mitchell et al. 1997; Flagestad 2001). Table 2.3 classifies each type of stakeholder and the attributes they possess. This classification justifies the identification of entities that should be considered stakeholders of the firm. It also constitutes the set from which managers select those entities they perceive as salient.

**Table 2.3. Explanation of Stakeholder Typology**

#	Type	Attributes			Description
		Power	Legitimacy	Urgency	
1	Dormant	X			<ul style="list-style-type: none"> <li>• Without a legitimate relationship or urgent claim, their power remains unused.</li> <li>• Little or no interaction with firm but has potential to acquire a second attribute.</li> <li>• Example is a stakeholder that can command attention in the news media.</li> </ul>
2	Discretionary		X		<ul style="list-style-type: none"> <li>• Do not have power or urgent claims to influence the firm</li> <li>• No pressure on managers to engage in an active relationship.</li> <li>• Example is a non-profit organization that accepts donations.</li> </ul>
3	Demanding			X	<ul style="list-style-type: none"> <li>• Mosquitoes buzzing in the ears of managers.</li> <li>• Example is a lone picketer who may gain the attention of a manager but without power or legitimacy their claims will not be considered.</li> </ul>
4	Dominant	X	X		<ul style="list-style-type: none"> <li>• Form the dominant coalition.</li> <li>• Have a formal mechanism in place that acknowledges the importance of their relationship with the firm.</li> <li>• Examples are employees and customers.</li> </ul>
5	Dependant		X	X	<ul style="list-style-type: none"> <li>• Depend on other stakeholders for the power necessary to carry out their will.</li> <li>• An example would be local residents affected by an organization and requiring the aid of another group to have their claims heard.</li> </ul>

Table 2.3 (Continued)

#	Type	Attributes			Description
		Power	Legitimacy	Urgency	
6	Dangerous	X		X	<ul style="list-style-type: none"> <li>• Coercive and possibly violent.</li> <li>• Examples are wildcat strikes, employee sabotage and terrorism.</li> </ul>
7	Definitive	X	X	X	<ul style="list-style-type: none"> <li>• Clear and immediate mandate to attend to and give priority to definitive stakeholders claims.</li> <li>• Hold the most influence in an organization.</li> <li>• Examples are shareholders and the corporate decision makers.</li> </ul>
8	Non-stakeholder				<ul style="list-style-type: none"> <li>• No power, legitimacy or urgency in relation to the firm and thus holds no salience.</li> </ul>

Source: Mitchell et al. 1997; Flagestad 2001

Stakeholders can move from one category to another by acquiring one of the missing attributes. This is important because depending on the issue, stakeholders can change in salience, requiring different degrees and types of attention (Mitchell et al. 1997; Flagestad 2001).

Mitchell et al.'s (1997) theory demonstrates that the importance of a stakeholder increases according to the number of attributes they possess. This is helpful in prioritizing stakeholders. It is unclear, however, which attribute should be emphasized over others for continued systematic sorting of stakeholders into priority groups. Prioritizing stakeholders will therefore depend on the manager's judgement and thus will be different with each issue facing an organization. There is also a question regarding the extent to which the three dimensions are independent of each other. In many instances, power and legitimacy may be difficult to separate (Mitchell et al. 1997; Flagestad 2001; Harvey and Schaefer 2001).

## **2.4.2 Stakeholder Theory and Its Application to Environmental Commitment in the Tourism Industry**

Several empirical studies have been conducted to explore the relationship between stakeholder influence and environmental commitment in an organization (Clarkson 1995; Berman et al. 1999; Henriques and Sadorsky 1999; Bansal and Roth 2000; Alvarez Gil et al. 2001; Cheyne and Barnett 2001; Flagestad 2001; Harvey and Schaefer 2001).

According to stakeholder theory, organizations carry out activities to appease their main stakeholders. By satisfying these stakeholders, support and resources are acquired which ensures the long term success of the organization (Alvarez Gil et. al 2001). An organization's main stakeholders are identified by their perceived acquisition of legitimacy, power and urgency. Therefore, this theory posits that organizations will adopt environmental initiatives if stakeholders demand it. The following studies provide evidence to support this theory (Henriques and Sadorsky 1999; Alvarez Gil et al. 2001; Cheyne and Barnett 2001; Flagestad 2001; Harvey and Schaefer 2001).

Harvey and Shaefer (2001) conducted a study of stakeholders' influences on environmental commitment in the United Kingdom (UK) Water and Electricity Utilities. This study confirmed that managers attach more importance to stakeholders based on their perceived power, legitimacy and urgency. This study identified that stakeholders possessing all three attributes, such as government, were given high priority and their demands satisfied. Stakeholders that held one or two of the attributes, such as customers and employees, had limited influence on managers. Harvey and Schaefer (2001) determined that a relationship exists between stakeholder salience and an organization's level of environmental commitment. The influential stakeholder demands will be satisfied which may lead to an increase in the sustainability of an organization (Harvey and Schaefer 2001).

Henriques and Sadorsky (1999) determined whether firms that were committed to environmental management differ from less environmentally committed firms in their perceptions of the relative importance of different stakeholders in influencing an organization's environmental practices. The authors classified 400 manufacturing and industrial firms in Canada into four environmental profiles: reactive, defensive, accommodative and proactive. They determined how each group perceived the influence

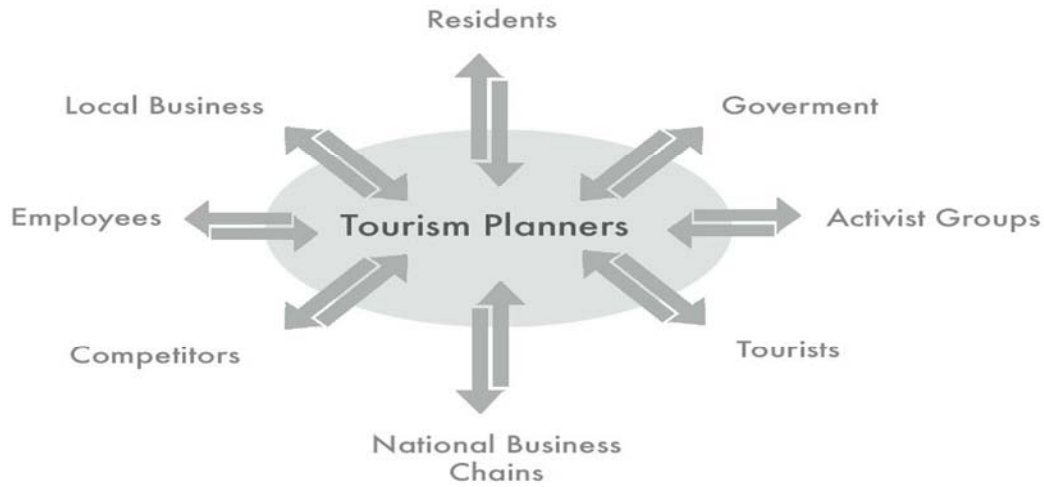


of four types of stakeholders: regulatory (government); organizational (customers, suppliers, employees, shareholders); community (community groups, environmental non-governmental organizations (ENGOS); and the media. Firms with more proactive environmental profiles perceived all stakeholders except the media as being important. These firms viewed environmental management as an important business function and were considered to be environmental leaders. On the other hand, the reactive firms perceived no stakeholder, other than the media, as being important. This is due to the manager's perceptions of stakeholder salience (Henriques and Sadorsky 1999). Hence, stakeholder salience is contingent on a manager's perceptions and influences the degree of environmental performance in an organization. This study also brings to light how other factors such as financial benefits, competitiveness and senior management support, in combination with stakeholder influence, determine an organization's level of environmental commitment (Henriques and Sadorsky 1999).

Flagestad (2001) conducted a study exploring the use of a multi-stakeholder approach to increase organizational performance in winter sport destinations. This study used Mitchell et al.'s (1997) theory of prioritizing key stakeholders based on the perceptions of the destination managers. By using this theory, Flagestad (2001) was able to categorize twenty-four stakeholders based on their salience. Five primary stakeholders were identified as the most salient to winter sports destination management. These stakeholders had an influence on the strategic management of the destination, which includes environmental commitment (Flagestad 2001). This study provides evidence that Mitchell et al.'s (1997) approach can be used to determine stakeholder salience in regards to an organization's level of environmental commitment.

Sautter and Leisen (1999) use stakeholder theory as part of a tourism-planning model. These authors developed a tourism stakeholder map adapted from Freeman's (1984) model to include the salient stakeholders in the tourism industry. Depending on the specifics of the organization (sector, location and type of facility), stakeholders may be added or deleted (Sautter and Leisen 1999). This comprehensive map provides an excellent starting point for the development of a stakeholder map for the tourist accommodation industry.

**Figure 2.2 Tourism Stakeholder Map**



Source: Sautter and Leisen (1999):315.

Cheyne and Barnett (2001) used stakeholder theory to determine the factors that influence the adoption of environmental initiatives in the New Zealand accommodation industry. This study reports the initial findings of qualitative research into the implications for, and stakeholder reactions to, environmental commitment in this industry. It provides evidence that stakeholders, in addition to factors such as competition and financial considerations, play a role in influencing facility managers to increase the level of environmental commitment in an organization (Cheyne and Barnett 2001).

Alvarez Gil et al. (2001) conducted an analysis of environmental management, organizational context and performance in Spanish accommodation facilities. This analysis found that shareholders, government, travel agencies and tour operators, chains, hotel associations, customers, competitors, employees, ENGOs and suppliers were the most influential stakeholders for increasing the level of environmental commitment in an accommodation facility. It also identified that the use of different influence strategies (coercion, reward, experience, legitimacy, reference and information exchange) by the most salient stakeholders affect the degree of environmental commitment (Swingle 1970). The study suggests that the greater the importance attributed to stakeholder

demands, the greater the level of environmental commitment in an organization (Alvarez Gil et al. 2001).

The studies discussed above provide evidence for using stakeholder theory to explain why organizations increase their level of environmental commitment. There are, however, limitations to this theory that should be addressed. Stakeholder theory is limited in its capacity to explain environmental commitment because few studies have been conducted to test attributes of stakeholder salience. In addition, stakeholder theory uses a blanket approach that assumes that it is applicable to all locations and industries in the same way. There have been few applications of stakeholder theory to organizations in developing countries. In addition, the relationship between environmental commitment and the influence of stakeholders may be different depending on the industry (Donaldson and Preston 1995; Mitchell et al. 1997; Henriques and Sadorsky 1999; Alvarez Gilet al. 2001). This theory also focuses on only one element among the factors that influence the level of environmental commitment. There may be other factors internal to the organization that will affect this relationship (Henriques and Sadorsky 1999; Cheyne and Barnett 2001). Stakeholder theory however, does provide a valid means of identifying how external factors motivate organizations to increase the level of environmental commitment. This theory sheds light on the important role of managers and the organization as a whole in incorporating the demands of stakeholders. Depending on the perceived salience, this may lead to an increase in environmental commitment in an organization.

## **2.5 Neo-Institutional Theory**

Organizational sociology literature stresses that “not all business choices are intended and that not all outcomes are the result of a manager’s rational economic decisions” (Rivera and DeLeon 2004: 421). The neo-institutional theory proposes that “external norms, values and traditions provide a sense of social legitimacy to organizations and influence management choices and practices” (Dimaggio and Powell 1983, 1991 as cited in Rivera and DeLeon 2004:421). This form of influence is manifested in firms and other institutions. The result is a process in which external entities influence the selection and implementation of strategies that motivate organizations to seek legitimacy and strive for social conformity (Hoffman 1999; Rivera

and DeLeon 2004). “Social legitimacy is a key factor in determining an organization’s long-term profitability and survival” (Dimaggio and Powell 1983, 1991 as cited in Rivera and DeLeon 2004:421). Institutions in this context may include the government, sources of funding, industry associations, special interest groups and the general public – any actor that can influence an organization (Rivera and DeLeon 2004). Isomorphism refers to the process in which external influences/values enter the firm (Hoffman 1999; Cashore and Vertinsky 2000).

Coercive isomorphism refers to changes resulting from government regulatory change or from societal interests that challenge corporate legitimacy (Cashore and Vertinsky 2000). Certain strategic choices can be imposed coercively through a sanction or a threat, as in the case of governments legally mandating environmental standards or a major corporation requiring a specific code of conduct (Hoffman 1999; Cashore and Vertinsky 2000; Rivera and DeLeon 2004; Delmas 2002; Rivera 2002b). Multinational corporations are also recognized as key agents in sharing practices throughout the globe through ensuring that codes of conduct and environmental standards are implemented throughout the organization which leads to influencing practices in the host countries (Delmas 2002).

Normative or social isomorphism generally takes the form of rules of thumb, standard operating procedures and occupational standards. Professional networks, industry associations, environmental organizations, and academic institutions, among others, exert significant influence by diffusing values and norms of conduct that promote standardized behaviour from their members (DeLeon and Rivera, 2002). Their ability to guide organizational action and beliefs stems largely from social obligation or professionalism. Organizations will comply based on moral or ethical obligations or conformance with a norm. Normative pressures do not have to involve sanctions for non-complying firms, as public embarrassment has proven to be an effective mechanism for motivating adherence to established values and norms (Hoffman 1999; Cashore and Vertinsky 2000; DeLeon and Rivera 2002; Delmas 2002; Rivera 2002b).

Mimetic or cognitive isomorphism refers to organizations adopting strategies through a modeling process based on the practices of other successful organizations. This pressure forms a culturally supported and conceptually correct basis of legitimacy (Hoffman 1999; Cashore and Vertinsky 2000; Delmas 2002; Rivera 2002b). Together all

three pillars (coercive, normative and mimetic) structure how important issues are perceived and responded to (Hoffman 1999).

### **2.5.1 Neo-institutional Theory and its Application to Environmental Commitment in the Tourism Industry**

Neo-institutional theory is attractive to scholars studying environmental commitment because of its multi-faceted approach, which examines the role of formal institutions, conventions and values. This theory is based on the assumption that organizational responses (whether changes in an organization's issue management, corporate stance, policies or organizational structure) are largely determined by the make-up of their external environment (Rivera 2002b).

Recent empirical work on beyond compliance environmental behaviour assumes that the selection of environmental commitment practices is the result of economic rationality emphasizing financial benefits (Rivera 2002b). However, neo-institutional theory states that financial considerations are not the only drivers and that the role of stakeholders, political influences and social factors influence environmental initiatives (Rivera 2002b). In this sense, the rationale for implementing environmental initiatives can be explained through a social construction process intended to obtain legitimacy. In this social process, different stakeholders exert coercive, normative and mimetic pressures that promote the adoption of environmental initiatives. This theory identifies consumers, government, industry associations, the media and environmental groups as the most influential stakeholders since they have an institutional influence over the organization (Cashore and Vertinsky 2000; Rivera 2002b).

Rivera (2002b) conducted a study that evaluated the participation of accommodation facilities in the Costa Rican Certification for Sustainable Tourism (CST) program. Neo-institutional theory was used to increase the understanding of implementing non-regulatory environmental initiatives in developing countries. This study determined that institutional pressures wielded by government and the industry association played an important role in the promotion and adoption of voluntary environmental programs thereby influencing an organization's level of environmental commitment. It was discovered, however, that as accommodation facilities are not perceived to be as environmentally damaging as manufacturing firms, they do not

experience equally strong institutional pressures to improve their environmental performance. Also, this study shed light on how certain types of organizations (large, foreign-owned and chain-affiliated) are more visible and hence receive increased institutional pressures which lead to higher environmental performance than smaller, local organizations. This study, however, did not support these assumptions, as facilities with these characteristics did not make up the majority of participants in the CST program. Environmental performance in this study was measured by participation in the CST program. It may be possible that facilities with these characteristics did employ extensive environmental management practices but did not choose to join the program. This study did reveal that city accommodation facilities exhibit higher environmental performance over beach and park facilities. It was concluded that this was due to their increased visibility in the city (Rivera 2002b). Neo-institutional theory was used in this study to explain the responses of organizations to institutional pressures in light of participation in a beyond compliance voluntary environmental program. The institutional pressures influenced facilities to join the program, thereby increasing their level of environmental commitment. Where the pressures were low or non-existent, facilities did not participate in the CST program.(Rivera 2002b). The main criticism of this study is that other factors (credibility, cost) that could play a role in the low response rate to this program were not examined.

Delmas (2002) conducted a study examining the diffusion of environmental management standards in Europe and the United States. Neo-institutional theory was used to explain the varying level of ISO 14001 adoption rates in the two regions. This study determined that the regulatory, normative and cognitive aspects of a region's institutional environment greatly impact the costs and potential benefits of ISO 14001 adoption. In Europe there is a strong regulatory influence to adopt ISO 14001, while in the United States it is seen as more of a hindrance since organizations are fearful of the certification process during which their performance is open to public scrutiny. Normative and mimetic forces also play a role. In Europe, firms will tend to adopt ISO 14001 in order to mimic their counterparts and achieve legitimacy. In the United States, ISO 14001 is not seen as being beneficial to an organization and, thus, these forces are absent (Delmas 2002). This study explains how the neo-institutional pressures in different regions provide a favourable or unfavourable environment for participation in an

environmental program such as ISO 14001 and are a means of explaining how pressures and factors relate to an organization's level of environmental commitment.

The main criticism of neo-institutional theory is that it is overly deterministic and unable to explain extant research indicating that organizations in some industries incorporate external pressures in different degrees of isomorphism. Neo-institutional theory is located at one end of the continuum of possible responses by firms. This theory does not account for other ways that organizations may respond to external pressures, such as compromise, avoidance, or by defiance or manipulation (Cashore and Vertinsky 2000). This theory provides a complement to stakeholder theory because it offers a further understanding of factors that motivate an organization. This theory also recognizes internal factors such as economic considerations and organizational characteristics such as size and ownership and provides a means of understanding how these factors work in conjunction with institutional pressures to increase the level of environmental commitment within an organization.

## **2.6 The Resource Based Theory of the Firm**

The resource based theory of the firm, developed by Hart in 1995, explains the pertinence of internal factors, such as competitive advantage and financial considerations, that motivate the actions of an organization (Hart 1995; Rivera 2001; Aragon-Correa and Sharma 2003). This theory defines the firm as a broad collection of resources possessing and deploying heterogeneous and immobile resources. Resource heterogeneity refers to how physical, human and intangible resources differ amongst competitors. Resource immobility refers to the inability of competing firms to mimic or purchase resources from other firms (Rivera 2002a; Rivera 2002b). Brand names, in-house knowledge of technology, employment of skilled personnel, trade contacts, capital and efficient procedures are all examples of resources to be considered (Hart 1995; Russo and Fouts 1997; Flagestad 2001). The acquisition of these resources will result in a more efficient manufacturing process and/or product services enabling the firm to gain competitive advantage and, therefore, financial benefits. Sustainable competitive advantage exists with the ownership of a valuable resource that allows organizations to perform better or more efficiently than their competitors (Flagestad 2001; Rivera 2002a).

### **2.6.1 Resource Based Theory and its Application to Environmental Commitment in the Tourism Industry**

The resource based theory provides valuable insight into the competitive advantage that exists when an organization increases its level of environmental commitment. The literature states that there is a positive relationship between environmental commitment and organizational performance. This is a result of an organization developing competitive capabilities such as total quality control, cross-functional and cross-stakeholder management. These capabilities have performance implications in terms of lower costs, improved reputation and strategic alignment with future changes in the general business environment (Aragon-Correa and Sharma 2003). This theory also highlights the importance of consumers' environmental perceptions and preferences for an organization's environmental performance. This is critical for developing a competitive advantage that will yield price premiums and enhanced sales (Rivera 2001).

The resource based theory of the firm provides support for an organization to differentiate itself from others in order to appeal to a green market segment. Two necessary conditions have to be satisfied for an organization's environmental performance to produce differentiation advantages. First, consumers' buying decisions and willingness to pay must be positively affected by superior environmental performance. Second, compared to its competitors, an organization must be perceived by consumers as having a credible reputation for exhibiting a high level of environmental commitment (Rivera 2002a). Thus, organizations could gain competitive advantage by participating in a credible non-regulatory environmental program with an eco-labeling scheme to demonstrate good environmental performance. This would lead to financial benefits as these firms would have differentiated themselves in the market (Rivera 2002c).

Rivera (2002a; 2002c) conducted a study that evaluated the participation of accommodation facilities in the Costa Rican Certification for Sustainable Tourism (CST) program. This study determined that accommodation facilities involved in the CST program achieved differentiation advantages that yielded price premiums. Room prices in CST participating accommodation facilities were approximately \$30 per night higher



than room prices of facilities not enrolled in the program. Participation in the CST program was also significantly related to government monitoring, industry association membership and green market values. In addition, organizational characteristics such as size, ownership and grade of the facility were hypothesized to lead to increased participation in the CST program. This effect is because of increased resources due to economies of scale. There was a positive but insignificant correlation of these factors (Rivera 2002a; Rivera 2002c). This study provides empirical evidence of the relationship between an organization's level of environmental commitment and competitive advantage, which leads to benefits such as increased prices and sales. It also acknowledges that external influence (government, industry associations) and other internal factors (size, ownership) play a significant role in influencing an organization's level of environmental commitment.

Russo and Fouts (1997) conducted a study of 243 firms over two years, analyzing the relationship between environmental and economic performance. The study indicates that increased environmental performance is linked to economic prosperity as it leads to competitive advantage and increased eco-efficiency. Based on the resource based theory, this study highlights the role that environmental commitment initiatives play in generating broader organizational advantages, which allow organizations to achieve premium profits. This theory considers performance as the key outcome variable and recognizes the importance of intangible concepts such as organizational culture, knowledge and reputation, related to environment-economy relationships. Russo and Fouts (1997) also identifies the significance of external factors, such as stakeholders, as playing a pivotal role in moving organizations towards sustainability (Russo and Fouts 1997).

Hart (1995) identified that incorporating the competitive and financial benefits of three facets of environmental performance would increase economic performance. These facets were pollution prevention, product stewardship and sustainable development. Hart (1995) theorized that in the future, it is likely that strategy and competitive advantage will be rooted in activities that facilitate sustainability. By incorporating all three of the aforementioned facets into an organization, sustainable competitive advantages will result. Hart also suggested that a purely internal (competitive) approach may be inadequate because issues such as external legitimacy and reputation are also extremely

important. In order to achieve differentiation, the development of competitive strategies should incorporate stakeholders (Hart 1995). This study supports the notion that internal and external factors in combination are important and influential for an organization to adopt a proactive sustainability strategy.

The resource based theory of the firm provides a basis for incorporating internal motivating factors such as competition and financial considerations into the determination of why organizations implement environmental commitment initiatives. This theory, in combination with stakeholder theory and neo-institutional theory, provides a basis for identifying the factors that motivate organizations to implement environmental initiatives. Studies using the resource based theory have determined that internal factors cannot be the only drivers motivating sustainable actions in an organization and acknowledge external factors as playing an important role.

### **2.6.2 . Summary of Theories**

Together these theories provide sound evidence for believing that there are a number of external and internal factors that motivate an organization to increase their level of environmental commitment. The degree of influence and the combination of factors may be different on an industry or regional basis; however, it seems to be likely that the internal and external factors synthesized from these studies will be significantly influential to all organizations.

These theories also identify the importance of organizational factors such as size, ownership, and grade in playing a role in the implementation of environmental initiatives. These factors work in conjunction with or against the motivating factors identified by the theories in the implementation of environmental initiatives in an organization. To provide a further understanding of why organizations implement environmental commitment initiatives, an examination of environmental management models was conducted.

## **2.7 Environmental Management Models**

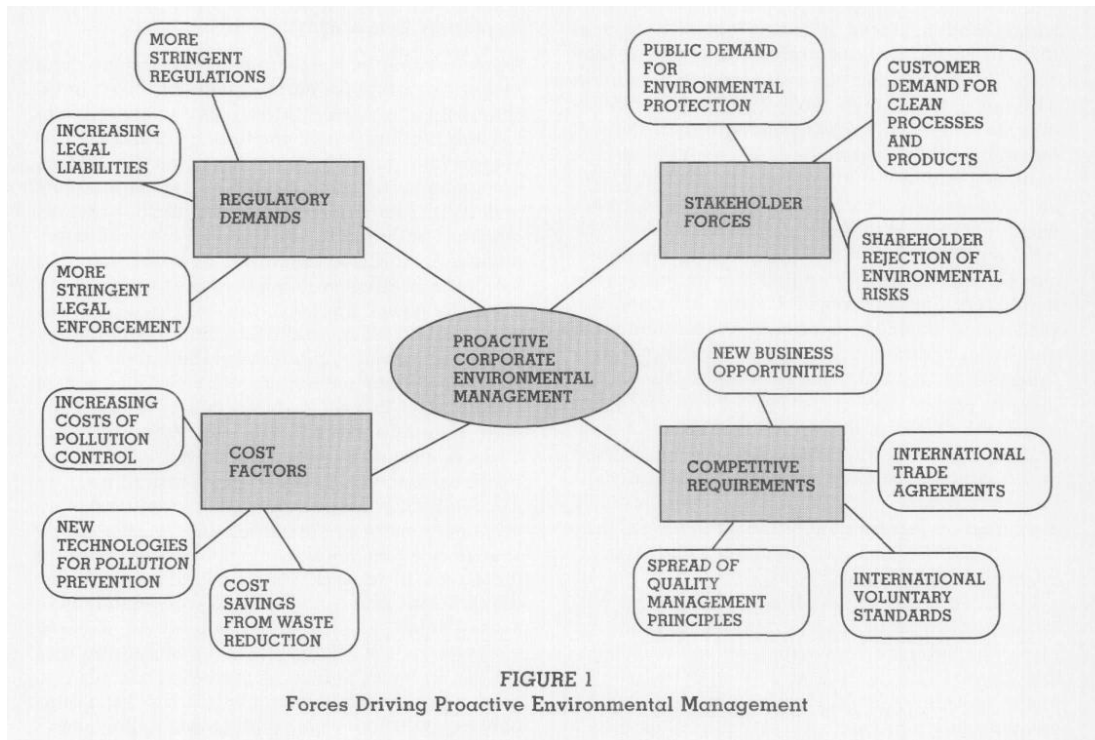
The theories presented in the previous section provide an analysis of the factors that motivate organizations to implement environmental commitment initiatives. The presence of these factors, however, does not ensure that environmental commitment will result. As briefly discussed, organizational and impeding factors also play significant

roles in influencing whether organizations implement environmental initiatives. An examination of environmental management models provides evidence of the importance of these factors. These models may not have been developed to reflect the tourism industry; however, they illustrate the pertinence of various factors on the level of environmental commitment in an organization.

### **2.7.1 Factors Driving Proactive Environmental Management (Berry and Rondinelli 1998)**

Berry and Rondinelli (1998) developed a model to identify forces that drive proactive environmental management. Although their schema was developed for manufacturing organizations, it can also be applied to service industries. This model identifies four main forces: regulatory demands, stakeholder forces, cost factors and competitive requirements that influence proactive environmental management. It incorporates both internal and external motivating factors as identified by stakeholder theory, neo-institutional theory and the resource based theory of the firm. This model, however, is not comprehensive in its scope as it employs a narrow definition of stakeholders. It does not account for influential stakeholders such as employees and senior management. It also does not account for organizational and impeding factors that are influential in the implementation of environmental initiatives. This model assumes that if all of these driving forces are present, a proactive environmental management strategy should be implemented. Discussion of other models, however, will show that this is not the case. Nevertheless, this model is a good starting point in understanding what drives organizations to implement environmental initiatives in that it identifies what the authors consider to be the main internal and external motivating factors.

**Figure 2.3: Factors Affecting Proactive Corporate Environmental Management**



Source: (Berry and Rondinelli 1998): 41.

### **2.7.2 Interaction of External, Mediating and Moderating Factors (Ghobadian et al. 1998)**

Drawing upon the findings of an empirical study of corporate environmental attitudes and policies in the United Kingdom, Ghobadian et al. (1998) developed a non-sequential model to describe the interaction of key internal and external factors that often produce strategic environmental action. The need for a non-sequential approach to modeling environmental management stems from the identification of behaviour-altering factors that linear models do not take into account (Ghobadian et al. 1998). These behaviour-altering factors fall into three categories: i) external factors, ii) mediating factors, and iii) moderating factors. The latter two factors influence the extent of the impact from external factors. The dynamic relationships between these factors are seen to inform an organization's decision-making process and therefore have implications for the development of an organization's environmental strategies (Ghobadian et al. 1998).

In this model, external pressures (motivating factors) are perceived to emanate from three principal locations. The first pressure is the legal-regulatory context, which

has consistently been shown to have a major effect upon the way an organization addresses the issue of how to incorporate environmental management. The second pressure is market behaviour and it incorporates the wide range of external influences that affect an organization as it determines its market. These include the influence of a wide variety of stakeholders such as customers, competitors, suppliers and pressure groups and their relation to the behaviour of the organization. The third source of pressure is the expectation evident within the wider society (Ghobadian et al. 1998).

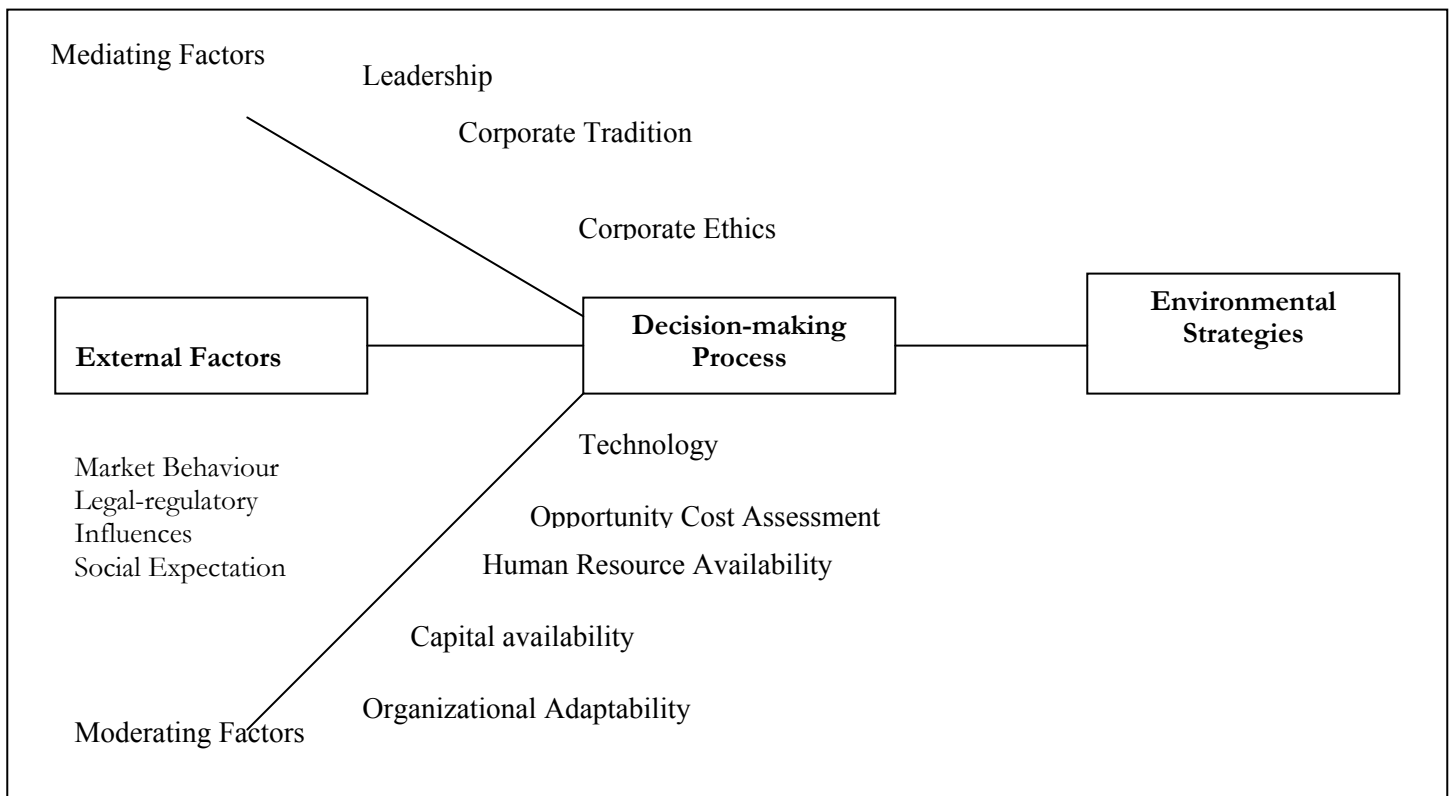
Mediating (organizational) factors are those elements that are internal to an organization. These factors work with or against the external pressures and determine the capability of the organization to implement environmental management strategies. The mediating factors fundamentally establish the interpretive framework that informs the decision-making process (Ghobadian et al., 1998). The most important among these factors is leadership. The literature stresses that approaches to environmental commitment are influenced by the attitudes held by managers. The other mediating factor is organizational culture. Organizational culture includes the shared values and meanings among members of an organization which are in turn articulated and practiced by an organization's leaders. They include the degree of social responsibility an organization believes it should exhibit, corporate ethics, and formal and informal company traditions. Traditional organizational culture and values are concerned with maximizing profits. However, more enlightened organizations realize the value of employee empowerment and stakeholder dialogue (Ghobadian et al. 1998; Weiss 1998). These internal factors play an important role in influencing an organization to implement environmental initiatives (Ghobadian et al. 1998).

Moderating (impeding) factors are those elements in the decision-making process that "constrain the organization's ability to act, through the complexity of processes or availability of resources" (Ghobadian et al. 1998: 18). In this context, the moderating factors limit an organization's potential responses given the possible reactions to external pressures or the influence of mediating factors to develop successful environmental commitment initiatives. The moderating factors can consist of technology requirements, opportunity and cost assessments, human resource availability, capital availability and organizational adaptability. These factors negatively affect the implementation of

environmental commitment initiatives in spite of the possible presence of supportive external and mediating factors (Ghobadian et al. 1998).

The relationships between the external, mediating and moderating factors within the decision-making process should determine the organization's level of environmental commitment. This model explains why some organizations adopt environmental commitment. This model identifies the importance of organizational factors such as leadership and organizational culture, which explain how decisions are made in an organization. This model also identifies impeding factors that affect the implementation of environmental commitment strategies. This model illustrates the theories identified in the previous section as it provides for an explanation of how these variables play a role in the decision making of an organization in the context of environmental commitment.

**Figure 2.4. Interaction of External, Mediating and Moderating Factors**



Source: Ghobadian et. al. 1998: 17

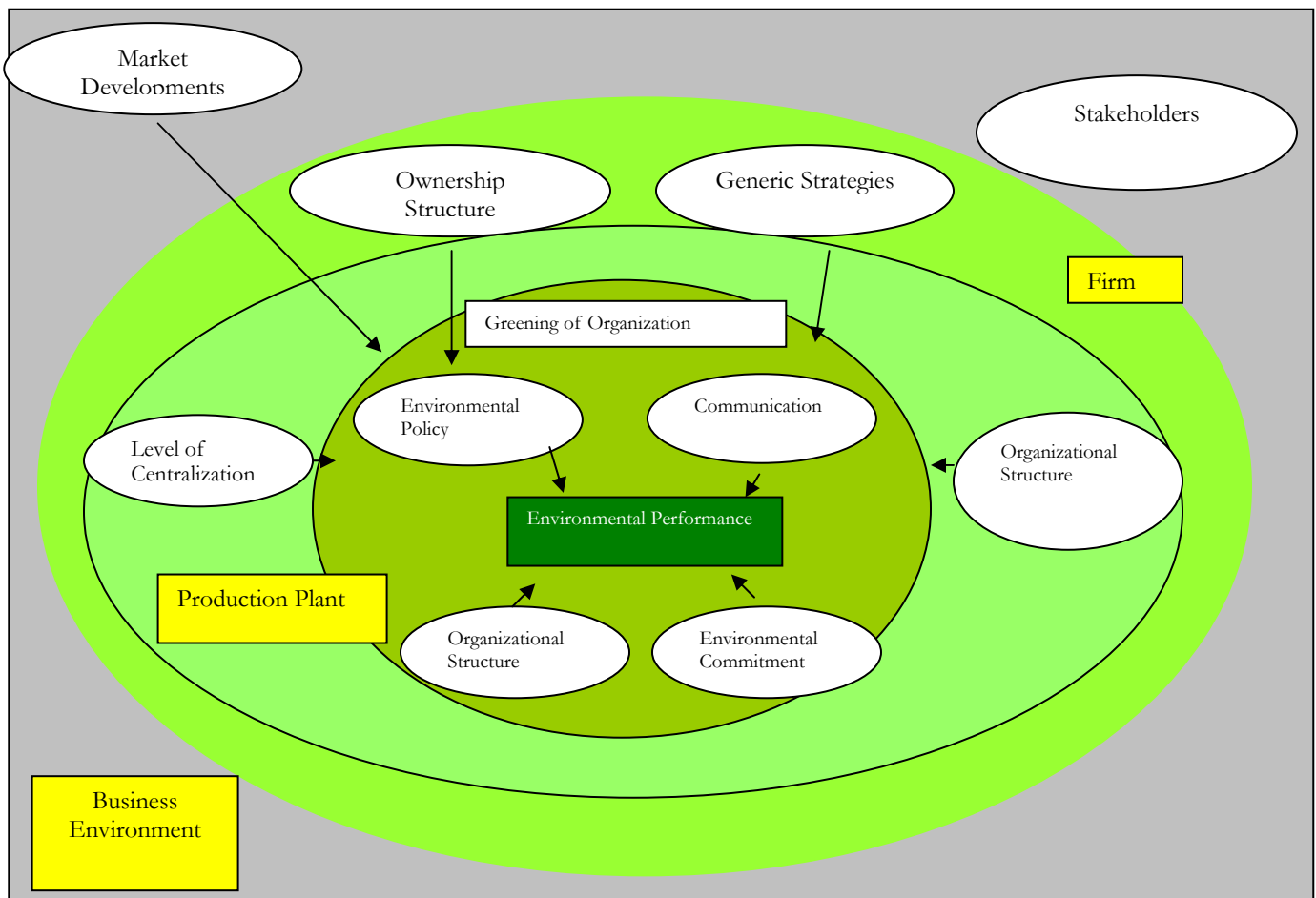
### **2.7.3. The Greening of Organizations (Mauser 2001)**

Mauser (2001) conducted a study of environmental management in the Dutch dairy industry. This study focused on the internal characteristics that explain differences in an organization's level of environmental commitment. The model developed by Mauser (2001) provides a comprehensive display of how internal and external factors affect the decision-making capabilities of a firm and hence an organization's level of environmental commitment. The variables that affect an organization's level of environmental commitment are divided into three levels: the general business environment (developments in the market and stakeholders); the firm (corporate headquarters or business unit that determines an organization's strategy); and the production plant. The production plant is the main focus of Mauser's (2001) study. In relation to tourism, the production plant would be equal to the accommodation facility. For this level, two general variables were considered to be important: the level of authority of environmental decision making and organizational culture. Contrary to existing models or systems, this model offers a clear distinction between environmental performance in the sense of the outcome and environmental management. Four environmental management indicators were considered to be important in this study: policy and strategy; communication; organizational structure and management commitment. These variables were assumed to have an intermediate role in the relations between general intra-organizational characteristics (centralization and organizational culture) and environmental performance. Facilities with a high level of centralization and an organizational culture open to environmental management will employ these indicators, thus leading to increased environmental performance (Mauser 2001).

This study supports the notion that internal organizational characteristics are the main factors for increasing environmental commitment in an organization. This does not discount external factors as having a significant role. External factors that consist of stakeholders and market development are identified, thereby supporting the aforementioned theories. This study also determined that ownership plays a significant role in the implementation of environmental initiatives. The dairy industry, like the accommodation industry, is comprised of several ownership structures, which may help or hinder the implementation of environmental initiatives. Ownership structures

consisting of several parties lead to conflicting interests and hinder the process of incorporating environmental management in an organization. A more cohesive ownership facilitates decision making (Meredith 2000; Mauser 2001).

**Figure 2.5: The Greening of Organizations**



Source: Mauser 2001: 10.

This model also focuses on centralization and organizational culture and identifies the relationship between these factors and an organization’s environmental performance. These factors influence the implementation of environmental management indicators such as policy, communication, organizational structure and environmental commitment as well as affect the degree of environmental performance. This model provides a broad interpretation of the internal and external factors that influence an organization to



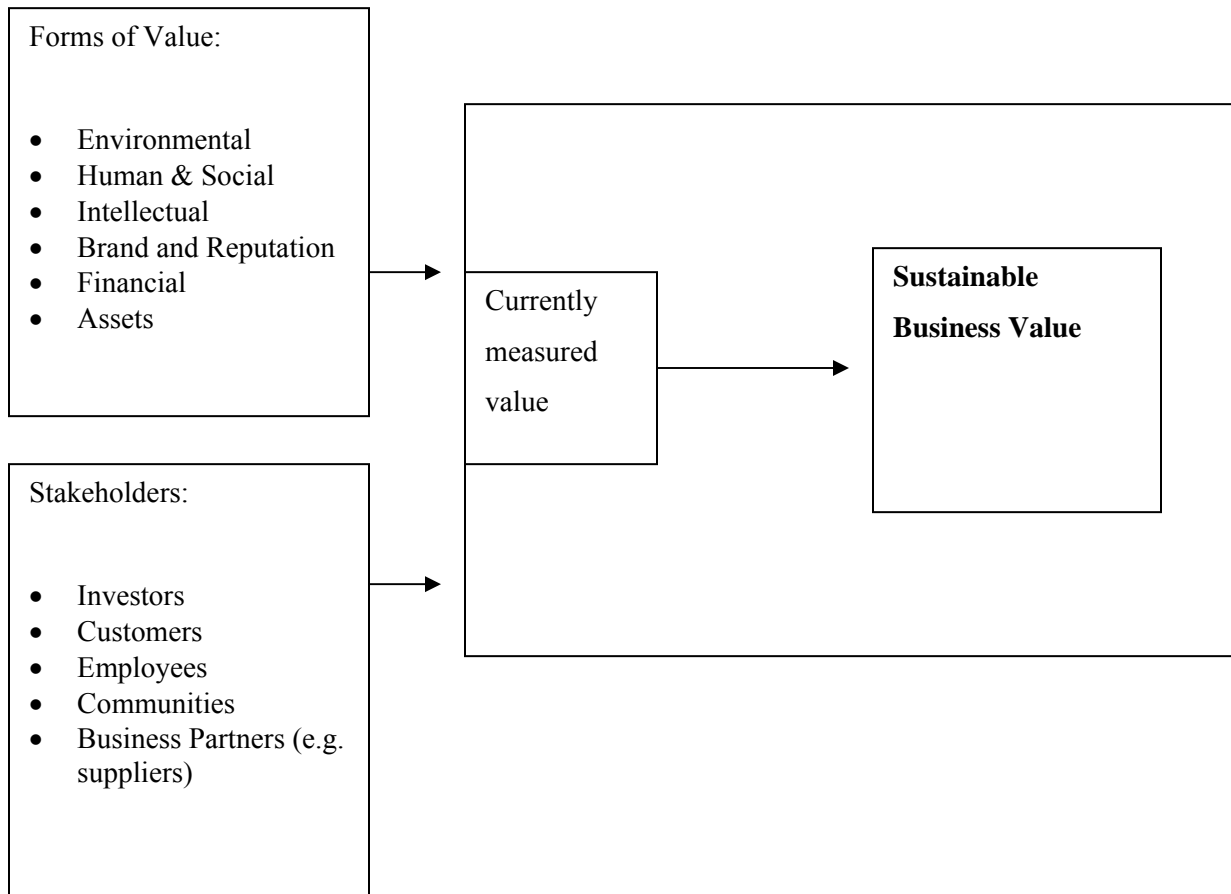
implement environmental commitment strategies, but focuses heavily on the internal component. Financial considerations, however, are missing from this model. In addition, this model does not account for the impeding factors that affect implementation, but it is implicit that these will play a role in the decision-making capabilities of the firm.

#### **2.7.4. Sustainability in the Accommodation Industry (Pryce 2001)**

Pryce (2001) identified factors that specifically influence the level of environmental commitment in the accommodation industry. His model categorizes the factors between stakeholders (external) and forms of value (internal) that affect the implementation of sustainability in the accommodation industry.

The factors identified by Pryce (2001) are not different from the ones identified in the other environmental management models or theories however Pryce's study confirms that the factors influencing the level of environmental commitment in an accommodation facility are similar to those influencing organizations in general. Stakeholders, competitive advantage through brand and reputation, financial considerations and organizational culture demonstrated through environmental, human, social and intellectual values have been identified as being pertinent to the implementation of environmental initiatives in this industry. It is important to identify how these individual factors work together to affect the accommodation industry specifically. Pryce's (2001) model, however, does not provide any indication of how these internal and external factors work together to affect an organization's decision-making process and how this influence affects a facility's degree of environmental commitment. It is merely a model of identification.

**Figure 2.6 Sustainability in the Accommodation Industry**

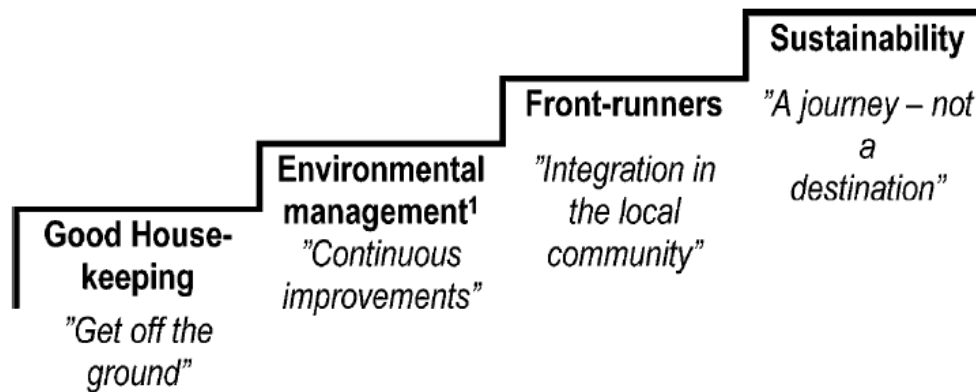


Source: Pryce (2001): 21.

### **A Model for Sustainable Development in Tourism Enterprises (Kernel, 2004)**

Kernel (2005) identified four steps of sustainable development in organizations. This step model was developed to facilitate sustainable development in the tourism industry in Mid and North Jutland, Denmark. This step model was developed through extensive stakeholder consultation with the tourism enterprises and local authorities and was based on experiences with environmental commitment in the tourism industry. The step model represents the steps of developing cleaner technology in the tourism industry, from cleaner production processes (Step 1) to environmental management (Step 2) to cleaner products (Steps 3 and 4). As each step increases, the number of incentives and stakeholders involved increases. Figure 2.7 identifies the Four Step model and Appendix A provides the details about what each step entails.

**Figure 2.7 The Four Steps of Sustainable Development in Enterprises**



Kernel, 2005: 158

Step One is the good housekeeping stage where enterprises get started and create a basic level of environmental commitment. The types of initiatives developed at this stage include an environmental policy, designating responsibility for environmental management, compliance with regulations and developing a basic waste management system consisting of recycling and composting. This first phase involves employees as the key stakeholders in the environmental commitment strategy (Kernel, 2005).

Step Two is the Environmental Management stage. This stage consists of implementing a systematic environmental management system, developing a green purchasing policy and offering organic food to customers. It also includes working with the tourists to educate them on green initiatives and behaviour (Kernel, 2005).

Step Three consists of the Front Runners stage. Organizations at this stage are considered leaders in the industry as they are displaying their level of environmental commitment by implementing certified environmental management systems such as ISO 1400. This stage encourages organizations to expand their environmental initiatives to their suppliers (Kernel, 2005).

These activities are expanded in Step Four which is the sustainability stage as it includes more social and ethical aspects. Sustainability is integrated in the vision and development plans of the tourism enterprise. Customers are consulted on the environmental commitment strategies. Performance indicators are also developed for continuous improvement based on life cycle assessment and social and ethical

measurements. The step model is cumulative as organizations have to continue most of the activities in Step 1 when they move into Step 2 and so on (Kernel 2005).

This model is a good indicator of the stages of environmental commitment in an organization and more specifically in the tourism industry. This model identifies the possible levels of environmental commitment as well as the systematic addition of activities required in each stage in order to achieve sustainability. This model is a good basis for identifying the types of environmental initiatives undertaken in the accommodation industry but does not indicate how the motivating, impeding and organizational factors affect the movement of an organization from Step 1 to Step Four.

#### **2.7.5. Summary of Environmental Management Models**

The main criticisms of many of the existing environmental management models include their limited suitability to specific situations, the insufficient reflection on organizational and strategic complexity, the difficulty of operationalizing the models and the little insight most models provide into internal and external factors and their relationship to environmental commitment. The five models chosen, however, collectively address some of these criticisms and provide an understanding of why organizations implement environmental initiatives. Berry and Rondinelli (1998) examined the internal and external factors that motivate proactive environmental management in an organization. Ghobadian et al. (1998) incorporated into their model, the motivating (external), organizational (mediating) and impeding (moderating) factors that affect the implementation of environmental management in an organization. Mauser (2001) examined how organizational factors such as ownership, centralization and organizational culture play a dominating role in the environmental performance of an organization. Pryce (2001) identified how these factors affect sustainability specifically in the accommodation industry. Kernel (2005) identified what environmental initiatives should be sequentially implemented to achieve sustainability in tourism organizations. These models contribute to a better understanding of the internal and external factors that affect environmental commitment in the accommodation industry. In addition, the examination of these models provides an explanation as to why there are differing levels of environmental commitment in an industry despite the similar motivating factors that may be present.

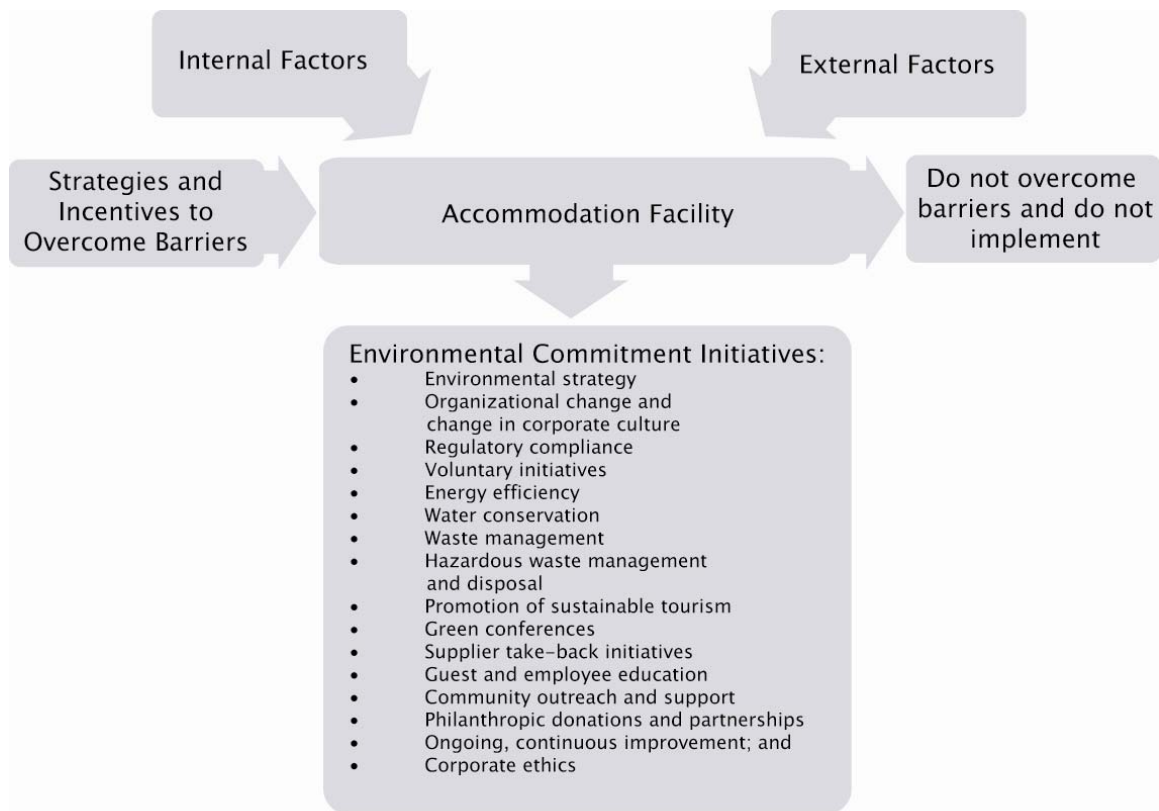
The five models provide further insight into the reasons why organizations implement environmental commitment initiatives. These models provide a context for the relationship between the external and internal environment, the internal decision-making process and impeding factors that may hinder the implementation of environmental commitment initiatives.

## **2.8 Conceptual Framework**

Through the examination of theories and environmental management models, a conceptual framework has been developed for this study. The conceptual framework, identified in Figure 2.8. provides the context for this study.

This framework identifies that internal and external motivating, impeding and organizational factors (as discussed in the next chapter) provide varying levels of influence on the accommodation facility. These factors, affect the facility's decision to implement environmental commitment initiatives. The motivational factors would motivate an increase in the level of environmental commitment, the impeding factors, would negatively affect and hinder the implementation of these initiatives and organizational factors can act as both a hindrance and a motivator depending on the situation.. Strategies and incentives to motivate implementation can then be implemented once an impeding factor is encountered which may eradicate these hindrances. However if not successful, initiatives will still not be implemented. Several initiatives, within the suite of environmental commitment (as identified in section 1.2.1) can be implemented at the same time.

**Figure 2.8. Conceptual Framework for the Study**



## 2.9 Conclusion

Based on the concepts and approaches identified through the theories and environmental management models discussed, a number of internal and external factors have been identified that can influence the level of environmental commitment in a tourist accommodation facility. Many of these factors are interrelated and work in conjunction with each other to influence the decision to move towards sustainability. The factors are either motivating in that they influence a facility through benefits and pressures, organizational in that they play a role in influencing the decision-making capabilities of a firm or impeding in that they act as barriers to implementation. Some of the factors identified can also play more than one role. Through this literature review, the following factors have been identified and will be discussed in the next chapter:

- Size
- Ownership
- International versus domestic management/ownership
- Chain affiliated versus franchise facilities
- Grade of facility
- Clientele
- Facility age
- Financial considerations
- Competitive advantage
- Social responsibility
- Organizational culture
- Centralization
- Senior management
- Corporate decision makers
- Regulatory agencies
- Customers
- Local community
- Industry associations
- Suppliers
- Environmental non-governmental organizations
- Employees
- Media
- Shareholders

These factors provide the basis for further exploration in this thesis. How these factors independently and interdependently affect the level of environmental commitment in the study population will be examined in greater detail and provides the basis for understanding how accommodation facilities can move from attitude to action in terms of sustainability.

## **Chapter 3**

### **What Affects Environmental Commitment In A Tourist Accommodation Facility?**

There are various discussions in the literature on factors that affect the decision to increase the level of environmental commitment in an organization. This chapter satisfies the first objective of the study, as it provides a consolidation of the motivating, organizational and impeding factors that affect the level of environmental commitment in the tourist accommodation industry. This chapter provides a comprehensive discussion of the various factors that will be examined in this study.

#### **3.1 Factors that Affect Environmental Commitment in the Tourist Accommodation Industry**

Factors affecting the level of environmental commitment in an organization can be both internal and external to the organization. Internal driving factors are very specific to the organization and may not be applicable to other similar businesses. External driving factors affect several organizations similarly. Organizations however have very little control over these factors. Specific factors can also be both internal and external to the organization (Lynes and Dredge, 2006). This chapter will discuss both internal and external factors that may affect the level of environmental commitment in the tourist accommodation industry.

##### **3.1.1 Size of the Facility**

Size of the facility is a pertinent factor that affects the level of environmental commitment in an organization. Most environmental management and corporate social responsibility studies either examine the environmental commitment of large firms or discuss the barriers to environmental management in small firms, identifying a relationship between size and the level of environmental commitment in an organization (Cheyne and Barnett 2001; Bohdanowicz 2005; Rivera and DeLeon 2005; Ghobadian and O'Regan 2006).

There is the perception that large accommodation facilities have a greater impact on the environment and therefore are exposed to a considerable amount of pressure from



stakeholders due to the visibility of their impacts (Alvarez, Gil et. al, 2001). Large accommodation facilities have therefore been scrutinized and prompted to partake in environmental commitment initiatives and report on their involvement. These facilities are at an advantage, however, as they are able to develop more advanced environmental management systems due to the economies of scale and slack resources that can be invested in information, technology and staff. Large accommodation facilities are also more likely to have formalized structures and dedicated teams to operate environmental management systems. Small facilities have fewer resources in terms of money, technology, information and staff. Thus, these facilities implement fewer environmental and social initiatives. It is also more difficult to regulate small and medium-sized accommodation facilities as they are more numerous and not as visible (Webster 2000; Alvarez Gil, Burgos Jimenez et al. 2001; Mauser 2001; Rivera 2002a). One study determined, however, that smaller accommodation facilities were willing to increase their level of environmental commitment if supplied with the appropriate tools, such as practical advice (Bramwell and Alletorp 2001). The size of the facility, however, does not independently affect the level of environmental commitment in an accommodation facility. Other factors are interrelated with size such as ownership, star rating and clientele.

### **3.1.2 Ownership**

#### **3.1.2.1 Chain Affiliated versus Independently Owned Accommodation Facilities**

Different types of ownership and ownership structures may affect the level of environmental commitment in an organization (Mauser 2001; Pine 2002). In the accommodation industry, there may be varying ownership structures depending on the nature of the location (see Chapter Five for further discussion on ownership structures in China). However, generally for the accommodation industry, facilities are either independently owned or chain affiliated. Chain affiliated facilities consist of a number of facilities owned and operated by one organization, with a central head office.

A significant difference in environmental attitudes between the independent and chain affiliated hotels has been reported in various studies (Meredith 2000; Alvarez Gil, Burgos Jimenez et al. 2001; Rivera 2002a; Rivera 2002b; Bohdanowicz 2005). The

success of an environmental program in an independent accommodation facility is based on an accommodation manager's attitude and knowledge. The more well versed the manager is in terms of environmental management and its various benefits the stronger the level of environmental commitment. The level of environmental commitment in chain affiliated accommodation facilities however are based on corporate policy, which are in many cases mandatory and indicate a minimum level of performance (Bohdanowicz, 2005). Chain affiliated accommodation facilities are in a better position to be more environmentally committed. Chains "have the ability to standardize their activities, have access to a more efficient marketing system, personnel and management training, centralized bulk purchasing, brand image, centralized advice and consultancy, and up-to-date information of events and trends in the industry" (Alvarez Gil et. al, 2001:6). Chains also take advantage of the successful practices of individual facilities and distribute it among members of the chain. Managers in chain affiliated hotels are generally more likely to pay attention to environmental issues than independent operators, many of whom run small properties. Furthermore, chain affiliated companies are increasingly required to display environmental and social commitment and achievements in addition to their traditional financial statements. These factors, combined with the chain accommodation facility's financial resources, lead to generally more commitment to environmental issues than individually owned and managed facilities (Meredith 2000; Alvarez Gil, Burgos Jimenez et al. 2001; Rivera 2002a; Bohdanowicz 2005; Rivera and DeLeon 2005).

### 3.1.2.2 International versus Domestically Owned Accommodation Facilities

It has been established through various studies in the literature that internationally owned organizations tend to be more environmentally committed than domestically owned organizations (Welford 1997; Rivera 2002a). This is due to the multitude of institutional and stakeholder pressures, regulatory requirements, consumer demands and varying corporate cultures an international organization must incorporate into its corporate policies. This is especially pertinent in developing countries where the level of institutional and stakeholder pressures and culture are not focused on environmental commitment but rather on short-term development and economic gain (Welford 1997; Rivera 2002a).

### **3.1.3 Grade of the Facility**

The grade of the facility indicates its level of rating classification. The rating classification is dependent on the system in the host country but is typically based on a system of one to five stars. The star level indicates the spectrum of amenities and services in the facility. One star is considered budget or low end whereas five stars is considered high end. Similar to size and ownership, high end hotels have greater volumes of assets and employees per room and thus have the ability to increase their level of environmental commitment (Alvarez Gil, Burgos Jimenez et al. 2001; Rivera 2002a).

### **3.1.4 Clientele**

The type of clientele in a facility can range from budget to high end, package, business and/or independent clients. The type of clientele in a facility is linked to the facility's location, grade, star rating, service and amenities. It has been established by Riviera (2001c) that room price is positively correlated with higher levels of environmental commitment in a facility (Rivera 2002c). The level of environmental commitment may also be linked to the time spent and type of activities carried out at the facility. For example, a facility that is close to natural tourist attractions may have a higher level of environmental commitment than a facility in an urban setting that caters to business tourists. It has been determined that business travelers are not as willing to pay higher prices for environmental quality as tourists visiting national parks (Rivera 2002c).

### **3.1.5 Facility Age**

Age seems to influence the level of environmental commitment in an accommodation facility. In new buildings it is easier and more cost effective to install modern, efficient technologies such as solar heating and grey water recirculation systems. In older facilities, systems are established and it is more costly to retrofit technologies and buildings. Older facilities must work within the constraints of their facility or invest large amounts of funds for retrofitting. This leads to the hindrance of environmental commitment initiatives in many cases (Rivera 2002c).

### **3.1.6 Financial Considerations**

Several studies have indicated that financial considerations are the most influential, motivating and impeding factors to affect the level of environmental commitment in an accommodation facility (Brown 1994; Brown 1996; Kirk 1996; Cheyne and Barnett 2001; Essex and Hobson 2001; Rivera 2001; Rivera 2002c; Lynes and Dredge 2003; Brebbia and Pineda 2004). It has been well documented in several studies that economic benefits can be gained through implementing environmental initiatives; however, the deterrence for many firms is the capital costs that must be expended prior to these benefits being gained. There are several documented accounts that direct cost savings are a result of increased resource efficiency (Brown 1994; Brown 1996; Kirk 1996; Bansal and Roth 2000; Cheyne and Barnett 2001; Essex and Hobson 2001; Rivera 2001; Rivera 2002c; Lynes and Dredge 2003; Brebbia and Pineda 2004; Gonzalez-Benito and Gonzalez-Benito 2005). Environmental initiatives also lead to improved productivity and increased competitiveness in the industry. Indirect benefits include an improved image, employee morale and health and safety in the facility (Brown 1994; Brown 1996; Kirk 1996; Bansal and Roth 2000; Cheyne and Barnett 2001; Essex and Hobson 2001; Rivera 2001; Rivera 2002c; Lynes and Dredge 2003; Brebbia and Pineda 2004; Gonzalez-Benito and Gonzalez-Benito 2005). Brebbia and Pineda (2004) claim that financial savings is one of the most significant factors influencing the implementation of environmental commitment initiatives. This is especially evident for accommodation businesses that operate in a highly competitive market. Furthermore, Brown's (1994) study that surveyed 106 managers from various hotel groups in the United Kingdom indicated that in many cases initiatives were pursued for the economic benefit alone (Brown, 1994; Essex et al., 2001). It is evident that financial considerations are both an extremely motivating and a potentially hindering factor influencing the level of environmental commitment in the accommodation industry.

### **3.1.7 Competitive Advantage**

In addition to direct financial benefits, the implementation of environmental initiatives can also create a competitive advantage in the accommodation industry due to specific environmental market niche demands. Benefits include increased price premiums, attractiveness to customers, improved market share, access to or creation of

new markets, improved company image, increased productivity of employees and operational fitness (Descano and Gentry 1999; Bansal and Roth 2000; Rivera 2001).

### **3.1.8 Social Responsibility**

The adoption of environmental initiatives by an accommodation facility can be a result of its concern for its social obligations and values (Bansal and Roth 2000; Rivera 2002b). Due to the increase in environmental awareness worldwide, many organizations believe it is their responsibility to protect the environment and avoid contributing to its demise (Natrass and Altomare 1999). Organizations, especially those scrutinized by the public, want to enhance and reinforce their positive image in the market place in order to bolster their reputation as a good corporate citizen (Lynes and Dredge 2003). The decision to increase an accommodation facility's level of environmental commitment is based on the desire for social legitimacy amongst its peers in the industry, customers, government and other influential stakeholders.

### **3.1.9 Organizational Culture**

Organizational culture is defined as shared values, management style or prevailing attitudes within an organization. Organization members hold these values and attitudes in common and these values are articulated and practiced by the organization's leaders (Welford 1997). Organizational culture is influenced by the process of hiring and advancement, education and training (or lack thereof), the reception or rejection of ideas, and strong or dominant personalities. Traditional corporate culture and values are concerned with maximizing profits; however, more enlightened organizations are concerned with employee empowerment, stakeholder dialogue, social responsibility and ethics. In terms of the accommodation industry, environmental commitment initiatives must be designed within the boundaries of the current corporate culture. Initiatives that do not include employees in the decision-making process or that force change on the organization may not be successful, and the most extensive level of environmental commitment is displayed by facilities that value sustainability. Organizations that value the environment to the extent that it contributes to profitability (through direct and indirect economic benefits and increasing the social responsibility of the firm) will be the most successful in implementing environmental initiatives (Welford 1996; Hutchinson

and Hutchinson 1997; Welford 1997; Ghobadian, Viney et al. 1998; Johnson 1998; Weiss 1998; Mauser 2001; Pryce 2001).

### **3.1.10 Centralization**

Centralization of environmental issues in an organization is imperative to the success of any environmental program. The more centralized the authority to make decisions regarding environmental commitment, the higher the level of implementation in an organization. Accommodation facilities that have designated environmental coordinators and environmental management teams have a higher level of implementation versus facilities that have a dispersed decision-making authority in relation to environmental commitment (Bohdanowicz 2005).

### **3.1.11 General Managers**

Within an organization, the general manager of an accommodation facility is seen as a key actor in the onset, development and implementation of environmental initiatives. General managers are senior management of an organization and have cross-functional responsibilities. They are described as powerful decision makers that allocate resources and significantly impact the processes of an organization (Narayanan and Nath 1993). General managers have a direct influence on organizational practices including the overall development and implementation of environmental initiatives in the facility. They have a significant influence on the level of environmental commitment as they determine the salience of stakeholders, what factors or pressures to respond to and where resources are to be allocated. The accommodation industry is an interesting example for examining the extent to which managerial efforts help balance contradictory factors to adopt environmental initiatives. For example, general managers have to try to reconcile requests from clients for high comfort and high consumption of water, requests from shareholders to cut costs on the water supply as well as demands from the public and employees to implement environmental commitment initiatives (Cespedes Lorente, Burgos Jimenez et al. 2003).

It is also interesting to note that studies have found that accommodation facilities run by managers born in industrialized countries display higher levels of environmental commitment (Rivera and DeLeon 2005). General managers from industrialized countries

may be more likely to adopt proactive environmental commitment initiatives because of their increased awareness of international environmental requirements and easier access to environmental management information. Facilities with general managers from industrialized countries may also be subjected to increased scrutiny by local environmental groups and government agencies. Hence it can be expected that these general managers would be more likely to endorse and adopt environmental initiatives that improve their facility's reputation (Rivera and DeLeon 2005).

General managers are either the catalyst or hindrance to a successful implementation of environmental initiatives. A general manager's knowledge and values in regards to sustainability is imperative for a successful program to be implemented. An organization's general manager is more receptive to changes in the organizational agenda, products and processes if these fit with their own personal values (Bansal and Roth 2000).

### **3.1.12 Corporate Decision Makers**

Corporate decision makers, which consist of the head office, shareholders, owners, or franchisers in an accommodation facility, are influential players in the development of environmental initiatives. The acceptance and promotion of environmental initiatives by corporate decision makers is necessary so that appropriate resources can be allocated. Corporate decision makers can also be an impeding factor to the level of environmental commitment because if they do not support the initiatives, it will be difficult to implement and move forward (Berry and Rondinelli 1998; Ghobadian, Viney et al. 1998; Mauser 2001; Pryce 2001).

### **3.1.13 Regulatory Agencies**

Regulatory agencies, such as local, provincial/state and federal/central governments represent highly influential factors affecting the level of environmental commitment in the tourist accommodation industry. Depending on the location of the industry, various levels of government hold varying degrees of influence. In addition, the structures of governments are diverse depending on location such that different government agencies will be more influential than others.

Regulatory agencies generally act as motivating factors for increasing environmental commitment in the tourist accommodation industry. Even though the accommodation industry is loosely regulated, there is still a threat of impending regulations that force many accommodation facilities to act either in compliance or beyond compliance (Lynes and Dredge 2003; Meade 2003; Brebbia and Pineda 2004). Lynes and Dredge (2003) found that voluntary environmental initiatives (such as signing agreements for efficiency targets) are the most obvious immediate preference for the tourism industry, as it is unlikely that they will deliver on their own. Guidance from governments is welcomed by the industry as they provide a framework for developing costs and benefits of a proposal before implementation. The tourism industry appears open to more stringent environmental regulations as long as there is a demonstrated scientific need, evidence of environmental benefit, initiatives are economically reasonable, do not distort competition and the revenue is recycled to meet the harm being controlled (Lynes and Dredge, 2003). Regulatory agencies, regardless of their regulatory power, are very influential in moving the accommodation industry towards environmental commitment.

### **3.1.14 Customers**

Customers may act as a motivating or impeding factor in the implementation of environmental initiatives in the tourist accommodation industry. Customers respond positively to a company's actions by purchasing its product or voice their discontent by boycotting a product. Accommodation facilities that improve their public image by increasing their level of environmental commitment have the potential to gain new consumer markets by attracting green consumers and socially conscious investors (Post, Lawrence et al. 1999; Anguera, Ayuso et al. 2000; Robinson 2000).

As customers are largely responsible for the consumption of resources and the generation of waste, accommodation facilities seek their customers' commitment to practice environmental initiatives. On the other hand, direct observation of management by clients may motivate opportunistic environmental practices amongst the employees of the facility (Cespedes Lorente, Burgos Jimenez et al. 2003). The attitudes of consumers are changing and more of them prioritize preservation of the natural environment over economic growth (Gonzalez-Benito and Gonzalez-Benito 2005).



There is however an alternative opinion among customers. A high level of environmental commitment could hinder an accommodation facility, especially if there is the perception that initiatives will affect the level of service. Middleton (1998) suggests that accommodation facilities fear customers may perceive environmental initiatives as reflecting a reduced level of service and this acts as a significant barrier and concern of accommodation proprietors (Middleton 1998). It is also interesting to note in a study conducted by Haight (2007) that the Fairmont chain, which is one of the leaders in environmental commitment in the accommodation industry, had their properties downgraded by a star because they were not changing their sheets on a daily basis (Haight 2007). Thus, the perceptions of customers and rating organizations can negatively affect the implementation of environmental initiatives.

### **3.1.15 Local Community**

Members of the local community often have particular concerns about the impact of local organizations on their well-being. The community can mobilize public opinion, collaborate with non-governmental organizations and influence government in favour of or against an accommodation facility (Thompson 1997). The local community can be an influencing factor in the development of environmental commitment initiatives. It is imperative for facilities to work with the local community to develop good relations. Many of the employees of the facility are from the local community and this link provides further reasons for collaboration. Involving the local community occurs more frequently in industrialized countries as the community is more aware and involved in local affairs (Henriques and Sadorsky 1999; Anguera, Ayuso et al. 2000).

### **3.1.16 Industry Associations**

Industry associations act as a motivating factor to promote and institute environmental initiatives in the accommodation industry. Industry associations, such as Green Globe and the Hotel Association of Canada, provide support, guidance, lobbying, marketing, financial assistance, technical assistance, advertising and certification programs to its members. The purpose of this guidance is to promote the industry's social and environmental concerns in order to create a positive reputation, avoid increased scrutiny from stakeholders and decrease the potential for new regulations (Kelley 1991;

Stabler and Goodall 1997; Thompson 1997; Berry and Rondinelli 1998; Henriques and Sadorsky 1999; Post, Lawrence et al. 1999; Pryce 2001; Rivera 2002b).

### **3.1.17 Suppliers**

A growing number of organizations are recognizing the need to extend their level of environmental commitment beyond the perimeters of their facility. This is especially pertinent in the accommodation industry where success is based on location quality which comes from the support of local businesses. Increasingly, accommodation facilities are seeking to improve the level of environmental commitment throughout their supply chain in order to enhance quality, increase innovation and support the community (Henriques and Sadorsky 1999; Lippmann 1999; Post, Lawrence et al. 1999). In addition, working with suppliers that have a high level of environmental commitment can influence a facility to adopt similar practices. A supplier can also exert its influence by stopping delivery of a product if a facility does not exhibit its commitment to environmental issues. This is especially pertinent in the accommodation industry where corporations such as Proctor and Gamble request the facilities they conduct business with to report their level of environmental commitment (Graci 2001).

### **3.1.18 Environmental Non-Governmental Organizations**

Environmental non-governmental organizations (ENGOS) are a motivating influence for increasing the level of environmental commitment in the tourist accommodation industry. ENGOS can influence the accommodation industry indirectly by pressuring governments for regulations or influencing consumer choice, or directly by participating in voluntary agreements. For example, the Rainforest Alliance and Conservation International have successfully influenced the development of several sustainable tourism programs in the developing world by participating in voluntary agreements with the tourism industry. ENGOS however may not be present in many areas of the world and so while their influence can be quite strong if they exist, their absence is also felt (Post, Lawrence et al. 1999).

### **3.1.19 Employees**

Employees can be a motivating and impeding factor for increasing the level of environmental commitment in an accommodation facility. A successful environmental program depends on the support and involvement of employees. Employees can also be impeding factors in the implementation of environmental commitment initiatives as they may not be willing to participate or take on extra associated duties. Employee support, however, is imperative as lack of it can lead to the failure of an environmental program (Welford 1997; Ghobadian, Viney et al. 1998; Johnson 1998; Berman, Wicks et al. 1999; Henriques and Sadorsky 1999; Pryce 2001; Johnson 2002).

### **3.1.20 Media**

The media can be an influential factor in the implementation of environmental commitment initiatives in the accommodation industry. The media can influence society's perceptions of a company, especially in respect to environmental crises. The media can also encourage governments to take regulatory action on facilities (Henriques and Sadorsky 1999)

### **3.1.21 Shareholders**

Shareholders have the ability to impact the level of environmental commitment in an accommodation facility through their support or rejection. Shareholders have the ability to impact the success of a facility by selling shares if they are not satisfied with the level of environmental performance. Yet stakeholders may also act as an impeding factor. If environmental commitment initiatives lead to a decreased profit, shareholders may not be supportive (Bansal and Roth 2000).

## **3.2 Conclusion**

Influences on the level of environmental commitment in a tourist accommodation facility are a combination of motivating, organizational and/or impeding factors. It is imperative to understand the influence of these factors in order to determine why an accommodation facility does or does not have a high level of environmental commitment and most importantly, how this can be increased. Examining the influence of various

internal and external factors increases understanding of how to get the accommodation industry to move from attitude to action in regards to sustainability. The most pertinent factors, especially in terms of the case of Sanya will be examined in this thesis and are discussed in the following chapters.

## **Chapter 4**

### **Methodology**

A number of stages are involved to successfully implement and complete any research project. This chapter discusses the methodological approach and procedures used in this study which explores the factors that influence environmental commitment in the tourist accommodation industry. To identify these factors and their pertinence to environmental commitment, a multi-method research study was designed and implemented. The study was conducted with the tourist accommodation industry in Sanya, Hainan, China.

#### **4.1 Purpose and Objectives of Study**

The purpose of the study is to examine the factors that influence the level of environmental commitment in the tourist accommodation industry. This study is focused on the tourist accommodation industry in Sanya and seeks to determine how motivating, organizational and impeding factors affect the level of environmental commitment in a tourist accommodation facility. Accordingly, the following objectives have been developed to satisfy the purpose of this study.

##### **4.1.1 Objectives of Study**

The following four objectives will be explored in this research:

1. To review the business, tourism and environmental management literature to identify and consolidate the motivating, organizational and impeding factors that affect the level of environmental commitment in the tourist accommodation industry.
  
2. To conduct an inventory of the tourist accommodation industry in Sanya. The inventory is three-fold and consists of collecting data on the organizational factors, stakeholders and level of environmental commitment. The inventory will identify organizational factors such as the number, ownership, age, size, management structure, location, star rating and clientele of the facilities in addition to stakeholders and their degree of salience and level of environmental commitment.

3. To analyze how various motivating, organizational and impeding factors influence environmental commitment in the tourist accommodation industry.
4. To utilize the data to identify strategies to make recommendations to increase the level of environmental commitment in the tourist accommodation industry.

This research will provide a greater understanding of the state of the accommodation industry in Sanya in terms of organizational factors and the salience of stakeholders, current level of environmental commitment and factors that encourage and prevent environmental initiative implementation. In addition, this research explores the potential for developing strategies, such as multi-stakeholder partnerships, to further the sustainability of the accommodation industry.

#### **4.2 Research Methods**

Research is an “organized, systematic, data based, critical, objective, scientific enquiry or investigation into a specific problem” (Sekaran, 2003:5). Researchers control the process of data collection by means of both theory and method. Theories determine the kinds of information that are required by defining the phenomena and hypotheses of interest. Methods determine how the necessary information will be obtained by defining appropriate data collecting procedures (Brewer and Hunter 1989). A multi-method approach was used for this research. This approach uses a variety of research methods to reveal different aspects of the phenomenon for an individual study, to increase the validity of the findings and to improve the understanding of the objectives (Clark, Riley, Wilke & Wood, 1998). Employing a multi-method approach creates complementary strengths between the methods and overall is more comprehensive (Neuman, 2006, p.59). It is further supported because “each method reveals different aspects of empirical reality” (Denzin, 1970 in Roe, 1998, p. 86).

The approach used was exploratory, descriptive, action-oriented and prescriptive in nature. It is exploratory in that it explored the factors that influence the level of environmental commitment in the tourist accommodation industry. It is descriptive to the extent that it describes the tourist accommodation industry in Sanya and the various

factors that influence the level of environmental commitment in a facility. It is action-oriented since it combines the testing of theory with application by engaging stakeholders through site visits, stakeholder consultation sessions and bringing together various stakeholders to discuss partnership development. It is prescriptive because it sought practical answers to immediate questions and the goal was to obtain usable information. This was achieved by applying what has been learned from this study to make recommendations to increase the level of environmental commitment in the tourist accommodation industry (Brewer and Hunter 1989).

#### **4.2.1 Qualitative Versus Quantitative Research**

Quantitative research emphasizes the examination of numerical information. This type of research measures variables precisely and tests hypotheses in conjunction with causal explanations. In contrast, qualitative research often relies on interpretive social science methods and is usually related to case examination and interpretation guided by specific social science constructs (Dodds 2005; Sommer and Sommer, 2002). The distinction between quantitative and qualitative styles and the mixing of these styles is certainly important, but focusing on this dichotomy overlooks a wider range of methodological problems and ways of solving them. A multi-method strategy calls for the use of multiple methods that have complementary strengths and different weaknesses in relation to a common set of research problems (Brewer and Hunter 1989). This study uses both quantitative and qualitative research to determine the factors that influence environmental commitment in the tourist accommodation industry.

#### **4.2.2 Multi-Method Approach**

It is difficult to conduct research in the social sciences due to the use of humans as subjects and the need to measure their attitudes and opinions. The uncertainties of this type of research require the researcher to employ various approaches and methods to obtain a diversity of data on the topic of interest. The best means of collecting information for this type of research is through a multi-method approach.

A multi-method approach consists of a combination of qualitative and quantitative research methods, such as questionnaires, interviews, stakeholder consultation groups and casual observation (Brewer and Hunter 1989; Sommer and Sommer 1991; Denscombe

1998). Depending on the research setting, a number of these methods can be employed as each method has its own strengths and weaknesses. A multi-method approach also provides flexibility in dealing with obstacles that may be encountered in carrying out a project. Such an approach enables a breadth of coverage and the validation of individual methods.

The methods utilized in this study include observation, questionnaires, interviews and stakeholder consultation groups. Casual observation was conducted without prearranged categories or a scoring system. It was used as an accompaniment to other procedures, such as questionnaires and interviews, which collectively provide the basis for the study. Observation was used prior to conducting other methods of study. The disadvantage of observation is that it lacks reliability as it is based on personal perceptions of a situation. Despite the bias inherent in observation, it is still valuable in conjunction with other methods of research (Sommer and Sommer 1991).

Questionnaires were also used as a method in this study. Questionnaires are frequently used tools since they allow systematic gathering of information about people's beliefs, attitudes, values and behaviours. Questionnaires consist of a series of written questions on a topic about which the respondents' opinions are sought. Questionnaires consist of open and closed-ended questions. With open-ended questions, the respondents write their own answers, whereas closed-ended questions consist of multiple choice, ranking and rating questions where the respondent is asked to choose between a range of alternatives. Questionnaires are effective because they are very efficient in terms of time and effort. Several responses can be collected in a short period of time and they are useful in determining the degree of salience and importance an issue has for people. Questionnaires also provide valuable quantitative data that can generally be representative of a larger population (Wright 1979; Sommer and Sommer 1991; Robson 1993).

Interviews were also used as a method of research. This method provides an excellent means of exploring complex feelings and attitudes in the study population. Structured interviews consist of questions that are formulated prior to the interview and asked in a set order and specified manner. Unstructured interviews do not have a set of specified questions and are more improvisational in nature. These interviews explore all



alternatives in order to gain information and define areas of importance that might not have been thought of ahead of time. Interviews are an effective research tool as they allow the researcher to pursue partially answered questions and probe for more thorough and detailed responses. The disadvantages to interviews are that they are time consuming and costly to undertake. In addition, depending on the skill of the interviewer, the data may be highly subject to personal bias (Wright 1979; Sommer and Sommer 1991; Robson 1993).

Stakeholder consultation was also utilized in this study. This method brings together the main stakeholders of an issue to facilitate discussion and build consensus. Stakeholder consultation is a valuable research method as it allows stakeholders to generate ideas as a result of synergistic discussions. This can lead to consensus building amongst stakeholders that may not have had the same views initially. The disadvantage to this method are that powerful stakeholders may dominate a conversation creating an intimidating atmosphere for other stakeholders (Sommer and Sommer 1991).

These methods were used in various phases throughout the study. Data for this study were collected in Sanya. The following section discusses the case study approach used.

#### **4.2.3 Case Study Approach**

A case study is an in-depth investigation of a single instance and can involve a unit as small as an individual or as large as an entire community or region. It is the preferred strategy when “how” or “why” research questions are being posed and when the focus is on a contemporary phenomenon within some real-life context. The case study approach contributes to knowledge and understanding of individual, organizational, social and political phenomena. It allows an investigation to retain holistic and meaningful characteristics of real-life events such as organizational and managerial processes, neighbourhood change, international relations and the maturation of industries (Sommer and Sommer 1991; Yin 1994). As this research focuses on gaining further knowledge and understanding of the factors that influence environmental commitment in the tourist accommodation industry, it was beneficial to choose an area in which to conduct the research. Using a case study approach provided an opportunity to apply a multi-method approach to a unique setting. Since Sanya, Hainan, China is a rapidly growing tourist destination in a rapidly growing country, this setting provided an optimal opportunity to understand the complex phenomenon of environmental commitment in an industry and regional

context. This method emphasizes the individuality and uniqueness of the participants and setting as well as provides a means to test the theories presented in the literature (Sommer and Sommer 1991).

### **4.3 Research Process**

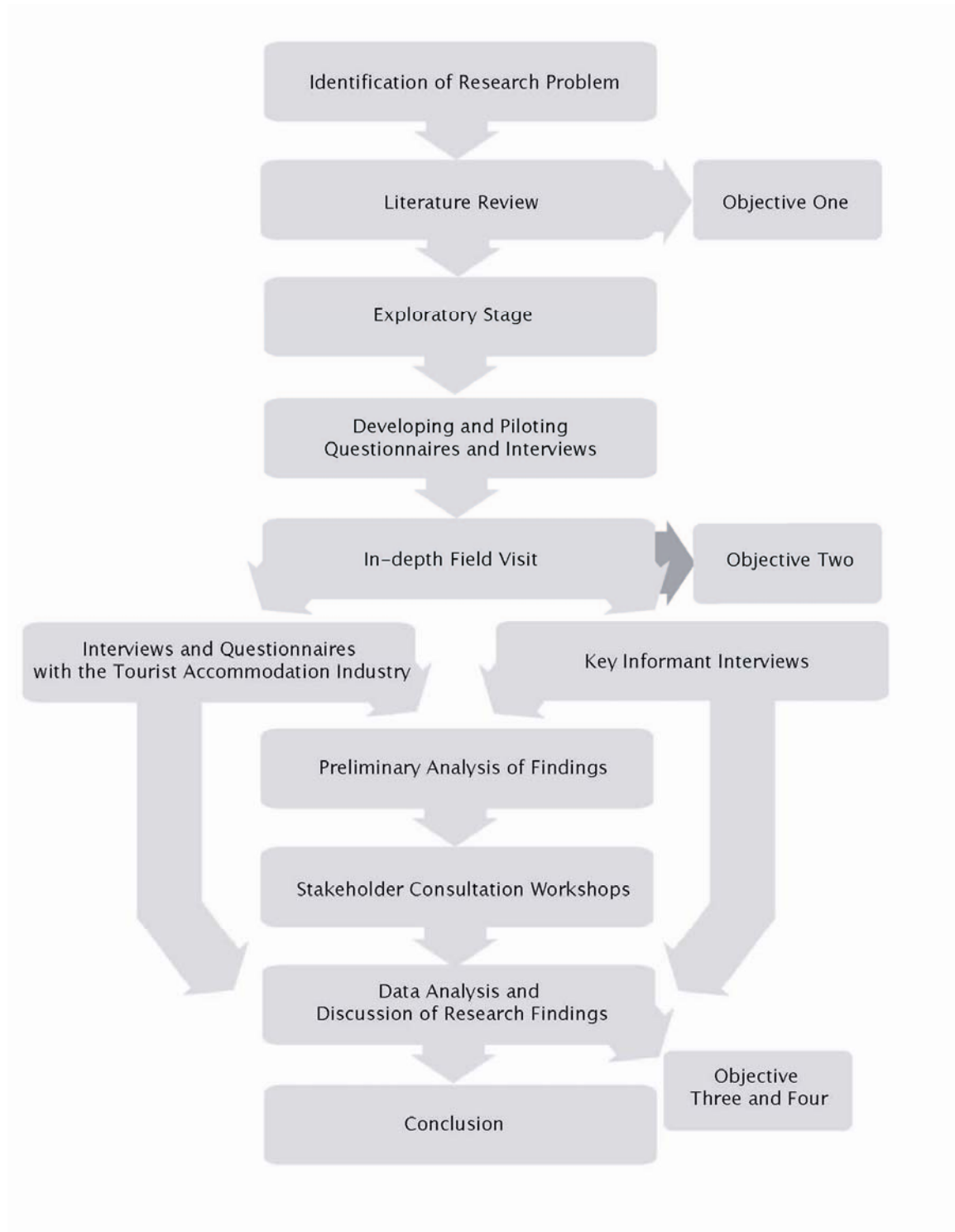
This section outlines in detail the methodological approach utilized in this research. The approach consisted of a number of sequential phases. Information acquisition methods employed in this study are described along with the methods for data analysis undertaken to address the objectives of the study. Figure 4.1 illustrates the research approach and how the study incorporated both primary and secondary information and qualitative and quantitative methods.

#### **4.3.1 Phase One: Literature Review**

The first phase of the research consisted of an in-depth review of the business, environmental management and tourism literature to identify and consolidate the motivating, organizational and impeding factors that affect the level of environmental commitment in the tourist accommodation industry. A review of relevant literature should always be undertaken prior to the collection of primary data as it allows the researcher to gain a better understanding and broad insight into the subject area (Sekaran 2003). The use of secondary data enables the researcher to view definitions and methodologies used by previous researchers keeping in mind validity and relevance. The literature review undertaken for this research covered the period from 1970 up to the submission of this thesis (July 2007).

The literature review consisted of analyzing written documents to determine which theories to examine, identify gaps in the literature, contextualize the research objectives and determine the methods to be used in this study. Specifically, academic journals, books, internet sites, government documents and other secondary sources were reviewed. Key motivating, organizational and impeding factors that influence the level of environmental commitment in an organization were identified by investigating theories and principles related to sustainable tourism, corporate sustainability, environmental management, stakeholder theory, neo-institutional theory, and the resource based theory of the firm. Research on environmental

**Figure 4.1. The Research Process**



management, sustainability, business and tourism in China was also examined to provide context for the case study. This review was primarily conducted in the Fall of 2003 and has been continuously updated until the final stage of this thesis.

#### **4.3.2 Phase Two: Exploratory Site Visit**

The second phase of this research was conducted in December 2003. It consisted of an exploratory site visit to the case study region (Sanya). The purpose of this visit was to conduct a preliminary investigation of the study site, specifically in regards to the state of tourism. The state of tourism in Sanya was observed including the different tourist areas; the number and types of tourist accommodation facilities, and a brief overview was made of the state of environmental commitment in the area.

Informal, investigative interviews with senior management of the accommodation industry and key stakeholders were also conducted. At the time of this visit, a conference was being held with all the partners of Ecoplan China. A workshop on sustainable tourism in Hainan was also being conducted by Dr. Geoff Wall. Through these two events, contacts in Haikou, Hainan were developed which led to snowballing of contacts in the government and tourism industry in Sanya. During this period, informal interviews were conducted with senior management of the Baohua Hotel in Haikou, the first ISO 14001 certified hotel in Hainan. Informal interviews were also conducted with the Sanya Environmental Protection Bureau, the Sanya Tourism Association and employees of several hotels in Sanya, Hainan, China. This visit enabled the researcher to determine the feasibility and develop the tools to undertake a more detailed study in this area.

#### **4.3.3 Phase Three: Developing and Piloting the Questionnaire**

The third phase of the research consisted of the development and piloting of questionnaires and semi-structured interview questions. The questionnaire and interviews were designed based on research in the literature.

##### **4.3.3.1 Development of the Questionnaire**

The purpose of the questionnaire was to gather basic information on tourist accommodation facilities such as ownership, star rating, physical characteristics and management styles; determine the level of environmental commitment in the facility; and measure the influence of motivating, impeding and organizational factors. Semi-

structured interview questions were also developed to probe the answers provided in the questionnaire.

The questionnaire was modeled on the Hotel Association of Canada (HAC)/Terra Choice certification audit that determines the level of environmental commitment in tourist accommodation facilities in Canada (HAC 2000). It was also based on a previous study conducted by the researcher in Toronto, Canada that examined the factors that influence the level of environmental commitment in the tourist accommodation industry (Graci 2001).

The study population for this research consisted of senior management of the tourist accommodation industry in Sanya. Senior managers (which varied from department managers, deputy general manager, director of the general manager's office and general manager) of hotels were identified to complete the questionnaire and simultaneously answer semi-structured research questions. The questionnaire consisted of closed questions suitable for quantitative analysis. Part A of the questionnaire determined the level of environmental commitment of the tourist accommodation facility and Part B determined how the factors (motivational, organizational and impeding) identified through the literature review affected the level of environmental commitment in the facility. The semi-structured interview questions were asked in an open-ended format prior to the respondent answering the related question in the questionnaire. It was decided that the questionnaire and interviews were to be completed in tandem, as this procedure resulted in less confusion in the questionnaire and reduced response bias in the interviews.

Part A of the questionnaire was developed to be similar to an environmental audit of a tourist accommodation facility. In order to understand the influence of factors on the level of environmental commitment in an accommodation facility, the environmental performance of a facility was identified. In order to determine the categorization of environmental performance, Part A included questions concerning the number and type of environmental commitment initiatives implemented in the facility. The HAC Environmental Audit Checklist was used to guide the categorization. This checklist was developed for the Green Leaf Eco-rating Program to determine the level of environmental performance in Canadian tourist accommodation facilities.

The environmental commitment initiatives listed in the questionnaire (as identified in Appendix B) was used to determine the number of environmental practices implemented in the accommodation facility. Each practice/initiative identified by the respondent as implemented received one point (if it was not implemented that initiative received a score of zero). A tally of the points was then calculated to determine an overall score out of 45 (45 being the highest number of points (initiatives) that could be achieved). The checklist in its entirety was too extensive for the purpose of this research so it was condensed to highlight the main categories Depending on the comprehensiveness of the initiatives implemented (and the final score) , the facility was ranked with between one and five green leaves (one categorizes a facility as having a minimal level of environmental performance whereas five indicates a high level of environmental performance and a leader in environmental commitment) (HAC 2000; Meredith 2000).. Based on the HAC Environmental Audit Checklist developed by Terra Choice Inc., the scores were categorized into five categories:

Category A: (1-9 points)

Category B: (10-19 points)

Category C: (20-29 points)

Category D: (30-39 points)

Category E: (40-45 points)

Category A equates to a minimum level of environmental commitment and categories B through E indicate increasing levels of environmental commitment. The questionnaire incorporated all aspects of environmental commitment as identified previously in Section 1.3. The score was purely based on the respondents answers, however, to provide context and ensure accuracy of the scores, an interview was conducted with the respondents at the time of the audit. The interview discussions enabled the respondents to clearly identify what initiatives were implemented and to determine if the practices were legitimately in place.

Part B of the questionnaire was developed to identify how the motivational, impeding and organizational factors influence the level of environmental commitment in the facility. Various approaches identified in the literature were used to develop several

of the questions. Mitchell et al.'s (1997) approach to identifying and measuring stakeholder salience, Swingle's (1970) categorization of power strategies and various rating, ranking, and attitude scales were incorporated in order to build on these related studies.

Following Flagestad's (2001) and Alvarez et al.'s (2001) studies that examined factors that influence the management of tourist destinations and facilities, questions were based on Mitchell et al.'s (1997) approach to identifying and measuring stakeholder salience. The questionnaire asked the respondents to identify whether each stakeholder had perceived power, legitimacy and urgency in affecting the organization's level of environmental commitment. This approach was used by Flagestad (2001) to identify and prioritize influential stakeholders in winter sports destinations. The results provide data to determine the degree of stakeholder salience in influencing the level of environmental commitment in the accommodation industry.

The questionnaire also sought to determine the forms of power strategy each stakeholder employs and correlate this to the level of environmental commitment. Swingle (1970) developed a categorization of different forms of power exertion that stakeholders utilize to influence an organization. Table 4.1 identifies the forms of power exertion on an organization.

**Table 4.1 Forms of Exerting Power on an Organization**

<b>Influence</b>	<b>Description</b>	<b>Example</b>
<b>Coercion</b>	Sanctions, legal fines and other punishments	Used by governments
<b>Reward</b>	Concrete and physical rewards which could consist of monetary rewards or recognition	Used by industry organizations, ENGO's, government, corporate decision makers via corporate sustainability programs with a monetary or branding reward system
<b>Experience</b>	Providing expertise to an organization through sharing of information	Used by industry associations, government, corporate decision makers through disseminating best practice information
<b>Legitimate</b>	Have the right to prescribe behaviour and the organization must comply	Used by corporate decision makers in developing and implementing corporate wide policies
<b>Information</b>	Providing information to suggest	Used by employees and customers through

Influence	Description	Example
	change in an organizations actions	suggestions. Can be used by other stakeholders such as suppliers, government, industry associations
<b>Reference</b>	Uses the desire for an organization to obtain “oneness” with other organizations – to identify with a group of organizations	Used by industry associations, governments, corporate decision makers, ENGO’s, suppliers to coerce organizations to implement industry wide practices and join voluntary programs

Source: Swingle (1970): 78.

Applying this categorization to stakeholders in the environmental commitment context provides further understanding as to why managers perceive certain stakeholders as salient. This approach was also used in Alvarez et al.’s (2001) study of stakeholder influence on accommodation facilities in Spain.

Rank and rating questions were used to test the other motivating, organizational and impeding factors and their influence on the level of environmental commitment in the facility. Rating scales are used to rank people’s judgment of objects, events, or other people (Mueller 1986; Sommer and Sommer 1991). These types of questions allow a respondent to identify what is most important to them. Rank order questions were used to determine salience. Respondents were asked to rank a list of items in terms of importance. Similar studies that used rating and ranking questions were conducted by Cheyne and Barnett (2001) and Quazi et al. (2001). Cheyne and Barnett (2001) examined stakeholder perceptions of environmental programs in New Zealand hotels and lodges. Quazi et al. (2001) studied motivations for adopting ISO14001 Environmental Management Systems in electronic and chemical industries in Singapore.

Prior to administering the questionnaires and interviews, pilot studies were conducted with tourist accommodation facilities in the Province of Hainan. The questionnaire and interview guide can be found in Appendix Two.



#### 4.3.3.2 Piloting of Questionnaire and Interviews

The questionnaire was piloted in various stages. First, since the questionnaire was derived from previous studies and audits, the questions had already been tested in various ways. Second, the questionnaire and interviews were translated into Mandarin by a Chinese doctoral student from the University of Waterloo prior to the researcher's return to Sanya for the second phase of the field research. This was done to determine if the questions could be translated into Mandarin while retaining their original meaning.

The questionnaire was then translated once again into Mandarin, in accordance with the first translated document, and then retranslated back to English to determine that the meanings of the questions were correct. This was completed three times to ensure that not only the written translation was correct but that the translator understood the nature of all the questions and could translate without misunderstanding or bias during the interviews.

Pilot testing of the questionnaire was conducted to identify any problems, such as confusing order and misleading or irrelevant questions. The pilots were conducted in October 2004 in the neighbouring cities of Haikou and Lingshui in Hainan Province. One pilot was conducted with each of the Baohua Hotel in Haikou, the first ISO14001 hotel in Hainan, and the Sandalwood Resort in Lingshui, where a sustainable tourism conference was being held. The pilots enabled the fine tuning of the questionnaire and ensured that the translation was correct. Some questions were modified and more added, however the pilot did determine that the information obtained through the interviews and questionnaire would be sufficient for this study. The pilots also helped to minimize bias such that the ranking and rating questions should follow the open-ended questions on the same topic. This ensured that bias did not result from the respondent looking at the rating/ranking questions prior to answering the open-ended questions.

The questionnaire and interview methods were also piloted with five general managers of accommodation facilities in Sanya, Hainan, China to determine the ease of response, language comprehension and appropriate gathering of information. It also enabled any miscommunication to be clarified with the translator. The information obtained from the pilots was retained as all the changes made from the pilot were minor and did not compromise the information collected. Minor variances to the questionnaire

occurred such as changing the order of the questions, clarifying terms and changing the ranking values to reflect culture (for example instead of 1 being the lowest and 5 the highest, inverting this to accommodate for Chinese culture that views 1 as being the highest value).

#### **4.3.4 Phase Four: Primary Data Collection**

The fourth phase of research consisted of primary data collection. During this phase, senior managers of the tourist accommodation industry in Hainan were asked to complete the questionnaire and answer semi-structured interview questions. This occurred between November 2004 and April 2005.

At the time of the study being conducted, the population of accommodation facilities in Sanya consisted of 129 establishments. Several measures were undertaken to ensure that as many accommodation facilities possible participated in the study. A list of facilities was obtained from the Sanya Tourism Association and supplemented with data from a tourist brochure of Sanya. In addition, facilities that were observed as present but not on the list were included in the study. As the accommodation industry in Sanya is in constant flux, the list received from the Sanya Tourism Association was not an up-to-date account of the population. Accommodation facilities were called numerous times for appointments and at least two in-person visits were conducted in order to obtain an interview with senior management. Personal connections through the translator were also used to obtain interviews. As a result, only 29 accommodation facilities did not participate in the study due to various reasons as discussed in the limitations section of this chapter.

One hundred questionnaires and interviews were conducted with senior management of hotel facilities in Sanya. To ensure that all the questions were completed and understood, the translator and researcher went through the questionnaire with the respondents while concurrently conducting semi-structured interviews. For Part A, the questions were completed followed by a semi-structured interview question. In Part B, the semi-structured interview question was asked prior to completing the corresponding question in the questionnaire. This ensured the responses to the open-ended questions would not be biased and provided candid answers from the subjects without being

affected by the factors identified in the ranking and rating questions. The length of the questionnaire/interview was between one and three hours. In a few cases, two sessions were held as the interview exceeded the initial time available.

#### 4.3.5 Phase Five: Key Informant Interviews

Key informant interviews were also conducted during the period of primary data collection. Interviews with representatives of provincial and municipal government agencies, trade associations and certification bodies provided information on the role of stakeholders in affecting the level of environmental commitment in the tourist accommodation industry of Sanya. The key informant interviews were also conducted between November 2004 and April 2005.

Senior employees of pertinent organizations were interviewed to determine the political climate of the tourism industry; the regulations that had been developed and applied to the tourism industry; the goals of the stakeholders, their visions and opinions on environmental commitment in the Sanya tourist accommodation industry; and whether these organizations would be willing to participate in a multi-stakeholder sustainable tourism partnership. Key informants interviewed are identified in Table 4.3.

**Table 4.2 Key Informant Interviews**

<b>Agency</b>	<b>Contact</b>
<b>Provincial Government</b>	Director, Environmental Sciences Academy, Hainan Department of Lands, Environment and Resources
<b>Local Government</b>	Deputy Director, Sanya Tourism Bureau
	Director, Sanya Environmental Protection Bureau
<b>Provincial Trade Association</b>	Director of Quality Service Management, Hainan Provincial Tourism Administration
<b>Local Trade Association</b>	Director, Sanya Tourism Association
<b>Certification Bodies</b>	CEO, Quality Consulting
	Director, Green Globe China

#### **4.3.6 Phase Six: Stakeholder Consultation Workshops**

A third visit was made to Sanya in October 2005 to conduct a series of stakeholder consultation workshops. The purpose of these workshops was to discuss the preliminary main findings of the study as well as to provide information on how to increase the level of environmental commitment in accommodation facilities. The workshops provide a means of identifying prior to in-depth analysis if the preliminary findings were reflective of the collective thoughts of the stakeholders interviewed in this study. The workshops were also used as an avenue to generate discussion on the potential for the development of a multi-stakeholder partnership. The partnership would focus stakeholder resources on increasing the level of environmental commitment in the tourist accommodation industry in Sanya.

Four workshops were held in Sanya over two days. One workshop was held in each of the four tourist areas in Sanya: Sanya City, Haipo, Dadonghai and Yalong Bay. The workshops were attended by representatives of 66 accommodation facilities. In addition, members of the Sanya Tourism Association, Sanya Tourism Bureau, Sanya Environmental Protection Bureau, Majesty Consulting Services, Yalong Bay Development Agency, the Coastal Water Treatment Plant of Yalong Bay and Green Globe China attended the workshops.

#### **4.3.7 Phase Seven: Data Analysis**

Qualitative and quantitative analyses of the data were completed from January 2006 to May 2006. Qualitative data combines the ability to question, translate, coordinate and determine the viability of the meaning of re-occurring issues and phenomena. Therefore the qualitative data were analyzed for the emergence of key themes using a colour coding method. Coding is the process by which categories of responses are established for open-ended questions. Lengthy statements were reduced and sorted into specific response categories (Sommer and Sommer 1991). This form of analysis involved reading the transcribed interviews and grouping common themes and repetitive words (Miles and Huberman 1994; Yin 1994).

Quantitative data was analyzed using SPSS. Frequencies of responses from the questionnaire were determined and data was further analyzed through the cross-tabulation

of variables. Statistical analysis was undertaken where possible, through tests such as chi square analysis and multiple regression.

Chi Square is a technique for determining the significance of the difference between the frequencies of occurrence in two or more categories with two or more groups. It actually compares the number of observations (or cases) with those that might be expected on the bases of the distribution of cases. It helps to identify whether or not differences can be attributed to chance. If the differences are not attributed to chance, chi square helps confirm the finding. If the observed and expected distributions are not significantly different, then it can be assumed that the respondents are representative of the population (Moore and McCabe, 1999).

Multiple regression using stepwise was also employed to test variables in this study. The purpose of multiple regression is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. In this study, multiple regression was used as more than one variable (motivational, organizational and impeding factors) was hypothesized to affect the dependent variable (level of environmental commitment) (Salkind 2004; Rogerson 2006).

The analysis of the quantitative and qualitative data enabled the identification of the factors that affect the level of environmental commitment in the tourist accommodation industry.

#### **4.3.8 Phase Eight: Analysis and Conclusions**

In the final stage of the research, the factors that affected the level of environmental commitment in the tourist accommodation industry were identified. Major conclusions addressing the four objectives of this study were constructed and ways in which this research could be utilized to further environmental commitment in the tourism accommodation industry were determined. The final phase of the study occurred between May 2006 and May 2007.

#### **4.4 Limitations**

Various limitations were faced in this study making it impossible to obtain participation from the entire population of tourist accommodation establishments. The limitations did not affect the ability of the researcher to acquire excellent data required to

meet the objectives set out in this thesis. However, the limitations did cause constraints, mostly in terms of time, which were overcome as the study progressed. The following is a summary of the limitations faced in this study.

#### **4.4.1 Comprehensiveness of Data**

One limitation of this research was comprehensiveness. As much up-to-date research was reviewed as possible; however, given that research is often not published for up to two years after being written and is in several languages, there is a likelihood that something might have been overlooked in the literature review.

#### **4.4.2 Issues of Cross-cultural and Cross-language Research**

Conducting a case study investigation in cross-cultural and cross-language settings introduces several challenges to the research process. Within qualitative research there is a growing recognition that “how a researcher comes to understand the social world affects how data is produced and interpreted by the researcher” (Hsin-Chun Tsai et al. 2004:6). In a cross-cultural case study, the interpretation of findings is affected by the extent of the researcher’s knowledge of the cultural context of the research setting and the researcher’s personal cultural background, experiences and ideologies (Holliday 2002; Hsin-Chun Tsai et al. 2004).

In addition to navigating cultural differences, the study involved conducting cross-language research (Mandarin to/from English). Translation is more than an exchange of words from one language to another; it often involves conveying concepts that are culturally, socially and politically loaded from one culture to another. Hsin-Chun Tsai et al. (2004) argued that not only does the translator’s cultural perspectives and lived experiences shape the translation process, but it is also influenced by their proficiency with the language into which they are translating. Translation can therefore reduce the accuracy of cross-cultural qualitative research (Hsin-Chun Tsai et al. 2004).

One way of addressing such issues is to incorporate into the research team researchers who share the cultural and linguistic background of the researched populations (Pratt & Loizos 1992:34-35; Hsin-Chun Tsai et al. 2004:6). These ‘cultural brokers’ are better able to capture subtle cultural meanings embedded in participants’

comments and convey those to other members of the research team (Pratt & Loizos 1992:42; Hsin-Chun Tsai et al. 2004:6). In many ways the translator functioned as a cultural broker, assisting with culturally relevant interpretations of environmental management in the tourist accommodation industry. There was, however, the possibility that the translation was somewhat biased despite the protocols followed to reduce subjectivity. Although language can be a limitation, it may also be seen positively as possible bias and innuendos in questioning respondents were reduced due to lack of intimate language knowledge.

#### **4.4.3 Lack of Environmental Awareness**

It was evident through several of the interviews that the meaning of ‘the environment’ was different to the study sample than the definition used in this research. Several times during the interviews, the respondents equated environmental commitment with cleanliness and, in one instance, asked the interviewer the best way to get stains out of a carpet. This level of environmental awareness was evident in several of the interviews. As the questionnaire was completed concurrently with the interview, the researcher was able to explain the meaning of the term environment and environmental commitment in the research context.

#### **4.4.4 Cultural Constraints**

Cultural barriers related to the lack of knowledge of local behaviour and local norms of social interaction were a challenge to the everyday life of the researcher. The researcher found it difficult at first to integrate into society and to perform daily duties without knowing much of the local language. Despite the aid of the translator, it was stressful to conduct day-to-day operations such as traveling and purchasing items such as food. The researcher quickly was able to integrate and perform daily operations independently. However, there were many instances of frustration. This did not hinder the research, but rather enhanced it as the researcher’s understanding of the culture increased. This contributed to the researcher’s knowledge and understanding of how to conduct research and business in China.

#### **4.4.5 Refusal and Non-Cooperation from Hotels**

Despite efforts to ensure responses from all accommodation facilities in the Sanya area, there were challenges in gaining cooperation from the full population. Twenty-nine accommodation facilities in Sanya refused to participate in the study for a variety of reasons. The hotels were either undergoing renovations and were closed for the duration of the study; affiliated with bureaucratic organizations such as the municipal police or army and did not feel they should discuss their operations; were undergoing staff changes; or did not have the time to participate despite the several attempts and flexibility of the researcher. Two hotels are missing from the study (a one star and a four star) despite several attempts over the two year duration in Sanya to meet with the general managers. As these general managers were pivotal in the success of Sanya tourism, they were rarely in Sanya due to constant promotional travel. In addition, the study was conducted during the high season (October to February 2003, 2004 and 2005) when certain events such as Miss World, Christmas, New Year and Chinese New Year occurred. This made it difficult for many accommodation facilities, especially the smaller ones with limited staff, to find the time or to make it a priority to participate in the study.

#### **4.5 Conclusion**

This chapter has outlined the methodology used to collect and analyze data for the identification of factors that affect the level of environmental commitment in the tourist accommodation industry. Despite the limitations discussed, the study method resulted in the amassing of valuable data related to the current environmental commitment initiatives undertaken in Sanya. It also provided valuable data for examining the influence on environmental commitment in the tourist accommodation industry. The following chapters will describe the research setting, examine the data obtained during the field work, analyze the results and discuss the major conclusions of the study.



## **Chapter 5**

### **Research Setting**

This chapter describes the setting for the research. Sanya, Hainan, China was the case study location chosen for this research. In this chapter, sustainable development, tourism and, more specifically, the tourist accommodation industry in China are explored in order to contextualize the case study. In addition, details concerning the tourist accommodation industry and the state of the environment are also discussed.

#### **5.1 China as a Setting for the Research**

Until 1978, China was not open to international visitors except in carefully controlled circumstances. Since 1979, however, China has undergone economic reform and has become a leading international tourism destination (Yan and Wall 2002). Since 1979, there has been a shift from a command economy towards a free market economy which has led to an influx of foreign investment and a dramatic growth in China's tourism industry (Yu and Huat 1995; Child and Tse 2001). This growth is expected to continue, and by 2020 China is projected to be the world's foremost tourist destination with annual arrivals of 130 million visitors (Pine 2002).

#### **5.2 Sustainable Development in China**

In the wake of rural industrial expansion, concerns about environmental degradation and increasing socio-economic differentiation spurred an interest in sustainable development in China (Lin 1998; Wang and Yan 1998; Muldavin 2000). Growing domestic concerns together with pressures imposed by the international community have led to the emergence of sustainable development as a policy consideration of the central government in the early 1990's (Lin 1998). An accompanying resurgence of Chinese traditional values of living in harmony with the natural world has also fostered an interest in environmental protection (Wang and Yan 1998; Shapiro 2001).

In keeping with the modernist tendencies of the post-reform era, sustainable development and environmental protection are predominantly construed in technological

and scientific terms (Lin 1998). Myllyla and Kuvaja (2005) suggest that solutions to environmental problems in developing countries which advocate predominantly ecological and technological change are embedded in the discourse of ecological modernization. Ecological modernization “recognizes the existence of environmental problems, but at the same time believes that the problems can be alleviated through technological and industrial innovations” (Myllyla & Kuvaja 2005:226). Myllala and Kuvaja (2005) argue that instead of technological innovation, societal conditions, such as democratic institutions, political motivation and transparency pose the main challenges to sustainable development in developing countries.

This theory is evident with sustainable development in regards to tourism. To achieve sustainable development, the tourism industry must be developed in a sustainable fashion; however, this may be difficult in a developing tourism economy. As tourism economies grow, so do all aspects of economic development, such as infrastructure and other local industries, usually in a rapid and unsustainable fashion. Sustainable development and environmental management in the developing world context is then largely focused on technological innovations such as large sewage treatment systems or waste management facilities. This policy focuses on end-of-pipe technologies rather than the source which results in challenges to sustainable development. It is difficult to take into account societal conditions and the future costs of tourism expansion when development is occurring quickly (Jie Wen and Tisdell 2001).

### **5.3 Tourism Development in China**

China is projected to be the world’s foremost tourist destination by 2020, with annual arrivals of 130 million visitors (Pine 2002). With the implementation of the “open door” policy and economic reform in 1978, China has experienced high amounts of tourism growth in both inbound and domestic markets (Hu et al. 2001; Yan and Wall 2002). In 1978, China had just 137 hotels with 15,539 rooms, whereas in 2000 there were 10,481 hotels with 948,185 rooms (Cai et al. 2000; Pine 2002; Zhang et al. 2005). In 2000, the tourist accommodation sector generated over US\$10 billion in revenue (nearly five times that of 1990) with total fixed assets of US\$23 billion (nearly six times that of 1990 (Cai et. al, 2000). Rapid tourism development has also led to a growth in the

number of accommodation facilities invested in and operated by multi-national hotel companies. China's entry into the World Trade Organization (WTO) presented another opportunity for rapid economic development. In addition, the Chinese government instituted a five day work week and substantial vacation time increasing the amount of domestic tourists. Looser travel restrictions in and out of the country have also boosted travel (Pine, 2002). "The government has also provided nearly US\$97 million to upgrade travel-related infrastructure including roads, seaports and airports, as well as to improve tourist sites" (Pine 2002:61). China will therefore continue to be one of the most popular areas for tourism expansion and will provide opportunities for the accommodation industry to expand to meet the growing demands from both international and domestic travelers (Hu et al. 2001).

Unlike other traditional industries in China that developed and matured under the centralized planning system, tourism was symbolic of China's new open door policy and economic reform. Tourism began at the same time with China experimenting with a new market based economy, contact with the international community and hard currency (Cai et. al, 2000). Tourism has been developed differently than other industries, as traditional industries have been pushed through China's transition with structured plans and guidelines from state government. The tourism industry that was developed on in a limited market economy has provided little ability for the industry to correct itself when mistakes are made (Cai et al. 2000). As China is still a communist country and therefore pursues a so-called socialist market economy, international accommodation corporations are faced with various complex political, commercial and cultural obstacles when operating hotels in China (Yu and Huat 1995, Cai et. al. 2000).

Along with the fast development of accommodation facilities (commonly known as hotel hardware), the management of operations, human resources and other intangible resources (commonly known as hotel software) have gone through even more of a transformation (Cai et. al, 2000). There are more than one million people employed in the accommodation sector, making up approximately 60 percent of the labour force in the entire tourism industry. From the late 1970s when there were hardly any customer-oriented management systems or service standards, many accommodation facilities have not only embraced and adopted Western management practices and service standards, but

have also developed their own service styles. In April 1990, China began systematically to rate tourist accommodations with its own star rating program (Cai et al. 2000). Tourist accommodations are subject to a rating system, from one to five stars – one equated to budget and five to first class. The objective of the rating system, which is based on service, location and amenities, is to ensure these facilities meet international standards (Cai et al. 2000). This was a departure from the form of non tourism that did not include any service standards prior to the open door policy in 1978. The star rating program identifies that China is serious about developing tourism that can compete on the international market.

#### **5.4 The Tourist Accommodation Industry in China**

There are two separate categories of accommodations in China: tourist hotels and non-tourist hotels. The concept of tourist hotels was introduced in the late 1970s. These hotels were either converted from top-tier government guest houses or constructed for the exclusive use of inbound tourist groups. Except for some high profile Chinese officials, these hotels were beyond the reach of most Chinese both financially and politically (Cai et al. 2000). With the exponential growth of domestic tourism due to the country's economic progress and emergence of a middle class, these accommodations are now open to domestic travelers. The differentiating factor between a tourist hotel and non-tourist hotel is whether it is authorized by the tourism bureau to provide lodging to overseas travelers. The star-rating program is only implemented in the tourist hotel sector. The objective of the rating system is to make these accommodations meet international standards while still reflecting China's national or regional characteristics (Cai et al. 2000). It is the tourist accommodation facilities that will be the focus of this study. Much of the literature regarding the state of China's tourism accommodation industry has been developed by Pine and Zhang (Pine and Zhang 2000; Pine et al. 2000; Zhang et al. 2000; Pine 2002; Zhang et al. 2005). These authors are thus heavily referenced in this section due to the lack of other relevant literature on this topic.

##### **5.4.1 Hotel Ownership and Management in China**

After 29 years of development, China's accommodation industry is characterized by competition; multiple forms of ownership and management systems; and

geographically imbalanced distribution, i.e. some areas are oversupplied while others need more rooms (Pine, 2002). Unlike most other countries which have a market economy, China's hotel industry ownership is strongly influenced by political matters, with most facilities actually being owned by state entities. This not only creates great complexity in ownership and management, but often means that accommodations are not operated solely for profit (Zhang et al. 2005).

Accommodation facilities in China have various forms of ownership ranging from state-owned to private ownership and a variety of arrangements in between. They are also either independently owned, chain affiliated, joint venture, property managed, part of a consortium or a combination of a number of these. Table 5.1 identifies the number and type of accommodation facilities in China as of 2001 (China 2002).

**Table 5.1 Ownership in Chinese Accommodations**

Ownership	Number
State-Owned	4339
Collective	790
Share Holding Cooperative	115
Alliance	97
Limited Liability	477
Limited Liability Share	276
Privately Owned	351
Others	321
Hong Kong, Macau and Taiwan Funded	324
Foreign Funded	268

Source: People's Republic of China (2002)

Decentralization has resulted in a number of ownership structures. In 2000, the government subdivided the stock company category into shareholding cooperatives, limited liability companies, limited liability shares, and others. This complicated ownership structure led to silos, bureaucracy and lack of coordination affecting decisions regarding the construction of several accommodation facilities (Pine, 2002). In addition, many of the owners of these facilities do not have experience operating a hotel. As a result, several accommodation owners have hired international hotel chains to manage their properties (Pine et al. 2000; Pine 2002).

China's own accommodation companies are relatively small and immature when compared to foreign multi-national accommodation companies, most of which have already declared China as a key target for expansion (Pine, 2002). Multi-national investment in China's tourist accommodation industry to date has been mainly under government control. Entry into the WTO however should remove this government control which will lead to greater competition for the Chinese tourist market. The Chinese government will need to give up its hotel ownership monopoly because the WTO agreement provides that China will have accommodation facilities that will be 100 percent foreign-owned within three years after WTO entry (Pine 2002).

#### 5.4.1.1 State-owned Hotels

“State ownership (which might be national, provincial, regional, or municipal) is still the dominant mode of hotel ownership in China, accounting for 63 percent of all hotels and rooms” (Pine, 2002:64). The disadvantages associated with state ownership are the inability to separate hotel management and ownership with the state's assets. A state owned chain would be more beneficial than numerous independent units, which have resulted in problems with being small and facing bureaucratic restrictions that come from being owned by the state (Pine 2002). In general, state-owned hotels are still obedient to the traditional administrative system. These facilities belong to different government bodies and administrative departments and their ownership is very complicated. State-owned hotels are not actual firms in the market economy sense and cannot act like a commercial business. Even though the government has created some hotel conglomerates, they still cannot break the barriers of state ownership to generate competition in the market (Zhang et al. 2005).

The government has been pushing for increased independence of state-owned enterprises from government agencies. Independence may free these enterprises from bureaucratic interventions that often make little business sense. On the other hand, this may also deprive these businesses of such advantages as low or zero interest loans from banks. State-owned enterprises used to depend on such loans for operational cash flows. A recent decision by China's Foreign Trade Ministry to open up more of China's market and expand the scope of foreign investment in over ten industries (one of which is

tourism) makes the challenge more urgent. Market forces are going to play a greater role in the supply and demand of tourist hotels in China (Cai et al. 2000).

#### 5.4.1.2 Chain Affiliated Hotels

“In 2002, only 16 percent of China’s hotels were chain operated, most of those being three star or higher. By contrast, it is estimated that 64 percent of hotel rooms in the United States were chain affiliated. Thus one could argue there is potential for more hotel chain development in China” (Pine 2002:65). Foreign companies have the experience in developing and managing chains. Economies of scale are the most direct beneficial effect of chain operation. An increased firm size can improve efficiency by reducing the capital costs per unit of a firm’s capacity, operating costs per unit of output, non-manufacturing costs per unit of output, and by improving buyer power through central purchasing to reduce costs significantly (Zhang et al. 2005). Another effect is for chain affiliated hotels to develop reputations through repeated interactions which can generate stability and repeat business. Hotel chains also have greater investments in technology, especially software and hardware designed to maximize profits for hotels. As modern hierarchical organizations, hotel chains have more preferential management advantages. More operational skills and management expertise can be generated in such areas as advertising and cash management, bulk purchasing programs, better technical advice and consultation, and in the installation of operating standards and systems (Zhang et al. 2005). Greater investment can be put into human resources development to produce better staff training programs and to improve staff efficiencies (Zhang et al. 2005).

#### 5.4.1.3 Domestic Hotel Chains

China has an excess of high end and a deficiency in low end accommodation facilities. The rise of domestic tourism and the lack of suitable economy and budget hotels have caused an imbalance between supply and demand in that market segment. ”In 2000, China recorded 744 million domestic travelers, but only 600 one star and 3061 two star properties.”(Pine, 2002:67). Due to the increase in domestic travelers in China, a brand within China that would be recognized and used by travelers both within and beyond China would be beneficial (Pine et al. 2000; Pine 2002).

#### 5.4.1.4 Joint-venture Hotels

One method of alleviating China's hotel shortage once the open door policy was instituted was to attract foreign investment to build hotels. The foreign-owned companies expanded gradually, concentrating on China's key business and tourist destinations. Foreign involvement affected the operation of Chinese hotels, as the concept and practice of hotel chains and branding which were Western business techniques were introduced. (Pine 2002). This enabled joint-venture hotels to reap the benefits of chain affiliation (Pine et al. 2000; Pine 2002).

#### 5.4.1.5 Management Contracts

Chinese owned management companies were set up starting in 1988 in order to gain a share of the domestic hotel management market. Beginning with the White Swan Hotel Management Company, approximately 39 hotel management companies have been instituted in China. The growth of these management companies has been slow however, each only managing one or two properties. They are also developed to look after a specific property for a short term (one or two years) (Pine 2002).

#### 5.4.1.6 Independent Hotels

It has been identified by Pine 2002 that Chinese hotel owners generally prefer to manage themselves rather than hiring a management company. In the Western world, the validity of a group brand is accepted due to its well targeted marketing efforts and packages of specific operating procedures. These benefits are attractive to independent hotel owners and motivate the reasons to affiliate with a chain. Such market-based benefits fail to attract the many Chinese hotels owned by the state or collectives whose managers have not been traditionally motivated by profit. China's independents are motivated to join a chain by the prospect of technology transfer. It is not uncommon for a hotel in China to revert to independent operation at the end of a contract period with a chain, having gathered the requisite management expertise during the time of the contract (Pine 2002).



#### 5.4.1.7 Hotel Consortia

Several hotel consortia have developed in China. None of the consortia have expanded to a large scale, but they do provide some joint marketing, reservations and purchasing services. It seems likely that the existing indigenous consortia will grow to serve the increasingly complex needs of China's independent hotels and smaller groups, which sorely need access to global distribution systems, technology solutions and the ability to process data. In particular, consortium membership may be attractive to many state-owned independent hotels that do not want to relinquish ownership or management control (Pine 2002).

#### 5.4.1.8 Ownership Trends Not Evident in Chinese Tourism

Merger, acquisitions and franchising which are trends in the tourism industry worldwide are not very evident in the Chinese tourism industry. Merger and acquisitions are the norm within the world's top 300 hotel companies. This is not the trend in China. Chinese chains such as Gloria and Kingdom are not for sale, being keen to further develop their own business. Most of the remaining hotels are independents with varied ownership patterns. They are generally of poor quality and have an almost total dependency on domestic business. Thus expansion of foreign companies inside China will probably involve investment to develop new properties rather than acquisitions (Pine et al. 2000; Pine 2002).

American-style franchising is uncommon in China. One of the greatest obstacles to the expansion of franchising is China's legal system, which many franchisors believe does not adequately protect their contractual rights (Pine et al. 2000; Pine 2002). It is because of this that most foreign companies will remain in a management capacity or hotels will become fully foreign-owned and managed when it is allowed.

China's accommodation industry is in a troubling state of affairs. It is not an overstatement that it is in recession and crisis, the magnitude of which has not been witnessed before. As China is quickly moving towards a more market-oriented economy, the hotel market may eventually be able to correct itself to achieve an optimal balance of supply and demand. It does however seem in many situations that there is far more supply than demand and there is a lack of forecasting that takes place prior to growth

occurring. In addition, many of the small independent hotels that are state run will have to determine their feasibility on the market. It is not feasible for money-losing firms to expect the government to subsidize or assist them in troubling times. Yet such a mentality is still prevalent among the managers of many state-owned hotels. There are currently 4,439 state-owned hotels. Many will disappear and face bankruptcy. Joint-venture and foreign-owned hotels will continue to be the leaders of China's hotel market in occupancy rate, room price and profit margin. Their leadership position will be challenged only when state-run hotels become discontented with the status quo and adopt a more proactive and strategic approach in management (Cai et al. 2000). Without proper planning and distribution of hotels to match tourist demands, it is inevitable that many hotels will have low occupancy, causing further problems not only in the tourism industry, but also in the economic success of Chinese destinations.

#### **5.4.2 Hotel Categories in China**

The quantity of hotels in China increased relatively quickly, but quality standards of most hotels remained poor. Service problems have often been attributed to the wide variation of hotel facilities and services, the lack of uniform hotel operating standards, an inexperienced workforce, inadequate and unreliable information for marketing and planning, and lack of hotel administration owing to the complicated bureaucratic and financial structure (Jie Wen and Tisdell 2001; Zhang et al. 2005).

In 1988, the China National Tourism Administration established a star rating system for hotels. This system was adapted from international standards and was introduced to provide a clear differentiation of hotels and to improve facilities and services. Through the successful implementation of this system, a national hotel operation standard was established and the hotel administration process was streamlined (Zhang et al. 2005). In 1993, a star rating was adopted as a national standard. In 1998, the system was further revised according to industry practice, which included the rating of facilities, equipment, maintenance, cleaning, hygiene, service quality and guest satisfaction (Zhang et al. 2005). In 2004, the National Star Rating standards were revised again to include environmental performance relating to the implementation of energy conservation initiatives for four and five star hotels (National Star Rating Standards,

2004). Table 5.2. identifies the number of hotels in China categorized by star rating, number of rooms, total revenue, total fixed assets, tax and percent occupancy.

**Table 5.2. Comparative Statistics of Chinese Hotels by Star Rating, 2000.**

<b>Star Rating</b>	<b>No. of hotels</b>	<b>No. of Rooms</b>	<b>Total Revenue (RMB 0000)</b>	<b>Total Fixed Assets (RMB 0000)</b>	<b>Tax (RMB 0000)</b>	<b>% Occupancy</b>
5	117	45,208	1,290,881	3,576,930	66,501.83	65.04
4	352	84,890	1,414,387	4,460,612	71,286.21	63.08
3	1,899	231,244	2,160,024	6,271,224	108,423.93	58.65
2	3,061	205,110	1,065,346	2,636,744	56,220.48	53.32
1	600	28, 226	106,428	225,283	5,419.33	46.96
0*	4,452	353,507	2,585,588	8,146,700	132,829.37	52.99
<b>Total</b>	<b>10,481</b>	<b>948, 185</b>	<b>8,622,653</b>	<b>25,317,492</b>	<b>440,681.15</b>	<b>55.85</b>

\* Probably indicated lowest quality hotels, but also ones not yet classified/rated.

Source: Zhang et al. 2005: 169.

As displayed in Table 5.2, very few properties are in the five and four star categories. These properties however are quite large within the Chinese context, with the average size of 386 rooms for five star hotels and 241 rooms for four star hotels. Four and five star hotels, although having a lower proportion of the overall number of rooms than one to three star hotels, account for a disproportionately large amount of revenue, fixed assets and taxes. This is the opposite for one and two star rated properties, which have a proportion of total rooms that is bigger than their revenue share and a low proportion of fixed assets (Zhang et al. 2005).

Table 5.2 provides evidence that in China the higher the star rating, the better the financial performance. Occupancy levels are highest for five star hotels and decrease category by category. This is almost certainly related to the fact that the higher rated properties are associated with foreign partners, which in turn bring in better, more experienced management techniques, modern technology, and higher spending (usually international guests) (Zhang et al. 2005).

### 5.4.3 Challenges to Conducting Business in China

China has a changing political system and an evolving business environment. The centrally controlled economy has impacted many aspects of hotel operations. Owners are often bureaucrats rather than businesspeople. “Employment conditions may be based as much on social needs rather than business reality (i.e. the “iron rice bowl” syndrome of employment for life)” (Pine 2002:69). “A successful Chinese company may not be able to expand outside of its home city or province because of protectionist policies in target locations. It is currently easier for a foreign company to establish itself nationwide than for a Chinese company to do so” (Pine 2002: 69). This is somewhat different in Special Economic Zones (SEZ). These zones have a business environment akin to Western market economies (Jie Wen and Tisdell 2001). Hainan is designated as one of China’s special economic zones.

“Business in China is typically done through personal relationships and networks, a system called “*guanxi*”. It is virtually impossible for a foreigner to participate directly in the *guanxi* system. *Guanxi* can be more powerful than Western-based business practices, which are mainly founded in the profit motive. *Guanxi* can be used to circumvent existing and future legal controls or international trade rules, thus making it difficult, if not impossible, for a foreign company to be successful without the support of a local Chinese partner” (Pine 2002: 69). For example, foreign companies are now able to take majority ownership in properties and full ownership after three years of China’s accession to the WTO, but there are subtle means available to ensure the need for local partners. A property owner must rely on the availability of local labour, reliable water and power supply and other support. In these peripheral but essential areas, using a local partner may pay high dividends (Zhang et al. 2005, Pine 2002). Local companies also benefit from having excellent knowledge of the internal workings of the Chinese political, regulatory, financial and social systems. Thus, it may be that joint-venture and foreign-managed hotels may be the most successful ownership structure in China (Pine 2002).

## 5.5 Research Setting: Sanya, Hainan, China

Hainan Island is a tropical island located in the South China Sea, off the southwest coast of Guangdong Province. Figure 5.1. provides an overview of the province.

**Figure 5.1. Overview of the Province of Hainan**



Source: [www.maps-of-china.com](http://www.maps-of-china.com)

Endowed with a wealth of natural resources that include tropical forests, mountains, mangroves, and beaches, Hainan is recognized as one of the most biologically diverse regions in the world (Stone and Wall 2003). It is also among the most popular tourism destinations in China offering sun, sand, sea and sex attractions (Xie and Wall 2002).

Immediately after establishment as a province and the fifth SEZ in 1988, Hainan experienced rapid growth particularly in tourism, with inflows of capital and population from Mainland China, Hong Kong, and other regions and countries. The SEZ allowed Hainan to offer foreign investors an attractive package of tax exemptions and duty free

status for production inputs. In addition, Beijing declared its intention to make Hainan a special area that would go beyond the other SEZs in system reform. It was to have minimal detailed government intervention in the economy and few state-operated enterprises (Xie and Wall 2002).

Tourism has received extensive attention from all levels of government in China. The island received approximately 2.5 million tourists in 1992, increasing to an estimated 7.9 million in 1997 (Stone and Wall 2003). However, growth slowed after 1994 when investment was redirected to SEZ's on the mainland (Ouyang 1999). Since 2000, foreign investment has been revived making Hainan, and more specifically Sanya, one of China's more popular tourist destinations. This is evident in the increase of tourists received. In 2002, the total number of tourists received by Hainan increased to 12.5 million (Guide 2003). The vast majority of tourism occurs in coastal areas and is focused on mass tourism. Due to the mass coastal tourism, Sanya has been successful in attracting predominantly package tourists from Mainland China, Hong Kong and Taiwan (Millward 2002).

Due to this rapid economic expansion, there is concern that the environment is being damaged. Despite its resources and numerous accommodation facilities, Hainan remains one of China's most economically underdeveloped provinces (Pryce 2001; Stone and Wall 2003).

### **5.5.1 Background of Sanya, Hainan, China**

Sanya is located at the southern tip of Hainan province. Sanya is an important port for South China foreign trade as it is the closest to Southeast Asia, and is on the seaway between China and southwest Asia, Africa and Europe (Sanya Business Bureau 2004). Due to its location and tropical weather, Sanya is one of China's premier tourist destinations and it has hosted international events such as the Miss World and Strong Man competitions and several international conferences. Sanya has enormous tourism potential due to its climate, beaches, unique landscape and culture (Ouyang 1999).

Tourism is the leading industry in Sanya and rapid development is occurring. In 2002, there were 74 hotels in Sanya whereas at the time of the fieldwork (2004), there were 129 hotels with approximately 30 more hotels in the four and five star category under construction. In 2004-05, there were 20,527 hotel rooms and 37,841 beds and the

star-rated hotels received more than 3.63 million tourists with total revenue of 3,914 million RMB (Statistical Yearbook 2002; Sanya Tourism Bureau 2004).

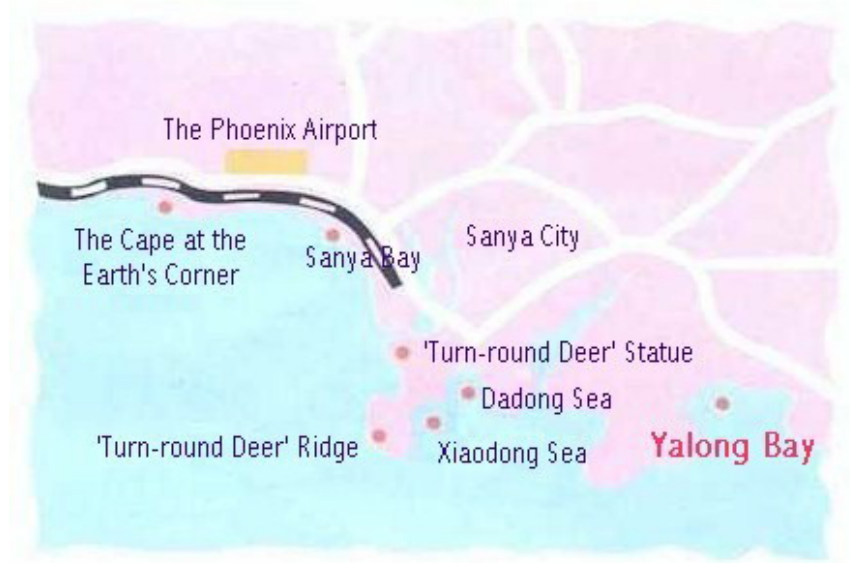
Of the total number of tourists to Sanya, only 33,560 were foreigners, which identifies Sanya as a popular tourist destination amongst Mainland Chinese (Statistical Yearbook 2002). This may rapidly change with the influx of international chain affiliated hotels being built and the hosting of international events. There has been an increase of hotels, tourist attractions and condominium developments in the area. Many international chain affiliated hotels have been built or are in the process of being built such as the Hyatt, Sheraton, Crowne Plaza, InterContinental, Hilton, Marriott, Holiday Inn and Shangri-La.

New infrastructure has also been built in Sanya, consisting of roads, an underground sewage duct, a sewage disposal factory and a waste management facility (Sanya Business Bureau 2004). Despite the improvements in infrastructure, there is concern that the city cannot sustain the rapid influx of investment, building and tourists.

### **5.5.2 Four Areas of Sanya, Hainan**

Sanya can be divided into four areas: Sanya City, Haipo, Dadonghai and Yalong Bay (Figure 1). Sanya City is the urban centre where the majority of the local people and services are located. It is the oldest part of Sanya City and has several family-style and lower star hotels. Haipo is the newly developed part of Sanya, which has been inundated in the last few years with large, five star hotel complexes and time-share condominiums. Dadonghai is the second oldest development in Sanya and consists of a mix of star rated hotels and services. It is three kilometers from the downtown area. Dadonghai has been listed by the National Tourism Bureau in China as one of the “40 Best Scenery Spots”. Yalong Bay is the most prominent beach resort of the island. It is thirty kilometers east of Sanya City and was designated by the State Council in 1992 as a national vacation resort (Tourism Bureau of Sanya City 2003). Yalong Bay consists mainly of five star resort complexes, attractions and a golf course. It is run by the Yalong Bay Development Company from Beijing. Many of the accommodation facilities are managed by international chains and there is an influx of facilities being built at the time of writing (upwards of five 5 star international resort chains). Figure 2 provides a map of Sanya.

**Figure 5.2: Map of Sanya, Hainan, China**



Source: <http://www.maps-of-china.net/city/sanyam.htm>

### 5.5.3 Number and Distribution of Accommodations

There were 129 accommodation facilities in Sanya at the time the research was conducted (Sanya Tourism Bureau, 2004). Table 5.3. identifies the number of hotels by star rating and location.

**Table 5.3. Hotels in Sanya by Star Rating and Location**

Location/Star Rating	1	2	3	4	5	Total
Yalong Bay	0	0	3	4	6	<b>13</b>
Sanya Bay	2	1	8	6	3	<b>20</b>
Sanya City	10	23	27	8	0	<b>68</b>
Dadong Sea	0	6	12	8	2	<b>28</b>

Source: Hainan Provincial Tourism Association, December 2003, Sanya Tourist Book, 2003, Observation, 2004, and the Sanya Tourism Association, October 2004.

The majority of accommodation facilities in Sanya are three star facilities in the Sanya City area. There are not any one or two star facilities in Yalong Bay due to the high end nature of this resort area. This chart exemplifies the state of the accommodation industry and, by extension, the nature of the industry and tourists in each area.



#### **5.5.4 Attractions and Foreign Funding in Sanya**

Sanya has several scenic spots, golf courses and festivals to attract tourists. Every year Sanya hosts a variety of festivals, competitions and activities, such as the China Nanshan Longevity Culture Festival, Asia Open Golf Tour, the New Silk Road Chinese Fashion Competition, Happy Festival for Chinese Youth, and the Summit of World Family. In 2004, the 53rd and 54th Miss World Final and Sanya International Wedding Celebration Festival at the End of the Earth took place. Sanya has also obtained a reputation as China's Glamour City ([www.sanya.gov.cn](http://www.sanya.gov.cn) 2006). Major tourist developments are also taking place in the nearby areas such as hot springs, theme parks such as the Nanshan Buddhist Theme Park and Monkey Island. Cultural attractions such as Savage Land, which is based on the Li Minority people's culture, have been developed. These attractions are generally planned for the mainland Chinese tourists and are popular destinations for these package tourists.

Sanya in its high development stage has attracted foreign investors from 23 countries or regions including France, Japan, the United States, Hong Kong and Taiwan. In 1999, 597 overseas-funded enterprises have been established in the city, involving a total investment of US \$2 billion. Taiwan is one of the major foreign investors in Sanya. There were 108 Taiwan-funded enterprises, which is approximately 23% of all the foreign-invested enterprises in the city. The foreign invested projects mainly supported the agricultural, tourism, transportation, services, real estate and processing industry ([www.sanya.gov.cn](http://www.sanya.gov.cn) 2006).

#### **5.6 Conclusion**

It is evident that China and more specifically Sanya are undergoing rapid economic development. Much of the development has been implemented without proper planning leading to the influx of infrastructure, building and tourists putting a strain on the current system. Despite the self proclamation that Sanya has a high level of environmental quality, it is this researcher's observation that waste management, water quality, congestion, improper planning and development are potential problems for this tourist destination. However, it provides an excellent case in that it is a typical mass tourism destination with poorly managed infrastructure and services and is undergoing an increasing amount of development without acknowledgement of any adverse

consequences. The following chapters examine the data obtained through the field study in Sanya and present the results and analyses of the factors that affect the level of environmental commitment in Sanya's tourism accommodation industry.

## **Chapter 6**

### **Inventory of the Accommodation Industry in Sanya**

This chapter presents an inventory of the accommodation industry in Sanya, Hainan, China. This chapter fulfills the second objective of the research as it provides an account of the organizational factors, identification of stakeholders and level of environmental commitment in the tourist accommodation industry of Sanya. An inventory of the accommodation industry in Sanya has not been undertaken previously in this detail. This chapter serves the purpose of identifying the industry characteristics prior to analysis of the questionnaire information obtained in this study.

#### **6.1 General Population**

The general population of the study consists of all the tourist accommodation facilities in Sanya. The population consists of 129 facilities of varying star rating in four locations in Sanya. The general population has been presented in Table 5.3. in terms of star rating and location.

Locations such as Yalong Bay are considered a high end resort with the majority of facilities consisting of five star facilities. On the other hand, Sanya City caters to the budget and mid-range tourists as the majority of facilities are three stars or less. Sanya City has the highest concentration of one and two star facilities.

Although the aim was to include all Sanya tourist accommodation facilities in the study, only 100 accommodation facilities participated. The entire population in Sanya was contacted to participate in this study. However due to circumstances such as refusals, facilities undergoing renovation or demolition and scheduling conflicts, 100 accommodation facilities participated in the study. This has resulted in a response rate of 78 percent. Table 6.1 identifies the study population in relation to location and star rating. The number of surveyed establishments is shown in each location by star rating and percentage in relation to the general population. When the population and the participating establishments are compared, it is evident that the respondents that participated in this study were generally representative of the entire population. Using

star rating and location as comparative factors, there was at least a 40 percent representation in each category. Due to the small number of respondents in several cells, a statistical test was not conducted.

**Table 6.1. Comparison of General Population with Study Population**

Location/Star Rating	1		2		3		4		5		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Yalong Bay	0	0	0	0	3	100	3	75	6	100	12	92
Haipo	2	100	1	100	7	88	5	83	3	100	18	90
Sanya City	4	40	13	56	24	88	6	75	0	0	47	69
Dadonghai	0	0	4	67	11	92	7	88	1	50	23	82
Total	6	50	18	60	45	90	21	81	10	92	100	100

## 6.2 Summary of Organizational Factors

An inventory of the organizational characteristics of each accommodation facility in the study sample was collected. The inventory determined the location, star rating, year of construction, number of employees, size of the facility based on number of guest rooms, ownership, management structure and clientele of the facility. These organizational characteristics contribute to the suite of factors that affect the level of environmental commitment in the Sanya accommodation industry. Table 6.2 provides a summary of the organizational characteristics of the study population. For a detailed identification of organizational factors per respondent, refer to Appendix D.

**Table 6.2 Summary of Organizational Characteristics of the Study Population**

<b>Organizational Factors</b>	<b>Star Rating</b>					
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Total</b>
<b>Year of Construction</b>						
1985-1989	0	0	2	0	0	<b>2</b>
1990-1994	0	4	8	4	0	<b>18</b>
1995-1999	1	2	11	3	2	<b>19</b>
2000-2006	5	10	23	12	6	<b>56</b>
<b>Number of Guest Rooms</b>						
1-99	6	12	15	2	0	<b>35</b>
100-199	0	6	22	9	0	<b>37</b>
200-299	0	0	3	7	2	<b>12</b>
300-399	0	0	3	2	3	<b>8</b>
400-499	0	0	1	1	4	<b>6</b>
500+	0	0	1	0	1	<b>2</b>
<b>Number of Employees</b>						
1-99	6	14	29	1	0	<b>50</b>
100-199	0	3	13	5	0	<b>21</b>
200-299	0	0	0	12	0	<b>12</b>
300-399	0	0	1	2	1	<b>4</b>
400-499	0	0	1	1	3	<b>5</b>
500+	0	0	0	0	4	<b>4</b>
<b>Ownership</b>						
State Owned	1	7	8	5	2	<b>23</b>
Collective	1	0	2	0	0	<b>3</b>
Share Holding Cooperative	0	1	8	7	2	<b>18</b>
Alliance	0	0	1	1	1	<b>3</b>
Limited Liability	0	3	4	2	1	<b>10</b>
Limited Liability Share	0	1	3	0	0	<b>4</b>
Private Owned	4	5	16	5	4	<b>34</b>

<b>Organizational Factors</b>	<b>Star Rating</b>					
	1	2	3	4	5	<b>Total</b>
Hong Kong, Macau or Taiwan Funded	0	0	3	0	0	<b>3</b>
Foreign Funded	0	1	0	1	0	<b>2</b>
<b>Management Structure</b>						
Chain Affiliated	0	0	5	2	5	<b>12</b>
Franchised	0	0	1	1	0	<b>2</b>
Independent	6	18	39	18	5	<b>86</b>
<b>Location</b>						
Sanya City	4	13	24	6	0	<b>47</b>
Haipo	2	1	7	5	3	<b>18</b>
Yalong Bay	0	0	3	3	6	<b>12</b>
Dadonghai	0	4	11	7	1	<b>23</b>
<b>Clientele</b>						
Tourist	4	10	36	21	9	<b>80</b>
Business	0	3	23	16	8	<b>50</b>
International	0	1	20	15	8	<b>44</b>
Domestic	6	13	35	20	8	<b>82</b>
Package	3	17	39	18	8	<b>85</b>

Several trends were identified in the organizational characteristics of the facilities. The majority of accommodation facilities (76%) in the study sample were rated three star or higher. This is slightly higher than the general population in Sanya (67%). In terms of location, the majority of facilities were located in the city centre and almost all (98%) of the facilities were built after 1990. Less than half of these facilities were built after 2000, indicating the rapid economic investment that occurred in the area during this time. The majority of accommodation facilities are considered small with fewer than 200 rooms (72%) and less than 100 employees (52%). In terms of ownership and management, several forms are present in the Sanya accommodation industry; however the majority of facilities are independently managed (86%) and state or privately owned (23% and 34% respectively). Domestic package tourists are the most prominent clientele in Sanya.

### **6.3 Stakeholder Salience**

To better understand the factors that influence the level of environmental commitment in an accommodation facility, the stakeholders that have the most salience were determined. This provides a better understanding of the stakeholders that are pertinent to the decision making of the accommodation industry in Sanya. Based on Mitchell et al.'s (1997) theory of stakeholder salience discussed in Chapter 2, study respondents were asked to evaluate the salience of each stakeholder. In order to determine a stakeholder's salience, the study respondents were asked to identify whether each stakeholder had the power, legitimacy and urgency to influence the level of environmental commitment in their organization. In addition, power strategies employed by each stakeholder were identified to provide further insight into stakeholder salience.

#### **6.3.1 Power**

Two stakeholders were identified by the majority of the study population as holding the most power. Almost three quarters of the sample study identified the municipal government and corporate decision makers as the stakeholders with the most power to influence the level of environmental commitment in an accommodation facility. Almost a third of the respondents felt that the provincial government, customers, media and shareholders also had power to influence an organization. The central government, local community and industry association follow closely behind. Table 6.3 identifies the percentage of the study population that recognized each stakeholder as powerful in relation to influencing the level of environmental commitment in their organization.

**Table 6.3 Power of Stakeholders**

<b>VARIABLE</b>	<b>Power</b>
Municipal government departments	75
Corporate decision makers	72
Provincial government departments	35
Customers	33
Media	30
Shareholders	30
Central government	29
Local community	29
Industry association (tourism associations)	26
Certification bodies (Green Globe, ISO 14001)	21
Employees	20
Suppliers	6
ENGOS	6

**6.3.2 Legitimacy**

In terms of legitimacy, almost three quarters of the study population identified the municipal government and corporate decision makers as the two stakeholders that hold legitimate claims in influencing the level of environmental commitment in an accommodation facility. Approximately a third of the respondents indicated that the provincial and central government had legitimacy to affect the level of environmental commitment in a facility. Shareholders, industry associations, customers and the local community followed closely behind. Table 6.4 displays the percentage of the study population that identified each stakeholder as having legitimate claims in relation to influencing the level of environmental commitment in their organization.

**Table 6.4. Legitimacy of Stakeholders**

<b>VARIABLE</b>	<b>YES</b>
Municipal government departments	72
Corporate decision makers	69
Provincial government departments	38
Central government	30
Shareholders	27
Industry association (tourism associations)	27
Customers	25
Local community	23
Employees	18
Certification bodies (Green Globe, ISO 14001)	17
Media	17
ENGOS	5
Suppliers	2



### 6.3.3 Urgency

In regards to urgency, over 80 percent of the respondents stated that the municipal government was able to demand urgent attention on an issue related to environmental commitment. Over half stated that corporate decision makers also had the ability to claim urgent attention to their demands. In terms of the other stakeholders, over one third stated that the provincial government was able to claim urgency and have their demands satisfied. The industry associations were also reported to have urgent attention paid to their demands, which is not quite as apparent in terms of power and legitimacy. Central government, shareholders, local community and the media followed closely behind. Table 6.5 illustrates the percentage of the study population that identified each stakeholder as being able to claim urgent attention to demands related to environmental commitment.

**Table 6.5. Urgency of Stakeholders**

<b>VARIABLE</b>	<b>YES</b>	<b>NO</b>
Municipal government departments	81	19
Corporate decision makers	59	41
Provincial government departments	34	66
Industry association (tourism associations)	31	69
Central government	29	71
Shareholders	25	75
Local community	22	78
Media	21	79
Customers	18	82
Employees	10	90
Certification bodies (Green Globe, ISO 14001)	9	91
ENGOS	8	92
Suppliers	0	100

### 6.3.4 Stakeholder Typology

The level of stakeholder salience can be determined based on the accommodation managers' perceptions of the level of power, legitimacy and urgency. Using these criteria, each stakeholder can be categorized in terms of their degree of salience. As identified by the theory of stakeholder salience, managers pay particular attention and seek to satisfy the demands of stakeholders that possess a high degree of salience (Mitchell et al. 1997; Flagestad 2001).

Based on the study respondents' identification of which stakeholders had power, legitimacy and urgency to influence the level of environmental commitment in their organization, the salience of each stakeholder has been identified. Each stakeholder was assessed based on the acquisition of each attribute and assigned a place in the typology (identified in Table 2.6)

As discussed in Chapter 2, according to the typology developed by Mitchell et al. (1997), the number of attributes the study respondents felt each stakeholder possessed determined each stakeholder's salience. For example, if a respondent determined that a stakeholder had power, legitimacy and urgency, the stakeholder was considered definitive. These stakeholders are powerful, demand urgent action and hold legitimate claims on the organization. In this typology, these stakeholders have a clear and immediate mandate to be attended to and hold the most influence on the organization (Mitchell et al. 1997). This study identified that the stakeholders considered definitive by over half of the study sample were the corporate decision makers and municipal government. This corresponds with the literature that identifies these stakeholders as the most persuasive in influencing environmental commitment in an organization. The other stakeholders were considered by over half of the study sample to be non-stakeholders and to hold no power, legitimacy and urgency in relation to influencing environmental commitment in the study population. Table 6.6 presents the percent of the study population that determined the salience typology of each stakeholder.

**Table 6.6 Stakeholder Typology**

Stakeholder	Dormant	Discretionary	Demanding	Dominant	Dependant	Dangerous	Definitive	Non Stakeholder	Total
Municipal Government	7	3	6	6	7	9	53	9	100
CDM	5	7	3	13	3	8	45	16	100
Provincial Government	8	5	1	2	8	1	24	51	100
Central Government	7	4	2	2	7	3	17	58	100
Customers	11	4	1	10	4	4	8	58	100
Local Community	10	3	2	7	7	5	8	58	100
Industry Association	5	2	8	4	5	2	16	58	100
Certification Bodies	12	6	2	4	2	0	5	69	100
ENGOS	3	2	3	0	2	2	1	87	100
Media	16	2	4	1	4	2	10	61	100
Shareholders	8	7	2	2	3	5	15	58	100
Employees	9	6	1	5	3	2	4	70	100
Suppliers	5	1	0	1	0	0	0	93	100

### 6.3.5 Power Strategies

In determining the salience of stakeholders, this study examined what forms of power each stakeholder employed to influence the level of environmental commitment in the study population. Power strategies were determined based on Swingle's (1970) categorization of power exertion as identified in Table 4.1.

Respondents were asked which stakeholders used power strategies to influence the level of environmental commitment in their organization. Over half of the respondents stated that the municipal government and corporate decision makers used coercion strategies that consist of sanctions, legal fines and other punishments. Approximately one third of the respondents stated that corporate decision makers used reward strategies to increase the level of environmental commitment in their facility. These consist of monetary rewards or other forms of recognition. Almost a third of the respondents stated that industry associations (such as trade associations) used experience to influence the level of environmental commitment in organizations. Experience consists of providing expertise to an organization through the sharing of information. A third of the respondents stated that the municipal government used legitimate strategies such as prescribing behaviour that the organization must comply with such as policies and codes of conduct. Almost a third of the respondents also stated that provincial and central governments used coercion strategies to influence action in facilities. Forty-one percent of the respondents indicated that the media used information strategies to influence organizations. A fifth of the respondents also indicated employees use information strategies to encourage action. Information strategies, such as suggestions, or in the case of the media, criticisms or praise, are a means to influence change in a facility. Suppliers and ENGOs, rarely mentioned as influential, were also considered by a small number of the sample to use reference strategies to encourage facilities to obtain cohesion with other organizations. Reference strategies consist of coercing organizations to join voluntary programs or to implement industry-wide practices. Table 6.7 presents the percent of the study population that identified the power strategies of each stakeholder.

**Table 6.7 Power Strategies**

Stakeholder	Coercion	Reward	Experience	Legitimacy	Information	Reference
CDM	43	31	19	9	17	11
Municipal Government	56	14	13	33	20	3
Provincial Government	39	10	5	27	11	6
Central Government	34	7	5	23	7	5
Customers	3	5	13	7	13	17
Local Community	6	6	17	8	23	9
Industry Association	5	8	28	8	25	15
Certification Bodies	3	5	10	7	11	13
Suppliers	2	5	9	2	3	17
ENGOS	0	3	15	6	14	18
Media	2	2	10	5	41	10
Shareholders	14	9	11	3	6	8
Employees	3	1	13	2	9	21

#### **6.4 Inventory of Environmental Commitment in the Sanya Accommodation Industry**

An inventory of environmental commitment practices was undertaken for the Sanya accommodation industry. This inventory is based on identifying and measuring environmental and social initiatives implemented in each facility and satisfies the second objective of this thesis. The environmental commitment practices implemented were determined through the questionnaire and in-depth interviews. The portion of the questionnaire related to identifying environmental commitment practices in the accommodation facility was based on the Hotel Association of Canada's (HAC) Green Leaf Eco-Rating program developed by Terra Choice. General environmental commitment practices followed by a more specific inventory of the initiatives implemented were examined for each accommodation facility in the study. The initiatives were then scored

and a categorical rating given that reflects the level of environmental commitment in the facility.

#### **6.4.1 General Environmental Commitment Practices**

An inventory of environmental commitment practices was undertaken for each accommodation facility. Table 6.8 summarizes the environmental commitment practices implemented in the study population. The table provides a synopsis of the number of facilities that have implemented each practice both informally and formally through a written policy. The majority of accommodation facilities in the study have implemented energy efficiency (97%), water conservation (86%) and waste management initiatives (76%). The majority of facilities also conducted environmental training and education for employees (70%). Education was deemed necessary in several cases to implement some of the environmental commitment initiatives especially relating to energy and water efficiency. Over half of the facilities (57%) also implemented the reduction in and proper use and handling of hazardous and toxic substances. Almost half of the facilities were also involved in developing ongoing, continuous improvement (43%) and customer education on environmental commitment initiatives (46%).

Several of the facilities however, although claiming to implement these initiatives, did not have written environmental policies in place. Written policies suggest a public, corporate commitment to environmental management. Without the corporate commitment, the degree to which many of these initiatives have been implemented is questionable. Through the comprehensive survey undertaken via the questionnaire and in-depth interviews, it was determined that the degree to which these initiatives were implemented may have been small or non-existent. This is also evident through the overall level of environmental commitment that was calculated for each facility. The calculations of the level of environmental commitment are discussed in Section 6.7 of this chapter.

**Table 6.8 Environmental Commitment Practices**

<b>Environmental Commitment Practice</b>	<b>Yes</b>	<b>Yes With Policy</b>	<b>No</b>
Broad environmental management strategies	10	4	85
Ongoing, continuous improvement	34	9	56
Energy conservation and efficient use	77	20	2
Water conservation and efficient use	76	10	13
Waste reduction, reuse and recycling	66	10	23
Eco-purchasing” - i.e. factoring environmental considerations in purchasing decisions / strategies	13	4	82
Reduction in, and proper use and handling of hazardous and toxic substances	49	8	42
Relevant environmental training and education for employees	60	10	29
Customer education on environmental management	38	8	52
Charity and donations to environmental and social issues	9	4	86
Environmental conference facilities	1	4	94
Promotion of eco-tourism or environmentally sensitive tourism	7	3	89

n=99

### **6.5 Responsibility for Environmental Commitment Practices**

It is imperative to identify who is responsible for implementing environmental initiatives in an accommodation facility. According to Mauser (2001), a centralized environmental management function is critical for the success of an environmental program. Facilities with a high level of centralization and an organization and culture open to environmental management are more likely to adopt environmental initiatives (Mauser 2001). The questionnaire determined who in the facility was responsible for environmental commitment in terms of developing and implementing each initiative. Table 6.9 presents the results of this question. Over one quarter of the facilities chose to place the responsibility for environmental commitment with the engineering department or the general manager. This may be attributed to the need for expertise in the organization to implement initiatives as several are technologically-based (such as energy conservation

initiatives), require approval for investment and capital expenditures, as well as require strategic thinking and knowledge of the whole organization. Less than one quarter of the facilities developed a multi-stakeholder team to implement environmental initiatives.

**Table 6.9 Responsibility for Environmental Commitment**

<b>Responsible Party</b>	<b>Percentage</b>
Multi-departmental committee/team	18.0
Head office	5.0
General Manager	26.0
Engineering Department	27.0
Other Departments	7.0
General Manager and Head Office	7.0
GM Office	2.0
GM and Engineering	8.0
<b>Total</b>	<b>100.0</b>

n=99

### **6.5.1 Environmental Policy**

A formal environmental policy is integral to the development and implementation of a successful environmental program. According to Mauser (2001), policy and strategy are good indicators that there is a formal commitment to the environment. Less than a fifth of the facilities have a written environmental policy and formal action plans in place that was reviewed, with quantified targets that were measured and achieved. Table 6.10 identifies the percentage of facilities with a written environmental policy, action plan and quantified set and measured targets.



**Table 6.10 Environmental Policy**

	<b>Written Environmental Policy</b>	<b>Formal Action Plans</b>	<b>Action Plans Reviewed</b>	<b>Quantified Targets Set</b>	<b>Targets Achieved</b>
Yes	18%	18%	15%	11%	9%
No	82%	82%	85%	89%	91%

n=100

### 6.5.2 Environmental Audits

Environmental audits are required to determine the level of energy, water and waste used and produced in a facility. The majority of facilities conducted energy and water audits as it is economically efficient to calculate the amount of money spent and saved in these areas. As waste disposal is not a major cost in Sanya, only approximately one third of the facilities conducted waste audits. The majority of these audits were conducted to determine the amount of recyclables that were sold to itinerant buyers. Table 6.11 identifies the percentage of facilities that have conducted audits.

**Table 6.11. Environmental Audits**

	<b>Energy</b>	<b>Water</b>	<b>Waste</b>
Yes	86%	85%	29%
No	14%	15%	71%

### 6.5.3 Environmental Training

Training related to environmental commitment initiatives is necessary in order to ensure that employees are motivated to adhere to the associated tasks. Employees must be trained and educated to understand how and why certain initiatives must be implemented. The respondents were asked to identify if they implement any form of environmental training in their facility. This was an open-ended question as the type of training that was implemented can be diverse depending on the facility. Over half of the facilities in the study did not implement any form of environmental training. A minimal number of facilities educated employees generally about the environmental programs in place in

terms of how to reduce energy and water use. Table 6.12 identifies the environmental training implemented in the study population.

**Table 6.12 Type of Environmental Training**

<b>Environmental Training</b>	<b>Frequency</b>	<b>Percentage</b>
Employees ability to educate guests about environmental initiatives	2	4.7%
Energy Efficiency	7	16.3%
Water Efficiency	7	16.3%
Waste Management	1	2.3%
Environmental Management	2	4.7%
None	57	57%

n=76

Facility representatives were also asked to indicate who is responsible for developing and implementing environmental training. The purpose of this question was not to determine whether responsibility for environmental commitment led to a better training program, but rather, whether there was responsibility allocated to training or if it was conducted in an ad hoc manner. Clear roles, responsibilities, goals and objectives both reflect and strengthen the strategic management in an organization and, in return, are likely to enhance the level of environmental commitment in a facility. Over 85 percent of the respondents indicated that responsibility was not allocated for environmental training, whereas less than a tenth identified that responsibility lay with senior management. Table 6.13 identifies who was responsible for environmental training in the study population.

**Table 6.13. Responsibility for Environmental Training**

Responsibility for Environmental Training	Frequency	Percentage
Senior Management	8	8.0
Human Resources Department	2	2.0
Engineering Department	2	2.0
General Manager	2	2.0
Sanya Environmental Sanitation Bureau	1	1.0
None	85	85.0

n=85

In addition to responsibility, frequency of training was also determined to be an important factor for this research. The majority of respondents did not implement training on any consistent basis. Table 6.14 identifies the frequency of training in each facility.

**Table 6.14 Frequency of Training**

Frequency	Frequency	Percentage
Once a month	2	2.0
Twice yearly	4	4.0
Weekly	1	1.0
Annually	1	1.0
None	92	92.0

n=92

#### **6.5.4 Employee Involvement in Environmental Commitment Programs**

The involvement of employees is imperative to the success of an environmental commitment program. The interviewees were asked if employees were involved through communication and other methods to participate in the organization's environmental program. Table 6.15 identifies the main types of activities undertaken to communicate environmental commitment activities to employees. Approximately a third of the facilities communicated the benefits of environmental commitment. Not many of the facilities,

however, encouraged staff to become involved and increase the level of environmental commitment in the facility or in their personal lives.

**Table 6.15 Employee Communication**

Type of Communication	Frequency	Percentage
Communicated the benefits of environmental management	32	32.0
Encouraged to contribute innovative suggestions to increase environmental management	6	6.0
Encouraged to practice environmentally sound behaviour at home	2	2.0
1 and 2	22	22.0
1 and 3	2	2.0
All	12	12.0
None	24	22.0

n=100

### **6.5.5 Employee Participation in Environmental Initiatives**

Rewards consisting of recognition and monetary incentives are offered by many organizations to increase employee participation and involvement in environmental programs. The interviewees were asked to identify what reward strategies, if any, they have implemented to increase participation. Table 6.16 identifies the different types of awards employed by the accommodation facilities in this study. Almost a quarter of the respondents employ monetary strategies to increase participation. An example would be to give employees a small monetary reward for suggesting an innovative initiative that would reduce energy use in the establishment.

**Table 6.16 Rewards for Employee Participation in Sustainability Programs**

Description of Reward	Number	Percentage
Monetary	22	22.0
Recognition	2	2.0
Incentives (free trips)	2	2.0
Promotion/increase in salary	1	1.0
Monetary and employee recognition	2	2.0
None	71	71.0

n=100

### 6.5.6 Supplier Initiatives

An extensive environmental commitment program includes extending influence to suppliers of the accommodation facility. The study population was asked to identify if they work with suppliers to take back excess packaging or to request environmental information on a product. Almost half of the study population did not work with suppliers in any capacity. Forty percent of respondents asked suppliers to take back excess packaging. Table 6.17 identifies supplier initiatives undertaken by the study population.

**Table 6.17 Supplier Initiatives**

Supplier Initiatives	Frequency	Percent
Take back excess packaging	27	27.0
Request environmental product information	13	13.0
All	13	13.0
None	47	47.0

n=100

### 6.5.7 Customer Education

The level of customer education regarding environmental commitment in a facility was determined through the questionnaire. Approximately one fifth of the study population implemented customer education initiatives focusing on general education, hygiene,

organic food and energy and water efficiency. Table 6.18 identifies the customer education initiatives undertaken by accommodation facilities in this study.

**Table 6.18 Customer Education Initiatives**

<b>Customer Education Initiatives</b>	<b>Frequency</b>	<b>Percent</b>
Educating about the benefits of environmental management	5	5.0
Education on energy and water efficiency	11	11.0
Promoting organic food	1	1.0
Educating about hygiene (no spitting)	1	1.0
None	82	82.0

n=100

### **6.5.8 Association Affiliations**

In order to determine the influence of trade associations and certification facilities, the study population was asked if their facility had any affiliations with outside agencies such as ISO 14001, Green Globe or any other trade/certification body. Almost all of the facilities were not affiliated with an association despite having knowledge of such an association. This is indicative of the low level of environmental commitment in the Sanya accommodation industry. The involvement of associations tends to influence the level of environmental commitment in an area. Many of these facilities had no prior knowledge of any association related to environmental commitment despite the existence of several programs related to environmental commitment in the accommodation industry such as Green Globe China; China's Green Hotel program and ISO14001. Table 6.19 identifies the frequency of association affiliation in the study enterprises.

**Table 6.19 Association Affiliations**

<b>Affiliation with Associations</b>	<b>Frequency</b>	<b>Percent</b>
ISO 14001	2	2.0
Have own standards	1	1.0
None	97	97.0

n=100

### **6.5.9 Community Involvement**

Community involvement entails an organization volunteering, sponsoring or participating in community events such as beach or river clean up and tree planting days organized by the municipality or the accommodation facility themselves. Almost a quarter of the study population participated in some form of community involvement. Table 6.20 identifies the community activities that the Sanya accommodation facilities have become involved in.

**Table 6.20 Community Involvement**

<b>Involvement in Community Events</b>	<b>Frequency</b>	<b>Percent</b>
Municipal government clean up activities	18	18.0
Plant trees	4	4.0
Hotel initiated clean up activities	2	2.0
None	76	76.0

n=100

### **6.6 Level of Environmental Commitment in the Sanya Accommodation Industry**

The level of environmental commitment in each accommodation facility that participated in the study was determined using an environmental audit that was adapted from the Hotel Association of Canada's (HAC) Green Leaf Eco-Rating Program developed by Terra Choice. As identified in this chapter, general and specific questions related to environmental commitment were asked via the questionnaire. As identified in Section

4.4.3, the level of environment commitment was determined by a simple scoring system where each initiative implemented scored one point, and was added up to ascertain a total score. Based on the HAC Environmental Audit Checklist developed by Terra Choice Inc., the scores were grouped into five categories (Level One to Level Five). Level One equates to a minimum level of commitment. The questionnaire incorporated all aspects of environmental commitment as identified in Section 1.3. The more initiatives implemented, the higher the score (HAC 2002). The following identifies the number of points allocated to each level. Level five is the highest rating that can be achieved.

Level One: (1-9 points)

Level Two: (10-19 points)

Level Three: (20-29 points)

Level Four: (30-39 points)

Level Five: (40-45 points)

Table 6.21 identifies the scores for the facilities in this study. The majority of the facilities scored between 10-19 points (which indicate that the majority of facilities implement between 10 and 19 environmental initiatives). None of the facilities scored in the level five category. These scores form the dependant variable of the statistical analysis as the motivating, organizational and impeding factors are analyzed to determine their effects on the level of environmental commitment in the Sanya accommodation industry.

The level of environmental commitment in the Sanya accommodation industry is generally low with over 60 percent of the facilities implementing between 10-19 initiatives. What influences the facilities with the higher level of environmental commitment and what impedes the facilities with the low level of environmental commitment will be discussed in the proceeding chapters. As expected, the majority of the facilities implement initiatives related to energy and water conservation since it is considered good business, but they are lacking in terms of the suite of environmental commitment initiatives that can be implemented.



**Table 6.21 Level of Environmental Commitment**

Environmental Commitment Rating	Percentage
Level One	17.0
Level Two	62.0
Level Three	17.0
Level Four	3.0
Level Five	0.0
Total	100.0

n=100

## **6.7 Conclusion**

This chapter satisfied the second objective of this thesis which was to conduct an inventory of organizational factors, stakeholder salience and level of environmental commitment in the study population. The inventory determined that the majority of facilities in the study consisted of three star facilities in Sanya City built after 1990 with less than 200 rooms and 100 employees. The majority of facilities were also independently managed and catered to domestic, package tourists. It is necessary to identify the organizational characteristics of the study population in order to develop conclusions as to what motivates and impedes these organizations. This chapter also determined that the stakeholders with the most salience were the municipal government and corporate decision makers. The majority of the establishments also had a relatively low level of environmental commitment (Level 2) and mainly implemented initiatives related to energy and water conservation. This inventory provides a sound basis for the analysis of what motivates and impedes these facilities in terms of environmental commitment. The following chapters seek to determine why there is a gap between attitude and action in the Sanya accommodation industry and to utilize this information to further the level of environmental commitment in Sanya and the accommodation industry in general.

## **Chapter 7**

### **Analysis of the Factors That Affect Environmental Commitment in the Tourist Accommodation Industry**

This chapter explores the factors that influence the level of environmental commitment in Sanya hotels. Using statistical procedures, the organizational, motivating and impeding factors were analyzed to further understand why certain accommodation facilities have a higher level of environmental commitment than others. This is not only pertinent to the Sanya accommodation industry but to the entire industry in general. This analysis and related conclusions contribute to understanding how to move the accommodation industry from attitude to action in regards to sustainability. This chapter satisfies the third objective of this thesis. The first part of this chapter analyzes the organizational factors that affect the level of environmental commitment. It is followed by a consideration of the motivational and impeding factors. This chapter forms the basis for discussion in Chapter 8.

#### **7.1 Organizational Factors**

As discussed in Chapter 6, organizational factors such as location, star rating, year of construction, number of employees and guest rooms, ownership, management structure and clientele focus of the facility were analyzed to determine the influence on the level of environmental commitment. Chi-square tests and multiple regression analyses were used to analyze these factors and their influence on environmental commitment.

The organizational factors were analyzed using chi-square tests to determine if any statistically significant differences in responses occurred. For the purpose of undertaking chi-square analysis, the data was collapsed to ensure that more than five cases were present in each cell. The chi-square tests presented in this chapter are for factors that have significant relationships. Tests conducted on factors that did not exhibit significant relationships, such as ownership and star rating, ownership and location, year of construction and star rating, year of construction and number of guest rooms, and star

rating and management structure are not presented in this chapter. Chi-square tests for factors comparing ownership and location, and location and guest rooms were not conducted because collapsing the data resulted in the loss of pertinent details required for these tests. The following section discusses the results of the chi-square tests undertaken for the significant organizational factors in this study.

### **7.1.1 Star Rating**

Star rating in this study is based on the National Tourism Administration of China's star rating scale. Accommodation facilities are rated on a scale from 1 to 5 based on the level of service and amenities in the establishment (National Star Rating Committee, 2004). Star rating has provided the basis to undertake comparisons with many other factors such as location, number of guest rooms, employees and clientele. Star rating in many ways determines several of these other factors, as in this study high star rating was associated with facilities that have a higher number of guest rooms, employees and cater to a clientele that is willing to pay higher prices such as business and international tourists.

In order to interpret the statistical significance of the relationship between star rating and location, number of guestrooms, number of employees and clientele, the data was collapsed into two star rating categories. The low star rating category consists of facilities in the 1-3 star range whereas the high star rating category includes 4 and 5 star rated facilities.

### **7.1.2 Star Rating and Location**

A chi-square test was conducted to determine if there was a statistically significant relationship between star rating and location.

**Table 7.1 Comparison of Location and Star Rating**

Location/Star Rating	Low Star Rating (1-3)		High Star Rating (4-5)		Total
	Frequency	Percent	Frequency	Percent	
Sanya City	41	87	6	13	47
Haipo	10	56	8	44	18
Yalong Bay	3	25	9	75	12
Dadonghai	15	65	8	35	23
Total	69		31		100
Chi-Square	19.8				
Degrees of Freedom	3				
Significance	<.001				

n=100

With respect to star rating of accommodation facilities and location in Sanya, a statistically significant difference between the responses was confirmed (chi-square = 19.842, df=3, p< .001). Many high end hotels were located in Yalong Bay which is owned and managed by the Yalong Bay National Resort Development, a subsidiary of the central government of China. In addition, the majority of low end hotels were located in Sanya City identifying that in Sanya, higher end facilities are concentrated in one area.

### **7.1.3 Star Rating and Number of Guest Rooms**

A chi-square test was conducted to determine if there was a statistically significant relationship between star rating and guest rooms. The number of guest rooms was collapsed for the purpose of these tests. Guest rooms were collapsed into two categories 0-399 and 400 to 600+.

**Table 7.2. Comparison of Number of Guest Rooms and Star Rating**

Guest Rooms/Star Rating	Low Star Rating (1-3)		High Star Rating (4-5)		Total
	Frequency	Percent	Frequency	Percent	
0-399	64	76	20	24	84
400-600+	5	31	11	69	16
Total	69		31		100
Chi-Square	12.7				
Degrees of Freedom	1				
Significance	<.001				

n=100

With respect to the number of guest rooms and star rating in Sanya, a statistically significant difference between the responses was confirmed (chi-square=12.7, df=1,  $p<.001$ ). The majority of small facilities (between 0 and 299 rooms) were in the low star rating category whereas large facilities (300 to 500+ rooms) were generally in the high star rating category. It is typical in the accommodation industry that higher end facilities have the largest number of guest rooms.

#### 7.1.4 Star Rating and Employees

A chi-square test was conducted to determine if there was a statistically significant relationship between star rating and employees. The number of employees was collapsed for the purpose of these tests. Employees were collapsed into two categories 0-299 and 300 to 500+.

**Table 7.3. Comparison of Employees and Star Rating**

Guest Rooms/Star Rating	Low Star Rating (1-3)		High Star Rating (4-5)		Total
	Frequency	Percent	Frequency	Percent	
0-299	65	97	18	62	83
300-500+	5	31	11	69	16
Total	70		29		99
Chi-Square	21.1				
Degrees of Freedom	1				
Significance	<.001				

n=99

With respect to the number of employees in a facility and its relationship to star rating, a statistically significant difference between the responses was confirmed (chi-square=21.1, df=1, p<.001). The majority of low star rated facilities employ a small number of employees. The higher end hotels (4 and 5 star) have the largest number of employees. This can be attributed to higher end hotels being required to provide a higher level of service and, thus, requiring more resources such as employees.

### 7.1.5 Star Rating and Clientele

A chi-square test was conducted to determine if there was a statistically significant difference between star rating and clientele. The clientele that was used for comparison were categorized into tourist, business, international, domestic and package. Only the clientele types that displayed a statistically significant relationship to star rating were included in Table 7.4.

**Table 7.4. Comparison between Clientele and Star Rating**

Clientele/Star Rating	Low Star Rating (1-3)		High Star Rating (4-5)		Total
	Frequency	Percent	Frequency	Percent	
<b>Tourist</b>	<b>50</b>	<b>73</b>	<b>30</b>	<b>97</b>	<b>80</b>
Chi-square	7.9				
Degrees of Freedom	1				
Significance	<.001				
<b>Business</b>	<b>26</b>	<b>38</b>	<b>24</b>	<b>77</b>	<b>50</b>
Chi-square	13.5				
Degrees of Freedom	1				
Significance	<.001				
<b>International</b>	<b>21</b>	<b>30</b>	<b>23</b>	<b>74</b>	<b>44</b>
Chi-Square	16.6				
Degrees of Freedom	1				
Significance	<.001				

n=100

\* There are 69 low star rated hotels and 31 high star rated hotels in the study population.

With respect to the type of clientele in a facility and its relationship to star rating, there was a statistically significant relationship between tourist clientele and star rating (chi-square= 7.901, df=1, p=.005). A significant relationship was also identified with business clientele and star rating (chi-square=13.511, df=1, p<.001) and international clientele and star rating (chi-square=16.623, df=1, p<.001). Accommodation facilities with a higher star rating indicated more often that they catered to business and international tourists whereas lower star rated facilities catered to domestic and package tourists. However, no statistically significant difference was found between domestic and package tourists and star rating. This is because the majority of accommodation facilities in the study cater to this type of clientele as identified in the summary table. Business and international clients are attracted to higher star rated accommodation facilities in Sanya due to their amenities and level of service. In addition, several higher end facilities in Sanya are associated with chains and are, therefore, more attractive to the international clientele due to the association with an international brand.

### 7.1.6 Employees and Guest Rooms

A chi-square test was conducted to determine if there was a statistically significant relationship between the number of employees and guest rooms. Guest rooms and employees were each collapsed into two categories as discussed in previous sections to ensure that chi-square tests could be completed.

**Table 7.5. Comparison between Employees and Guest Rooms**

Employees/Guest Rooms	0-399		400-600+		Total
	Frequency	Percent	Frequency	Percent	
1-299	78	96	3	4	81
300-500+	5	33	10	67	15
Total	83		13		96
Chi-Square	42.9				
Degrees of Freedom	1				
Significance	<.001				

n=96

With respect to the number of employees and guest rooms, a statistically significant relationship between the responses was confirmed (chi-square=42.854, df=1,  $p < .001$ ). Especially in large facilities, there is a ratio of almost one employee to one room. For example, the facilities with 500+ guest rooms employ over 400 employees. This is related to the level of service that is exemplified in higher star rated accommodation facilities.

The chi-square tests have identified that there are significant statistical relationships between various organizational factors, namely star rating, location, number of guest rooms, employees and clientele. The higher star rated facilities were located in Yalong Bay, catered to a business and international clientele and had a high number of guest rooms and employees. These tests however do not identify how these factors influence the level of environmental commitment in the accommodation facilities. To identify this influence, a multiple regression analysis was conducted using the level of environmental commitment of each accommodation facility as the dependent variable. The following section identifies which organizational factors most affect the level of environmental commitment in the Sanya accommodation industry.

## **7.2 How Do Organizational Factors Affect the Level of Environmental Commitment in the Sanya Accommodation Industry?**

Objective three of this thesis is to determine how organizational factors influence the level of environmental commitment in the Sanya accommodation industry. A stepwise multiple regression analysis was used to examine the relationships between the independent organizational variables and the dependent variable, which is the level of environmental commitment in the accommodation facility. Table 7.6 presents the results of the multiple regression analysis. Only the statistically significant variables are presented. It is clear that star rating and catering to international clientele are the organizational factors that most affect the level of environmental commitment in the Sanya accommodation industry (star rating:  $t=2.9$ ,  $p=.005$ ; international clientele:  $t=2.3$ ,  $p=.022$ ). The low variance of this model should be interpreted with caution. Although the model is not very robust, it should not be dismissed.



**Table 7.6. Multiple Regression Analysis: Level of Environmental Commitment and Organizational Factors**

Variable	Regression Coefficient (Beta)	Standard Error	T statistic	Significance Level
Constant	3.973	.178	10.1	.000
Star Rating	.157	.054	2.9	.005
International Clientele	.260	.111	2.3	.022
R2 Value	.239			
Adjusted R2	.215			
Level of Significance Accepting	0.05			

n=100

Dependant Variable: Level of Environmental Commitment

### 7.2.1 Star Rating

Multiple regression analysis identifies that star rating is a highly influential factor in affecting the level of environmental commitment in an accommodation facility. High star rated accommodation facilities (4-5 stars) have greater volumes of assets and employees per room and thus can implement environmental commitment initiatives more readily. This is due to economies of scale which ensures that there is a higher level of technology and more access to resources such as information, people and funds. High star rated facilities, as indicated through the chi square tests, have more rooms and employees than lower star rated facilities. These facilities are also chain affiliated and cater to a clientele that demands a high level of service and possibly a displayed commitment to sustainability. Due to these attributes, high star rated accommodation facilities employ highly trained professionals such as engineers and managers who have the capability and knowledge to implement technological advancements. In addition, these facilities have information provided from head office and resources allocated in the budget. Smaller facilities are usually more concerned with maintaining profit rather than expending resources on environmental improvements. An interviewee from a three star hotel in Haipo suggested that “Low star level hotels are just considering guest source and how to make a

living and pay wages. Lower star rated hotels do not consider the environment as much as higher star rated hotels that have the strength to implement environmental management initiatives” (Interview #84, 2005). An interviewee from a three star hotel in Dadonghai also provided similar information, “the biggest barrier is that economy/medium sized hotels take profit as the first priority. So when investing in environmental programs you need to make small investments with big returns, not like big hotels that can invest heavily and expect a return for a period of 10 or 20 years” (Interview #72, 2006). Another interviewee from a small two star hotel in Sanya City indicated, “We can’t do more than bigger hotels. It doesn’t depend on how much money is invested; they do the most that they can. Don’t have much knowledge and that is the biggest barrier. Our decision is not only money but we have to understand what we are doing” (Interview #3, 2006). In this study, most of the five star facilities have the highest level of environmental commitment. Lower star rated facilities face barriers and constraints that are not as apparent in the higher end facilities.

### **7.2.2 Clientele**

The clientele in this study has been defined as domestic, international, business, tourist, package or a combination thereof. The majority of facilities cater to domestic tourists and package clientele. However, multiple regression analysis identifies that catering to an international clientele positively affects the level of environmental commitment in an accommodation facility. A relationship was also defined through chi square tests between international clientele and star rating, for international visitors tend to stay at chain-affiliated, high end resorts in Sanya.

Sanya is predominantly a mass tourism destination for mainland Chinese but is becoming increasingly popular to Europeans and Westerners who live in Asia. This clientele tends to demand a level of service in an accommodation facility that is not provided in most Chinese-owned facilities. Environmental commitment is expected and in many cases demanded by an international clientele as their level of environmental awareness is much higher than that of domestic Chinese visitors. Environmental initiatives

such as recycling, energy and water efficiency and philanthropic donations are expected by most Western travelers. Many international visitors to Sanya stay at the five star chain-affiliated resorts that have a higher level of environmental commitment.

### **7.2.3 Summary**

Organizational factors such as star rating and international clientele positively influence the level of environmental commitment in an organization. This study has identified that higher rated accommodation facilities that cater to international tourists have a greater level of environmental commitment. These factors are interrelated as facilities with the highest level of environmental commitment tend to cater to international tourists. The following sections identify the motivational and impeding factors that influence the level of environmental commitment in the Sanya accommodation industry.

### **7.3 Motivating Factors**

Motivational factors are defined as “something that is a need or desire that causes people to act”(Merriam-Webster 2007). In this study there are factors that influence the accommodation industry to increase their level of environmental commitment. Several quantitative and qualitative questions were analyzed to gauge the influence of motivational factors on the level of environmental commitment in the Sanya accommodation industry. Calculating the mean score of variables in the study provided an analysis of the factors and their influence on the entire accommodation industry in Sanya. Multiple regression analysis is used to determine which factors were the most influential to the accommodation facilities. Factors that motivate the implementation of environmental strategies include costs and benefits, competitive advantage, social responsibility and the influence of stakeholders. Incentives to motivate environmental commitment were also examined. This section is organized to examine influencing factors, statements, benefits and incentives to motivate environmental commitment as asked in the questionnaire.

### 7.3.1 Influencing Factors

To determine the factors that increase the level of environmental commitment in an accommodation facility, several types of questions were asked. The first question asked respondents to rank a number of motivating factors on a scale from 1 to 3 where 1 was very influential and 3 not at all influential. The mean score of each result was calculated to determine the level of influence of each factor and the results are presented in Table 7.7. The majority of respondents identified cost savings (mean=1.19) as the most influential factor. This was followed by the influence of corporate decision makers (mean=1.41), as these bodies develop corporate policies that must be implemented, followed by social responsibility (mean=1.52), competitive advantage (mean=1.57) and the municipal government (mean=1.63). The municipal government is responsible for developing environmental management policies and regulations for the tourist industry in Sanya.

**Table 7.7. Assessment of Factors That Influence the Level of Environmental Commitment**

Variable	Very Influential (1)	Somewhat Influential (2)	Not at all Influential (3)	Average Level of Influence
Cost Savings	83	16	2	1.19
Corporate Decision Makers (Head Office or Owner)	71	17	12	1.41
Social Responsibility	57	35	8	1.52
Competitive Advantage	54	36	10	1.57
Municipal Government	57	22	21	1.63
Customers	46	36	18	1.71
Provincial Government	39	37	25	1.86
Employees	36	39	25	1.89
Media	39	40	21	1.90
Central Government	38	28	34	1.96
Local Community	29	44	27	1.98
Shareholders	42	23	27	2.01
Industry Association	31	34	35	2.04
Certification Bodies	13	50	37	2.04
Suppliers	13	50	37	2.24
ENGOS	11	43	46	2.36

n=97

Objective three of this thesis seeks to determine how motivational factors influence the level of environmental commitment in the Sanya accommodation industry. Multiple regression analysis was used to examine the relationship between the independent motivational variables (as indicated in the influencing factors question) and the dependent variable, which is the level of environmental commitment of the accommodation facilities. Table 7.8 presents the results of the multiple regression analysis. Only the statistically significant variables are presented. For the purpose of the analysis, the variables were recoded so that 1 equaled not at all influential and 3 very influential. Municipal government is the only influencing factor that affects the level of environmental commitment in the Sanya accommodation industry (municipal government:  $t=2.903$ ,  $p=.005$ ). The low variance of this model should be interpreted with caution. Although the model is not very robust, it should not be dismissed.

**Table 7.8. Multiple Regression Analysis: Level of Environmental Commitment and Influencing Factors**

Variable	Regression Coefficient (Beta)	Standard Error	T statistic	Significance Level
Constant	8.921	1.886	4.763	.000
Municipal Government	2.188	.754	2.903	.005
R2 Value	.085			
Adjusted R2	.075			
Level of Significance Accepting	0.05			

n=100

Dependant Variable: Level of Environmental Commitment

According to the mean score analysis, the factors that influence the level of environmental commitment in an accommodation facility are cost savings, corporate decision makers, social responsibility, competitive advantage and municipal government. Multiple regression analysis indicated that the municipal government is also a significant factor.

### 7.3.2 Benefits Related to Implementing Environmental Initiatives

Respondents were asked to rank the benefits of environmental commitment on a scale of 1 to 5 (1 being the lowest and 5 the highest). The mean scores for each benefit were calculated and are presented in Table 7.9. Economic benefits (4.25) were determined to be the greatest benefit to implementing environmental commitment initiatives followed by protecting the natural environment (4.12) and obtaining a competitive market advantage (3.56).

**Table 7.9. Benefits Related to Implementing Environmental Initiatives**

Benefit	1	2	3	4	5	Average Level of Influence
Economic Benefits	4	3	14	20	56	4.25
Protecting the Natural Environment	6	3	16	20	52	4.12
Competitive Market Advantage	13	9	23	15	37	3.56
Personal Satisfaction	10	16	21	19	31	3.46
Trade Association Membership/ Industry Association Certification	32	13	22	17	13	2.65
Employee Satisfaction and Improved Morale	50	16	16	8	7	2.65

n=97

Objective three of this thesis seeks to determine how motivational factors, such as benefits, influence the level of environmental commitment in the Sanya accommodation industry. Step-wise multiple regression analysis was used to examine the relationship between the independent motivational variables (as indicated in the benefits question) and the dependent variable, which is the level of environmental commitment in the accommodation facility. Table 7.10. presents the results of the multiple regression analysis. Only the statistically significant variables are presented. It is clear that protecting the natural environment and personal satisfaction are the benefits most pertinent to the accommodation facilities with a high level of environmental commitment (personal satisfaction:  $t=-2.705$ ,  $p=.008$ ; protecting the natural environment:  $t=-2.24$ ,  $p=.027$ )

**Table 7.10 Multiple Regression Analysis: Level of Environmental Commitment and Benefits**

Variable	Regression Coefficient (Beta)	Standard Error	T statistic	Significance Level
Constant	2.048	.196	10.459	.000
Personal Satisfaction	1.09	.062	2.705	.008
Protecting the Natural Environment	.095	.042	2.24	.027
R2 Value	.119			
Adjusted R2	.091			
Level of Significance Accepting	0.05			

n=97

Dependant variable = level of environmental commitment

The analysis conducted for this question identified a number of benefits that corroborate to the influencing factors identified in the previous section. Economic benefits and competitive advantage are factors that motivate the level of environmental commitment in a facility. Protecting the natural environment and personal satisfaction has also been identified through multiple regression analysis as motivating factors.

### 7.3.3 Statements Related to Environmental Commitment

Respondents were presented with seventeen statements relating to environmental commitment and asked to rank the relevance of these statements to their organization. Each statement was ranked between 1 and 5, where 1 equaled strongly disagree with the statement and 5 strongly agree. The mean scores for each statement were calculated and are presented in Table 7.11. Respondents agreed most strongly with the following statements: environmental programs increase customer satisfaction (mean=4.2); environmental programs are implemented because it is the right thing to do (mean=4.2).and caring for the environment is an important consideration for our organization (mean = 4.2). Statements related to environmental commitment increasing profitability (mean=4.1.) and public relations (mean=4.1) as well as corporate decision

makers being supportive (mean=4.1) were also strongly agreed with by interviewees. The highest scores related to customer satisfaction and social responsibility. As will be discussed in Chapter 8, environmental awareness has been determined to be low in Sanya; however the majority of facilities identified these two statements as the most pertinent. This can be attributed to the fact that the majority of facilities identify environmental commitment initiatives as being implemented for the good of society rather than the good of their organization.

**Table 7.11. An Evaluation of Statements Related to Environmental Commitment**

VARIABLE	1	2	3	4	5	Average Level of Influence
Environmental programs increase customer satisfaction	1	4	7	49	35	4.2
Environmental programs are implemented because it's the right thing to do	0	3	4	60	29	4.2
Caring for the environment is an important consideration for our organization	0	5	5	50	36	4.2
Environmental programs increase profitability	1	5	4	56	30	4.1
Environmental programs help with public relations	0	0	10	67	19	4.1
Corporate decision makers are supportive of environmental initiatives implemented	0	0	10	62	24	4.1
Environmental programs increase employee satisfaction	0	3	14	62	17	4.0
Our organization will adopt an environmental program if it is required by environmental regulation	0	4	7	66	19	4.0
Environmental programs improve relationships with local communities	0	7	11	62	16	3.9
Environmental programs provide a marketing advantage over competitors	1	9	11	48	27	3.9
Our organization will adopt an environmental program if required by our customers.	3	9	7	60	17	3.8
Our organization will implement environmental programs only if our competitors have done so or have the intention to do so.	0	7	19	52	18	3.8
Benefits from implementing environmental programs outweigh cost needed to implement the program in our organization.	3	12	20	46	15	3.6
Our organization has already reaped monetary	2	9	26	45	14	3.6



VARIABLE	1	2	3	4	5	Average Level of Influence
benefits from its environmental program						
Our employees support environmental programs as it is linked to their welfare.	3	14	25	4	13	3.5
Return on investments on environmental programs can be measured accurately in our organization	4	13	27	41	11	3.4
There is a competitive pressure in our industry to adopt environmental initiatives.	4	23	20	41	8	3.3

n=96

## **7.4 How Do Motivating Factors Affect the Level of Environmental Commitment in the Sanya Accommodation Industry?**

### **7.4.1 Economic Considerations**

Economic considerations (i.e. the saving or gaining of funds) are a prominent motivating factor. For organizations to move towards sustainability there has to be an advantage economically. The main objective for an organization is to “create value (monetary, competitiveness, image) for shareholders” (Swarbrooke, 1999). This objective is evident throughout the study as organizations either implement environmental initiatives to increase monetary value, competitiveness or public image or do not implement initiatives as they do not wish to decrease the value of their organization by investing in initiatives that require capital.

The mean scores indicated that economic considerations were highly important for adopting environmental initiatives. Whereas investments are required to reap the rewards of any environmental program, it is important that the returns are likely to be quite lucrative. One accommodation facility in Haikou, the capital city of Hainan, spent over US \$250,000 on implementing an ISO 14001 certified environmental management system. The certification itself cost approximately US\$50,000 and the technology upgrades approximately US \$200,000. This environmental management system, however, led to an 80 percent decrease in the facility’s energy consumption leading to a savings of approximately US\$120,000 per year (Pilot Interview 1, 2003). If thinking on a long-term

basis, the costs and benefits associated with the adoption of environmental commitment strategies can be significant. This has been recognized by the majority of respondents and is a major motivating factor to increase the level of environmental commitment in the Sanya accommodation industry. Economic benefits are not only monetary but incorporate a whole range of factors such as competitiveness and public image that can increase value in an organization.

#### **7.4.2 Social Responsibility**

Social responsibility, as discussed in Chapters Two and Three, is addressed by neo-institutional theory that posits that not all business choices are based on rational economic decisions. This theory proposes that external norms, values, and traditions provide social legitimacy to organizations and influence management choices and practices. The result is a social construction process in which external entities influence the selection and implementation of strategies that motivate organizations to seek legitimacy and strive for social conformity (Hoffman 1999; Rivera 2002b).

Social responsibility has been identified, through protecting the natural environment and personal satisfaction, as a strong motivating factor that influences the level of environmental commitment in the study. Although environmental protection is a relatively new concept in China, respondents identified that businesses have a responsibility towards the environment and the community.

There is, however, more to this notion of social responsibility than intrinsic good. The notion of social responsibility is also based on the good of the organization. A clean environment increases benefits through attracting guests and an enhanced public image. As identified by one respondent, “Environmental management is very important to hotels. Human beings need a good environment. Hotels need a good environment. Its simple really, we need to improve the surrounding environment to attract tourists” (Interview #55, 2005). An enhanced public image is also very important to organizations in this study: “This hotel donated money to disabled children. The purpose is not to help the children;

the purpose is for media to report on it. Many companies donate money because they want the media to report on it” (Interview # 37, 2006).

Environmental commitment can also be a function of a brand’s social responsibility. Multi-national corporations have a higher level of environmental awareness than local hotel facilities run by independent owners. As stated by a respondent from a five star brand hotel in Yalong Bay, “It is company policy. It is our own social responsibility and awareness and not for customers. We do this for two reasons, one is government department policies and the second is our own awareness. No matter whether the government comes to check up on us or not, we do this on a voluntary basis because of brand standards” (Interview #45, 2004). However, despite the need of brands to implement environmental initiatives based on social responsibility, enhanced public image is definitely a benefit. At the same time, the resources are protected that sustain the organization.

#### **7.4.3 Competitive Advantage**

Competitive advantage, as identified through the resource based theory of the firm, is an important motivating factor to increasing the level of environmental commitment in an organization. The implementation of environmental initiatives can create competitive advantage due to the satisfying of specific market niche demands and increasing efficiencies in the organization. Benefits of environmental commitment in terms of competitive advantage include an increased attractiveness to customers; improved market share; access or creation of new markets; improved company image; and increased productivity of employees.

Competitive advantage was identified as being influential through the analysis of mean scores. This is interesting as it was determined through several of the interviews that with the low level of environmental awareness amongst the clientele in Sanya, environmental commitment does not increase competitive advantage. Most of the hotels do not have a sophisticated reservation system or advertising budget so the ability to promote the public image of a facility is not easily facilitated. As an interviewee of one five star

national resort indicated, “We do not have a reservation system and advertise only for service and price. We do not think if you put a green logo in the lobby that this will help bring customers as the customer base is local. People come to our hotel because of word of mouth, local government and local affairs” (Interview #36, 2004).

Improved competitiveness however leads to increases in efficiency and funds, providing the potential for further upgrades and services in the establishment. It is necessary for accommodation facilities to increase their competitiveness as occupancy levels have been traditionally low in Sanya (Interview # 51, 2004).

#### **7.4.4 Municipal Government**

Municipal government has been identified as being the most salient stakeholder in this study, although its influence on the high ranked establishments is less than on those with fewer stars. It was also indicated as having a relatively high mean score and a positive affect on the level of environmental commitment in the Sanya accommodation industry. The municipal government is the responsible for developing, implementing and enforcing local laws and regulations in Sanya. The municipal government agencies that are the most pertinent in this study are the Sanya Environmental Protection Bureau and the Sanya Tourism Bureau.

The law is the major factor that influences environmental commitment in Sanya. If the government demands something, it must be done (Interview #49, 2004; Interview #51, 2004; Interview #89, 2005). In 2003, the Sanya municipal government passed a regulation that all businesses must use biodegradable bags instead of regular plastic. This regulation has been applied to the accommodation industry and a fine is imposed for not adhering to the regulation. The biodegradable bags are very expensive in comparison to regular bags and many facilities find it a very unfair regulation. Several of the respondents indicated that their facility adheres to the regulation in spite of the poor quality and high cost of the bags. A number of informants also stated that without municipal government employees to enforce the fine associated with the regulation, it would not be implemented. Accommodation establishments of all sizes are subject to this regulation and it has been

mentioned as an example of a coercive power strategy that has been influential in increasing the level of environmental commitment in the accommodation industry.

Many of the informants felt that laws and regulations are the only way to move the industry towards sustainability, especially for small and medium-sized organizations. This is because of the potential for coercion as organizations must act according to regulation. The problem remains that governments, and this is true with the Sanya government, have developed a minimum standard of regulation and they do not have the human resources to enforce the regulations. In addition, many facilities just implement the minimum standards and do not exceed these standards as it is not required.

#### **7.4.5 Corporate Decision Makers**

Corporate decision makers affect the level of environmental commitment in an organization. In the accommodation industry, corporate decision makers can be the most influential factor, as seen in a chain affiliated facility. Conversely, they can also be a great impediment to progress.

#### **Chain Affiliation versus Local Ownership:**

Welford (1997) suggested that international organizations tend to be more environmentally progressive than domestic organizations. This is due to the variety of environmental legislation, consumer demands and varying corporate cultures an international corporation must contend with. This is especially pertinent in this study as the chain-affiliated, international accommodation facilities have to follow a corporate level of environmental commitment developed by their brand. These programs are extensive in the sense that they provide employee training and education; corporate decision maker and general management buy-in and approval, and have written goals and policies. The focus of these programs has generally been on increasing efficiency but also on augmenting public image, mainly on an international level. The factors that influence brands are more extensive and include ENGO's on an international level, whereas local hotels do not face these pressures. This is illustrated by one of the study respondents, "Even though these hotels (international, chain-affiliated hotels) have a local owner, they have a management

brand and level of achievement that they have to comply with as standards are set worldwide. The owner buys the concept, not like a national hotel which is managed and owned by a local enterprise company” (Interview #36, 2004).

#### **7.4.6 Customers**

Customers are the route to economic prosperity. In Sanya, many accommodation facilities run below a level of occupancy that ensures profit (Interview #51, 2004). There are a number of accommodation facilities to choose from in Sanya and all facilities are competing for business. Customers were deemed as an influential factor because it is important to ensure that customers are satisfied and choose to conduct business in their facility. In terms of environmental commitment, customers either request the initiatives or return due to the degree of environmental commitment in a facility. Customers appreciate environmental initiatives, as long as these initiatives do not inconvenience the customer.

Customer influence is deemed as very influential due to the above reasons. In Sanya however, the level of environmental awareness is low so the pressure from the local government and community is not as strong as it otherwise might be. Customers, especially international tourists, demand a certain level of responsibility in a facility and do not appreciate an organization that is not socially responsible. As one interviewee from a three star facility in Sanya City indicated, “Customers’ claims are the most urgent. Common people’s environmental awareness is very low so if residents/tourists have the thought to protect the environment, that would make a difference in increasing environmental management” (Interview #16, 2004). As Sanya opens up to an increasing level of international tourists through the hosting of international events such as Miss World, the influence of customers will be stronger. This will be more evident in higher star rated facilities that tend to cater to international tourists. A general manager of a three star facility in Dadonghai discussed the difference between the clientele that stays at lower versus high star rated hotels, “Maybe the customers care about environmental commitment initiatives. This depends on the star level: lower star level guests do not have a good education about environmental initiatives and don’t care about it but high level guests are

more educated and do care about such things as environmental initiatives” (Interview #25, 2004). This reflects the level of education and awareness of different clientele and is related to how organizational factors such as star rating, location and clientele affect the level of environmental commitment in an organization.

#### **7.4.7 ENGOS**

ENGOS were identified through the multiple regression analysis as influencing the level of environmental commitment in the Sanya accommodation industry. ENGOS are a new entity in China and currently are not present at the local level in Sanya. However, respondents are aware of ENGOS and their purpose and understand their role in participating in environmental programs and encouraging sustainability. Although ENGOS are not present at the local level, other non-governmental organizations have worked with accommodation facilities in Sanya. Several five star facilities have worked with non-governmental organizations such as Unicef in varying capacities. As an interviewee from a four star facility in Sanya City stated, “Currently in China, non-governmental organizations for environmental programs are not available. What is available is not enough. An example is that the owner of our hotel wanted to build a new hotel with green building principles. There was no channel for obtaining advice on environmental management however. We hope a non-governmental organization can work in this area and provide us with advice. This would make us very happy” (Interview #4, 2004). ENGO’s could play an important role in Sanya if they were established at a local level.

#### **7.4.8 Summary**

The most important factors that influence the level of environmental commitment in the accommodation industry are economic considerations, protecting the environment/social responsibility, the municipal government and competitive advantage. Using the mean score analysis, corporate decision makers and customers are also influencing factors. The municipal government, despite being an influencing factor could play a stronger role in the motivating environmental commitment in the Sanya

accommodation industry. To understand how to further motivate accommodation facilities, incentives were presented to the study population for assessment.

#### 7.4.9 Incentives

Respondents were asked to rate a number of incentives that would encourage the implementation of environmental initiatives in their organization. The incentives were rated on a scale from 1 to 3 where one equaled high and three low. The mean score for each statement was calculated and these are displayed in Table 7.12. The respondents identified that guidance from government agencies (mean=1.53), subsidies for retrofits (mean=1.62) and environmental audits (mean=1.64) were the most highly regarded incentives that were likely to increase the level of environmental commitment in the Sanya accommodation industry.

**Table 7.12 Evaluation of Incentives**

Variable	1=High	2= Medium	3=Low	Average Level of Influence
Guidance from government agencies	54	33	9	1.53
Subsidies for retrofits	53	27	17	1.62
Subsidies for environmental audits	52	28	17	1.64
Tax break on environmental consulting fees or retrofitting fees	57	17	23	1.65
Education on the economic and environmental benefits of implementing an environmental program in a hotel	48	33	16	1.67
Advertising of green hotels through the local and international tourism industries	40	31	25	1.84
Guidance from international trade associations (Green Globe, ISO 14001)	32	35	30	1.98
Guidance for provincial or local tourism association	28	41	28	2.0

n=96

Several of the incentives identified were ranked similarly suggesting that a number of incentives in combination with each other would motivate accommodation facilities to



implement further actions to increase their level of environmental commitment. The incentives that were rated the highest by the majority of the study sample related to guidance by government agencies, subsidies and tax breaks. Education, advertising and guidance, although rated by a number of respondents, were deemed to not be as influential.

Guidance from government agencies was considered to be the most influential incentive. Some (14 percent) of the study population indicated that it would be useful for the government to impose regulations on the accommodation industry and to enforce these regulations in order to ensure action. This differs from the literature which suggests that most organizations implement voluntary environmental initiatives to pre-empt government regulations (Welford 1996). This is an example of an incentive based on a regional context as this destination is in a developing country and respondents felt that environmental initiatives must be required rather than voluntary. Many of the facilities, especially small and medium sized, require the government to provide guidance in many forms as they do not have knowledge or information regarding how and what to implement in terms of environmental initiatives.

Several respondents also indicated that the provision of information from government through the use of guidance materials and workshops would be incentives that would motivate facilities to take action. Information on new environmental technologies, types of environmental initiatives, benefits of implementing environmental initiatives, how and where to start with an environmental program would be particularly welcome. Such guidance would unify the accommodation industry in Sanya and encourage facilities to work together to share technology and information (Interview #9, 2004).

Subsidies for retrofits and environmental audits were also rated as being very influential incentives to increase the level of environmental commitment. Subsidies are attractive as they fund the implementation of new technologies or equipment. Without subsidies, many accommodation facilities would not implement certain initiatives. As a respondent from a three star hotel in Dadonghai indicated, “No incentives would make me not do anything. If the government wants me to invest in something environmental and it

costs too much money, as an investor I will say no. Hotel owners are private, we care about profit, and we couldn't stand not making a profit. Profit is the most important" (Interview #4, 2004).

Tax breaks were also identified as being an influential incentive. Tax breaks on environmental consulting and certification fees and generally recognizing good environmental performance would be beneficial. An interviewee from a three star hotel in Dadonghai indicated, "Government could reward hotels for good environmental behaviour through reducing taxes. This has not been done but government could reduce taxes by one percent for example for good environmental performance (Interview #6, 2004).

Some of the respondents, however, were skeptical that the government would provide incentives to motivate a greater level of environmental commitment. An interviewee from a three star facility was surprised at this question as he had not witnessed the government wanting to provide incentives to increase environmental commitment. He also stated that the government would never give any incentives to hotel facilities (Interview #29, 2004).

Other incentives that the study respondents identified would be influential would be to include environmental commitment in the National Star Rating assessment. An interviewee from a five star resort in Yalong Bay indicated that incorporating environmental initiatives into the star rating would ensure competitiveness in the industry and more facilities moving towards sustainability. "Including environmental initiatives into the star rating would be beneficial. Environmental initiatives could receive a 1, 2, 3 star rating. Hotels that have implemented a level of environmental management could receive recognition through a star rating and plaque. This would raise awareness of environmental issues. If the government did this, it would raise competitiveness in the industry. This would also raise awareness amongst the tourists. If tourists knew the importance of a four star environmental program this would ensure that hotels would increase their level of sustainability" (Interview #36, 2004).

Providing incentives to increase the level of environmental commitment in the accommodation industry would motivate facilities to move towards sustainability. In order to ensure that incentives are used most effectively, all stakeholders should be involved in promoting environmental commitment in this industry. The government, tourism associations, certification bodies and the accommodation industry in Sanya should all work together to increase the level of environmental commitment. Chapter 8 discusses recommendations for moving the industry towards sustainability.

#### **7.4.10 Summary**

The most influential factors in this study have been identified as cost savings, social responsibility and the municipal government. Corporate decision makers, competitive advantage and customers were also noted to be influential. In addition, guidance from government agencies and subsidies for retrofits and environmental audits were determined to be the incentives that would assist in increasing the level of environmental commitment in the accommodation industry.

#### **7.5 Impeding Factors**

As identified in Chapters Two and Three, several factors impede the implementation of environmental commitment initiatives. Several quantitative and qualitative questions were analyzed to gauge the influence of impeding factors on the level of environmental commitment in the Sanya accommodation industry. Calculating the mean score of variables in the study and multiple regression analysis were the methods used to analyze the factors' influences on environmental commitment. These factors include the following: inadequate resources (time, money, skills, and knowledge), multiple stakeholders with conflicting interests, hotel structure is not amenable to change and incompatibility with an organization's corporate culture. These barriers were examined in detail along with strategies that the facilities implement to overcome the identified barriers.

### 7.5.1 Factors That Impede Environmental Commitment

Respondents were asked to rate a number of barriers that may affect the level of environmental commitment in their organization. The barriers were rated on a scale of 1 to 3, where one equals often encountered and three never encountered. The mean score for each statement was calculated and is presented in Table 7.13. The barriers that were the most often encountered were financially related: problems with resources (time, money, skills, knowledge) (1.74) and high and unacceptable costs (1.77). Lack of skills, knowledge and expertise in the organization (2.00) was another barrier encountered by approximately three quarters of responding enterprises.

**Table 7.13. Evaluation of Factors that Impede Environmental Commitment**

Variable	1 - often	2- somewhat	3- not at all	Average Level of Influence
Problems with resources (time, money, skills, knowledge)	44	33	19	1.74
Costs of implementing environmental initiatives are too high and not acceptable	39	40	17	1.77
Lack of skills, knowledge and expertise in the organization	33	30	33	2.00
Lack of information regarding the types of environmental initiatives that can be implemented and the benefits associated with this implementation	20	46	30	2.10
Multiple stakeholders with conflicting interests	20	40	36	2.17
Lack of identification of specific motivations affecting the organization	16	39	41	2.26
Reluctance to use external assistance i.e. consultants	20	28	48	2.29
Hotel structure (size, location and age) does not allow for environmental management initiatives to be implemented	19	19	53	2.37
Lack of required support from shareholders	13	30	47	2.38
Lack of concern from corporate decision makers about environmental issues	15	27	54	2.41
Isolation of environmental issues from other	13	24	59	2.48

Variable	1 - often	2- somewhat	3- not at all	Average Level of Influence
aspects of the organization (for example housekeeping or engineering)				
Reluctance by corporate decision makers to implement environmental management initiatives	5	26	65	2.63
Belief by corporate decision makers that the current practices are adequate	11	25	60	2.51
Customers do not appreciate or support the implementation of environmental management initiatives	7	17	66	2.66
Incompatibility with the organization's corporate culture	5	12	79	2.77
Reluctance by employees to implement environmental management initiatives	4	13	73	2.77

n=96

Objective three of this thesis seeks to determine what factors impede the level of environmental commitment in the Sanya accommodation industry. Multiple regression analysis was used to examine the relationship between the independent impeding variables and the dependent variable, which is the level of environmental commitment in the accommodation facility. Table 7.13. presents the results of the multiple regression analysis. Only the statistically significant variables are presented. It is clear that corporate decision-maker reluctance, reluctance to use external consultants, belief by corporate decision makers that current practices are adequate and isolation of environmental issues are the factors that most impede the level of environmental commitment in the Sanya accommodation industry (corporate decision maker reluctance:  $t=2.86$ ,  $p=.005$ ; reluctance to use external consultants:  $t=2.57$ ,  $p=.012$  and belief by CDM that current practices are adequate:  $t=2.24$ ,  $p=.025$ ).

**Table 7.14 Multiple Regression Analysis: Level of Environmental Commitment and Impeding Factors**

Variable	Regression Coefficient (Beta)	Standard Error	T statistic	Significance Level
Constant	1.803	.296	6.1	.000
Reluctance by corporate decision makers to implement environmental management initiatives	.262	.092	2.86	.005
Reluctance to use external assistance i.e. consultants	.174	.068	2.57	.012
Belief by corporate decision makers that the current practices are adequate	.180	.080	2.24	.025
R2 Value	.214			
Adjusted R2	.167			
Level of Significance Accepting	0.05			

n=96

Dependant variable = level of environmental commitment

Multiple regression analysis indicated that reluctance by corporate decision makers to implement environmental management initiatives (through not wanting to use external consultants and believing current practices were adequate) are the factors that significantly impede the progress of environmental commitment in the Sanya accommodation industry. These factors are related to the economic considerations and corporate culture of the organization. In addition, the mean analysis indicated that inadequate resources affect the majority of accommodation facilities in Sanya. In the accommodation facilities with a high level of environmental commitment, barriers such as corporate decision makers believing current practices are adequate and isolation of environmental issues from other aspects of the organization do not impede these facilities. This is due to the fact that in this study, the facilities with the highest level of environmental commitment have multi-departmental committees responsible for environmental initiatives and it is part of their corporate policy due to either their corporate decision maker or general manager philosophy. These factors

affect facilities with a low level of environmental commitment because there is a lack of knowledge in regards to environmental issues hence determining that the current practices are adequate.

### **7.5.2 How Do Impeding Factors Affect the Level of Environmental Commitment in the Sanya Accommodation Industry?**

Inadequate resources such as capital, skills, knowledge, expertise, motivation and information are the factors that affect the level of environmental commitment in the majority of accommodation facilities in the study. The reluctance by corporate decision makers, to implement environmental initiatives and to use external assistance was deemed to affect the level of environmental commitment in the Sanya accommodation industry. These were the most pertinent barriers to the accommodation facilities in the study. It is necessary to understand these factors within each context in order to determine how to overcome these barriers and increase sustainability throughout the industry.

#### 7.5.2.1 Inadequate Resources (capital, skills, knowledge, expertise, motivation and information)

Without sufficient resources, facilities cannot properly plan and implement environmental initiatives and, in many cases, do not even know where to begin. Resources include finances, knowledge, time and skilled personnel to design, implement and guide the environmental program. Many of the accommodation facilities claim that because of the non-regulatory nature of implementing environmental initiatives in Sanya, these actions are not a priority in their organization and, therefore, resources such as money and employee time are not allocated to develop programs. Much of the employee time required to research initiatives occurs on a voluntary basis in addition to their specific job duties, resulting in the slow progression of many environmental programs.

Despite the enthusiasm from a number of accommodation facility owners to implement environmental initiatives, they faced numerous barriers related to resources. Several of the respondents identified that despite the numerous ideas for initiatives,

without adequate resources many of these plans fail. Twenty-six spokespersons of facilities in the interviews identified lack of capital as a major impeding factor. This is especially pertinent in Sanya where the market has fluctuated considerably over the years and many accommodation facilities are struggling economically. Investments in environmental commitment are not a priority (Respondent #36, 2004).

Lack of capital for environmental initiatives is also due to the short-term thinking employed in many of the accommodation facilities. In Sanya, general managers of accommodations are typically employed by one facility for a maximum of one to two years. At the outset of their employment, general managers think very short term and institute one-year business plans. The business plans focus on generating revenue rather than implementing a long-term strategy for the environmental management of the facility. In addition, there is a very high turnover rate with employees. Employees also stay employed by a facility on average for one year (Respondent #36, 2004, Respondent #37, 2004). This is illustrated by an interviewee of a three star hotel in Yalong Bay:

Hotels in China think short not long-term. Loss of profits is immediate. Owners of hotels and property management companies work on one-year performance contracts. How much profit can you get this year? Five-year plans are difficult to make as the GM does not know if they will be here (high turnaround in hotel industry) so if a GM makes a decision for a return on investment for a five-year profit, they lose out on their performance contract. The barrier is that hotels think short-term as in a one-year cycle. This is problematic for implementing long-term investments as owners and General Managers look for a quick return on investment (Interview #51, 2004)

Economic considerations were considered the greatest benefit as well as the greatest barrier in this study and must be addressed in strategies to move the industry



towards sustainability. Due to this transient management system, it is difficult to keep the momentum of an environmental program as it does require a long-term vision.

As many accommodation facility managers have employed a short-term vision, there is a lack of capital to hire outside expertise to aid in the development of an environmental program. As many general managers and corporate decision makers' lack environmental awareness, their expertise on this subject is low, and the government has not provided much guidance in terms of achieving sustainability, external consultants are pertinent to the success of a program. However, as there is currently little profit to be made in the accommodation industry in Sanya, facilities think about short-term gain and the necessary funds required to implement other technological advancements. As an interviewee from a five star facility in Dadonghai indicated,

We don't have the money to hire consultants to implement and design such items as solar powered systems for hot water heating. Solar powered heating installation takes big up-front costs. Cost-benefit analysis would have to be implemented but we are not interested in carrying out that study. It is not as much of a priority as recapturing market share. Senior management (CDM) is mostly focused on the profit margin and how to increase it. Hotels think short term and only about the maximum revenue that can be obtained (Interview #35, 2004).

According to Xi Chao from Quality Consulting in Haikou, Hainan (that focuses on ISO 14001 implementation), "Many accommodation facilities do not use outside consultants not only because of cost, but as indicated because many facilities are not aware or convinced of the benefits and services that an outside consultant could bring. A facility's sense and need for environmental protection is indifferent when it comes to cost" (Chao, 2005).

Several of the respondents in the study were not convinced that adopting environmental initiatives would increase the profitability of their organization.

Implementing environmental initiatives for some facilities was deemed not to be profitable; as such investments were generally implemented due to social responsibility or were not planned as part of a long-term strategy which is generally required of large investments. As identified by an interviewee of a three star hotel in Yalong Bay:

Environmental programs don't increase profitability. Investment cannot bring profit. We bought a split type air conditioning system with new Freon. The old Freon was cheap, the new Freon costs money and we don't make any profit. We input more cost than is returned. Environmental initiatives are not based on profitability. They are based on environmental awareness. As Freon is the source of global warming and damages the ozone layer, we decided to buy new air conditioners that do not use Freon. We need profitability and we bought new air conditioners because we want to do this not for profit. If environmental initiatives dip into the profit we cannot implement them (Interview 51, 2005).

This has been reiterated for another accommodation facility. An interviewee from a two star hotel in Sanya City stated, "If hotels are struggling for business, the environment is last on the mind unless it saves them money" (Interview 54, 2005). An interviewee from a five star resort in Yalong Bay also indicated the importance of economic considerations: "For economic development, people do things out of selfishness... the economic viewpoint is more effective for companies" (Interview #64, 2005). This reiterates the importance of being financially stable and having economies of scale to begin to adopt environmental strategies.

The lack of skills, knowledge, expertise and information in a facility and in the Sanya tourism industry as a whole has greatly hindered the level of environmental commitment. Accommodation facility managers are not only unaware of the cost and benefits but also of the potential benefits related to increased competitiveness, marketing and employee and customer satisfaction related to environmental commitment. The industry is knowledgeable about initiatives such as solar power, waste battery collection, and recycling through itinerant buyers as these lead to cost savings and/or have been promoted by the Sanya Tourism Association. The lack of skills, knowledge and expertise

in other environmental matters has led to the very slow uptake of further initiatives. There is very little knowledge about environmental commitment in general: approximately 50 percent of the respondents indicated initiatives such as washing the sidewalk as part of their environmental program. In addition, initiatives such as the collection of waste batteries are not successful, as there is inadequate knowledge or expertise of how to dispose of these materials once collected (Interview #2, 2004; Ping,2004).

### **7.5.3 Corporate Culture**

Corporate culture is comprised of the attitudes, experiences, beliefs and values of an organization. An organization has a corporate culture that has its own behavioral quirks and interactions which can affect the development and implementation of programs and projects (Welford 1997). Isolation of environmental issues from other aspects of the organization, incompatibility with the current corporate culture of the organization and the bureaucracy that exists within and between organizations are barriers that affect the level of environmental commitment in the Sanya accommodation industry.

In international hotel chains, the corporate culture has been developed, is well structured, follows the directive of corporate management that is internationally based and has learned lessons from their facilities worldwide. This leads to an easier implementation of initiatives, including a well structured training program, and long-term, strategic thinking that is necessary for an environmental management program. Corporate culture is not well developed in Chinese-owned accommodation facilities and, due to the high turnover rate, the “silos” that develop in accommodation facilities between departments (for example, housekeeping does not communicate with engineering), and high employee turnover rate, it is difficult to build a strong corporate culture which is necessary for implementing environmental initiatives (Interview #77, 2005).

Organizational bureaucracy can also be a factor that hinders the level of environmental commitment in an organization. A corporate culture that does not foster trust and openness leads to high levels of bureaucracy in decision making. For example, an interviewee from a four star facility in Dadonghai illustrated this point, “To change a light bulb may take up to one month in our hotel as all decisions must be approved by the

general manager. In order for decisions to be made, several levels are involved which leads to great inefficiency” (Interview #37, 2004). This provides for a very difficult corporate culture in which to foster the implementation of environmental management.

Multiple stakeholders with conflicting interests are a prevalent impeding factor to increasing environmental management in accommodation facilities. Stakeholders such as corporate decision makers, general managers and employees have differing thoughts and views when it comes to the cost, time and efforts associated with environmental management. Lack of environmental awareness and knowledge is prevalent amongst stakeholders in Sanya. Corporate decision makers think in the short term and customers are not appreciative of efforts toward sustainability (Interview #36, 2004).

The presence of multiple stakeholders with conflicting interests can hinder the development of an environmental management program. While small and medium-sized organizations are often not likely to have a significant number of internal stakeholders such as shareholders, large organizations may be challenged by this. In China, there are several ownership structures such as share holding cooperatives, state owned, private ownership, foreign funded, limited liability share, alliances and various other combinations (Pine 2002). This leads to the possibility of one accommodation facility having several types of shareholders. Typically, shareholders are not involved directly in the facility and focus on the price of their shares. Large investments may not be favoured by shareholders who are profit-oriented.

In addition, organizations may have external stakeholders that present conflicting interests and demands (Kirkland and Thompson 1999). As discussed, in Sanya the public’s environmental awareness is not high. This affects facilities as it is difficult to change the mindset of corporate decision makers, employees, customers and shareholders to ensure they support and participate in the implementation of environmental initiatives (Interview #35, 2004; Interview #64, 2004).

#### **7.5.4 Employees**

The absence of employee support and enthusiasm can be a major impeding factor in the success of an environmental program. Not all employees are enthusiastic or responsive to increasing the level of environmental commitment especially if this leads to an increase in their responsibilities without pay. Environmental programs require employees to dedicate volunteer time to developing and implementing initiatives. This is difficult to accomplish in Chinese accommodation facilities especially if this is not the corporate culture of the organization. As illustrated by a one star facility in Sanya City, “It is hard to instil environmental awareness in employees. The biggest problem is the people in Sanya. They are dirty and they throw things. Education is necessary” (Interview #36, 2004). Training and education are pertinent to ensure that employees are willing and motivated to participate in environmental initiatives. The level of environmental awareness in the accommodation facility must be increased. An executive of a five star facility in Yalong Bay stated the importance of training, “Training of employees to turn off water taps and lights is important as maybe employees forget because they do not feel the environment is important” (Interview #42, 2004). Strategies such as training and education will be discussed in the following section.

#### **7.5.5 Summary**

The barriers identified are key to identifying what hinders the level of environmental commitment in the Sanya accommodation industry. These barriers however, can be overcome through identification, recognition and cooperation amongst relevant stakeholders to implement strategies and incentives to motivate increased environmental commitment. While it is recognized that not all barriers can be overcome, recognition of what they are will be helpful in encouraging the increased sustainability of the destination.

#### **7.5.6 Strategies to Increase Corporate Sustainability**

The study respondents were also asked to identify whether they have used any strategies to overcome barriers to environmental commitment. Almost two thirds of the

facilities used employee education and training (67%), convincing corporate decision makers of the cost savings (64%), marketing the benefits of implementing environmental commitment initiatives (63%) and implementing small, less costly initiatives to overcome barriers (62%) as strategies. Table 7.14 identifies the strategies and the percentages of respondents who use them.

**Table 7.15. Strategies to Increase the Level of Environmental Commitment**

Variable	Percent That Employ Strategy
Employee education and training	69
Convincing corporate decision makers (head office or owner) of the cost saving and marketing benefits of implementing environmental initiatives.	64
Implementing small, less costly initiatives first	65
Changing employee job descriptions to include environmental duties	61
Disciplining Actions for employees	51
Alternatives such as donating to pig farmers or waste pickers.	39
Customer education	32
Sharing resources with other hotels such as composters	9
Other – market research	5

n=100

It is necessary to understand how barriers can be overcome and to learn from an organization's experiences in tackling factors that impede their progress. The questionnaire and interviews identified strategies and innovative initiatives to overcome barriers. For discussion purposes, the strategies were summarized into four themes. The first theme identifies strategies used to motivate employees. The second theme identifies strategies to overcome cost and information barriers. These strategies are used often by a number of respondents to facilitate the decision-making process. The third theme relates to utilizing creative means to overcome barriers associated with location and facility structure. The

fourth theme relates to customer education. This has mostly been utilized in four and five star accommodation facilities that have an internationally directed environmental program.

### **Theme One – Employees**

Employee education, disciplinary actions for employees and changing employee job descriptions to include environmental duties are strategies that have been employed to overcome the barriers related to corporate culture and employees. Education and training of employees is more commonly used for initiatives such as recycling in which senior management is not really an obstacle due to the low cost investment (and in some cases the ability to earn income) but employee participation is key to the success of the initiative. These strategies are deemed to be very effective methods to facilitate change in the organization as well as to ensure the acceptability of the initiatives. Some facilities use motivators such as monetary incentives and employee recognition as strategies. These methods were mostly employed by the larger, four and five star accommodation facilities in Sanya. For example, to ensure the success of recycling, some facilities decided to pay the employees responsible for the separation of waste a percentage of the profits gained from selling the recyclable material. This ensured that the employees did not unnecessarily dispose of any recyclable material (Interview #46, 2004, Interview #70, 2005). Some of the facilities also used employee rewards and recognition as strategies to motivate employees to comply with the implementation of environmental initiatives.

### **Theme Two – Information and Cost Benefit Analysis**

Convincing corporate decision makers of the cost and marketing benefits and phasing in of environmental initiatives are two effective strategies utilized by a number of respondents. By convincing corporate decision makers of the benefits of an initiative, especially the economic benefits, resources can be allocated to facilitate implementation. Phasing in environmental initiatives by implementing less costly initiatives first, is also a good strategy to overcome cost impediments as the benefits of smaller initiatives can often be quickly seen without the large investment. For example, changing to energy efficient light bulbs or low flow showerheads is a small investment that can yield high returns. The money saved from the smaller initiatives can be used to invest in larger initiatives. Market

research may also be an effective strategy and was identified through the interviews by four of the respondents.

### **Theme Three- Alternatives**

Strategies to overcome barriers such as location and facility structure require creativity and, in many instances, the forming of partnerships. Sharing resources with other organizations or creating an alternative initiative to deal with the shortcomings of a facility are strategies that can be employed. Alternatives such as donating food scraps to pig farmers have been used by many of the facilities that participated in the study. These facilities found this strategy to be cost effective and simple in dealing with the large amount of food waste. Many of the facilities did not have the space or knowledge to build a compost facility on the property so this strategy alleviated the problem.

Facilities are also turning to other hotels to share resources and information realizing that it is more beneficial to work together than separately to achieve the same goal. One hotel needed to retrofit their current air conditioning system and paid a visit to several hotels to learn from their experiences. This knowledge sharing enabled the hotel to purchase a system that was cost and energy efficient (Interview #17, 2004).

Innovative financial mechanisms can also be implemented as a strategy to overcome barriers. One four star facility in Sanya City determined that the best way to raise capital is to do it themselves. The funds come from the profit of the hotel. Approximately five percent of the hotel revenues per month is channeled into a fund that furthers environmental commitment initiatives including increasing the landscaped areas around the hotel to 75 percent of the area (Interview #31, 2004).

### **Theme Four – Customers**

Customer education is a strategy used by several of the large, international hotels that belong to a chain to create support and satisfy the market demands of environmentally conscious customers. In China, the level of environmental awareness is low amongst the public which comprises a large percentage of tourists in Sanya. The large, international chains educate the public about the initiatives undertaken, such as strategic giving to charitable organizations, waste management, nature preservation, and energy conservation.



This increases the respect and perceived level of service of their customers. It also enables these hotels to implement cost effective measures, such, as sheet and towel conservation programs, that are beneficial to the bottom line of the facility.

The strategies discussed in this section are broad in nature and can be applied to industries in many areas of the world. However, many of these strategies can also be applied in China. In addition, many of these strategies have been employed by the larger, three to five star accommodation facilities. One star accommodation facilities, which are typically small in nature and privately owned, do not employ many strategies to overcome barriers. These facilities are often struggling to stay in business and frequently face barriers such as lack of information and funds.

### **7.5.7 Summary**

The majority of barriers that the facilities in the study face are related to resources (time, money, skills, and knowledge). As identified in the literature and reinforced in this chapter, these barriers can hinder the implementation of environmental initiatives, especially in small and medium sized organizations. Employee and corporate decision makers' education as well as implementing small, less costly initiatives first as a way to stage implementation have been the key strategies used by the majority of facilities to overcome the stated barriers.

## **7.6 An Evaluation of All Factors That Affect the Level of Environmental Commitment**

To conclude this chapter, an analysis using multiple regression was conducted to evaluate which factor (organizational, motivating and impeding) was the most influential in affecting the level of environmental commitment in this study. Only the statistically significant variables are presented. It is clear that star rating is the most influential factor. ENGOS, personal satisfaction, having multiple stakeholders with conflicting interests, high costs associated with implementing environmental initiatives and protecting the natural environment are in that order influential in affecting the level of environmental commitment in the Sanya accommodation industry (star rating:  $t=4.01$ ,  $p=.00$ ; ENGOS:  $t=-$

3.75,  $p=.00$ ; personal satisfaction:  $t=3.80$ ,  $p=.00$ ; conflicting interests:  $t=2.10$ ,  $p=.039$ , high costs:  $t=2.07$ ,  $p=.042$ ; protecting the natural environment:  $t=1.75$ ,  $p=0.83$ ).

**Table 7.16. Multiple Regression Analysis: All Factors That Influence the Level of Environmental Commitment**

Variable	Regression Coefficient (Beta)	Standard Error	T statistic	Significance Level
Constant	6.352	.292	7.340	.000
Star Rating	.170	.042	4.01	.000
Personal Satisfaction	.170	.045	3.8	.000
Barrier – Conflicting Interests	.123	.059	2.069	.042
Barrier – High Cost	.123	.059	2.069	.042
R2 Value	.378			
Adjusted R2	.345			
Level of Significance Accepting	0.05			

Dependant variable = level of environmental commitment

This analysis identifies star rating as the most influential factor for affecting the level of environmental commitment. As discussed in this chapter, the higher the star rated facility the higher the level of environmental commitment. This analysis also identifies that personal satisfaction and barriers such as multiple stakeholders with conflicting interests and high costs associated with environmental initiatives are the most influential factors. These factors have also been discussed in this chapter. Further discussion of the pertinence of these findings will be discussed in the following chapter.

## 7.7 Stakeholder Workshops

The recommendations developed for the Sanya tourist accommodation industry were presented to stakeholders during four workshops held in October, 2005. The workshops were held in the four areas of Sanya (Sanya City, Haipo, Dadonghai and

Yalong Bay) and were attended by 66 stakeholders. Stakeholders were present from the Sanya Tourism Bureau, Sanya Environmental Protection Bureau, the Yalong Bay Development Association, Green Globe 21, suppliers of the accommodation industry and various star rated hotels from each location. The workshops were hosted by the Sanya Tourism Association and were organized to provide feedback on several aspects of the study. The primary focus of the stakeholder workshops was to present the preliminary findings to all the participants in the study,. This step was imperative to this study, as these consultations enabled the stakeholders to verify collectively whether the findings of the study were in agreement with the views of the stakeholders. It also provided an avenue for the stakeholders to respond to the preliminary findings and generate ideas through collective discussions on how to move the agenda forward. The stakeholders during the workshops agreed that the findings were accurate and were keen to discuss how to work together to achieve a more sustainable tourism facility.

The second purpose of the stakeholder consultation workshops was to educate the participants on aspects of environmental management related to the accommodation industry. During the data collection stage of this study, several stakeholders that participated in the interviews requested the advice, education and expertise relating to increasing and implementing environmental commitment initiatives in their facility. The stakeholder workshops provided a forum for this increase in knowledge. The workshop provided the stakeholders with ideas and tips relating to environmental commitment initiatives that would be easy to implement and not require a large amount of investment. Due to the presence of Green Globe 21 (who also represents ISO14001 in this capacity) the stakeholders also became familiar with the benefits and assistance provided by these certification bodies. This portion of the workshop provided a higher level of education and awareness amongst all the stakeholders which was imperative for the last purpose of the stakeholder consultation workshops, which was the discussion of developing and implementing a multi-stakeholder partnership.

The workshop concluded with a discussion of how to increase sustainability in the Sanya accommodation industry. As several of the main stakeholders were present during

these workshops, it provided a necessary forum to facilitate discussion regarding the potential to develop a multi-stakeholder sustainable tourism partnership. The recommendation for the partnership, based on the framework developed through the research conducted for this thesis, provided the platform for discussion. The stakeholders were able to discuss and comment upon the multi-stakeholder partnership including the purpose and roles and responsibilities of each stakeholder. During the workshops, all the stakeholders, especially the Sanya Tourism Association and the Sanya Tourism Bureau, were enthusiastic about the potential to bring all stakeholders together in the form of a partnership. The representatives of the accommodation facilities also provided feedback on what was required to move the sustainability agenda forward in their organization. The main success of these workshops however was the ability to bring all stakeholders together as this was the first time that the accommodation industry, the trade association, certification bodies, employees, the municipal government and development agencies in Sanya were together to discuss, generate ideas and forge potential relationships. It also provided an educational forum for all stakeholders as well as forum of introduction to potential partners/collaborators in the industry. The results of the study, through the questionnaires, interviews and stakeholder workshops provided the basis for the discussion and recommendations set out in the next chapter.

## **7.8 Conclusion**

The factors that influence the level of environmental commitment that have been explored in the study have been examined through the use of statistical tests and qualitative analysis. The organizational, motivational and impeding factors that affect the level of environmental commitment have been identified. These factors have been verified as being pertinent through the stakeholder consultation workshops. In addition, the potential recommendations for a multi-stakeholder partnership were presented and discussed. The following chapter discusses the main findings of this thesis and will provide recommendations for action.

## **Chapter 8**

### **Discussion and Recommendations**

The preceding chapters have provided the results of the study using various quantitative analytical techniques such as calculating the mean, chi square and multiple regression analysis. In addition to a questionnaire with closed questions, extensive in-depth interviews were conducted with the study respondents and key stakeholders. The purpose of the in-depth interviews was to provide further context to the quantitative data. It is through these various analyses that several key findings have been identified. These key findings will be discussed as well as recommendations for how the accommodation industry, specifically in Sanya, China and more generally, can move towards sustainability.

#### **8.1 Key Findings**

There are five key findings in this research. These findings contribute to the literature through providing insight into the factors that affect the level of environmental commitment in the tourist accommodation industry. Several of the findings can be applied to the tourism industry in general, especially in relation to key motivating, organizational and impeding factors. In addition, a major finding of this research is the need for a study to obtain qualitative and quantitative data, as one method does not adequately allow for the understanding of intricacies relating to the reasons why some organizations move towards sustainability.

##### **8.1.1 Economic Considerations**

In order for organizations to move towards sustainability, there has to be an advantage economically. This may be directly related to monetary value but can also consist of benefits through increased competition, shareholder value and employee enthusiasm. This has been reiterated numerous times in the literature and has been confirmed in this study. Economic considerations affect the decision to implement environmental initiatives in all facilities regardless of their organizational characteristics. As accommodation facilities, like all organizations, main objective is to create value for

shareholders through monetary, competitiveness or image. This is the primary driver for action in regards to environmental commitment. If a value cannot be determined that will be economically beneficial in some manner it will not be implemented. As several facilities cannot see the long term economic value of many initiatives and choose not to invest in initiatives that do not have a direct, immediate economic value, the level of environmental commitment is low. In addition, without awareness and education of these benefits, this level will remain.

Several of the organizations in the study were not convinced that adopting environmental initiatives will increase the profitability of the organization. Implementing these initiatives for some organizations was deemed not to be profitable; as investments were generally determined to be due to social responsibility or were not planned as part of a long-term strategy which is generally required of large investments. As identified by an interviewee of a three star hotel in Yalong Bay:

Environmental programs don't increase profitability.  
Investment cannot bring profit. We bought a split type air conditioning system with new Freon. The old Freon was cheap, the new Freon costs money and we don't make any profit. We input more cost than is returned. Environmental initiatives are not based on profitability. They are based on environmental awareness. As Freon is the source of global warming and damages the ozone layer, we decided to buy new air conditioners that do not use Freon. We need profitability and we bought new air conditioners because we want to do this not for profit. If environmental initiatives dip into the profit we cannot implement them (Interview #51, 2005).

This has been reiterated by another accommodation facility. An interviewee from a two star facility in Sanya City stated "If hotels are struggling for business, the environment is

last on the mind unless it saves them money” (Interview #54, 2005). An interviewee from a five star resort in Yalong Bay has also indicated the importance of economic considerations “For economic development, people do things out of selfishness... the economic viewpoint is more effective for companies” (Interview #64, 2005). This reiterates the importance of being financially stable and educated about the economic benefits of implementing environmental initiatives.

### **8.1.2 Ownership and Management Structure**

Ownership and management structure are also pertinent factors that affect the level of environmental commitment in the tourist accommodation industry. Ownership and management structure influence the decisions of an organization and, hence, their adoption of environmental commitment strategies. This is closely tied to the first key finding, economic considerations, because if an environmental commitment initiative is not likely to create value for the organization, it will not be implemented. The final decision comes from the owner or head office (decision maker) of the organization. The corporate decision maker can also be the impetus for an environmental commitment program to be implemented. Therefore, the corporate decision maker can be a motivational or impeding factor in a company’s movement towards sustainability. As the Director of the Environmental Protection Bureau in Sanya indicated, “Corporate decision makers provide the decision to support the initiative and to allocate the required resources. As the level of environmental awareness in China is low, especially amongst the owners of the accommodation facilities that are three stars and less, there is minimal concern about the environment (Soo 2005).

Several of the organizations stressed the importance of the corporate decision maker. The corporate decision maker can be the owner, property manager or head office of the facility. Several respondents indicated that only the corporate decision maker can make a decision to implement environmental initiatives. Several of the accommodation facilities indicated that implementing environmental commitment initiatives that require major investments is a conflict of interest with owners that do not support large investments

(Interview #1, 2004; Interview #4, 2004; Interview #6, 2004; Interview #53, 2005; Interview #73, 2005). This is especially pertinent in small to medium and nationally-owned facilities. Accommodation facilities in Sanya struggle with a high vacancy rate throughout many months of the year and large investments are difficult for corporate decision makers to support. International chain-affiliated facilities however are larger, have a higher occupancy rate and have the pressure of the brand which influences the decision to invest in environmental initiatives. Brands such as the Holiday Inn and Sheraton have chain-wide environmental commitment programs that each property must adhere to. The chains require a minimum standard of compliance to environmental commitment based on their international reputation and this filters down to the individual properties worldwide. As indicated by an interviewee of a five star, national hotel brand “International hotels have extensive environmental management programs. Even though these hotels have a local owner, the international hotels have a management brand and a level of achievement that they have to comply with as standards are set worldwide. Owners buy the concept and have to adhere to the brand. It is also easier for international brands as they can learn from other hotels around the world” (Interview #35, 2004). This last point is important as it relates to economies of scale. Having access to best practices worldwide and a developed environmental commitment program at the brand level alleviates many of the barriers faced by other hotels that do not have access to such information.

Sanya claims the second best air quality in the world and the best water quality in China (Soo 2005; Sanya Business Bureau 2004). The government also does not regulate the accommodation industry other than for sewage disposal (Soo 2005). It is due to this that a number of corporate decision makers find the current practices adequate. The facilities that are three star and lower are trying to remain in compliance with current regulations and further voluntary action is not seen as necessary (Soo 2005, Interview #2, 2004).



### **8.1.3 General Manager As The Catalyst for Action**

Another key finding of this study is the pertinence of the general manager and their role in the success of an environmental commitment program. An enlightened general manager is the catalyst for action in terms of sustainability in an accommodation facility. Whereas the previous finding discussed the importance of the corporate decision maker in terms of the owner of the facility or chain, this theme relates to the role of the general manager as the central focus for decisions. Throughout this research it was apparent that the success or failure of an environmental commitment program in an accommodation facility is based on the enlightenment and dedication of the general manager. Two two-star small accommodation facilities implemented extensive environmental commitment initiatives. When further explored through the qualitative interviews, it was determined that this was not based on any guidance from the brand. Rather, the general manager had the foresight and long-term planning ability to recognize the importance of implementing an environmental commitment program. In these particular instances, the general managers held a masters degree in either business or tourism administration. They were the driving force behind the extensive environmental commitment initiatives as they understood the tangible and intangible benefits associated with these programs. An enlightened general manager has the power to create change in the organization. These managers understood the importance of implementing initiatives that are cost effective. They also ensured that employees were educated and trained in order to guarantee the success of their program.

These general managers were also involved in initiatives related to sustainability outside of the facility environment. One general manager was writing a proposal to the government to take action to protect the environment. This proposal was not written directly for the facility's benefit but for the benefit of the environment in general (Interview #1, 2004). General managers that take an interest in sustainability not only for their own profit but because they understand the long-term importance to their livelihood and the community are very powerful in moving the agenda forward. Similarly, an unenlightened general manager who focuses on short-term thinking will not support or

encourage the development and implementation of environmental initiatives, thus further impeding the sustainability of the industry.

#### **8.1.4 Lack of Environmental Awareness**

The lack of environmental awareness in the Sanya community has also been a key finding of this study. It is difficult to discuss environmental commitment in a community where the notion of environmental management for the majority of the population is defined as cleanliness. The local community in Sanya consists of residents, employees of the hotel facilities, government agencies and corporate decision makers. The majority of the community does not have the environment as a priority on their mind. Sanya has a lower level of environmental awareness in comparison to other communities in China and elsewhere as the Province of Hainan and the City of Sanya have recently converted to tourism from a rural, agricultural economy. Increased awareness is necessary so that the community keeps Sanya clean as spitting, littering and illegal dumping of hazardous waste and sewage are normal daily occurrences. This was mentioned by a majority of the respondents throughout the interviews. In addition, as Sanya is a new tourist destination on an island rich in natural resources, there is no immediate demand for energy and water conservation as they are not faced with any immediate crises. As an interviewee from a five star resort in Yalong Bay indicated,

Generally, there is no immediate demand to protect the environment. We don't have a water or energy shortage like on the mainland and have short-term thinking so there is no need to be environmentally conscious. Unless it brings about cost savings it is not immediate. A lot has changed in the last 25 years however in China and this is starting to be seen through the depletion of resources (Interview #36, 2005).

Many of the study respondents indicated that action should be taken to educate the local residents. Without a general increase in environmental awareness, it is not beneficial for accommodation facilities to implement environmental initiatives beyond ones with

immediate economic gain. This has been reiterated by a respondent from a four star hotel in Sanya City who indicated that, “Protecting the natural environment is the least important. This hotel is located in the downtown area. Local people and residents do not care about environmental protection. The hotel has done something for the environment but the area remains dirty. We need to improve what people think about the environment” (Interview #5, 2006). China has changed greatly over the last two and a half decades with a rapid increase in development, pollution and awareness; however, the idea of a common goal for all the community is not practiced. “Protecting the natural environment is not a benefit. Not many people have the morality to think this is important and to believe that we all share the ocean and to keep it clean for our future. People figure someone else should do it so they should capitalize on it” (Interview #36, 2006). Environmental education and awareness, not only in the facility itself but within the community, are imperative in order to increase the overall level of environmental commitment in the City of Sanya. This is important as facilities do not operate in a vacuum and the implementation of environmental initiatives is discouraged when cleanliness is not a priority in the community. This reflects the status of China as a developing country. As an interviewee from a five star facility in Dadonghai indicated, “Local people’s culture and education are not very good and they are not knowledgeable about environmental protection. China is in a developing stage and you can’t limit development. It is hard to instill environmental awareness in employees. The biggest problem is the people and education is necessary” (Interview #35, 2004). This is also reiterated in the following quote from an interviewee of a five star resort in Yalong Bay:

In western countries people pay much attention to environmental issues; in China it is still a long way to go to get people to realize the importance of environmental management. Demand for a good environment is based upon people’s living standards. Western standards are good so demand for a good environment is high. Need to satisfy people’s physical needs first. In China, most people are still on the cutting edge of making a living;

more attention is based on making a living and they don't have food on their plate, they are not thinking of the environment, they are thinking of their stomach (Interview #64, 2005).

This exemplifies the need to increase environmental awareness in Sanya not only at the community level (which directly relates to employees in the industry), but also amongst the government employees and corporate decision makers. As China is currently in a development phase, the main focus is on economic prosperity which can result in broader sustainability issues not being addressed.

### **8.1.5 Government Corruption and Bureaucracy**

Government bureaucracy and corruption greatly affects the level of environmental commitment in the tourist accommodation industry. Governments, especially the municipal government, are deemed to be the most influential factors and salient stakeholders; however their presence is not always positive. As the government is so influential and wields great power, this could be used to increase the level of environmental commitment in the industry. This may be the case in some situations, but the power and salience of these stakeholders is not always positive because of bureaucracy and corruption which hinder the implementation of environmental commitment strategies as a whole. Government bureaucracy and corruption are evident in other studies in the developed and developing world (Dodds 2005; Graci 2007). Governments can impede positive developments in an organization. Despite good intentions by the facility managers, the bureaucratic hoops and corruption associated with local government and faced by many organizations have impeded the adoption of environmental commitment strategies in the tourist accommodation industry.

Bureaucracy in Sanya has impeded the development of environmental in various ways. Bureaucracy is present in different forms in Sanya. Lack of cohesion between government agencies complicates the process of implementation. Lack of government guidance also frustrates facilities as they do not know what is required of them or where to obtain information. Corruption through governments designating certain companies to be

used based on their connections is also an impediment as it causes frustration and inefficiency in the industry.

Bureaucracy complicates government procedures. Many government agencies are responsible for various environmental commitment initiatives. Organizations have to work with the bureaucracy in these organizations as well as between them. In Sanya for example, on a local level, a facility has to work with the Sanya Environmental Protection Bureau, the Sanya Tourism Bureau, the Sanya Sanitation Bureau, the Sanya Landscape Bureau, and the Sanya Construction Bureau. The bureaucratic hoops to work with government either through addressing their demands or having an initiative approved require involvement from several different departments (Interview #2, 2006; Interview #47, 2006). Government agencies have demands but there are “silos” and conflicts between government departments that impede the adoption of environmental commitment strategies. As government agencies have numerous levels of authority and require massive amounts of paperwork, many facilities find it too difficult to wade through the processes.

Bureaucracy has also impeded the development and enforcement of stringent regulations related to water quality and air pollution. As a spokesperson for a three star facility in Sanya City stated, “Hoteliers want to do something about the environment but the government does not emphasize this. Laws come from municipal government which is the mayor and deputy mayor not the bureaus. The requirements come from the Environmental Protection Bureau to set figures for waste water disposal and waste gas. The hotel has met the standard as it is easy to do so” (Interview #9, 2004). Even though some facilities want to implement further environmental initiatives, they feel they are impeded by the government.

Lack of guidance from government agencies has also been cited as an impediment. The government bodies in Sanya do not provide guidance or financial support to facilities despite their request and interest in relation to environmental management. For example, the Sanya Tourism Association has implemented a waste battery collection initiative. This initiative has been very successful in terms of collection but ceased after a year. The

Sanya municipal government has not provided support in terms of guidance for disposing of the waste batteries. The batteries that have been collected remain in the Sanya Tourism Association office without a solution and collection has stopped. Due to the lack of government support, a successful initiative has been hindered (Interview #6, 2004; Ping 2004).

In addition to not setting or enforcing stringent enough laws and providing guidance to facilities, which usually form the baseline of any sustainability program in a community, the government does not set a good example to the rest of the community in terms of their own operating principles. As an interviewee from a five star hotel in Yalong Bay identified, “Government is not a very influential factor. There is an Old Chinese saying that can be used as an example for this “If you set a good example, people will follow you, if you do not, people will not. If the government acted well, hotels would follow but because the government has not acted well, hotels will not either. The government does not set a good example” (Interview # 49, 2004). This quote exemplifies how the government has a role to play in terms of environmental commitment and, although they are influential, they often do not set a good example for the community to follow. This is the result of bureaucracy and corruption which hinders the effectiveness of the government.

Government bureaucracy and corruption can also occur in tax collection. The government has levied many taxes in Sanya. An interviewee from a two star facility in Sanya City indicated, “The government has levied taxes from us but has not used the money for relevant things for us. As shareholders of hotels, we want to do something to improve the Hainan environment. Government behaviour hurts us so we do not want to do something else that is voluntary. From the heart we want to do something to improve the environment but there are so many taxes levied on a small hotel. There is the waste water discharge fee, waste fee, environmental improvement fee, so many fees! But nothing in return” (Interview #2, 2004). The municipal government in Sanya does not provide guidance to accommodation facilities, especially small and medium sized, on why taxes are being collected and what they are to be used for. They also do not provide facilities

with guidance on how to increase their efficiency so that they are not charged as much for usage and disposal.

Government corruption can be due to *guanxi* which is the basis of relationships in China. *Guanxi* describes personal connections between two people in which one is able to prevail upon another to perform a favour or service. It could also be a network of contacts, which an individual can call upon when something needs to be done and through which influence can be exerted on behalf of another. When a *guanxi* network violates norms, it can lead to corruption (Zhang et al. 2000). The following are examples of government corruption in Sanya that may be considered *guanxi* in some respects and which has led to the hindrance of environmental commitment in accommodation facilities. An interviewee of a four star hotel in Sanya City indicated that there were barriers to environmental commitment because of the actions of relevant government organizations. The management wanted to upgrade their facility. However, it was required by the government to use a government designated company to complete the construction work. This company charged an inflated rate and was not efficient in completing the project within a reasonable time frame. The accommodation facility, however, did not have any choice as the bureau designated this company (Interview #5, 2004). This facility also wanted to upgrade their water supply to become more efficient. However, the utility company that supplies water dictated that the facility must use designated products and companies or they would not supply water to the site. A similar situation occurred with the fire permit as this accommodation facility was told they would not receive the permit unless they purchased the required products from a government designated company (Interview #5, 2004). An interviewee from a five star hotel in Dadonghai also indicated that the government forces the facility to work with certain suppliers: “The government dictates who the hotel can and cannot work with. The government dictates that the hotels buy biodegradable bags that are of very poor quality. They have to buy the bags from only the government recognized dealers. They cannot look for other suppliers - have to follow what the government says. Only government can support you to achieve success (Interview #35, 2004). These examples could be isolated to a few study respondents. However, further

examples are available that indicate that corruption and bureaucracy can greatly impede the adoption of environmental initiatives. As some government agencies demand that an accommodation facility participate in an initiative, such as purchasing goods or donating to charity, due to personal relationships or *guanxi*, it has impeded the adoption of environmental commitment strategies.

A manager of a five star resort in Dadonghai has reiterated the role of *guanxi* and how it impacts environmental management in the Sanya accommodation industry. The interviewee stated that “environmental management does not reduce government legislation, *guanxi* does” (Interview #35, 2005). This manager also indicated that it is the relationship between the local government and the organization that determines how often you are visited by the Environmental Protection Bureau and fined. An owner who invests in an accommodation facility has to protect their investment and, with *guanxi*, the government will provide them certain allowances when it comes to regulations. For example, the government would not fine a company with good *guanxi* right away but would give them some opportunity to eradicate the problem prior to fining. The relationship between government and the organization depends on entertaining the government’s requests within an organizations’ jurisdiction. For example, a close relationship would consist of giving government bureaucrats and political affiliates meals and rooms in order to foster a good relationship (Interview #35, 2005).

Government bureaucracy and corruption can hinder environmental commitment in a community if governmental powers are not put to good use. Accommodation managers become discouraged with government involvement and do not want to work in conjunction with these stakeholders, despite their level of salience and influence on the organization. This is because governments require processes, either through relationship building or approvals, which they feel should not be required and should at a minimum be streamlined.

### **8.1.6 Summary**

The main findings of this thesis are that there are several factors that affect the level of environmental commitment in the tourist accommodation industry. The most influential and impeding factors however relate to economic considerations; ownership and



management structure; the general manager; the lack of environmental awareness in the accommodation industry, government, community and amongst consumers and corruption and bureaucracy. These factors are the most pertinent for not only the Sanya accommodation industry but to increase environmental commitment in this industry in general. This study provides great insight into how to increase motivation and overcome barriers. The following section provides recommendations for a multi-stakeholder partnership that addresses many of the issues that impede sustainability and integrates several of the incentives that would motivate success.

## **8.2 Recommendations**

Collaboration is seen as key to moving the tourist accommodation industry towards sustainability. Throughout the literature, cross-sector partnerships are recommended for their likelihood to result in sustainable development outcomes (Selin 1999; Bramwell and Alletorp 2001) and subsequently form the basis of the recommendations to move the Sanya tourist accommodation industry forward to a higher level of environmental commitment. Partnerships are described as a loosely coupled system of organizations and individuals that belong to various public and private sectors that come together in order to reach certain goals unattainable by the partners individually (Selin 1999; Fadeeva 2004). Several recommendations have been developed with the same main goal, which is to develop a multi-stakeholder partnership where each stakeholder has various roles and responsibilities that contribute to the overarching goal of moving the accommodation industry towards sustainability. The key elements of a partnership according to Grey, 1989:11 are that all “stakeholders are interdependent; solutions emerge by dealing constructively with differences; joint ownership of decisions are involved; stakeholders assume collective responsibility for the future direction of the domain and the partnerships remains a dynamic, emergent process” (Grey 1989:11 in Selin, 1999:262). These key elements are the underlying principles of the main recommendation which is the development of a multi-stakeholder partnership that provides a cohesive environmental vision that enables the industry to focus resources, share information, increase environmental action in all

facets of the industry, learn from the leaders and ultimately protect the resources that sustain the industry. The recommendations were based on the information obtained from this study and best practices worldwide, in addition to the workshops conducted to discuss the development of a partnership in 2005. The partnership must identify the initiatives that must be developed and implemented in addition to the roles and responsibilities of each stakeholder.

### **8.2.1 Multi-Stakeholder Partnership to Increase Environmental Commitment in the Tourist Accommodation Industry**

The recommendations developed for the Sanya tourist accommodation industry were presented to stakeholders during four workshops held in October, 2005. The workshops were held in the four areas of Sanya (Sanya City, Haipo, Dadonghai and Yalong Bay) and were attended by 66 stakeholders. Stakeholders were present from the Sanya Tourism Bureau, Sanya Environmental Protection Bureau, the Yalong Bay Development Association, Green Globe 21, suppliers of the accommodation industry and various star rated hotels from each location. The workshops were hosted by the Sanya Tourism Association and were organized to discuss the recommendations for this partnership including the initiatives to be developed and the roles and responsibilities of each stakeholder. The following identifies several of the initiatives that are required for this partnership. These initiatives can be implemented independently of each other however to reach a higher level of environmental commitment in this industry, a cohesive strategy must be developed. The strategy consists of ten recommended initiatives.

#### **8.2.1.1 Cohesive Environmental Vision**

A cohesive environmental vision is necessary in order to ensure that all stakeholders involved in the partnership have the same goals and objectives. A vision that incorporates the main goal of the partnership which is to increase the level of environmental commitment in the Sanya tourist accommodation industry in addition to providing world class services and quality is imperative for its success. This also provides the ability for stakeholders to discuss expectations and needs and to work together to

develop a long term strategy for sustainability. This also provides the ability to gain momentum in the industry as dialogue will occur between stakeholders and an action plan developed.

#### 8.2.1.2 Inventory of Level of Environmental Commitment in the Accommodation Industry

The second initiative that must be implemented as part of the multi-stakeholder partnership is a complete inventory of the level of environmental commitment in the accommodation industry. This audit can be administered by the municipal government or the Sanya Tourism Administration and should be completed by the general manager of the facility. The audit should determine the practices implemented by each facility in order to determine the overall level of environmental commitment in the Sanya tourist accommodation industry. This would provide the baseline for goals and objectives as well as for future benchmarking and measurement. For example, an assessment of how much energy, water and waste that is being used Sanya wide can be determined in order to set comprehensive targets as well as for individual facilities.

#### 8.2.1.3 Guidance

Guidance from the government, certification bodies, industry associations and environmental leaders is necessary to ensure the success of this partnership. Information sharing regarding best practices, cost benefit analyses and technology is required and was highly requested by the study population. Guidance could take the form of literature, workshops, mentoring by leading facilities of smaller facilities, conferences examining best practices and technology transfer. Guidance is necessary not only from government agencies, but from all stakeholders so that information can be readily shared and learned from.

#### 8.2.1.4 Legislation

One of the important aspects of moving towards sustainability in the tourist accommodation industry is that the organization must identify and conform with the

relevant environmental requirements, including legal requirements, that are applicable to its activities, products or services (Chan and Wong 2007). Although China has a history of non regulation in terms of environmental legislation, the situation may be changing gradually due to increased education, public pressure, international events such as the Olympics and further investment from international corporations in the tourism industry. Therefore it is necessary that all facilities in Sanya are aware of the environmental legislation currently in place. It is also necessary to ensure that all facilities meet these regulations in order to encourage beyond regulation initiatives. Several facilities would also prefer further legislation in regards to environmental issues, but it seems that the problem is not with the amount of legislation but the government's ability to enforce it. Therefore, identifying the current environmental legislation and providing assistance to the accommodation facilities to not only be aware but to meet the legislation is key in ensuring that further environmental commitment initiatives can be implemented.

#### 8.2.1.5 Funding and Financial Assistance

Several funding mechanisms can be provided to the accommodation industry to ensure success and increase sustainability. Governments can provide subsidies and tax incentives on environmental retrofits and consulting. In addition, a revolving fund could be developed to assist with expensive technology retrofits. Subsidies have been used in countries such as Singapore to increase the level of environmental commitment. The Singapore government subsidizes 70 percent of the cost of obtaining ISO 14001 certification (Chan and Wong 2007). Tax breaks can also be offered by the government to facilities that have demonstrated a high level of environmental commitment through certification. A revolving fund can also be a lucrative mechanism to support environmental retrofits in the accommodation industry. The government or trade association can set up a seed fund to support environmental projects and technology in the Sanya accommodation industry. The facility borrows the funds required for environmental projects and as savings accrue due to resource efficiency, the funds are paid back with a minimal amount of interest. The revolving fund has been used by Natural Resources

Canada and the Toronto Atmospheric Fund to increase energy efficiency retrofits in commercial buildings. Several accommodation facilities in Canada have capitalized on this support and have increased their energy efficiency, by financing their retrofits, paying back loans in a short period of time and benefiting from cost savings. The revolving fund grows through interest gained on the initial investments. This is a successful mechanism that can be applied in this partnership.

#### 8.2.1.6 Educational Awareness

Educational awareness of all stakeholders must be implemented. Educational awareness campaigns must be developed to increase the understanding of environmental issues, initiatives and technology amongst the government, senior management, employees, customers and community in Sanya. Identifying the purpose of environmental commitment, cost benefits, technology and how to implement initiatives would be beneficial to all stakeholders.

#### 8.2.1.7 Training

Training of senior management and employees of the Sanya accommodation industry is also recommended in order to increase sustainability. Training can be incorporated into environmental awareness campaigns and can be included as part of routine training in facilities. Training is necessary for initiatives where employee participation is key such as recycling and conservation. Training modules can be developed and disseminated by stakeholders involved in the partnership. Best practices of training can be obtained from various facilities such as the Marriott and Sheraton that have corporate wide training modules related to environmental management.

#### 8.2.1.8 Marketing and Advertising

Marketing and advertising Sanya's accomplishments in environmental commitment can greatly benefit not only the accommodation industry but the economics of the location in general. Marketing of the environmental accomplishments of the partnership can

increase competitiveness, improve employee morale and public awareness of the community. Marketing can also occur in conjunction with certification and incorporated with the national star rating categories. The level of environmental commitment can be rated through certification and advertised in conjunction with the star rating of the facility in promotional materials. This would provide an incentive for facilities to improve their level of environmental commitment in order to obtain a higher rating.

#### 8.2.1.9 Benchmarking

Benchmarking is a process used in which organizations evaluate various aspects of their processes in relation to best practice, usually within their own sector. This then allows organizations to develop plans on how to adopt these best practices and in this case increase the level of environmental commitment. Benchmarking can also measure the success of environmental initiatives on an individual basis as well as comprehensively in the entire Sanya accommodation industry. It can demonstrate resource efficiencies and cost benefits to further the knowledge of environmental commitment in the area.

#### 8.2.1.10 Third party Auditing and Certification

Third party auditing of a facility can occur as part of the initiatives developed for the multi stakeholder partnership. Third party auditing provides credibility to the partnership by confirming through a non partisan party, that environmental commitment initiatives have been implemented. This provides the basis for certification of the facilities. It was agreed during the workshops that the organization that conducts ISO 14000 certification and Green Globe China would work together to streamline certification in the accommodation industry. This would provide less competition between certification bodies and stronger marketing benefits for the accommodation industry. ISO 14000 and Green Globe certifications are both internationally recognized. The ISO 14000 environmental management standard exists to help organizations (a) minimize how their operations (processes, etc.) negatively affect the environment (i.e. cause adverse changes to air, water, or land); (b) comply with applicable laws, regulations, and other environmentally oriented

requirements, and (c) continually improve in the above. Green Globe is an environmental management standard developed for the travel and tourism industry. It is based on the same principles as ISO14000 so the collaboration of the two certification processes would be very beneficial to increasing the level of environmental commitment in the Sanya accommodation industry.

#### 8.2.1.11 Summary

These ten initiatives will devise the multi-stakeholder partnership. The partnership should consist of the collaboration of several stakeholder representatives with clear roles and responsibilities to carry out specified duties. The following section will discuss the roles of each stakeholder in order to ensure the effectiveness of the partnership.

### **8.2.2 Roles and Responsibilities of Stakeholders**

In order for a multi-stakeholder partnership to be developed and implemented successfully, the roles and responsibilities of each stakeholder must be clearly defined. Each stakeholder has the ability to provide knowledge, expertise and in some cases funds. The roles and responsibilities of each stakeholder should be identified in a charter that is agreed upon by all parties. This charter will form the framework of the partnership and will ensure that each stakeholder is responsible for their allocated actions. A clear set of goals and objectives should also be developed in order to ensure the success of this partnership.

#### 8.2.2.1 Municipal Government

The municipal government plays a leadership role in the development and implementation of the multi-stakeholder partnership. Municipal governments depending on the location can consist of a varying number of bureaus or departments that work with and are concerned with the tourism industry. In Sanya, the municipal government involved as the primary stakeholders in this partnership, are the Sanya Tourism Bureau and the Sanya Environmental Protection Bureau. These two departments have the ability to create and enforce legislation that affects the tourist accommodation industry in Sanya. The Sanya

Tourism Bureau and the Sanya Environmental Protection Bureau can work together to ensure that all facilities are up to date with current legislation; and provide guidance, best practices and opportunity for knowledge sharing in the Sanya accommodation industry. These bureaus can develop workshops for the facilities to increase knowledge and train senior management on how to increase the level of environmental commitment in their facilities. These bureaus can also develop mentoring programs between the management of the facilities with high levels of environmental commitment to provide leadership to the facilities with a low level of environmental commitment. In addition, the municipal government can provide funding or financial mechanisms through the development of a revolving fund to support environmental commitment retrofits, tax incentives, and subsidies.

The working together of these two bureaus would reduce government bureaucracy and silos that have been developed in Sanya. As the municipal government would also be accountable to a number of stakeholders involved in the partnership this would also reduce corruption. In addition, the involvement of the bureaus will give credibility to the partnership and momentum for its success as this stakeholder has been deemed by the majority of the study as the most salient.

#### 8.2.2.2 Sanya Tourism Association

The Sanya Tourism Association is the trade organization for the Sanya accommodation industry. The current role of the association is to lobby the government on behalf of the industry. The Sanya Tourism Association has also developed environmental initiatives to implement in the accommodation industry such as battery recycling. The problem with this initiative however is that all the collected batteries remain in the Sanya Tourism Association offices as there is no mechanism to recycle batteries in Sanya. Through a partnership however innovative environmental initiatives can be supported by the municipal government and solutions can emerge through the structure of the partnership.



The responsibilities of the Sanya Tourism Association are also to play a leadership role. The Sanya Tourism Association will manage the partnership and ensure that all stakeholders are adhering to their responsibilities. The association will also organize all meetings between stakeholders and ensure initiatives are developed and implemented to maintain momentum. Guidance documents including a website will be developed and maintained by the Sanya Tourism Association. The association will also act as the official conduit for suggestions relating to the partnership and environmental commitment initiatives from the accommodation industry. The Sanya Tourism Association will also be responsible for marketing, advertising and developing educational awareness campaigns. They will also develop the training programs for small and medium sized facilities, employees and senior management of the accommodation industry.

#### 8.2.2.3 Accommodation Industry

The accommodation industry has various roles and responsibilities in this partnership. All facilities have the responsibility to provide information regarding their level of environmental commitment, benchmark their environmental performance, provide best practice information in terms of cost benefit analysis, technology transfer, social and employee initiatives. The leaders in the industry can provide mentoring and guidance and contribute to the training and environmental awareness initiatives of the partnership.

#### 8.2.2.4 Certification Bodies

Certification bodies play a key role in the multi-stakeholder partnership. Certification bodies such as Green Globe China and ISO14000 series consultants provide assistance in developing comprehensive environmental management systems. During the workshops held in Sanya for this study, it was agreed upon by Green Globe China and the consulting company that conducts ISO14000 certification in Hainan to work together to target the accommodation industry in Sanya. The certification organizations will assist with expertise in developing and implementing initiatives required for certification as well as guidance materials, benchmarking, training and environmental awareness. The

certification bodies will be responsible for third party auditing and certification and contributing to the marketing and advertising campaigns.

#### 8.2.2.5 Employees

The role of employees in a multi-stakeholder partnership is to generate ideas and motivation in the facilities. The partnership can develop a campaign to seek ideas for improvement from each facility and can generate motivation through a city wide competition for the best environmental facility. Employees have the knowledge to determine what initiatives could be implemented in a facility and how processes can be streamlined to ensure efficiency. This knowledge must be fostered and the multi-stakeholder partnership can be the venue for this.

#### 8.2.2.6 Summary

Clearly identified roles and responsibilities for each stakeholder is necessary for the success of the partnership. With defined roles, each stakeholder contributes which will ensure the success of the partnership and increase the level of environmental commitment in the tourist accommodation industry.

### **8.3 Conclusion**

This chapter provides the key findings of this study and uses these insights to develop recommendations for a multi-stakeholder partnership. The partnership incorporates many of the incentives identified through this study to increase the level of environmental commitment and to overcome the barriers that have hindered action to date. The multi stakeholder partnership provides several initiatives to support all facilities in the accommodation industry and to increase the level of environmental awareness amongst not only senior management, but the employees, community, government and customers. A cohesive approach will increase the level of environmental commitment in an industry and regional context.

## **Chapter 9**

### **Conclusion**

Tourism has often been described as the world's largest industry on the basis of its contribution to the global Gross Domestic Product, the number of jobs it generates and the number of people it transports. Developing countries currently have only a minority share of the international tourism market (approximately 30 percent) but this is growing. International tourism arrivals in developing countries have grown by an average of 9.5 percent per year since 1990, compared to 4.6 percent worldwide. The contribution that tourism makes to national economies is also far more pronounced in less developed countries (UNWTO 2006).

As many authors have illustrated (Bruguglio et. al 1999,;Weaver 2001; Butler 1993; Bramwell and Lane 1993; Ioannides 1996; Hunter Jones et al 1997 ;Kripendorf 1982; Sharpley 2000; McElroy and Albuquerque 1992) and recent events (hurricanes and tsunamis) have demonstrated, there is a need to move towards more sustainable forms of development in tourism. Many small islands, such as Hainan, with a warm climate, depend heavily on sun, sand and sea as tourist attractions, and it is these resources that their industries have traditionally been based upon. Despite the apparent need to move tourism, especially in island states, toward sustainability, action has been mainly conceptual or on a small scale to date and has not been translated into industry-wide practice. This research has examined how factors influence and impede the level of environmental commitment in the tourist accommodation industry in Sanya and how this industry can move towards sustainability. The results of this study, despite being specific to Sanya, can also generally be applied to the accommodation industry in general.

#### **9.1 Achievement of Thesis Objectives**

This thesis satisfied the four objectives as identified in Chapter One. As a result of the research, four specific objectives have been satisfied.

The first objective consisted of reviewing the business, tourism and environmental management literature to identify and consolidate the motivating, organizational and impeding factors that affect the level of environmental commitment in tourist accommodations. Despite extensive literature on the various factors that affect the implementation of environmental initiatives, there has not been a comprehensive consolidation of all the potential factors that can affect the level of environmental commitment in an organization. The literature ranged from being broad based and relating to sustainability in an organizational sense to being specific about the factors influencing a tourist accommodation facility. The factors that were consolidated provided the basis of variables to test in this study. These factors were derived from stakeholder theory, neo-institutional theory and the resource based theory of the firm as well as five environmental management models. In addition, a model was developed for this study based on the literature. It presents the factors that would potentially affect the Sanya tourist accommodation industry. The framework shows that motivating, impeding and organizational factors affect the level of environmental commitment in varying ways. The factors which are external and internal to the organization, affect the decision making of the general manager. As established through this study, several factors act as major motivating factors and several as impeding factors. Depending on how these factors influence the general manager, the level of environmental commitment will be affected. Chapter Two discusses the theories and models, and concludes with a discussion of the framework model for this study. Chapter Three identifies the specific factors that were examined in this study.

The second objective of this study consisted of conducting an inventory of the tourist accommodation industry in Sanya, China. The inventory was three fold and consisted of collecting data on the organizational factors, stakeholders and level of environmental commitment of each facility. This data is presented in Chapter Six and determines that the majority of facilities in this study had the organizational characteristics of being a three star, independently owned facility in Sanya City. It also determined that the municipal government and corporate decision makers were the most salient

stakeholders in this study. The level of environmental commitment was also fairly low in this study as the majority of facilities scored a Level Two out of a five level category.

The third objective was to analyze how various motivating, organizational and impeding factors influence the level of environmental commitment in the tourist accommodation industry. Various factors were analyzed using mean calculations and multiple regression analysis to determine which factors have the most influence in terms of motivating and impeding environmental commitment. This data is presented and discussed in Chapters 7 and 8 and identifies that the most pertinent organizational factors are star rating and clientele. The motivating factors that were the most influential were identified as economic considerations, social responsibility, competitive advantage, municipal government, the corporate decision makers and clientele. Impeding factors were also analyzed and it was determined that inadequate resources, an incompatible corporate culture and employees were the most significant in hindering progress towards environmental commitment. Key findings of the study determined that in addition to these factors, economic considerations, ownership and management structure, the general manager, level of environmental awareness and corruption and bureaucracy were the most pertinent factors that influence the level of environmental commitment amongst all facilities in the tourism accommodation industry.

The last objective was satisfied in Chapter Eight. Objective Four of the study sought to utilize the data to identify strategies to increase the level of environmental commitment in the tourist accommodation industry. A multi-stakeholder partnership was recommended for this purpose. The partnership would ensure collaboration between the government, certification bodies, tourism association and accommodation industry. This collaboration includes ten key initiatives such as the development of a cohesive environmental vision; an inventory of the level of environmental commitment of the accommodation industry; guidance; financial mechanisms; an environmental awareness campaign, training, benchmarking, advertising and marketing; and third party auditing and certification. The multi-stakeholder partnership will outline key roles and responsibilities, goals and objectives and will ensure joint decision making and acceptable outcomes. This

recommendation will provide the necessary support to increase the level of environmental commitment in the tourist accommodation industry.

## **9.2 Environmental Commitment in the Regional Context**

As this study was conducted in Sanya, China, there are several aspects of the regional context that have influenced the level of environmental commitment in the accommodation industry. As discussed in the previous chapter, corruption and bureaucracy through relationships based on “guanxi” have hindered the implementation of environmental initiatives. In addition, the lack of environmental awareness amongst the Chinese living and working in Sanya has impeded the level of environmental commitment. The concept of environmental management is relatively new in China, therefore it is not expected that the general population will be well educated in terms of what sustainability means. In addition, as Sanya is not faced with major problems of pollution and as development has been rapid over the last decade, the problems faced with an unsustainable island have not yet become obvious. Therefore it should not be expected that the environment will hold a priority, especially amongst the local population. As the government itself does not regulate the tourism industry and initiatives such as the sewage treatment plant and waste management facility were not planned with increased development in mind, the environmental problems that Sanya will face have not been readily apparent or widely appreciated. As Sanya has an influx of multi-national accommodation companies managing several of the newly built properties, it may be that these facilities will act as leaders, even through training a very transient staff, especially if information regarding environmental initiatives is shared. In addition, Sanya is becoming more popular among Western tourists that demand high environmental quality and this may also influence the level of environmental commitment in this destination.

## **9.3. Contribution to Knowledge**

The contribution to knowledge from this study is significant. First, although there is a plethora of research on sustainable development, sustainable tourism and corporate sustainability there is limited insight into why some organizations are more

environmentally proactive than others. This study provides a comprehensive insight into what drives and impedes environmental commitment in an organization in an industry context. Several of the studies focused on one aspect of influence, either through stakeholder influence (Alvarez-Gil et.al 2001; Cheyne and Barnett 2001; Henriques and Sadorsky, 1999; Flagestad, 2001; Harvey and Shaefer, 2001) or through neo-institutional theory (Rivera 200b) or through acquiring economic and competitive performance (Rivera 2002a, 2002c), Russo and Fouts, 1997). However none of the studies examined the influence of all potential factors on the organization. Through this comprehensive analysis, this study has determined that various factors such as economic considerations, government, the level of environmental awareness, bureaucracy and corruption, corporate decision makers and the general manager as the decision maker are the most influential factors that work to motivate and impede the tourist accommodation industry in Sanya, China. These conclusions build on the findings of the above studies.

The second contribution of this study is through examining stakeholder salience and how this affects environmental commitment. This study tests Mitchell et. al (1997) theory of stakeholder salience by identifying which stakeholder is most salient and determining how that influences the level of environmental commitment in an organization. This study also examines how various stakeholders use power strategies to influence an organization. This study provides more evidence to support the Mitchell et. al (1997) theory of stakeholder salience and it builds upon the Flagestad, (2001) study that utilized this method to categorize the influence of stakeholders. In addition, this study builds upon Swingle's (1970) theory of power strategies by identifying how these salient stakeholders use power to influence decision making in an organization. These results are in agreement with the findings from Flagestad (2001) and Alvarez-Gil et. al (2001) that determined that certain stakeholders wield various power strategies to obtain the results desired.

The third contribution is through providing in-depth knowledge of strategies that can be utilized to move an organization forward in terms of sustainability. This research has recommended the use of multi-stakeholder partnerships consisting of various

initiatives and incentives for encouraging sustainable action. Generally, developing a partnership that incorporates all the major stakeholders that have the ability to provide incentives to the industry such as government, trade association and certification bodies is beneficial in overcoming barriers and moving the tourism industry forward.

The fourth contribution to research is through providing insight on how to increase sustainability in a developing country and more specifically in a country that is rapidly becoming leaders in terms of international and domestic visitors in the tourism market. China as a transitioning economy must be cautious of the rapid level of development however strategies for sustainability can only be valid if they address specific regional concerns like corruption, lack of environmental awareness and short term planning. Through partnership development and integrating the leaders in the industry (such as the international hotels and hotels that have enlightened general managers) is necessary in order to provide education and information to all facilities in the area.

#### **9.4. Further Research – A framework for moving forward?**

This study builds upon existing literature surrounding stakeholder theory and sustainable tourism and will contribute to an area that has not received a great deal of attention in general business, tourism and environmental management literature. The question “How can the level of environmental commitment be increased in the tourist accommodation industry?” is raised throughout literature, not only in terms of the accommodation industry but in all industries. What are the factors that affect the level of environmental commitment and how can these factors be applied in the real world to influence decisions? How can benefits other than economic considerations be realized including social responsibility? How can long term thinking be realized in an industry that focuses its livelihood on a pristine natural environment and/or at the very least cleanliness? How can the level of environmental awareness in a community be increased? How can corruption and bureaucracy be minimized? Further research needs to be conducted to apply these factors to increasing the level of environmental commitment in the entire tourist industry. The framework for a multi-stakeholder tourism partnership that is based on the



motivations and impediments identified in this study can be applied in various destinations to test this model further and create change in the industry.

## **9.5. Conclusion**

The examination of factors that influence the level of environmental commitment in the tourist accommodation industry is primarily based on the extant business, tourism and environmental management literature. As tourist accommodations are the largest sub-sector of the tourism industry and has undeniable impacts on the environment in the broadest sense, increasing the level of environmental commitment in this industry is of the utmost importance. Tourism is unlikely to be sustainable in a degraded environment, yet it is in part due to tourism, that the environment in a destination is unable to sustain its attractiveness to tourists. The implementation of environmental commitment has been slow in its adoption, which is the reason for examining the various factors. Stakeholder theory, neo-institutional theory and the resource based theory of the firm provide a theoretical component to identify the motivating, organizational and impeding factors affecting the accommodation industry. Environmental management models examined in this study also provide insights into the factors that help or hinder the process of increasing the level of environmental commitment. Through questionnaires and in-depth interviews, information was collected to test the various factors and influence on the level of environmental commitment. Statistical tests were conducted in addition to examining the qualitative data. Several key findings were established and summarized below:

- Economic considerations: For organizations in the Sanya accommodation industry to move towards sustainability there has to be an advantage economically. This may be directly related to monetary value but can also consist of benefits through increased competition, shareholder value and employee enthusiasm.
- Role of the corporate decision maker: In the Sanya accommodation industry it was established that the corporate decision makers must be supportive of an environmental commitment program or must be convinced of the importance of a program in order for it to move forward. Long term thinking and investment must prevail in this context as

environmental commitment programs will only be beneficial on a long term basis (more than one year).

- **The General Manager as a Catalyst:** In the Sanya accommodation industry it was identified that an enlightened decision maker, namely the general manager in this study, is one of the most pertinent factors in an environmental commitment program. A General Manager can either promote or impede environmental commitment in the organization.
- **Lack of Environmental Awareness:** In Sanya, education must be prominent in the community in order to educate the residents and guests of the importance of a healthy natural and social environment. If the local community is not educated then progress towards sustainability will be hindered as it is frustrating for the accommodation facilities to focus on increasing their level of environmental commitment when the local population continues to harm the environment. .
- **Government Corruption, Power and Bureaucracy:** The local government in Sanya has the ability to hinder any progress towards sustainability through corruption, the unfair wielding of power and levels of bureaucracy that cause frustration. Breaking down silos, increased communication, enforced regulations, accountability and transparency are required to ensure that the local government positively affects the level of environmental commitment in the Sanya accommodation industry.

The findings of this thesis are applicable not only to the Sanya tourist accommodation industry but can be applied to the general business and environmental management literature. In order to move organizations towards sustainability, it is necessary to understand the factors that influence and impede decisions. These factors can then be examined and strategies developed to ensure that strong sustainability programs are developed. A multi-stakeholder partnership was recommended as the strategy to increase the level of environmental commitment in this industry.

In conclusion, the insights of David Roberts, a general manager of the Fairmont Chateau Whistler Resort clearly speak to the results of this study and the proposed

recommendation for the development of a multi-stakeholder partnership. He shared “We all have the power of one. Each one of us can begin to make a difference, and collectively, a lot of individuals can move mountains (or save them)...and corporations can make single decisions to shift policy that in time will produce major cultural and behavioral change” (as cited in Speck 2002:269). Results and findings of this study clearly indicate significant potential for the development of a multi stakeholder partnership involving the collaboration of the Sanya accommodation industry, local government agencies, tourism trade associations and certification bodies. The evidence supports the development of this partnership which could in turn effectively move the accommodation industry forward in achieving sustainability. As emphasized by Roberts (2002) above, it is through collaboration and individual effort that great things can be achieved.

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## Appendix A

### The Four Step Model for Sustainable Development in Tourism Enterprises

	<b>Step 1 Good Housekeeping</b>	<b>Step 2 Environmental Management</b>	<b>Step 3 Front-Runners</b>	<b>Step 4 Sustainability</b>
<b>Activity Indicators</b>	<ul style="list-style-type: none"> <li>▪ Make environmental policy</li> <li>▪ Designate a person responsible for the environment</li> <li>▪ Compliance with regulations</li> <li>▪ Systematic recycling of waste and composting of organic waste</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implement systematic environmental management</li> <li>▪ Eco-friendly maintenance of green areas</li> <li>▪ Develop green shopping policy</li> <li>▪ Offer organic food</li> </ul>	<ul style="list-style-type: none"> <li>▪ Implement certified environmental management system</li> <li>▪ Eco-friendly building and construction</li> <li>▪ Extended green shopping policy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Sustainability is integrated in the vision and development plans of the enterprise</li> <li>▪ Making customer investigations (focus interviews)</li> </ul>
<b>Performance Indicators</b>	<ul style="list-style-type: none"> <li>▪ Review and begin to reduce use of electricity, water, heating and disposables</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduce use of electricity, water, heating, disposables and waste</li> <li>▪ Review health and safety</li> <li>▪ Management of noise and air emissions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Management of health and safety and indoor climate</li> <li>▪ Make a review of important environmental impacts</li> <li>▪ Management of own transport</li> <li>▪ Management of environment and health damaging substances</li> </ul>	<ul style="list-style-type: none"> <li>▪ Make indicators based on a life cycle assessment</li> <li>▪ Social and ethical indicators</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>▪ Internal environmental report</li> </ul>	<ul style="list-style-type: none"> <li>▪ Green account, including green areas</li> <li>▪ Tourist information on</li> </ul>	<ul style="list-style-type: none"> <li>▪ Green account including transport</li> <li>▪ Health and safety account</li> </ul>	<ul style="list-style-type: none"> <li>▪ Economic, environmental and social account</li> </ul>

	<b>Step 1 Good Housekeeping</b>	<b>Step 2 Environmental Management</b>	<b>Step 3 Front-Runners</b>	<b>Step 4 Sustainability</b>
		<p>green services, activities and public transport</p> <ul style="list-style-type: none"> <li>▪ Initiating an eco-friendly behaviour by tourists</li> </ul>	<ul style="list-style-type: none"> <li>▪ Green and socio-cultural activities for tourists in the local community</li> </ul>	
<b>Stakeholder Relations</b>	<ul style="list-style-type: none"> <li>▪ Employee participation in the environmental activities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Involvement in local networks</li> <li>▪ Employees have had an introduction to environmental management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Green demands to suppliers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Surplus on the ethical balance in local community</li> </ul>

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## Appendix B

### A Compilation of Factors That Influence Environmental Commitment in an Organization

Factor	Description	Theoretical Base	EM Models	Studies Referenced
<b>Internal Factors</b>				
<b>Size</b> - Organizational - Impeding	<ul style="list-style-type: none"> <li>- Most EMS studies focus on large corporations</li> <li>- Assume a relationship between size and environmental management</li> <li>- Large firms have a greater impact on the environment</li> <li>- Large firms are exposed to considerable environmental pressure from stakeholders due to the visibility of their impacts</li> <li>- Large firms are regarded as leaders</li> <li>- Large firms developed more advanced EMS due to the slack resources to be invested as well as economies of scale.</li> <li>-Large firms are more likely to have formalized structures and dedicated team to operate their EMS</li> <li>- Small firms have less resources thus implement fewer environmental initiatives</li> </ul>		- Mauser (2001)	(Alvarez Gil, Burgos Jimenez et al. 2001) (Rivera 2002a) (Tinsley 2002) (Orlitzky 2001) (Angel de Brio and Junquera 2003)
<b>Ownership</b> - Organizational	- Different types of ownership and ownership structures may affect the implementation of environmental management initiatives.		- Mauser (2001)	Pine (2002)
<b>International versus Domestic Facilities</b> - Organizational - Impeding	<ul style="list-style-type: none"> <li>- Internationally owned organizations tend to be more environmentally progressive than domestically owned organizations</li> <li>- Due to the multitude of institutional and stakeholder pressures an international firm must incorporate into its corporate policy they are more likely to implement environmental initiatives</li> </ul>			(Welford 1997) (Rivera 2002a)
<b>Chain affiliated versus Franchised Facilities</b> - Organizational - Impeding	<ul style="list-style-type: none"> <li>- Chain affiliated facilities consist of a number of facilities owned and operated by one organization, with a central head office</li> <li>- Franchised facilities are owned in name by one organization and the facilities are owned and operated by one or more different organizations.</li> </ul>		- Mauser (2001)	(Alvarez Gil, Burgos Jimenez et al. 2001; Rivera 2002a) (Rivera 2002a)



Factor	Description	Theoretical Base	EM Models	Studies Referenced
	<ul style="list-style-type: none"> <li>- The multitude of owners and managers involved in a franchise results in the need to satisfy a number of conflicting interests</li> <li>- Chain affiliated accommodation facilities have the ability to standardize their activities which enhances the chain's reputation as well as benefits from economies of scale, which help increase efficiencies</li> <li>- Chains have the benefits of the use of a more efficient marketing system, personnel and management training, centralized bulk purchasing, brand image, centralized advice and consultancy, and up to date information of events and trends in the industry</li> <li>- Chains also take advantage of the successful practices of individual units and distribute it among members of the chain</li> <li>- Chain wide environmental policies influence the adoption of environmental initiatives and may impose minimum or common norms for environmental protection in its affiliated facilities</li> </ul>			(Meredith 2000)
<b>Grade of Facility</b> - Organizational	<ul style="list-style-type: none"> <li>- Grade of the facility (1-5 stars which indicates the spectrum of amenities and can classify facilities as budget to high end)</li> <li>- High end hotels have greater volumes of assets and employees per room thus can implement environmental initiatives more readily</li> </ul>	Resource Based Theory		(Alvarez Gil, Burgos Jimenez et al. 2001) (Rivera 2002a)
<b>Clientele (business versus leisure clientele)</b> - Organizational - Impeding	<ul style="list-style-type: none"> <li>- Type of clientele is usually linked to the accommodation facility's location and amenities</li> <li>- Environmental initiatives may be linked to the time spent and type of activities carried out at the facility; the length of stay (the longer the stay the higher the concern); and natural tourist attractions</li> <li>- Room price is positively correlated with higher environmental performance.</li> <li>- Business travelers are not as willing to pay higher prices for environmental quality as tourists visiting national parks.</li> </ul>	- Resource Based Theory		(Alvarez Gil, Burgos Jimenez et al. 2001) (Anguera, Ayuso et al. 2000) (Rivera 2002a)

Factor	Description	Theoretical Base	EM Models	Studies Referenced
<b>Facility Age</b> -Organizational - Impeding	- New buildings easier and more cost effective to install modern, efficient technologies Older facilities systems established and more costly to change technologies		- Berry and Rondinelli (1998)	(Alvarez Gil, Burgos Jimenez et al. 2001)
<b>Financial Considerations</b> - Motivating - Impeding	-Correlation between corporate environmental performance and financial gain - Several economic benefits can be gained through implementing environmental initiatives however the deterrence for many firms is the capital costs and return on investment - Direct savings brought about due to increased efficiency of resources - Improves productivity and increases competitiveness - Indirect benefits such as improved image, creating a market niche, improved employee morale, improved health and safety - Cost considerations can also lead to initiatives not being implemented	- Resource Based Theory	-Berry and Rondinelli (1998) Ghobadian , Viney et. al (1998) -Pryce (2001)	(Kirk 1995; Brown 1996; Kirk 1996; Stabler and Goodall 1997; Berry and Rondinelli 1998; Meredith 2000; Alvarez Gil, Burgos Jimenez et al. 2001; Cheyne and Barnett 2001; Orlitzky 2001; De Burgos-Jimenez, Cano-Guillen et al. 2002; Rivera 2002a; Meade 2003)
<b>Competitive Advantage</b> - Motivating	- Implementation of environmental initiatives can create competitive advantage due to the satisfying of specific environmental market niche demands. - Benefits such as increasing attractiveness to customers; improved market share; access or creation of new markets; improved company image; increased productivity of employees and operational fitness - This can lead to price premiums or increased market share amongst green consumers	-Resource Based Theory	-Berry and Rondinelli (1998) -Mauser (1998) -Pryce (2001)	(Labatt and Maclaren 1998) (Diamantis 1999) (Kirk 1995) (Cheyne and Barnett 2001) (De Burgos-Jimenez, Cano-Guillen et al. 2002) (Rivera 2002a) (Tinsley 2002) (Berry and

Factor	Description	Theoretical Base	EM Models	Studies Referenced
				Rondinelli 1998; Pryce 2001) (Welford 1996)
<b>Social Responsibility</b> - Motivating	- Decisions made based on social legitimacy - Increase in environmental management due to corporate social responsibility - Part of organizational culture	-Neo-Institutional Theory	Ghobadian , Viney et. Al (1998) - Pryce (2001)	(Rivera 2002a) (Natrass and Altomare 1999; Pryce 2001) (Hoffman 1999) (Delmas 2002) (Cashore and Vertinsky 2000)
<b>Organizational Culture</b> - Organizational - Impeding	- Shared values and meanings its members hold in common and that are articulated and practiced by an organizations leaders - Traditional corporate culture and values concerned with maximizing profits - More enlightened organizations concerned with employee empowerment, stakeholder dialogue, social responsibility and ethics - Organizations value the environment as it contributes to profitability (through direct and indirect economic benefits and increasing the social responsibility of firm)		- Mauser (2001) - Pryce (2001) Ghobadian , Viney et. al (1998)	(Mauser 2001) (Ghobadian, Viney et al. 1998) (Pryce 2001) (Hutchinson and Hutchinson 1997) (Welford 1996; Welford 1997) (Weiss 1998) (Johnson 1998)
<b>Centralization</b> - Organizational - Impeding	- Hierarchical level that has the authority to make decisions regarding environmental management - More centralized authority (i.e. environmental coordinator) more successful the environmental program		Mauser (2001)	(Mauser 2001) (Welford 1997) (Hutchinson and Hutchinson 1997)

Factor	Description	Theoretical Base	EM Models	Studies Referenced
<b>Managers</b> - Motivating - Impeding	- Decision makers of the firm - Perceive salience of stakeholders and institutional pressures - Environmental initiatives influenced by internal and external factors but manager or management makes decisions to implement	Stakeholder Theory -Resource Based Theory - Neo-Institutional Theory	-Mauser (2001) Ghobadian , Viney et. al (1998)	(Flagestad 2001) (Cheyne and Barnett 2001) (Mitchell, Agle et al. 1997) (Mauser 2001) (Ghobadian, Viney et al. 1998)
<b>External Factors</b>				
<b>Corporate Decision Makers</b> - Motivating - Impeding	- Consist of head office, shareholders, owners, franchisers, depends on the structure of the organization - Corporate decision maker commitment to environmental initiatives is necessary so that it can filter down the organization with the concomitant allocation of the appropriate resources - Can also be a barrier depending on the responsiveness of the corporate decision makers	Stakeholder Theory - Neo-Institutional Theory	-Mauser (2001) Ghobadian , Viney et. al (1998)	(Berry and Rondinelli 1998; Pryce 2001) (Mauser 2001) (Ghobadian, Viney et al. 1998)
<b>Regulatory Agencies</b> - Motivating	- The threat of impending regulatory requirements is a motivating factor for implementing environmental initiatives in an organization - Even loosely regulated industries such as the accommodation industry implement environmental initiatives to avoid impending regulatory requirements	Stakeholder Theory -Neo-Institutional Theory	-Mauser (2001) Ghobadian , Viney et. al (1998) -(Berry and Rondinelli 1998)	(Rivera 2002b) (Berry and Rondinelli 1998) (Brown 1996; Kirk 1996) (Kirk 1996) (Labatt and Maclaren 1998) (Enz and Siquaw 1999) (Cheyne and Barnett 2001) (De Burgos-Jimenez, Cano-Guillen et al. 2002)

Factor	Description	Theoretical Base	EM Models	Studies Referenced
				(Henriques and Sadorsky 1999) (Gibson 1999) (Mauser 2001) (Pryce 2001) (Ghobadian, Viney et al. 1998)
<b>Customers</b> - Motivating	- Customers respond positively to a company's actions by purchasing its product - Voice their discontent by boycotting a product - Improving public image has the potential to gain new consumer markets - Benefits from attracting green consumers and socially conscious investors -Can create or destroy demand for a product or service	Stakeholder Theory -Neo-institutional theory -Resource based Theory	-Berry and Rondinelli, (1998) -Pryce (2001)	(Henriques and Sadorsky 1999) (Berman, Wicks et al. 1999) (Post, Lawrence et al. 1999; Rivera 2001) (Rivera 2002a; Rivera 2002b) (Stabler and Goodall 1997; Anguera, Ayuso et al. 2000) (Berry and Rondinelli 1998) (Pryce 2001)
<b>Local Community</b> - Motivating	- Can mobilize public opinion in favour or against a facility - Public opinion directly affects a firm's success - Organizations work with the local community to develop good relations - Ability to influence local decision makers	Stakeholder Theory -Neo-institutional Theory	-Mauser (2001) -Pryce (2001)	(Anguera, Ayuso et al. 2000) (Henriques and Sadorsky 1999) (Thompson 1997) (Mauser 2001;

Factor	Description	Theoretical Base	EM Models	Studies Referenced
				Pryce 2001)
<b>Industry Association</b> - Motivating	<ul style="list-style-type: none"> <li>- Promote and institute environmental initiatives in a facility</li> <li>- Provide support, guidance, lobbying, marketing, financial assistance, advertising and certification programs to its members</li> <li>- Promote environmental management to maintain a positive industry wide environmental reputation that helps avoid increased scrutiny from stakeholders and the likelihood of new regulations</li> <li>- Provide technical assistance to poorly performing facilities</li> </ul>	Stakeholder Theory -Neo-institutional Theory	-Berry and Rondinelli (1998) - Pryce (2001)	(Kelley 1991; Stabler and Goodall 1997; Thompson 1997; Henriques and Sadorsky 1999; Post, Lawrence et al. 1999; Rivera 2002b) (Pryce 2001) (Berry and Rondinelli 1998)
<b>Suppliers</b> - Motivating	<ul style="list-style-type: none"> <li>- Working with suppliers that practice environmental management can influence a facility to adopt similar practices i.e. accommodation facility and food suppliers</li> <li>- A supplier can exert its influence by stopping delivery of an input if a customer firm does not comply with a given use or it can pressure the firm to employ a more environmentally acceptable substitute</li> </ul>	Stakeholder Theory -Neo-institutional theory	-Pryce (2001)	(Post, Lawrence et al. 1999) (Henriques and Sadorsky 1999) (Pryce 2001)
<b>ENGO</b> - Motivating	<ul style="list-style-type: none"> <li>-Influence by pressuring for government regulation, customer choice and participating in programs such as certification initiatives</li> <li>- Can critically analyze the environmental practices of an organization which can lead to public distrust</li> </ul>	Stakeholder Theory -Neo-institutional theory		(Henriques and Sadorsky 1999) (Thompson 1997)
<b>Employees</b> - Motivating - Impeding	<ul style="list-style-type: none"> <li>- Can foster environmental initiatives by implementing grassroots initiatives</li> <li>- Act as a catalyst for further environmental improvements</li> <li>-Can also act as a barrier if organizational culture does not change</li> <li>-Employee support of environmental initiatives is imperative</li> </ul>	Stakeholder Theory	-Pryce (2001) -Berry and Rondinelli (1998)	(Welford 1997) (Berman, Wicks et al. 1999) (Henriques and Sadorsky 1999) (Pryce 2001) (Ghobadian, Viney et al.

Factor	Description	Theoretical Base	EM Models	Studies Referenced
				1998) (Welford 1997; Weiss 1998; Johnson 2002)
<b>Media</b> - Motivating	- Can influence society's perception of a company especially in respect to environmental crises	Stakeholder Theory -Neo-institutional theory		(Henriques and Sadorsky 1999) (Rivera 2002b)
<b>Shareholders</b> - Motivating - Impeding	- Ability to impact bottom line by selling shares if not satisfied with environmental performance - Impeding factor if implementing environmental initiatives decreases profit	Stakeholder Theory -Neo-Institutional Theory	-Berry and Rondinelli (1998) -Pryce (2001)	(Henriques and Sadorsky 1999) (Rivera 2001) (Berry and Rondinelli 1998) (Pryce 2001)

## Appendix C

### Questionnaire

#### Part 1- The Hotel and Its Practices

Research conducted by Sonya Graci, Ph.D. Candidate, Department of Geography, University of Waterloo under supervision of Dr. Geoff Wall, Department of Geography, and Dr. Murray Haight, School of Planning, Faculty of Environmental Studies, University of Waterloo.

##### Company Information

Company name: \_\_\_\_\_

Contact person: \_\_\_\_\_

Title: \_\_\_\_\_

Facility Address: \_\_\_\_\_

Telephone number: \_\_\_\_\_

Email \_\_\_\_\_

This information will be used in the research described in the cover letter. Your personal information will remain confidential.

#### 1. DOCUMENTING YOUR FACILITY

##### The Facility and Property

1.1. Year of Construction: \_\_\_\_\_

1.2. Number of guest rooms \_\_\_\_\_

Number of restaurants/lounges \_\_\_\_\_

Number of convention rooms \_\_\_\_\_

Swimming Pool      yes                       no

                                 indoor

                                 outdoor

Number of Employees \_\_\_\_\_

1.3. Star rating of the facility \_\_\_\_\_

1.4. Range of average room price? \_\_\_\_\_



1.5. Type of clientele (check all that apply)

tourist  business  international  domestic  package tours

1.6. Who is the facility owned by? \_\_\_\_\_

1.7. Are owners

international or  national

Where are the owners from? \_\_\_\_\_

1.8. What type of ownership is the facility? (check all that apply)

- State-owned
- Collective
- Share holding cooperative
- Alliance
- Limited Liability
- Limited Liability Share
- Private Owned
- Others
- Hong Kong, Macau and Taiwan Funded
- Foreign Funded

1.10. Are any other parties involved in the management of the facility (i.e. property managers)?

Yes

No

Describe: \_\_\_\_\_

1.11 Is the facility chain affiliated or franchised?

Chain affiliated

Franchised

Independent

1.12 Are decisions regarding environmental management made centrally (head office) or locally (i.e. manager of hotel)

Centrally

Locally

1.13 Is there a person or persons assigned responsibility for directing and coordinating environmental initiatives:  
(check all applicable boxes)

- environmental coordinator
- multi-departmental committee / team
- head office
- general manager
- engineering department
- something else: \_\_\_\_\_

1.14 Approximate number of hotels operated by company worldwide?  
\_\_\_\_\_

1.15 Your level of education and discipline studied? \_\_\_\_\_

1.16 Your nationality? \_\_\_\_\_

### **Environmental History**

1.17 Previous environmental audit or assessment done on this facility:

yes           no

If yes, please state:

- a) when \_\_\_\_\_
- b) by whom: \_\_\_\_\_
- c) reason for conducting the audit \_\_\_\_\_

PLEASE PROCEED TO SECTION 2.

### **Section 2. CORPORATE ENVIRONMENTAL MANAGEMENT AND OVERALL FACILITY**

2.1 Does this facility have a formal (*written*) environmental policy or set of policies:

- yes
- no
- copy of policy statement provided

If no *formal* policy, please describe informal commitment to environmental principles:

---

Senior management / executive level buy-in and endorsement of policy(ies):

- yes  no

2.2. Do you implement any of the following? Please identify if you have written policies for each (Please check off which of these statements relate to your facility)

*specifically*

*written*

- Broad environmental management strategies
  - yes
- Ongoing, continuous improvement
  - yes
- Energy conservation and efficient use
  - yes
- Water conservation and efficient use
  - yes
- Waste reduction, reuse and recycling
  - yes
- “Eco-purchasing” - i.e. factoring environmental considerations in purchasing decisions / strategies
  - yes
  
- Reduction in, and proper use and handling of hazardous and toxic substances  yes
  
- Relevant environmental training and education for employees  yes
- Customer education on environmental management  yes
  
- Charity and donations to environmental and social issues  yes
  
- Environmental conference facilities  yes
  
- Promotion of eco-tourism or environmentally sensitive tourism  yes
  
- other goals and objectives:  yes

Identify in detail the type of initiatives implemented:

---

2.3 Written, formal *action plans* exist, and address policy commitments:

- yes  no (go to 2.4)

- Reviewed/revised:                       within the past year  
 previous to last year  
 within the next year  
 planned after next year

Do the plans include specific (quantified) targets for achieving environmental goals?:                       yes                       no

Please provide at least one example:

---

Previously set targets have been achieved:                       yes    no    n/a

2.4    Have audits been performed to measure: (check all appropriate boxes)

energy consumption:

- yes  
 no

water consumption:

- yes  
 no

waste streams:

- yes  
 no

2.5    Training and/or instruction provided to staff in the area of environmental considerations and awareness

yes                       no    (go to 2.6)

Describe the training \_\_\_\_\_

Who is the training conducted by \_\_\_\_\_

How often? \_\_\_\_\_

Is there follow up/monitoring done to ensure effectiveness of training?

- Yes  
 No

- 2.6 Are employees (check all applicable boxes if yes)
- Communicated the benefits of environmental management?
  - Encouraged to contribute innovative suggestions and solutions to environmental management
  - encouraged to practice environmentally-sound behaviour away from work (e.g., at home)

Is there a reward/recognition program for employees who provide suggestions?

- Yes
- No

Describe: \_\_\_\_\_

- 2.7. Are suppliers encouraged to (check all applicable boxes if yes):

- Take back excess packaging
- Requested to provide environmental product information
- Other

Describe: \_\_\_\_\_

- 2.8. Are guests communicated the environmental impacts and environmental management initiatives implemented at the facility?

- No (go to 2.9)
- Yes

Describe: \_\_\_\_\_

- 2.9. Does your facility participate in environmental management association(s), network(s) or other type of affiliation(s) that provide information/services regarding best available environmental practices, products, and/or services relating to the accommodation industry (e.g.ISO14001, Green Globe.)

- No (go to 2.10)
- Yes

Please identify what association(s) you are affiliated with:

\_\_\_\_\_

- 2.10 Is your facility involved in community / local / regional / national / international environmental management, protection and/or improvement projects/ events (e.g. municipal recycling program, clean a river campaign, Earth Day festivities, etc.)

- No (go to 2.11)
- Yes

Please identify which events you are involved with:

\_\_\_\_\_

2.11 Is there a formal procedure in place for dealing with environmental complaints?

No (go to 2.12)

Yes

Please describe: \_\_\_\_\_

2.12 Have there have been environmental concerns or complaints based on facility operations in the past:

No

Yes

Describe: \_\_\_\_\_

How were they dealt with? \_\_\_\_\_

**Thank you for taking the time to complete this questionnaire.**

## Part Two- Hotel's Decision Making and Influencing Factors

Research conducted for Sonya Graci, Ph.D. Candidate, Department of Geography,  
University of Waterloo

### Company Information

Company name:

Contact person:

Title:

Address:

Telephone number:

Email

Notes:

### Corporate Environmental Management and Overall Facility

1. Who initiated the implementation of the current environmental management initiatives? If initiatives have not been implemented, please identify who would make the decision to implement these initiatives.
2. Explain the decision making process for implementing environmental management initiatives in the facility?
3. Explain the corporate culture and how it may or may not support the implementation of environmental initiatives? Please explain )
4. Has your company merged with other hotels companies in the last ten years? If yes which ones?
5. How has the merging or acquisition with other hotel companies affected your environmental program?

## Influencing Factors

6. On a scale of 1 to 3 (1 very influential, 2 somewhat influential, 3 not influential at all) identify which of the following factors were influential in the decision to implement environmental initiatives in your facility:

Number	Factors	Very Influential	Somewhat Influential	Not at all influential
1	Cost Savings			
2	Competitive Advantage			
3	Social Responsibility			
4	Corporate Decision Makers (Head Office or Owner)			
5	Municipal Government			
6	Provincial Government			
7	Central Government			
8	Customers			
9	Local Community			
10	Industry Association			
11	Certification Bodies			
12	Suppliers			
13	ENGOS			
14	Employees			
15	Media			
16	Shareholders			

7. Identify the following stakeholders (if any) that have the power to affect the facility's decision making in terms of environmental management and bring about the outcomes they desire.

- Corporate decision makers
- Municipal government departments
- Provincial government departments
- Central government
- Customers
- Local community
- Industry association (tourism associations)
- Certification bodies (Green Globe, ISO 14001)
- Suppliers
- Engo's
- Media
- Shareholders
- Employees



8. Explain why you identified the following stakeholders as having the power to affect the facility's decision making in terms of environmental management and bring about the outcomes they desire. Can you provide examples to support your answer?
9. Identify the following stakeholders (if any) that have the legitimate right (have a contractual or moral claim on the organization) to affect the facility's decision making in terms of environmental management and bring about the outcomes they desire.
  - Corporate decision makers
  - Municipal government departments
  - Provincial government departments
  - Central government
  - Customers
  - Local community
  - Industry association (tourism associations)
  - Certification bodies (Green Globe, ISO 14001)
  - Suppliers
  - Engo's
  - Media
  - Shareholders
  - Employees
10. Explain why you identified the following stakeholders as having the legitimate right to affect the facility's decision making in terms of environmental management and bring about the outcomes they desire. Can you provide examples to support your answer?
11. Identify which stakeholders (if any) claim urgent attention for their demands regarding the implementation of environmental management initiatives.
  - Corporate decision makers
  - Municipal government agencies
  - Provincial government agencies
  - Central government
  - Customers
  - Local community
  - Industry association (tourism associations)
  - Certification bodies (Green Globe, ISO 14001)
  - Suppliers
  - Engo's
  - Media
  - Shareholders
  - Employees

12. Explain why you identified the following stakeholders (if any) as claiming urgent attention for their demands regarding the implementation of environmental management initiatives. Can you provide examples to support your answer?
13. Identify (if possible) how the identified stakeholders use any of the following strategies to influence the facility in terms of decisions made regarding environmental management? Can you provide examples to support your answer?

	Stakeholder	Coercion	Reward	Experience	Legitimacy	Information	Reference
1	Corporate decision makers (head office, or owner)						
2	Municipal Government						
3	Provincial Government						
4	Central Government						
5	Customers						
6	Local Community						
7	Industry Association (tourism association)						
8	Certification bodies (Green Globe, ISO 14001)						
9	Suppliers						
10	ENGOS						
11	Media						
12	Shareholders						
13	Employees						

Coercion – through policies, sanctions, legal fines and punishments

Reward – concrete and physical rewards which could consist of monetary rewards or recognition

Experience – Providing expertise to an organization through sharing of information  
 Legitimate – have the right to prescribe behaviour and the organization must comply but not through legal mechanisms such as regulation, rather voluntary mechanisms  
 Information – Providing information to suggest change in an organization’s actions  
 Reference- Uses the desire for an organization to obtain “oneness” with other organizations to ensure action is implemented

14. What, in your opinion, are the benefits to implementing environmental management initiatives?

15. The following are benefits obtained from implementing environmental management initiatives. Rank the following benefits in order of importance on a scale of 1 to 5, 1 is the least important and 5 the most important.

	<b>Benefit</b>	<b>Rank</b>
1	Cost Benefits	
2	Protecting the Natural Environment	
3	Competitive Market Advantage	
4	Reducing Government Policy	
5	Trade Association Membership/ Industry Association Certification	
6	Employee Satisfaction and Improved Morale	
7	Personal Satisfaction	
8	Other, as stated above	

16. How true do you think the following statements are? On a ranking scheme of 1 to 5 where 1 equals strongly disagree, 2 disagree, 3 don’t know, 4 agree and 5 strongly agree.

	<b>Statement</b>	1	2	3	4	5
1	Environmental programs increase profitability					
2	Return on investments on environmental programs can be measured accurately in our organization					
3	Benefits from implementing environmental programs outweigh cost needed to implement the program in our organization.					
4	Our organization has already reaped monetary benefits from its environmental program					
5	Environmental programs increase customer satisfaction					
6	Our organization will adopt an environmental program if required by our customers.					
7	Environmental programs increase employee satisfaction					
8	Our employees support environmental programs as it is					

	<b>Statement</b>	1	2	3	4	5
	linked to their welfare.					
9	Environmental programs improve relationships with local communities					
10	Environmental programs help with public relations					
11	Environmental programs are implemented because it's the right thing to do					
12	Environmental programs provide a marketing advantage over competitors					
13	Our organization will implement environmental programs only if our competitors have done so or have the intention to do so.					
14	There is a competitive pressure in our industry to adopt environmental initiatives.					
15	Caring for the environment is an important consideration for our organization					
16	Our organization will adopt an environmental program if it is required by environmental regulation					
17	Corporate decision makers are supportive of environmental initiatives implemented?					

17. If there was return on investment for any environmental initiatives implemented, what was the cost savings and return time on the investment?

18. How important is social responsibility in the decision to implement environmental initiatives?

19. Describe in detail some of the barriers that your company has experienced in developing and implementing environmental initiatives in your facility.

20. Which of the following barriers have you encountered in implementing environmental initiatives? Rank using the following 1 equals **often**, 2 equals **somewhat**, and 3 equals **not at all**.

	Barrier	Rating
1	Costs of implementing environmental initiatives are too high and not acceptable	
2	Lack of information regarding the types of environmental initiatives that can be implemented and the benefits associated with this implementation	
3	Lack of skills, knowledge and expertise in the organization	
4	Reluctance by corporate decision makers to implement environmental management initiatives	
5	Lack of identification of specific motivations affecting the organization	
6	Incompatibility with the organization's corporate culture	
7	Belief by corporate decision makers that the current practices are adequate	
8	Multiple stakeholders with conflicting interests	
9	Problems with resources (time, money, skills, knowledge)	
10	Lack of concern from corporate decision makers about environmental issues	
11	Isolation of environmental issues from other aspects of the organization (for example housekeeping or engineering)	
12	Reluctance to use external assistance i.e. consultants	
13	Lack of required support from shareholders	
14	Hotel structure (size, location and age) does not allow for environmental management initiatives to be implemented	
15	Reluctance by employees to implement environmental management initiatives	
16	Customers do not appreciate or support the implementation of environmental management initiatives	
17	Other, please list	

21. What strategies did you use to overcome these barriers?

22. Have you used any of the following strategies in overcoming barriers to implement your environmental program?

- Convincing corporate decision makers (head office or owner) of the cost saving and marketing benefits of implementing environmental initiatives.
- Implementing small, less costly initiatives first
- Employee education and training
- Customer education
- Disciplining Actions for employees
- Changing employee job descriptions to include environmental duties
- Sharing resources with other hotels such as composters
- Alternatives such as donating to pig farmers or waste pickers.
- Other \_\_\_\_\_

23. What initiatives would produce the incentive to implement an environmental program or to improve your current environmental program? Please explain.

24. Do you feel any of the following incentives would encourage your facility to implement environmental initiatives? Rank on a scale from 1 to 3, 1 being **high**, 2 being **medium** and three being **low**

	<b>Incentive</b>	<b>Rank</b>
1	Guidance from government agencies	
2	Guidance from international trade associations (Green Globe, ISO 14001)	
3	Guidance for provincial or local tourism association	
4	Education on the economic and environmental benefits of implementing an environmental program in a hotel	
5	Tax break on environmental consulting fees or retrofitting fees	
6	Subsidies for retrofits	
7	Subsidies for environmental audits	
8	Advertising of green hotels through the local and international tourism industries	
9	Other, please specify	

25. Are there any plans to implement further environmental initiatives in your organization? If so, what?

26. What is the biggest environmental problem facing your hotel?

27. In your opinion, what are the most important environmental problems that affect Sanya?

28. Are there any other statements that you feel are true and worth noting?

**APPNEDIX D**  
**RAW DATA FOR STUDY QUESTIONNAIRE**

**SECTION A: DOCUMENTING THE FACILITY**

	<b>A.1.1. Year Of Construction</b>	<b>A.1.2.1 Number of Guest Rooms</b>	<b>A.1.2.5. Number of Employees</b>	<b>A.1.3 Star Rating</b>	<b>A.1.8. Ownership</b>	<b>A.1.11 Management</b>	<b>A.1.13 Responsibility for Environmental Management</b>
1	1985-1989	100-199	100-199	3	Share Holding Cooperative	Independent	engineering department
2	1985-1989	400-499	300-399	3	state owned	independent	other departments
3	1990-1994	100-199	100-199	3	Hong Kong, Macau or Taiwan Funded	independent	engineering department
4	1990-1994	100-199	1-99	3	Private Owned	independent	multi-departmental committee/team
5	1990-1994	300-399	100-199	3	Share Holding Cooperative	chain affiliated	gm office
6	1990-1994	200-299	1-99	3	Private Owned	independent	general manager
7	1990-1994	100-199	200-299	4	Share Holding Cooperative	independent	multi-departmental committee/team
8	1990-1994	100-199	100-199	3	Alliance	independent	engineering department
9	1990-1994	200-299	100-199	3	Collective	independent	multi-departmental committee/team
10	1990-1994	300-399	400-499	5	state owned	independent	engineering department
11	1990-1994	1-99	1-99	2	state owned	independent	engineering department
12	1990-1994	100-199	1-99	3	Hong Kong, Macau or Taiwan Funded	independent	general manager
13	1990-1994	100-199	100-199	3	state owned	franchised	head office
14	1990-1994	200-299	200-299	4	Share Holding Cooperative	independent	general manager
15	1990-1994	100-199	1-99	2	state owned	independent	general manager
16	1990-1994	300-399	400-499	5	Limited Liability	independent	general manager
17	1990-1994	100-199	1-99	2	Foreign Funded	independent	multi-departmental committee/team
18	1990-1994	100-199	200-299	4	state owned	independent	general manager



	<b>A.1.1. Year Of Construction</b>	<b>A.1.2.1 Number of Guest Rooms</b>	<b>A.1.2.5. Number of Employees</b>	<b>A.1.3 Star Rating</b>	<b>A.1.8. Ownership</b>	<b>A.1.11 Management</b>	<b>A.1.13 Responsibility for Environmental Management</b>
19	1990-1994	1-99	1-99	2	state owned	independent	engineering department
20	1990-1994	100-199	100-199	4	Private Owned	independent	head office
21	1995-1999	1-99	1-99	2	state owned	independent	engineering department
22	1995-1999	100-199	200-299	4	Share Holding Cooperative	independent	other departments
23	1995-1999	100-199	1-99	3	state owned	independent	general manager
24	1995-1999	100-199	200-299	4	Share Holding Cooperative	independent	other departments
25	1995-1999	100-199	100-199	3	Limited Liability	independent	general manager
26	1995-1999	1-99	1-99	3	state owned	independent	gm and engineering
27	1995-1999	200-299	300-399	5	state owned	independent	general manager and head office
28	1995-1999	400-499	500+	5	Share Holding Cooperative	chain affiliated	head office
29	1995-1999	200-299	200-299	4	Private Owned	franchised	general manager
30	1995-1999	300-399	100-199	3	Hong Kong, Macau or Taiwan Funded	independent	gm and engineering
31	1995-1999	1-99	1-99	3	Limited Liability	chain affiliated	multi-departmental committee/team
32	1995-1999	500+	400-499	3	Share Holding Cooperative	chain affiliated	general manager and head office
33	1995-1999	100-199	100-199	3	state owned	independent	general manager
34	1995-1999	100-199	100-199	2	Private Owned	independent	engineering department
35	1995-1999	1-99	1-99	3	Limited Liability	independent	multi-departmental committee/team
36	1995-1999	1-99	1-99	1	state owned	independent	engineering department
37	1995-1999	100-199	1-99	3	Limited Liability	independent	general manager
38	1995-1999	100-199	1-99	3	state owned	independent	general manager
39	1995-1999	100-199	1-99	3	Private Owned	independent	gm and engineering
40	2000-2006	1-99	100-199	2	Private Owned	independent	other departments
41	2000-2006	1-99	1-99	3	Private Owned	independent	general manager
42	2000-2006	1-99	1-99	3	Share Holding Cooperative	independent	other departments
43	2000-2006	1-99	1-99	1	Private Owned	independent	general manager

	<b>A.1.1. Year Of Construction</b>	<b>A.1.2.1 Number of Guest Rooms</b>	<b>A.1.2.5. Number of Employees</b>	<b>A.1.3 Star Rating</b>	<b>A.1.8. Ownership</b>	<b>A.1.11 Management</b>	<b>A.1.13 Responsibility for Environmental Management</b>
44	2000-2006	100-199	100-199	3	Private Owned	independent	general manager
45	2000-2006	100-199	200-299	4	Share Holding Cooperative	chain affiliated	engineering department
46	2000-2006	1-99	1-99	3	Private Owned	independent	multi-departmental committee/team
47	2000-2006	100-199	1-99	3	Private Owned	independent	general manager
48	2000-2006	200-299	200-299	4	Private Owned	independent	multi-departmental committee/team
49	2000-2006	1-99	1-99	3	Share Holding Cooperative	independent	engineering department
50	2000-2006	100-199	100-199	2	state owned	independent	engineering department
51	2000-2006	200-299	200-299	4	Limited Liability	independent	multi-departmental committee/team
52	2000-2006	100-199	200-299	4	state owned	independent	gm and engineering
53	2000-2006	100-199	1-99	3	Limited Liability Share	independent	other departments
54	2000-2006	1-99	99	3	Private Owned	independent	engineering department
55	2000-2006	200-299	1-99	3	Private Owned	chain affiliated	head office
56	2000-2006	1-99	1-99	4	state owned	chain affiliated	general manager
57	2000-2006	400-499	500+	5	Private Owned	chain affiliated	multi-departmental committee/team
58	2000-2006	1-99	1-99	2	Private Owned	independent	multi-departmental committee/team
59	2000-2006	200-299	300-399	4	Share Holding Cooperative	independent	engineering department
60	2000-2006	1-99	100-199	4	Private Owned	independent	multi-departmental committee/team
61	2000-2006	100-199	100-199	3	Private Owned	independent	multi-departmental committee/team
62	2000-2006	1-99	1-99	2	Private Owned	independent	general manager
63	2000-2006	1-99	1-99	3	Private Owned	independent	gm and engineering
64	2000-2006	1-99	1-99	2	Limited Liability	independent	general manager
65	2000-2006	1-99	1-99	3	Private Owned	independent	engineering department
66	2000-2006	1-99	1-99	3	Private Owned	independent	engineering department

	<b>A.1.1. Year Of Construction</b>	<b>A.1.2.1 Number of Guest Rooms</b>	<b>A.1.2.5. Number of Employees</b>	<b>A.1.3 Star Rating</b>	<b>A.1.8. Ownership</b>	<b>A.1.11 Management</b>	<b>A.1.13 Responsibility for Environmental Management</b>
67	2000-2006	1-99	1-99	2	Limited Liability Share	independent	engineering department
68	2000-2006	200-299	300-399	4	Foreign Funded	independent	general manager and head office
69	2000-2006	100-199	1-99	2	Limited Liability	independent	engineering department
70	2000-2006	300-399	1-99	3	Limited Liability Share	independent	multi-departmental committee/team
71	2000-2006	200-299	200-299	4	state owned	independent	other departments
72	2000-2006	400-499	400-499	5	Private Owned	chain affiliated	multi-departmental committee/team
73	2000-2006	100-199	1-99	3	state owned	independent	engineering department
74	2000-2006	100-199	1-99	3	Private Owned	independent	multi-departmental committee/team
75	2000-2006	1-99	1-99	3	Private Owned	independent	general manager and head office
76	2000-2006	200-299	99	5	Private Owned	chain affiliated	multi-departmental committee/team
77	2000-2006	400-499	400-499	4	Limited Liability	independent	engineering department
78	2000-2006	1-99	1-99	2	Share Holding Cooperative	independent	engineering department
79	2000-2006	1-99	1-99	2	Private Owned	independent	engineering department
80	2000-2006	300-399	500+	5	Share Holding Cooperative	independent	general manager and head office
81	2000-2006	100-199	1-99	2	Limited Liability	independent	general manager
82	2000-2006	300-399	100-199	4	Private Owned	independent	engineering department
83	2000-2006	100-199	100-199	3	Collective	chain affiliated	gm and engineering
84	2000-2006	1-99	1-99	3	Share Holding Cooperative	independent	general manager
85	2000-2006	100-199	100-199	3	Private Owned	independent	engineering department
86	2000-2006	1-99	1-99	1	Private Owned	independent	general manager
87	2000-2006	1-99	1-99	1	Private Owned	independent	general manager
88	2000-2006	1-99	1-99	1	Private Owned	independent	general manager
89	2000-2006	100-199	1-99	3	Share Holding Cooperative	independent	general manager
90	2000-2006	1-99	1-99	1	Collective	independent	general manager
91	2000-2006	1-99	1-99	3	Limited Liability Share	independent	general manager and head office

	<b>A.1.1. Year Of Construction</b>	<b>A.1.2.1 Number of Guest Rooms</b>	<b>A.1.2.5. Number of Employees</b>	<b>A.1.3 Star Rating</b>	<b>A.1.8. Ownership</b>	<b>A.1.11 Management</b>	<b>A.1.13 Responsibility for Environmental Management</b>
92	2000-2006	500+	500+	5	Alliance	chain affiliated	head office
93	2000-2006	1-99	1-99	3	Share Holding Cooperative	independent	gm and engineering
94	2000-2006	100-199	100-199	4	Alliance	independent	engineering department
95	2000-2006	400-499	99	5	Private Owned	independent	gm and engineering
96	99	1-99	1-99	2	state owned	independent	engineering department
97	99	300-399	200-299	4	Share Holding Cooperative	independent	engineering department
98	99	1-99	99	2	state owned	independent	gm office
99	99	100-199	1-99	3	state owned	independent	general manager and head office
100	99	100-199	100-199	4	state owned	independent	multi-departmental committee/team

**SECTION B: CORPORATE ENVIRONMENTAL MANAGEMENT AND OVERALL FACILITY**

	2.1 Env Policy	2.3.1. Action Plans	2.4.1 Energy Audits	2.4.2 Water Audits	2.4.2 Waste Audits	2.5. Training	2.6.1 Employee Education	2.6.2 Reward Program	2.7 Supplier Initiatives	2.8. Guest Education	2.9. Association Affiliation	2.10 Community Involvement
1	no	no	yes	yes	yes	yes	1 and 2	yes	None	no	no	no
2	no	no	yes	yes	yes	yes	all	yes	1 and 2	no	no	yes
3	no	no	yes	yes	no	no	1 and 2	yes	other	no	no	no
4	no	no	no	no	no	no	none	no	1	no	no	no
5	no	no	99	99	99	yes	none	no	2	no	no	no
6	no	no	yes	yes	no	no	none	no	1	no	no	no
7	no	no	yes	yes	no	yes	1	yes	None	yes	no	no
8	no	no	yes	yes	yes	yes	1	no	None	no	no	no
9	yes	yes	yes	yes	yes	yes	all	yes	1 and 2	yes	no	yes
10	no	no	yes	yes	yes	no	1	no	1	no	no	no
11	no	no	yes	no	no	yes	1 and 2	yes	None	99	no	no
12	yes	yes	yes	yes	yes	yes	1	yes	2	yes	no	yes
13	no	no	no	no	no	no	all	no	1 and 2	yes	no	yes
14	no	yes	yes	yes	no	yes	all	yes	1 and 2	yes	no	yes
15	no	no	yes	yes	no	yes	1 and 2	yes	None	no	no	no
16	no	no	yes	yes	no	yes	none	no	None	yes	no	yes
17	no	no	no	no	no	yes	none	no	1	yes	no	no
18	no	yes	yes	yes	yes	99	2	no	1 and 2	yes	no	yes
19	no	no	yes	yes	no	yes	1	no	1	no	no	yes
20	no	no	yes	yes	yes	yes	1	no	1	no	no	yes
21	no	no	yes	yes	no	yes	1	no	None	yes	no	no
22	no	no	yes	yes	no	yes	1	yes	None	yes	no	yes
23	no	no	yes	yes	yes	yes	all	no	None	no	no	no
24	no	no	yes	yes	no	no	none	no	None	no	no	yes
25	no	no	yes	yes	no	yes	1	yes	1	no	no	no
26	no	yes	yes	yes	no	yes	1 and 2	yes	1	yes	no	yes
27	no	no	yes	yes	yes	yes	1	yes	None	yes	no	yes
28	no	yes	yes	yes	no	yes	1 and 2	yes	1	yes	no	yes
29	no	no	yes	yes	yes	no	none	yes	None	yes	no	no
30	yes	yes	yes	yes	no	yes	1 and 3	yes	None	yes	no	yes

	2.1 Env Policy	2.3.1. Action Plans	2.4.1 Energy Audits	2.4.2 Water Audits	2.4.2 Waste Audits	2.5. Training	2.6.1 Employee Education	2.6.2 Reward Program	2.7 Supplier Initiatives	2.8. Guest Education	2.9. Association Affiliation	2.10 Community Involvement
31	no	no	yes	yes	no	yes	2	yes	99	yes	no	yes
32	no	no	yes	yes	yes	yes	1 and 2	yes	2	yes	no	no
33	no	no	yes	yes	no	no	none	yes	None	no	no	no
34	yes	yes	yes	yes	yes	yes	none	no	None	no	no	yes
35	no	yes	yes	yes	yes	yes	all	yes	1	yes	no	yes
36	no	no	yes	yes	no	yes	1 and 2	yes	None	no	no	no
37	no	no	yes	yes	no	no	1	yes	None	no	no	no
38	no	no	yes	yes	yes	yes	1	yes	2	yes	no	yes
39	no	no	yes	yes	yes	yes	1 and 2	yes	All	no	no	yes
40	no	no	no	yes	no	yes	1	yes	1	no	no	no
41	no	no	yes	yes	no	yes	1 and 2	yes	1	no	no	no
42	no	no	no	no	no	no	none	no	None	no	no	no
43	no	no	yes	yes	no	yes	1 and 2	yes	None	no	no	no
44	no	no	yes	yes	no	yes	none	no	None	no	no	no
45	no	no	yes	yes	no	yes	all	yes	1	no	no	yes
46	no	99	99	99	99	yes	1	no	1	no	no	no
47	yes	99	yes	yes	no	yes	all	no	1	yes	no	yes
48	no	no	yes	yes	yes	yes	all	yes	1	no	no	yes
49	no	no	yes	yes	no	yes	1	yes	1 and 2	yes	no	no
50	no	no	yes	yes	no	no	99	yes	1	no	no	99
51	yes	yes	no	no	no	yes	none	no	None	yes	no	yes
52	no	no	yes	yes	no	no	2	yes	2	no	no	no
53	no	99	yes	yes	yes	yes	1 and 2	yes	2	yes	no	yes
54	no	no	yes	yes	no	99	1	no	None	no	no	yes
55	no	no	no	no	no	no	none	no	None	no	no	no
56	no	no	yes	yes	no	yes	1 and 2	no	None	yes	no	yes
57	yes	yes	yes	yes	no	yes	1	no	2	no	no	no
58	no	no	yes	yes	no	no	all	yes	2	yes	no	yes
59	no	no	yes	yes	no	yes	1 and 2	yes	None	yes	no	yes
60	no	no	yes	yes	no	yes	1 and 2	yes	None	yes	no	no
61	no	no	yes	yes	no	yes	all	yes	1 and 2	yes	no	yes
62	no	no	yes	yes	yes	yes	1	yes	None	no	no	no

	2.1 Env Policy	2.3.1. Action Plans	2.4.1 Energy Audits	2.4.2 Water Audits	2.4.2 Waste Audits	2.5. Training	2.6.1 Employee Education	2.6.2 Reward Program	2.7 Supplier Initiatives	2.8. Guest Education	2.9. Association Affiliation	2.10 Community Involvement
63	no	no	yes	yes	yes	yes	1	yes	All	yes	no	no
64	no	no	yes	yes	no	yes	1 and 3	no	1	no	no	yes
65	yes	yes	yes	yes	no	yes	1	yes	1	no	no	yes
66	no	no	yes	yes	no	no	2	yes	None	yes	no	yes
67	no	no	yes	yes	yes	no	none	yes	None	no	no	no
68	no	no	no	no	no	no	1 and 2	no	None	no	no	no
69	yes	no	yes	yes	yes	yes	2	yes	2	no	no	no
70	no	no	99	99	99	99	2	yes	2	no	no	yes
71	no	no	yes	yes	no	yes	1	yes	1	yes	yes	yes
72	yes	yes	yes	yes	yes	no	1 and 2	no	2	yes	no	no
73	no	no	99	99	99	no	none	no	1	no	no	no
74	no	no	yes	yes	no	yes	none	no	1	yes	no	no
75	no	no	yes	yes	no	yes	1	yes	2	yes	no	no
76	yes	yes	yes	yes	no	yes	none	yes	2	yes	no	yes
77	no	no	yes	yes	no	no	none	no	None	no	no	yes
78	no	no	yes	yes	no	yes	none	yes	None	no	no	yes
79	no	no	yes	no	no	yes	1	yes	1	no	no	no
80	yes	yes	yes	yes	no	yes	1	no	1	yes	no	yes
81	no	no	99	99	99	99	1	yes	1	yes	no	no
82	yes	no	yes	yes	yes	yes	1 and 2	yes	None	yes	no	yes
83	no	no	yes	yes	no	yes	1	no	None	yes	no	yes
84	no	no	yes	yes	no	yes	1 and 2	yes	None	yes	no	no
85	no	no	yes	yes	no	yes	1	no	None	yes	no	no
86	no	no	no	no	no	yes	1	no	None	no	no	yes
87	no	no	no	no	no	no	1	no	None	no	no	yes
88	no	no	yes	yes	no	yes	1	yes	None	no	no	no
89	no	no	yes	yes	no	yes	1	99	None	yes	no	no
90	no	no	yes	yes	no	yes	1	no	All	yes	no	yes
91	yes	no	no	no	no	no	2	yes	1	no	no	yes
92	no	99	yes	yes	no	no	2	yes	None	yes	no	yes
93	no	no	no	no	no	yes	none	no	All	no	no	no
94	yes	no	yes	yes	yes	no	none	yes	None	no	no	yes

	2.1 Env Policy	2.3.1. Action Plans	2.4.1 Energy Audits	2.4.2 Water Audits	2.4.2 Waste Audits	2.5. Training	2.6.1 Employee Education	2.6.2 Reward Program	2.7 Supplier Initiatives	2.8. Guest Education	2.9. Association Affiliation	2.10 Community Involvement
95	99	99	99	99	99	99	99	99	None	99	99	99
96	no	no	yes	yes	yes	no	none	no	None	no	no	no
97	yes	yes	yes	yes	no	yes	1 and 2	yes	None	yes	no	no
98	no	no	no	no	no	yes	1 and 2	yes	None	no	no	no
99	no	no	yes	yes	no	yes	1 and 2	yes	None	no	no	no
100	yes	yes	yes	yes	yes	yes	all	yes	1	no	no	yes

**Code:**

**Question 2.6.1**

1= Communicated the benefits of environmental management

2= Encouraged to practice environmentally sounds behaviour away from work

3= Encouraged to contribute innovative suggestions and solutions to environmental management

**Question 2.7.**

1= take back excess packaging

2= requested to provide environmental product information

3=other



**SECTION A QUESTION 2.2: ENVIORNMENTAL MANAGEMENT STRATEGIES**

	Broad Env. Strategies	Continuous Improvement	Energy Cons	Water Cons	Waste Mngmt	Eco-Purchasing	Haz Waste Mngmt	Employee Training	Customer Education	Strategic Giving	Green Conferences	Promo Of Eco-tourism	Other
1	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00
2	.00	.00	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00	.00
3	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00	.00
4	.00	.00	yes	.00	yes	.00	.00	yes	.00	.00	.00	.00	.00
5	.00	W	W	yes	W	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	yes	.00	.00	yes	.00	yes	yes	.00	.00	.00	.00	.00
7	.00	yes	yes	yes	yes	.00	.00	yes	yes	.00	.00	.00	.00
8	.00	.00	yes	yes	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	yes	yes	yes	yes	yes	.00	yes	yes	yes	yes	yes	yes	.00
10	.00	.00	yes	yes	yes	.00	.00	.00	yes	.00	.00	.00	.00
11	.00	.00	yes	.00	yes	.00	yes	yes	.00	.00	.00	.00	.00
12	.00	W	W	.00	.00	.00	.00	W	.00	W	.00	.00	.00
13	.00	.00	yes	yes	.00	yes	.00	.00	yes	.00	.00	.00	.00
14	yes	W	W	W	W	W	W	W	W	.00	.00	W	.00
15	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00
16	.00	.00	yes	yes	yes	.00	yes	yes	.00	yes	.00	.00	.00
17	.00	yes	yes	yes	yes	yes	yes	yes	yes	.00	.00	.00	.00
18	.00	yes	yes	yes	yes	.00	yes	yes	yes	.00	.00	.00	.00
19	.00	yes	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00	.00
20	.00	W	W	W	W	.00	W	W	W	.00	.00	W	.00
21	yes	yes	yes	yes	.00	.00	.00	yes	yes	.00	.00	.00	.00
22	.00	yes	W	W	yes	yes	W	yes	yes	yes	yes	yes	.00
23	.00	yes	yes	yes	yes	.00	.00	yes	.00	.00	yes	.00	.00
24	.00	.00	yes	.00	.00	.00	.00	yes	.00	.00	.00	.00	.00
25	.00	.00	yes	yes	yes	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	yes	yes	yes	W	.00	yes	yes	yes	.00	.00	.00	.00
27	yes	.00	W	yes	yes	.00	.00	yes	yes	.00	yes	.00	.00
28	.00	.00	yes	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00

	Broad Env. Strategies	Continuous Improvement	Energy Cons	Water Cons	Waste Mngmt	Eco-Purchasing	Haz Waste Mngmt	Employee Training	Customer Education	Strategic Giving	Green Conferences	Promo Of Eco-tourism	Other
29	.00	.00	yes	yes	yes	.00	.00	.00	yes	yes	.00	.00	.00
30	yes	yes	yes	yes	yes	.00	yes	yes	yes	.00	.00	.00	.00
31	.00	.00	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00	.00
32	.00	yes	yes	yes	yes	.00	yes	yes	yes	.00	.00	.00	.00
33	.00	.00	yes	yes	.00	.00	yes	.00	yes	.00	.00	.00	.00
34	.00	.00	.00	yes	.00	.00	yes	yes	.00	.00	.00	yes	.00
35	yes	yes	yes	yes	yes	yes	yes	yes	yes	.00	.00	.00	.00
36	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00
37	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00	.00
38	.00	.00	yes	yes	yes	yes	yes	.00	.00	.00	.00	yes	.00
39	.00	.00	yes	yes	yes	.00	yes	yes	.00	.00	.00	yes	.00
40	.00	.00	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00	.00
41	.00	yes	yes	.00	yes	.00	yes	yes	yes	.00	.00	yes	.00
42	.00	.00	yes	yes	.00	.00	yes	yes	.00	.00	.00	.00	.00
43	.00	.00	yes	yes	yes	.00	.00	.00	.00	.00	.00	.00	.00
44	.00	.00	yes	yes	yes	.00	.00	.00	.00	.00	.00	.00	.00
45	.00	.00	W	W	W	yes	yes	yes	W	W	.00	.00	.00
46	yes	.00	yes	yes	yes	.00	yes	yes	yes	.00	.00	.00	.00
47	.00	.00	yes	yes	yes	.00	yes	yes	yes	.00	.00	.00	.00
48	.00	yes	yes	yes	yes	yes	yes	yes	yes	.00	.00	.00	.00
49	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	yes	.00
50	.00	.00	yes	.00	yes	.00	yes	.00	.00	.00	.00	.00	.00
51	.00	.00	W	yes	yes	.00	.00	.00	.00	.00	.00	.00	.00
52	.00	yes	yes	yes	yes	.00	yes	.00	.00	yes	.00	.00	.00
53	.00	yes	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00
54	.00	.00	yes	yes	yes	yes	yes	.00	.00	.00	.00	.00	.00
55	.00	.00	yes	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
56	.00	.00	yes	yes	.00	.00	.00	yes	yes	.00	.00	.00	.00
57	W	.00	W	W	W	yes	W	W	.00	.00	.00	.00	.00
58	.00	yes	yes	.00	yes	.00	yes	.00	yes	.00	.00	.00	.00
59	.00	.00	W	yes	yes	.00	W	W	yes	.00	.00	.00	.00

	Broad Env. Strategies	Continuous Improvement	Energy Cons	Water Cons	Waste Mngmt	Eco-Purchasing	Haz Waste Mngmt	Employee Training	Customer Education	Strategic Giving	Green Conferences	Promo Of Eco-tourism	Other
60	yes	yes	yes	yes	yes	.00	.00	yes	yes	yes	.00	.00	.00
61	.00	.00	yes	yes	yes	.00	yes	yes	yes	.00	.00	.00	.00
62	.00	yes	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00	.00
63	.00	W	W	yes	yes	.00	yes	yes	yes	.00	.00	.00	.00
64	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00
65	.00	W	W	.00	.00	.00	.00	W	.00	.00	.00	.00	.00
66	.00	yes	yes	.00	yes	.00	yes	yes	.00	.00	.00	.00	.00
67	yes	.00	yes	yes	yes	.00	.00	.00	yes	.00	.00	.00	.00
68	.00	.00	yes	yes	yes	.00	.00	.00	yes	.00	.00	.00	.00
69	.00	.00	yes	yes	.00	.00	.00	.00	.00	.00	.00	.00	.00
70	.00	yes	yes	yes	yes	.00	yes	yes	yes	.00	.00	.00	yes
71	.00	yes	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00	.00
72	.00	W	W	W	W	W	W	W	W	W	.00	W	.00
73	.00	.00	yes	yes	yes	.00	yes	.00	yes	.00	.00	.00	.00
74	.00	yes	yes	yes	yes	.00	yes	.00	.00	.00	.00	.00	.00
75	.00	yes	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00	.00
76	W	yes	W	W	W	W	W	yes	W	yes	.00	.00	.00
77	.00	.00	W	W	.00	.00	.00	.00	W	.00	.00	.00	.00
78	.00	.00	yes	yes	.00	.00	.00	yes	.00	.00	.00	.00	.00
79	.00	.00	yes	yes	.00	.00	.00	yes	yes	.00	.00	.00	.00
80	W	yes	W	yes	.00	yes	yes	yes	yes	yes	.00	.00	.00
81	.00	.00	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00	.00
82	.00	W	W	.00	.00	.00	yes	W	W	.00	.00	.00	.00
83	.00	yes	yes	yes	yes	.00	yes	yes	.00	.00	.00	.00	.00
84	.00	yes	yes	yes	yes	.00	yes	yes	yes	.00	.00	.00	.00
85	.00	.00	yes	yes	yes	.00	.00	yes	yes	.00	.00	.00	.00
86	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00
87	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00
88	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00
89	.00	yes	yes	.00	.00	.00	.00	yes	yes	.00	.00	.00	.00
90	.00	.00	yes	yes	yes	.00	.00	yes	.00	.00	.00	.00	.00

	Broad Env. Strategies	Continuous Improvement	Energy Cons	Water Cons	Waste Mngmt	Eco-Purchasing	Haz Waste Mngmt	Employee Training	Customer Education	Strategic Giving	Green Conferences	Promo Of Eco-tourism	Other
91	.00	.00	yes	yes	.00	.00	.00	.00	.00	.00	.00	.00	.00
92	.00	.00	yes	yes	yes	.00	yes	.00	yes	.00	.00	.00	.00
93	.00	.00	yes	yes	yes	yes	yes	yes	yes	.00	.00	.00	.00
94	.00	.00	W	W	W	W	W	W	.00	W	.00	.00	.00
95	99	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
96	.00	yes	yes	yes	yes	.00	yes	.00	.00	.00	.00	.00	.00
97	yes	yes	W	yes	W	yes	yes	yes	W	yes	W	.00	.00
98	.00	.00	yes	yes	yes	.00	.00	.00	yes	.00	.00	.00	.00
99	.00	.00	yes	yes	.00	.00	.00	yes	.00	.00	.00	.00	.00
100	W	W	W	W	yes	.00	yes	W	W	.00	.00	.00	.00

**Code:**

Yes =yes

0=no

99= missing

W = written policy

**PART B: QUESTION 6: INFLUENCING FACTORS**

	Cost Savings	Comp Ad	Social Resp	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Com	Ind Ass	Cert Bod	Sup	ENGOS	Emp	Med	Share
1	1	2	1	1	1	3	2	2	3	3	1	2	3	1	3	1
2	1	1	1	1	1	2	3	1	1	2	3	1	3	2	2	1
3	1	1	2	1	2	2	2	1	2	2	1	3	2	2	2	1
4	1	1	1	1	1	1	1	2	2	1	2	2	3	1	1	1
5	1	2	2	1	1	1	1	1	2	2	1	2	2	2	1	1
6	1	1	1	2	1	1	1	1	2	2	1	2	99	1	99	3
7	1	1	1	1	2	2	2	2	3	3	2	3	3	1	3	3
8	1	2	1	1	1	1	1	2	1	2	1	3	1	2	1	1
9	1	2	1	1	1	2	2	1	2	2	3	3	2	2	1	1
10	1	1	2	3	3	3	3	2	3	3	2	2	3	2	3	3
11	1	1	1	3	3	3	3	3	3	3	3	2	3	3	3	3
12	1	1	1	1	2	2	1	1	3	3	3	2	3	1	1	3
13	1	1	2	1	3	3	3	3	3	3	3	3	3	3	3	3
14	1	1	1	1	1	2	2	1	2	1	1	2	2	2	2	1
15	1	1	2	2	2	3	3	1	1	2	2	1	2	1	1	3
16	2	1	2	1	2	2	2	1	2	2	2	2	3	1	2	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	2	3	1	2	2	2	2	2	2	2	3	3	3	3	1
19	1	1	1	2	3	3	3	2	3	2	2	2	2	1	2	1
20	1	2	1	1	1	1	1	1	1	3	3	2	3	1	2	3
21	1	1	1	1	1	1	1	3	3	1	1	3	1	1	1	3
22	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2
23	1	1	1	1	1	1	1	3	3	1	1	3	1	1	1	3
24	2	3	2	1	2	2	3	1	1	2	1	2	2	2	2	3
25	1	2	2	2	3	3	2	3	2	3	1	2	3	2	2	2
26	1	2	2	3	3	3	3	2	3	3	3	3	3	3	3	3
27	2	2	2	1	1	1	1	2	2	2	1	2	2	2	1	1
28	2	3	2	1	1	1	1	2	2	3	3	3	2	2	2	3
29	1	2	2	1	2	2	2	1	2	2	2	1	2	1	1	1
30	1	2	1	2	2	2	1	1	2	1	1	2	2	1	1	1

	Cost Savings	Comp Ad	Social Resp	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Com	Ind Ass	Cert Bod	Sup	ENGOS	Emp	Med	Share
31	1	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2
32	1	2	1	1	1	1	1	1	1	1	2	2	2	2	1	1
33	1	3	3	1	1	2	3	3	3	2	3	3	3	2	1	2
34	2	2	1	3	3	3	3	3	1	2	2	3	2	3	2	3
35	3	3	3	3	2	2	2	3	2	2	2	2	2	3	2	3
36	1	1	2	1	1	1	1	2	1	1	1	2	2	1	1	3
37	1	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3
38	1	1	1	1	1	1	1	2	2	2	2	2	2	1	2	2
39	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
40	1	1	2	1	2	2	2	1	1	1	1	1	2	1	1	1
41	1	1	1	1	3	3	3	2	3	2	1	1	1	1	1	1
42	2	2	1	1	2	3	3	1	1	2	2	1	3	2	2	1
43	1	1	1	2	1	1	3	1	3	3	3	3	3	2	3	3
44	1	2	1	1	1	2	2	1	3	2	3	3	3	3	1	2
45	1	2	2	1	1	1	1	2	2	2	2	3	3	3	2	2
46	2	1	2	1	2	3	3	1	3	3	2	2	99	3	2	3
47	2	3	1	3	3	3	1	1	1	2	1	2	1	3	1	3
48	1	1	1	1	2	2	2	1	2	2	3	1	99	1	2	1
49	2	3	2	1	1	2	3	2	2	2	3	2	2	1	2	2
50	1	1	3	1	3	3	3	3	3	3	3	3	3	3	3	3
51	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
52	1	1	1	2	2	2	3	3	2	2	2	2	3	2	2	1
53	1	2	1	2	1	99	1	2	2	1	2	2	2	2	1	1
54	1	1	1	1	1	1	1	2	1	2	2	2	2	1	1	1
55	1	1	2	1	2	2	2	2	2	2	3	3	3	3	2	2
56	1	2	1	2	2	2	3	3	1	3	1	2	3	3	2	3
57	1	1	1	1	1	1	1	1	1	2	3	2	1	3	2	2
58	1	1	1	1	1	1	3	1	2	2	2	2	2	1	1	1
59	1	1	1	1	2	2	2	1	2	2	1	1	3	1	1	1
60	1	1	1	1	1	1	2	1	1	1	1	1	2	1	1	1
61	1	1	2	2	1	1	1	2	2	1	1	1	1	2	1	3
62	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
63	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1

	Cost Savings	Comp Ad	Social Resp	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Com	Ind Ass	Cert Bod	Sup	ENGOS	Emp	Med	Share
64	1	3	2	1	3	2	1	2	3	3	1	2	3	3	1	1
65	1	3	2	1	3	2	1	2	3	3	1	2	3	3	1	1
66	1	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
67	2	3	3	2	2	2	3	3	3	3	3	3	3	3	3	3
68	1	2	2	1	1	2	2	2	2	2	2	3	3	2	2	2
69	1	2	1	1	2	2	3	1	2	3	2	3	3	1	1	1
70	2	1	2	1	1	1	1	2	2	1	2	2	2	2	2	2
71	2	2	1	2	1	3	3	1	2	2	2	2	2	2	2	1
72	1	1	2	1	1	2	3	1	1	2	2	2	2	1	1	1
73	1	2	2	2	1	1	2	2	2	1	2	2	2	2	1	2
74	1	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2
75	1	2	1	1	1	2	2	1	2	2	2	2	2	2	2	2
76	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
77	2	2	2	1	1	1	1	2	2	2	3	3	3	2	2	2
78	1	3	3	1	3	3	3	1	1	1	3	3	3	1	3	1
79	1	1	2	1	1	2	2	1	2	2	3	2	3	2	2	3
80	1	1	1	1	1	2	2	1	1	2	1	2	2	1	1	1
81	1	1	2	2	2	2	2	3	2	2	2	2	2	2	2	2
82	1	1	1	1	1	2	2	2	2	2	2	1	2	2	1	1
83	1	2	1	1	1	2	2	1	2	2	2	2	2	2	2	3
84	1	1	1	1	1	2	2	1	3	3	3	3	3	2	2	1
85	1	1	1	1	1	2	2	1	3	1	3	2	3	1	3	3
86	1	2	3	3	3	3	3	2	2	3	3	3	3	3	3	2
87	1	1	1	1	1	3	3	3	1	3	3	3	3	2	3	3
88	1	1	1	1	1	1	1	1	1	2	3	3	3	1	3	3
89	1	1	1	3	3	3	3	1	1	2	3	3	3	1	3	3
90	1	2	1	1	1	1	1	2	1	1	3	2	3	2	1	2
91	1	1	1	3	3	3	3	3	3	3	3	3	3	1	2	1
92	1	2	2	1	1	1	1	1	3	2	3	3	3	3	1	1
93	2	1	1	1	1	1	1	2	1	3	3	3	2	3	2	3
94	1	1	1	1	1	1	1	1	1	1	1	3	3	2	2	1
95	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
96	1	2	2	3	3	3	3	2	3	3	3	3	3	3	3	3

	Cost Savings	Comp Ad	Social Resp	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Com	Ind Ass	Cert Bod	Sup	ENGOS	Emp	Med	Share
97	1	2	2	1	1	1	1	1	2	2	1	2	2	2	1	1
98	1	1	1	1	1	1	1	2	2	1	1	2	1	1	1	2
99	1	1	2	1	3	3	3	2	2	2	2	2	2	2	3	3
100	3	1	1	2	1	1	3	2	2	2	3	3	2	3	1	2

**Key**

- 1= Very Influential**
- 2= Somewhat Influential**
- 3= 3 Influential**
- 99= Missing**



**QUESTION 7: POWER OF STAKEHOLDERS**

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
1	yes	yes	no	no	yes	no	no	yes	no	no	no	no	no
2	yes	yes	no	no	no	no	no	no	no	no	no	no	no
3	yes	yes	no	no	no	no	yes	no	no	no	no	yes	no
4	yes	yes	no	no	no	no	no	no	no	no	no	no	no
5	no	no	no	no	no	no	no	no	no	no	no	no	no
6	yes	yes	no	no	yes	no	no	no	no	no	no	no	yes
7	no	no	no	no	no	no	no	no	no	no	no	no	no
8	yes	no	no	no	no	no	no	no	no	no	no	no	no
9	yes	yes	no	no	yes	no	yes	no	no	no	yes	yes	no
10	yes	no	no	no	yes	no	no	no	no	no	no	yes	no
11	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	yes	yes
12	yes	yes	yes	yes	yes	no	yes	no	no	no	yes	no	no
13	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
14	yes	yes	yes	yes	no	yes	no	no	no	no	no	yes	no
15	no	yes	no	no	yes	yes	no	no	yes	no	no	no	yes
16	yes	yes	no	no	no	yes	no	no	no	no	yes	yes	no
17	yes	yes	yes	no	no	no	yes	yes	no	no	yes	yes	no
18	yes	no	no	no	no	no	no	no	no	no	no	yes	no
19	yes	no	no	no	yes	no	yes	yes	no	no	no	no	no
20	no	yes	yes	yes	no	yes	no	yes	no	no	yes	no	no
21	yes	yes	yes	yes	no	yes	no	no	no	no	no	no	no
22	yes	yes	yes	yes	yes	yes	no	no	no	no	no	yes	no
23	yes	yes	yes	yes	no	yes	no	no	no	no	no	no	no
24	yes	no	no	no	yes	no	no	no	no	no	no	no	no
25	no	no	no	no	no	no	yes	no	no	no	yes	no	no
26	yes	yes	no	no	no	no	no	no	no	no	no	no	no
27	no	no	no	yes	no	no	no	no	no	no	no	no	no
28	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
29	yes	yes	yes	yes	no	no	no	no	no	no	no	yes	no
30	yes	yes	yes	yes	yes	yes	no	yes	no	no	yes	no	yes
31	yes	yes	yes	no	no	no	yes	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
32	yes	yes	yes	yes	yes	yes	yes	no	no	no	yes	yes	yes
33	yes	yes	no	no	no	no	no	no	no	no	yes	no	no
34	yes	yes	yes	yes	no	yes	yes	yes	no	no	no	no	no
35	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
36	yes	yes	no	no	no	no	no	no	no	no	no	no	no
37	no	no	no	no	no	no	no	no	no	no	no	yes	no
38	no	yes	yes	no	no	no	no	no	no	no	no	no	no
39	yes	yes	yes	yes	no	no	no	yes	no	yes	yes	yes	no
40	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	no
41	yes	no	no	no	yes	yes	no	yes	no	no	yes	yes	yes
42	no	yes	no	no	no	no	no	no	no	no	no	no	no
43	no	yes	no	no	no	no	no	no	no	no	no	no	no
44	yes	no	no	yes	yes	no	no	no	no	no	yes	yes	no
45	yes	yes	yes	yes	yes	yes	yes	no	no	no	yes	no	no
46	yes	yes	no	no	no	no	no	no	no	no	yes	no	no
47	no	no	no	no	no	no	no	no	no	no	no	no	no
48	no	yes	yes	yes	no	yes	no	yes	no	no	yes	no	no
49	yes	yes	yes	yes	no	no	no	yes	no	yes	yes	yes	no
50	yes	no	no	no	no	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	no
52	yes	yes	yes	no	no	yes	yes	yes	yes	no	yes	yes	yes
53	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
54	yes	yes	yes	yes	no	yes	no	no	no	no	yes	yes	no
55	yes	yes	no	no	no	no	no	no	no	no	no	no	no
56	yes	yes	yes	no	no	yes	no	yes	no	no	yes	yes	no
57	yes	yes	yes	yes	no	yes	no	no	no	no	no	no	no
58	yes	yes	yes	no	yes	yes	yes	no	no	yes	yes	no	no
59	yes	yes	no	no	yes	no	yes	no	no	no	no	yes	yes
60	no	no	no	no	no	no	no	no	no	yes	no	no	no
61	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	yes
62	no	yes	no	no	no	no	no	no	no	no	no	no	no
63	yes	yes	no	no	no	no	yes	yes	no	no	no	no	no
64	yes	yes	yes	no	no	no	yes	no	no	no	no	yes	yes

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
65	yes	no	no	no	no	no	no	no	no	no	no	no	yes
66	no	yes	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	yes	yes	no	no	no	no	yes	no	no	no	no	no	no
69	yes	no	no	no	yes	yes	no	yes	no	no	no	no	yes
70	no	yes	no	no	yes	no	no	no	no	no	yes	yes	yes
71	yes	yes	no	no	yes	no	yes	yes	no	no	yes	no	no
72	yes	yes	no	no	yes	no	no	no	no	no	no	no	yes
73	no	yes	no	no	no	no	no	no	no	no	no	no	no
74	yes	yes	no	no	yes	yes	yes	yes	no	no	yes	no	no
75	yes	yes	no	no	yes	no	no	no	no	no	no	no	no
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
78	yes	no	no	no	no	no	yes	no	no	no	no	yes	yes
79	yes	yes	no	no	no	no	no	no	no	no	no	no	no
80	yes	yes	no	no	yes	no	no	yes	no	no	no	no	yes
81	no	yes	no	no	no	no	no	no	no	no	no	no	no
82	yes	yes	no	no	yes	no	yes	no	yes	no	yes	yes	no
83	yes	yes	no	no	yes	yes	yes	no	no	no	no	no	no
84	yes	yes	no	no	no	no	no	no	no	no	no	no	no
85	yes	yes	no	no	no	no	no	no	no	no	no	no	no
86	no	yes	no	no	yes	no	no	no	no	no	no	no	no
87	no	no	no	no	no	no	no	no	no	no	no	no	no
88	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	no	yes
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	no	yes	no	no	no	no	no	no	no	no	no	no	no
91	yes	yes	no	no	yes	yes	no	no	no	no	yes	yes	yes
92	yes	yes	yes	yes	no	no	no	no	no	no	no	yes	no
93	yes	yes	no	no	no	no	no	no	no	no	no	no	no
94	yes	yes	yes	no	no	no	no	yes	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	yes	yes	no	no	yes	no	no	no	no	no	yes	no	yes
97	yes	yes	yes	yes	no	yes	no	no	no	no	yes	yes	no

	<b>CDM</b>	<b>Mun Gov</b>	<b>Prov Gov</b>	<b>Cen Gov</b>	<b>Cust</b>	<b>Local Comm</b>	<b>Ind Ass</b>	<b>Cert Bod</b>	<b>Suppliers</b>	<b>ENGOS</b>	<b>Media</b>	<b>Share-holders</b>	<b>Emp</b>
98	yes	yes	no	no	no	no	no	no	no	no	no	yes	no
99	yes	yes	no	no	no	yes	no	no	no	no	no	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no

**QUESTION 9: LEGITIMACY OF STAKEHOLDERS**

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
1	yes	yes	no	no	yes	no	no	yes	no	no	no	yes	no
2	no	no	no	no	no	no	no	no	no	no	no	no	no
3	yes	yes	yes	yes	no	no	yes	no	no	no	no	yes	no
4	no	no	no	no	yes	no	no	no	no	no	no	no	no
5	yes	yes	no	no	no	no	yes	no	no	no	no	no	no
6	yes	yes	no	no	no	no	yes	no	no	no	no	no	no
7	no	no	no	no	no	no	no	no	no	no	no	yes	no
8	yes	yes	yes	yes	no	yes	yes	no	no	yes	no	yes	no
9	yes	yes	no	no	no	no	yes	no	no	no	no	no	no
10	yes	yes	yes	no	yes	yes	no	no	no	no	no	no	yes
11	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	yes	yes
12	yes	yes	no	no	no	no	no	no	no	no	no	no	no
13	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
14	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
15	yes	yes	no	no	no	no	no	no	no	no	no	no	yes
16	no	yes	yes	yes	no	no	no	no	no	no	no	yes	no
17	yes	yes	yes	no	no	no	yes	yes	no	no	yes	yes	no
18	yes	yes	yes	yes	no	no	no	no	no	no	no	yes	no
19	yes	yes	no	no	no	no	no	yes	no	no	no	no	no
20	no	yes	yes	yes	no	yes	no	no	no	no	no	no	no
21	yes	yes	yes	yes	no	yes	no	no	no	no	no	no	no
22	yes	yes	yes	no	yes	yes	yes	no	no	no	no	yes	yes
23	yes	yes	yes	yes	no	yes	no	no	no	no	no	no	no
24	yes	no	no	no	no	no	no	no	no	no	no	no	no
25	no	yes	no	no	no	yes	yes	yes	no	no	yes	no	yes
26	no	yes	no	no	no	no	no	no	no	no	no	no	no
27	yes	yes	yes	no	no	no	no	no	no	no	no	no	no
28	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
29	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
30	yes	yes	yes	yes	yes	no	no	yes	no	no	yes	yes	yes
31	yes	yes	yes	no	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
32	yes	yes	yes	yes	no	no	yes	no	no	no	yes	yes	no
33	yes	yes	no	no	no	no	no	no	no	no	yes	no	no
34	yes	yes	yes	yes	no	yes	yes	no	no	no	no	yes	no
35	yes	yes	yes	no	no	no	yes	no	no	no	no	no	no
36	yes	no	no	no	no	no	no	no	no	no	no	no	no
37	no	no	no	no	no	no	no	no	no	no	no	no	no
38	no	yes	yes	no	no	no	no	no	no	no	no	no	no
39	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
40	yes	yes	yes	yes	yes	no	yes	yes	yes	no	yes	yes	no
41	yes	no	no	no	yes	yes	no	no	no	yes	yes	yes	yes
42	yes	no	no	no	no	no	no	no	no	no	no	no	no
43	no	yes	no	no	no	no	no	no	no	no	no	no	no
44	yes	yes	yes	yes	no	no	no	no	no	no	yes	no	no
45	yes	yes	yes	yes	yes	no	yes	no	no	no	yes	no	no
46	yes	yes	no	no	no	no	no	no	no	no	no	no	no
47	no	yes	no	no	no	no	no	no	no	no	no	no	no
48	yes	yes	no	no	no	no	no	no	no	no	no	no	no
49	yes	yes	no	no	no	no	no	no	no	no	no	no	no
50	yes	no	no	no	no	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	no
52	yes	yes	yes	no	no	no	no	no	no	no	no	yes	no
53	yes	no	no	no	no	no	no	no	no	no	no	no	no
54	yes	yes	no	no	no	yes	no	no	no	no	no	yes	no
55	yes	yes	yes	yes	yes	no	no	no	no	no	no	no	no
56	yes	yes	yes	no	no	yes	no	no	no	no	no	yes	no
57	yes	no	no	no	yes	yes	yes	no	no	no	no	no	yes
58	yes	yes	yes	yes	yes	yes	yes	no	no	yes	yes	yes	yes
59	no	yes	yes	yes	no	yes	no	yes	no	no	yes	no	no
60	no	no	no	no	yes	no	no	no	no	no	no	no	no
61	yes	yes	yes	yes	no	no	yes	yes	no	no	no	no	no
62	yes	no	no	no	no	no	no	no	no	no	no	no	no
63	yes	yes	no	no	no	no	yes	no	no	no	no	no	no
64	yes	no	no	yes	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
65	no	no	no	no	no	no	no	no	no	no	no	no	yes
66	no	no	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	no	yes	no	no	no	no	yes	no	no	no	no	no	no
69	yes	no	no	no	no	no	no	no	no	no	no	yes	yes
70	yes	yes	no	no	yes	no	no	no	no	no	no	no	yes
71	yes	yes	no	no	no	no	yes	yes	no	no	no	no	no
72	yes	no	no	no	yes	no	no	no	no	no	no	no	yes
73	no	yes	no	no	no	no	no	yes	no	no	no	no	no
74	no	yes	no	no	yes	no	yes	yes	no	no	yes	no	no
75	yes	yes	no	no	yes	no	no	no	no	no	no	yes	no
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
78	yes	yes	no	no	no	no	no	no	no	no	no	no	no
79	yes	yes	no	no	no	no	no	no	no	no	no	no	no
80	yes	yes	no	no	yes	no	no	yes	no	no	no	yes	no
81	no	yes	no	no	no	no	yes	no	no	no	no	no	no
82	yes	yes	no	no	yes	yes	yes	no	no	no	yes	yes	no
83	yes	yes	no	no	yes	yes	yes	no	no	no	yes	no	no
84	yes	yes	no	no	no	no	no	no	no	no	no	no	no
85	yes	yes	no	no	no	no	no	no	no	no	no	no	yes
86	no	yes	yes	yes	no	yes	no	no	no	no	no	no	no
87	no	no	no	no	no	no	no	no	no	no	no	no	no
88	yes	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	yes
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
91	yes	no	no	no	no	no	no	no	no	no	no	no	no
92	yes	yes	yes	yes	no	no	no	no	no	no	no	yes	no
93	yes	yes	no	no	no	no	no	yes	no	no	no	no	no
94	no	no	no	no	no	no	no	no	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	yes	yes	no	no	yes	no	no	no	no	no	no	no	no
97	yes	yes	no	no	no	yes	no	no	no	no	no	yes	no

	<b>CDM</b>	<b>Mun Gov</b>	<b>Prov Gov</b>	<b>Cen Gov</b>	<b>Cust</b>	<b>Local Comm</b>	<b>Ind Ass</b>	<b>Cert Bod</b>	<b>Suppliers</b>	<b>ENGOS</b>	<b>Media</b>	<b>Share-holders</b>	<b>Emp</b>
98	yes	yes	yes	yes	yes	yes	no	yes	no	no	no	yes	yes
99	yes	no	no	no	no	no	no	no	no	no	yes	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no



**QUESTION 11: URGENCY OF STAKEHOLDERS**

	<b>CDM</b>	<b>Mun Gov</b>	<b>Prov Gov</b>	<b>Cen Gov</b>	<b>Cust</b>	<b>Local Comm</b>	<b>Ind Ass</b>	<b>Cert Bod</b>	<b>Suppliers</b>	<b>ENGOS</b>	<b>Media</b>	<b>Share-holders</b>	<b>Emp</b>
1	yes	yes	no	no	yes	no	yes	no	no	no	no	no	no
2	no	no	no	no	no	no	no	no	no	no	no	no	no
3	yes	yes	yes	yes	no	no	yes	no	no	no	no	yes	no
4	no	no	no	no	no	no	no	no	no	no	no	no	no
5	yes	yes	no	no	no	no	yes	no	no	no	no	no	no
6	no	yes	no	no	no	no	yes	no	no	no	no	no	no
7	yes	yes	no	no	no	no	no	no	no	no	no	no	no
8	yes	yes	yes	yes	no	no	yes	no	no	no	no	yes	no
9	yes	yes	no	no	yes	no	no	no	no	no	yes	yes	no
10	no	yes	no	no	no	yes	yes	no	no	no	yes	no	no
11	yes	yes	yes	yes	no	yes	yes	no	no	no	no	yes	yes
12	yes	yes	no	no	no	no	no	no	no	no	no	no	no
13	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
14	yes	yes	yes	yes	no	yes	no	no	no	yes	yes	yes	no
15	no	yes	no	no	no	no	no	no	no	no	no	no	no
16	yes	yes	yes	yes	yes	yes	no	no	no	no	no	yes	yes
17	yes	yes	yes	no	no	no	yes	yes	no	no	yes	yes	no
18	yes	yes	yes	yes	no	no	no	no	no	no	no	yes	no
19	yes	yes	no	no	no	no	yes	no	no	no	no	no	no
20	no	yes	yes	yes	no	yes	yes	no	no	no	no	no	no
21	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
22	yes	yes	yes	yes	no	no	yes	no	no	no	no	yes	no
23	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
24	yes	yes	no	no	no	no	yes	no	no	no	no	no	no
25	no	yes	no	no	no	yes	no	no	no	yes	no	no	no
26	no	yes	no	no	no	no	no	no	no	no	no	no	no
27	no	no	yes	yes	no	no	no	no	no	no	yes	no	no
28	no	no	no	no	no	yes	no	no	no	no	no	no	no
29	yes	yes	yes	yes	no	no	no	no	no	no	no	yes	no
30	yes	yes	yes	no	no	no	yes	yes	no	no	yes	no	no
31	no	yes	yes	yes	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
32	yes	yes	yes	yes	yes	yes	yes	no	no	no	yes	yes	no
33	yes	yes	no	no	no	no	no	no	no	no	yes	no	no
34	yes	yes	yes	yes	no	yes	yes	no	no	yes	no	no	no
35	yes	yes	yes	no	no	yes	yes	no	no	yes	no	no	no
36	yes	yes	no	no	no	yes	yes	no	no	no	no	no	no
37	no	no	no	no	no	no	no	no	no	no	no	no	no
38	no	yes	yes	no	no	no	no	no	no	no	no	no	no
39	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
40	yes	yes	yes	yes	no	no	yes	no	no	no	yes	yes	no
41	yes	yes	no	no	yes	no	no	no	no	no	yes	yes	yes
42	no	yes	no	no	no	no	no	no	no	no	no	no	no
43	no	yes	no	no	no	no	no	no	no	no	no	no	no
44	yes	yes	no	yes	no	no	no	no	no	no	yes	yes	no
45	yes	yes	yes	yes	yes	no	yes	no	no	no	yes	no	no
46	no	yes	no	no	no	no	no	no	no	no	no	no	no
47	no	yes	no	no	no	no	no	no	no	no	no	no	no
48	yes	yes	no	no	no	no	no	no	no	no	no	no	no
49	yes	yes	no	no	no	no	no	no	no	no	no	no	no
50	no	yes	no	no	no	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	no
52	no	yes	no	no	no	no	yes	no	no	no	no	no	no
53	no	yes	no	no	no	no	no	no	no	no	no	no	no
54	yes	yes	no	no	no	yes	no	no	no	no	no	yes	no
55	yes	no	no	no	yes	no	no	no	no	no	no	no	no
56	yes	yes	yes	no	no	yes	no	no	no	no	yes	yes	no
57	yes	yes	yes	yes	yes	yes	yes	no	no	no	yes	yes	yes
58	yes	yes	yes	no	yes	no	yes	yes	no	yes	yes	yes	yes
59	yes	yes	yes	yes	yes	yes	no	no	no	no	yes	yes	no
60	no	yes	no	no	no	no	no	no	no	yes	no	yes	no
61	no	yes	yes	yes	yes	no	yes	yes	no	no	yes	no	yes
62	yes	no	no	no	no	no	no	no	no	no	no	no	no
63	no	yes	no	no	no	no	yes	no	no	no	no	no	no
64	no	no	no	no	no	no	no	yes	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
65	no	no	no	no	no	no	no	no	no	no	no	no	no
66	no	no	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	no	yes	no	no	no	yes	no	no	no	no	no	no	no
69	no	yes	no	no	no	no	no	no	no	no	no	no	no
70	no	yes	no	no	no	no	no	no	no	no	no	yes	yes
71	yes	no	no	no	no	no	yes	no	no	no	no	no	no
72	no	no	no	no	no	no	no	no	no	no	no	no	no
73	no	yes	no	no	no	no	yes	yes	no	no	yes	no	no
74	yes	yes	no	no	yes	yes	yes	yes	no	no	yes	no	no
75	yes	yes	no	no	no	no	no	no	no	no	no	no	no
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
78	yes	yes	no	no	no	no	no	no	no	no	no	no	no
79	yes	yes	no	no	no	no	no	no	no	no	no	no	no
80	yes	yes	no	no	yes	no	no	yes	no	yes	no	no	yes
81	no	yes	no	no	no	no	no	no	no	no	no	no	no
82	yes	yes	yes	yes	no	no	yes	no	no	no	no	yes	no
83	yes	no	no	no	no	no	no	no	no	no	yes	no	no
84	yes	yes	no	no	no	no	no	no	no	no	no	no	no
85	yes	yes	no	no	no	no	no	no	no	no	no	no	no
86	no	yes	no	no	no	yes	no	no	no	no	no	no	no
87	no	yes	no	no	no	yes	no	no	no	no	no	no	no
88	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	no	yes
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
91	yes	yes	no	no	yes	no	no	no	no	no	no	no	no
92	yes	yes	yes	yes	no	no	no	no	no	no	no	yes	no
93	yes	yes	no	no	no	no	no	no	no	no	no	no	no
94	yes	yes	no	no	no	no	no	no	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	yes	yes	no	no	yes	no	no	no	no	no	no	no	no
97	yes	yes	no	no	no	no	yes	no	no	no	no	no	no

	<b>CDM</b>	<b>Mun Gov</b>	<b>Prov Gov</b>	<b>Cen Gov</b>	<b>Cust</b>	<b>Local Comm</b>	<b>Ind Ass</b>	<b>Cert Bod</b>	<b>Suppliers</b>	<b>ENGOS</b>	<b>Media</b>	<b>Share-holders</b>	<b>Emp</b>
98	yes	yes	yes	yes	yes	yes	no	no	no	no	no	yes	no
99	no	yes	no	no	no	no	no	no	no	no	no	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no

**QUESTION 13: POWER STRATEGIES – COERCION**

	<b>CDM</b>	<b>Mun Gov</b>	<b>Prov Gov</b>	<b>Cen Gov</b>	<b>Cust</b>	<b>Local Comm</b>	<b>Ind Ass</b>	<b>Cert Bod</b>	<b>Suppliers</b>	<b>ENGOS</b>	<b>Media</b>	<b>Share-holders</b>	<b>Emp</b>
1	no	yes	no	no	no	no	no	yes	no	no	no	no	no
2	yes	yes	yes	no	no	no	no	no	no	no	no	no	no
3	yes	yes	yes	yes	no	no	no	no	no	no	yes	no	no
4	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
5	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
6	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
7	no	no	no	no	no	no	no	no	no	no	no	no	no
8	no	yes	yes	yes	no	no	no	no	no	no	yes	no	no
9	no	yes	no	no	no	no	no	no	no	no	no	no	no
10	no	yes	yes	no	no	no	no	no	no	no	no	no	no
11	yes	no	no	no	no	no	no	no	no	no	no	no	no
12	no	yes	no	no	no	no	no	no	no	no	no	no	no
13	yes	yes	yes	yes	yes	yes	no	no	no	no	no	no	no
14	yes	yes	yes	yes	no	yes	no	no	no	no	yes	no	no
15	yes	no	yes	no	no	no	no	no	no	no	no	no	no
16	no	yes	yes	yes	no	no	no	no	no	no	yes	no	no
17	no	no	no	no	no	no	no	no	no	no	no	no	no
18	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
19	no	no	no	no	no	no	no	no	no	no	no	no	no
20	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
21	no	no	no	no	no	no	no	no	no	no	no	no	no
22	no	no	no	no	no	no	no	no	no	no	no	no	no
23	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
24	no	yes	no	no	no	no	no	no	no	no	no	no	no
25	no	no	no	no	no	no	no	yes	no	no	no	no	no
26	no	yes	no	no	no	no	no	no	no	no	no	no	no
27	yes	no	yes	yes	no	yes	yes	no	no	no	no	no	no
28	no	yes	no	no	no	no	no	no	no	no	no	no	no
29	yes	yes	yes	yes	no	no	no	no	no	no	no	no	yes
30	yes	yes	no	no	no	no	no	no	no	yes	no	yes	no
31	no	yes	yes	yes	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
32	yes	no	no	no	no	no	yes	no	no	no	yes	no	no
33	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
34	yes	no	no	no	no	no	no	no	no	no	no	no	no
35	no	no	no	no	no	no	no	no	no	no	no	no	no
36	yes	yes	no	no	no	no	no	no	no	no	no	no	no
37	no	no	no	no	no	no	no	no	no	no	no	no	yes
38	yes	yes	yes	no	no	no	yes	no	no	yes	no	yes	no
39	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
40	yes	no	no	no	no	no	no	no	no	no	yes	no	no
41	yes	yes	yes	yes	no	no	no	no	no	no	yes	no	no
42	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
43	no	yes	no	no	no	no	no	no	no	no	no	no	no
44	yes	yes	yes	yes	no	no	no	no	no	no	yes	no	no
45	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
46	no	no	no	no	no	no	no	no	no	no	no	no	no
47	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
48	no	no	no	no	no	no	no	no	no	no	no	no	no
49	yes	no	no	no	no	no	no	no	no	no	no	no	no
50	no	yes	no	no	no	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	yes
52	yes	yes	yes	yes	no	no	yes	no	yes	no	yes	yes	no
53	no	no	no	no	no	no	no	no	no	no	no	no	no
54	yes	yes	no	no	no	no	no	no	no	no	no	no	no
55	no	no	no	no	no	no	no	no	no	no	no	no	no
56	yes	yes	yes	no	no	no	no	no	no	no	yes	no	no
57	yes	yes	yes	yes	no	yes	no	no	no	no	no	no	no
58	yes	no	yes	yes	yes	no	no	no	no	no	no	no	no
59	yes	no	no	no	no	no	no	no	no	no	yes	no	no
60	no	no	no	no	no	no	no	no	no	no	no	no	no
61	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
62	no	yes	no	no	no	no	no	no	no	no	no	no	no
63	no	no	no	no	no	no	no	no	no	no	no	no	no
64	yes	yes	yes	yes	no	no	no	no	no	no	yes	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
65	no	no	no	no	no	no	no	no	no	no	no	no	no
66	no	no	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	yes	yes	yes	no	no	yes	no	no	no	no	no	no	no
69	no	no	no	no	no	no	no	no	yes	no	no	no	no
70	no	yes	no	no	no	no	no	no	no	no	no	no	no
71	no	no	no	no	no	no	no	no	no	no	no	no	no
72	no	no	no	no	no	no	no	no	no	no	no	no	no
73	no	yes	no	yes	yes	no	no	yes	no	no	no	no	no
74	no	no	no	no	no	yes	no	no	no	no	no	no	no
75	yes	yes	no	no	no	no	no	no	no	no	no	no	no
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
78	no	yes	no	no	no	no	no	no	no	no	no	no	no
79	yes	no	no	no	no	no	no	no	no	no	no	no	no
80	yes	no	no	no	no	no	no	no	no	no	no	no	no
81	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
82	no	yes	no	no	no	no	no	no	no	no	no	no	no
83	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
84	yes	yes	no	no	no	no	no	no	no	no	yes	no	no
85	yes	yes	no	no	no	no	no	no	no	no	no	no	no
86	yes	no	no	no	no	no	no	no	no	no	no	no	no
87	no	no	no	no	no	no	no	no	no	no	no	no	no
88	no	no	no	no	no	no	no	no	no	no	no	no	no
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	yes	no	no	no	no	no	yes	no	no	no	no	no	no
91	no	no	no	no	no	no	no	no	no	no	no	no	no
92	yes	yes	yes	yes	no	no	no	no	no	no	yes	no	no
93	yes	no	no	no	no	no	no	no	no	no	no	no	no
94	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	yes	no	no	no	no	no	no	no	no	no	no	no	no
97	no	yes	yes	yes	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	Emp
98	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
99	no	yes	no	no	no	no	no	no	no	no	no	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no

**QUESTION 13: REWARD**

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
1	no	no	no	no	no	no	no	no	no	no	no	no	no
2	no	no	no	no	no	no	no	no	no	no	no	no	no
3	yes	no	no	no	no	no	no	no	no	no	no	no	no
4	no	no	no	no	no	no	no	no	yes	yes	no	yes	yes
5	yes	yes	yes	no	no	no	no	no	no	no	no	no	no
6	yes	no	no	no	no	yes	yes	yes	no	yes	no	no	no
7	no	no	no	no	no	no	no	no	no	no	no	no	no
8	no	no	no	no	no	no	no	no	no	no	no	no	no
9	yes	no	no	no	no	no	no	no	no	no	no	no	no
10	no	no	no	no	no	no	no	no	no	no	no	no	no
11	no	no	no	no	no	no	no	no	no	no	no	no	yes
12	no	no	no	no	no	no	no	no	no	no	no	no	no
13	no	no	no	no	no	no	no	no	no	no	no	no	no
14	no	no	no	no	no	no	no	no	no	no	no	yes	no
15	no	no	no	no	no	no	no	no	no	no	no	no	no
16	no	yes	yes	yes	no	no	no	no	no	no	no	no	yes
17	no	no	no	no	no	no	no	no	no	no	no	no	no
18	yes	no	no	no	no	no	no	no	no	no	no	no	no
19	no	no	no	no	no	no	no	no	no	no	no	no	no
20	no	no	no	no	no	no	no	yes	no	no	no	no	no
21	no	no	no	no	no	no	no	no	no	no	no	no	no
22	no	no	no	no	no	no	no	no	no	no	no	no	no
23	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
24	yes	no	no	no	no	no	no	no	no	no	no	no	no
25	no	yes	yes	yes	no	no	no	no	no	no	no	no	no



	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
26	yes	no	no	no	no	no	no	no	no	no	no	no	no
27	yes	no	no	no	no	no	no	no	no	no	yes	yes	no
28	no	yes	no	no	no	no	no	no	no	no	no	no	no
29	no	no	no	no	no	no	no	no	no	no	no	no	no
30	no	no	no	no	no	no	no	no	no	no	no	no	no
31	no	no	no	no	no	no	yes	yes	no	no	no	no	no
32	no	no	no	no	yes	yes	no	no	yes	no	no	yes	yes
33	no	no	no	no	no	no	no	no	no	no	no	no	no
34	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
35	yes	no	no	no	no	no	no	no	no	no	no	no	no
36	no	no	no	no	no	no	no	no	no	no	no	no	no
37	no	no	no	no	no	no	no	no	no	no	no	no	no
38	no	yes	yes	no	no	no	yes	no	no	no	yes	no	yes
39	yes	no	no	no	no	yes	yes	no	yes	yes	no	no	no
40	no	no	no	no	no	no	no	no	no	no	no	no	no
41	yes	yes	yes	yes	no	no	yes	no	no	no	no	no	no
42	no	no	no	no	no	no	no	no	no	no	no	no	no
43	no	no	no	no	no	no	no	no	no	no	no	no	no
44	yes	no	no	no	no	no	no	no	no	no	no	yes	no
45	yes	yes	yes	yes	no	no	yes	no	no	no	no	no	no
46	no	no	no	no	no	no	no	no	no	no	no	no	no
47	no	no	no	no	no	no	no	no	no	no	no	no	no
48	no	no	no	no	no	no	no	no	no	no	no	no	no
49	no	no	no	no	yes	no	no	no	no	no	no	yes	no
50	no	no	no	no	no	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	no
52	yes	no	no	no	no	no	no	no	no	no	no	yes	no
53	no	no	no	no	no	no	no	no	no	no	no	no	no
54	no	no	no	no	no	no	no	no	no	no	no	no	no
55	no	no	no	no	no	no	no	no	no	no	no	no	no
56	no	no	no	no	no	no	no	no	no	no	no	no	no
57	no	no	no	no	no	no	no	no	no	no	no	no	no
58	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
59	yes	no	no	no	no	no	no	no	no	no	no	no	no
60	no	no	no	no	no	no	yes	yes	no	no	no	no	no
61	yes	no	no	no	no	no	no	no	no	no	no	no	no
62	no	no	no	no	no	no	no	no	no	no	no	no	no
63	yes	yes	no	no	no	no	yes	no	no	no	no	no	yes
64	no	no	no	no	yes	yes	no	no	yes	no	no	no	yes
65	no	no	no	no	yes	yes	no	no	yes	no	no	no	yes
66	no	no	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	yes	no	no	no	no	no	no	no	no	no	no	no	no
69	no	no	no	no	yes	no	no	no	no	no	no	no	no
70	yes	no	no	no	no	no	no	no	no	no	no	yes	yes
71	yes	yes	no	no	no	no	no	no	no	no	no	no	no
72	no	no	no	no	no	no	no	no	no	no	no	no	no
73	no	no	no	no	no	no	no	no	no	no	no	no	no
74	no	no	no	no	no	no	no	yes	no	no	no	no	no
75	no	no	no	no	no	no	no	no	no	no	no	no	no
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	yes	no	no	no	no	no	no	no	no	no	no	no	no
78	no	no	no	no	no	no	no	no	no	no	no	no	no
79	yes	no	no	no	no	no	no	no	no	no	no	no	no
80	no	yes	no	no	no	no	no	no	no	no	no	no	no
81	no	no	no	no	no	no	no	no	no	no	no	no	no
82	no	no	no	no	no	no	no	no	no	no	no	no	yes
83	no	no	no	no	no	no	no	no	no	no	no	no	no
84	yes	no	no	no	no	no	no	no	no	no	no	no	no
85	no	no	no	no	no	no	no	no	no	no	no	no	no
86	no	no	no	no	no	no	no	no	no	no	no	no	yes
87	no	no	no	no	no	no	no	no	no	no	no	no	no
88	no	no	no	no	no	no	no	no	no	no	no	no	no
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	yes	no	no	no	no	yes	no	no	no	no	no	no	no
91	yes	no	no	no	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
92	no	no	no	no	no	no	no	no	no	no	no	no	no
93	yes	no	no	no	no	no	no	no	no	no	no	no	no
94	no	no	no	no	no	no	no	no	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	yes	no	no	no	no	no	no	no	no	no	no	no	no
97	yes	yes	yes	no	no	no	no	no	no	no	no	no	no
98	yes	no	no	no	no	no	no	no	no	no	no	no	no
99	no	no	no	no	no	no	no	no	no	no	no	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no

**QUESTION 13: EXPERIENCE**

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
1	no	no	no	no	no	no	no	no	no	no	no	no	no
2	no	no	no	no	no	no	no	no	yes	no	no	no	no
3	no	no	no	no	no	no	no	no	no	no	yes	yes	no
4	no	no	no	no	no	yes	yes	yes	no	no	no	no	no
5	no	yes	no	no	yes	yes	yes	no	no	no	no	no	no
6	no	no	no	no	no	no	no	no	no	no	no	no	no
7	no	no	no	no	no	no	yes	no	no	no	yes	no	no
8	no	no	no	no	no	no	no	no	no	no	no	no	no
9	no	no	no	no	no	no	no	no	no	no	no	no	no
10	no	no	no	no	no	no	no	yes	no	no	no	no	no
11	no	no	no	no	yes	no	no	no	no	no	no	yes	no
12	no	no	no	no	no	no	yes	no	no	no	no	no	no
13	no	no	no	no	no	no	no	no	no	no	no	no	no
14	no	no	no	no	no	no	10.00	no	no	yes	no	no	no
15	no	no	no	no	no	no	no	no	no	no	no	no	no
16	no	no	no	no	no	no	yes	no	no	yes	no	no	no
17	no	no	no	no	no	no	no	no	no	no	no	no	no
18	no	no	no	no	no	no	no	no	no	no	no	no	no
19	no	yes	no	no	no	no	no	no	no	no	no	no	no
20	no	no	no	no	no	yes	no	no	yes	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
21	no	no	no	no	no	no	no	no	no	no	no	no	no
22	no	no	no	no	no	no	no	no	no	no	no	no	no
23	no	yes	yes	yes	yes	yes	yes	no	no	no	no	no	no
24	no	no	no	no	no	no	yes	no	no	no	no	no	yes
25	no	no	no	no	no	no	no	no	no	no	no	no	no
26	no	no	no	no	no	no	no	no	no	no	no	no	no
27	no	no	no	no	yes	no	no	no	no	no	no	no	yes
28	no	no	no	no	no	no	no	no	no	no	no	no	no
29	no	no	no	no	no	no	no	no	no	no	no	no	no
30	no	no	no	no	no	no	no	no	no	no	no	no	no
31	no	no	no	no	no	no	no	no	no	10.00	no	no	no
32	no	no	no	no	no	no	no	no	no	no	no	no	no
33	no	no	no	no	no	no	no	no	no	no	no	no	no
34	no	no	no	no	no	yes	yes	no	no	no	no	no	no
35	yes	yes	yes	no	yes	yes	yes	no	no	yes	yes	yes	yes
36	no	no	no	no	yes	yes	no	no	no	no	no	no	no
37	no	no	no	no	no	no	no	no	no	no	no	no	no
38	yes	no	no	no	no	no	yes	no	no	no	yes	no	yes
39	no	no	no	no	yes	yes	yes	yes	yes	yes	no	no	yes
40	no	no	no	no	no	no	yes	no	no	yes	no	no	no
41	yes	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes
42	no	no	no	no	no	no	no	no	no	no	no	no	no
43	no	no	no	no	no	no	no	no	no	no	no	no	no
44	no	no	no	no	no	yes	yes	no	no	yes	yes	no	yes
45	no	no	no	no	no	no	no	no	no	no	no	no	no
46	no	no	no	no	no	no	no	no	no	no	no	no	no
47	no	no	no	no	no	yes	no	no	no	no	no	no	no
48	no	no	no	no	no	no	no	no	no	no	no	no	no
49	no	no	no	no	no	no	no	yes	no	yes	no	no	yes
50	yes	no	no	no	no	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	no
52	no	no	no	no	no	no	yes	no	no	no	no	no	no
53	yes	no	no	no	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
54	no	yes	no	no	no	no	no	no	no	no	no	no	no
55	no	no	no	no	no	no	no	no	no	no	no	no	no
56	no	no	no	no	no	no	no	no	no	no	no	no	no
57	no	no	no	no	yes	no	no	no	no	no	no	no	yes
58	yes	no	no	no	no	yes	yes	yes	yes	yes	yes	no	yes
59	no	yes	no	yes	no	yes	yes	no	no	no	no	no	yes
60	yes	no	no	no	no	no	no	no	no	no	no	yes	no
61	no	no	no	no	no	yes	no	no	no	no	no	no	no
62	yes	no	no	no	no	no	no	no	yes	yes	no	no	yes
63	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
64	no	no	no	no	no	no	no	no	no	no	no	no	no
65	no	no	no	no	no	no	no	no	no	no	no	no	no
66	no	no	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	no	no	no	no	no	no	no	no	no	no	no	no	no
69	yes	yes	yes	yes	no	no	yes	yes	no	yes	yes	no	no
70	no	no	no	no	yes	no	no	no	no	no	no	no	no
71	yes	no	no	no	no	no	no	no	no	no	no	yes	no
72	yes	no	no	no	no	no	no	no	no	no	no	no	no
73	yes	no	no	no	no	no	no	no	no	yes	no	no	no
74	yes	no	no	no	yes	no	yes	no	no	no	no	no	no
75	no	no	no	no	no	yes	no	no	no	no	no	no	no
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	no	no	no	no	no	no	no	no	no	no	no	no	no
78	no	no	no	no	no	no	yes	no	no	no	no	no	no
79	no	yes	no	no	yes	no	yes	no	no	no	yes	no	no
80	no	no	no	no	no	no	no	no	no	no	no	yes	no
81	no	no	no	no	no	no	yes	no	yes	no	no	yes	no
82	yes	no	no	no	no	no	no	no	no	no	no	no	no
83	no	no	no	no	no	no	yes	yes	no	yes	no	no	yes
84	no	no	no	no	no	no	no	no	no	no	no	no	no
85	no	no	no	no	no	no	yes	no	no	no	no	no	no
86	no	no	no	no	no	no	no	no	no	no	no	yes	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
87	no	no	no	no	no	no	no	no	no	no	no	no	no
88	yes	no	no	no	no	no	no	no	no	no	no	yes	no
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
91	no	yes	no	no	no	no	no	no	no	no	no	no	no
92	no	no	no	no	no	no	no	no	no	no	no	no	no
93	yes	no	no	no	no	no	yes	yes	no	no	no	no	no
94	no	no	no	no	no	no	no	no	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	no	no	no	no	no	no	no	no	no	no	no	no	no
97	no	yes	no	no	yes	yes	yes	no	no	no	no	no	no
98	yes	no	no	no	no	no	yes	no	yes	no	no	no	no
99	yes	yes	no	no	no	yes	no	no	no	no	no	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no

**QUESTION 13: LEGITIMACY**

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
1	no	no	no	no	no	no	no	no	no	no	no	no	no
2	no	no	no	yes	no	no	no	no	no	no	no	no	no
3	yes	no	yes	yes	yes	no	no	no	no	no	no	no	no
4	no	no	no	no	no	no	no	no	no	no	yes	no	no
5	no	yes	yes	no	no	no	no	no	no	no	no	no	no
6	no	no	no	no	no	no	no	no	no	no	no	no	no
7	no	no	no	no	no	no	no	no	no	no	no	no	no
8	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
9	no	no	no	no	no	no	no	no	no	no	no	no	no
10	no	yes	yes	no	no	no	no	no	no	no	no	no	no
11	no	no	no	yes	no	no	no	no	no	no	no	no	no
12	no	no	no	no	no	no	no	no	no	no	no	no	no
13	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
14	no	no	no	no	10.00	no	no	no	no	no	no	no	no
15	no	yes	no	no	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
16	yes	yes	yes	yes	no	no	no	no	no	no	no	no	no
17	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
18	no	no	no	no	no	no	no	no	no	no	no	no	no
19	no	no	no	no	no	no	yes	no	no	no	no	no	no
20	no	no	no	no	no	no	no	no	no	no	no	no	no
21	no	no	no	no	no	no	no	no	no	no	no	no	no
22	no	no	no	no	no	no	no	no	no	no	no	no	no
23	no	yes	yes	yes	no	no	no	no	no	no	yes	no	no
24	no	no	no	no	no	no	no	no	no	no	no	no	no
25	no	no	no	no	yes	no	yes	no	no	no	no	no	no
26	no	no	no	no	no	no	no	no	no	no	no	no	no
27	yes	yes	no	no	no	no	yes	yes	no	yes	no	no	no
28	no	no	no	no	no	no	no	no	no	no	no	no	no
29	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
30	no	no	no	no	no	no	no	no	no	no	no	no	no
31	no	no	no	no	no	yes	no	no	no	no	no	yes	no
32	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
33	no	no	no	no	no	no	no	no	no	no	no	no	no
34	no	no	no	no	no	no	no	yes	no	yes	no	no	no
35	yes	no	no	no	no	no	no	no	no	no	no	no	no
36	no	no	no	no	no	no	no	no	no	no	no	no	no
37	no	no	no	no	no	no	no	no	no	no	no	no	no
38	no	no	no	no	no	no	no	no	no	no	no	no	no
39	no	no	no	no	no	no	no	no	no	no	no	no	no
40	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
41	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
42	no	no	no	no	no	no	no	no	no	no	no	no	no
43	no	no	no	no	no	no	no	no	no	no	no	no	no
44	no	yes	yes	yes	yes	no	no	no	no	no	no	no	no
45	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
46	no	no	no	no	no	no	no	no	no	no	no	no	no
47	no	no	no	no	no	no	no	no	no	no	no	no	no
48	no	no	no	no	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
49	no	yes	yes	yes	no	yes	no	no	no	no	no	no	no
50	no	yes	no	no	no	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	no
52	no	no	no	no	no	yes	no	no	no	no	no	no	no
53	no	no	no	no	no	no	no	no	no	no	no	no	no
54	no	yes	no	no	no	yes	no	no	no	no	no	no	no
55	no	no	no	no	no	no	no	no	no	no	no	no	no
56	no	yes	yes	no	no	yes	no	no	no	no	no	no	no
57	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
58	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
59	no	yes	yes	no	no	no	no	no	no	no	no	no	no
60	no	no	no	no	no	no	no	no	no	no	no	no	no
61	no	yes	yes	yes	no	no	yes	yes	no	yes	no	no	no
62	no	no	no	no	no	no	no	no	no	no	no	no	no
63	yes	yes	no	no	no	no	no	no	no	no	no	no	no
64	no	no	no	no	no	no	no	no	no	no	no	no	no
65	no	no	no	no	no	no	no	no	no	no	no	no	no
66	no	yes	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	no	no	no	no	no	no	no	no	no	no	no	no	no
69	no	no	no	no	no	no	no	no	yes	no	no	no	no
70	no	no	no	no	no	no	no	no	no	no	no	no	no
71	no	no	no	no	no	yes	no	no	no	no	no	no	no
72	yes	yes	no	no	no	no	no	no	no	no	no	no	no
73	no	no	no	no	no	no	no	no	no	no	yes	no	no
74	no	no	no	no	no	no	no	no	no	no	no	no	no
75	no	no	yes	yes	no	no	no	no	no	no	no	no	no
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	no	no	no	no	no	no	no	no	no	no	no	no	no
78	no	no	no	no	no	no	no	no	no	no	no	no	no
79	no	no	no	no	no	no	no	no	no	no	no	no	no
80	no	no	yes	yes	no	no	no	no	no	no	no	no	no
81	no	no	no	no	no	no	no	no	no	no	no	no	no



	<b>CDM</b>	<b>Mun Gov</b>	<b>Prov Gov</b>	<b>Cen Gov</b>	<b>Cust</b>	<b>Local Comm</b>	<b>Ind Ass</b>	<b>Cert Bod</b>	<b>Suppliers</b>	<b>ENGOS</b>	<b>Media</b>	<b>Share-holders</b>	
82	no	no	no	no	no	no	no	no	no	no	no	no	no
83	no	no	no	no	yes	no	no	yes	no	no	no	no	no
84	no	yes	no	no	no	no	no	no	no	no	no	no	no
85	no	yes	no	no	no	no	no	no	no	no	no	no	no
86	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
87	no	no	no	no	no	no	no	no	no	no	no	no	no
88	no	no	no	no	no	no	no	no	no	no	no	no	no
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	no	no	no	no	no	no	yes	no	no	no	no	no	no
91	no	no	no	no	no	no	no	no	no	no	no	no	no
92	no	no	no	no	no	no	no	no	no	no	no	no	no
93	no	yes	yes	yes	no	no	yes	yes	no	yes	no	no	no
94	no	no	no	no	no	no	no	no	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	no	yes	yes	no	no	no	no	no	no	no	no	no	no
97	no	yes	yes	no	no	no	no	no	no	no	no	no	no
98	no	yes	yes	yes	no	no	no	no	no	no	no	no	no
99	no	no	no	no	no	no	no	no	no	no	no	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no

**QUESTION 13: INFORMATION**

	<b>CDM</b>	<b>Mun Gov</b>	<b>Prov Gov</b>	<b>Cen Gov</b>	<b>Cust</b>	<b>Local Comm</b>	<b>Ind Ass</b>	<b>Cert Bod</b>	<b>Suppliers</b>	<b>ENGOS</b>	<b>Media</b>	<b>Share-holders</b>	
1	no	yes	no	no	no	no	yes	yes	no	no	yes	no	no
2	no	no	no	no	no	no	yes	no	no	no	no	no	no
3	no	yes	no	no	no	yes	yes	yes	no	yes	yes	no	yes
4	no	no	no	no	yes	no	no	no	no	no	no	no	no
5	no	yes	yes	no	no	no	no	no	no	no	no	no	no
6	no	no	no	no	no	no	no	no	no	no	yes	no	no
7	no	no	no	no	no	no	no	no	no	no	no	no	no
8	no	no	no	no	no	yes	yes	no	no	no	yes	no	no
9	no	no	no	no	yes	no	no	no	no	no	yes	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
10	no	yes	yes	no	no	yes	no	no	no	no	yes	no	no
11	no	yes	yes	no	no	yes	yes	no	no	no	no	no	no
12	no	no	no	no	no	no	no	no	no	no	no	no	no
13	yes	yes	yes	yes	yes	yes	yes	yes	no	yes	yes	no	no
14	no	no	no	no	no	no	yes	no	no	yes	yes	no	no
15	no	yes	no	no	no	no	no	no	no	no	no	no	no
16	no	no	no	no	no	yes	no	no	no	no	yes	no	no
17	no	no	no	no	no	no	no	no	no	no	no	no	no
18	no	no	no	no	no	no	no	no	no	no	no	no	no
19	no	no	no	no	no	no	no	no	no	no	no	no	no
20	no	no	no	no	no	no	no	no	no	no	yes	no	no
21	no	no	no	no	no	no	no	no	no	no	no	no	no
22	yes	yes	yes	no	no	yes	yes	no	no	no	yes	no	no
23	yes	no	no	no	no	no	no	yes	no	no	no	no	no
24	no	no	no	no	no	no	no	no	no	no	yes	no	no
25	yes	no	no	no	no	yes	no	no	no	no	yes	yes	yes
26	no	no	no	no	no	no	no	no	no	no	no	no	no
27	no	no	no	no	no	no	no	no	no	no	no	no	no
28	no	no	no	no	no	no	no	no	no	no	no	no	no
29	no	no	no	no	no	no	no	no	no	no	yes	no	no
30	no	no	no	no	no	no	no	no	no	no	no	no	no
31	no	no	no	no	no	no	no	no	no	no	yes	no	yes
32	no	no	no	no	no	no	no	yes	no	yes	yes	no	no
33	no	no	no	no	no	yes	yes	no	no	no	yes	no	no
34	no	no	no	no	no	no	no	no	no	no	no	no	no
35	no	no	no	no	no	no	no	no	no	no	no	no	no
36	no	no	no	no	no	no	no	no	no	no	no	no	no
37	no	no	no	no	no	no	no	no	no	no	no	no	no
38	no	no	no	no	no	no	no	no	no	no	no	no	no
39	yes	no	no	no	no	yes	yes	no	no	no	yes	yes	no
40	no	no	no	no	yes	yes	no	yes	yes	yes	yes	yes	yes
41	yes	yes	yes	yes	yes	no	no	no	no	yes	no	no	yes
42	no	no	no	no	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
43	no	no	no	no	no	no	no	no	no	no	no	no	no
44	yes	yes	no	no	yes	no	yes	no	no	yes	yes	no	no
45	no	no	no	no	yes	no	no	no	no	no	yes	no	no
46	no	no	no	no	no	no	no	no	no	no	no	no	no
47	yes	no	no	no	yes	no	no	yes	no	no	no	no	yes
48	no	yes	yes	yes	no	yes	yes	no	no	no	yes	no	no
49	no	no	no	no	no	no	yes	no	no	no	yes	no	no
50	no	no	no	no	no	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	no
52	no	no	no	no	no	no	no	no	no	no	yes	no	no
53	no	no	no	no	no	no	no	no	no	no	no	no	no
54	yes	yes	no	no	no	yes	yes	no	no	no	yes	yes	no
55	no	no	no	no	no	no	no	no	no	no	no	no	no
56	yes	no	no	no	no	yes	yes	no	no	yes	yes	no	no
57	no	yes	yes	yes	yes	yes	yes	no	no	yes	no	no	no
58	yes	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes
59	yes	yes	no	no	no	yes	no	no	no	no	yes	no	no
60	no	yes	yes	yes	yes	yes	no	no	no	yes	yes	no	no
61	no	yes	yes	yes	no	no	no	no	no	no	yes	no	no
62	no	no	no	no	no	no	no	no	no	no	no	no	no
63	yes	yes	no	no	no	no	yes	yes	no	no	no	no	no
64	no	no	no	no	no	no	no	no	no	no	yes	no	no
65	no	no	no	no	no	no	no	no	no	no	yes	no	no
66	no	no	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	no	no	no	no	no	no	no	no	no	no	no	no	no
69	no	no	no	no	no	no	no	no	no	no	no	no	no
70	no	no	no	no	no	yes	yes	yes	no	no	no	no	no
71	no	no	no	no	no	no	yes	no	no	yes	yes	no	no
72	yes	no	no	no	yes	no	no	no	no	no	no	no	yes
73	no	no	no	no	no	yes	no	no	no	no	no	no	no
74	no	no	no	no	no	no	no	no	no	no	yes	no	no
75	no	no	no	yes	no	no	yes	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	no	no	no	no	no	no	no	no	no	no	no	no	no
78	no	no	no	no	no	no	no	no	no	no	no	no	no
79	no	no	no	no	no	yes	no	no	no	no	no	no	no
80	no	no	no	no	no	no	no	no	no	no	yes	no	no
81	no	no	no	no	no	no	no	no	no	no	no	no	no
82	no	no	no	no	no	no	yes	no	no	no	yes	no	no
83	no	no	no	no	no	yes	no	no	no	no	yes	no	no
84	no	no	no	no	no	no	no	no	no	no	yes	no	no
85	yes	yes	no	no	no	no	no	no	no	no	no	no	no
86	no	no	no	no	no	yes	yes	no	no	yes	yes	no	no
87	no	no	no	no	no	no	no	no	no	no	no	no	no
88	no	yes	no	no	no	no	no	no	no	no	no	no	no
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	no	no	no	no	no	no	no	no	no	no	no	no	no
91	no	no	no	no	no	no	no	no	no	no	no	no	no
92	no	no	no	no	no	no	no	no	no	no	no	no	no
93	no	no	no	no	yes	no	yes	yes	yes	no	yes	yes	yes
94	no	no	no	no	no	no	no	no	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	no	no	no	no	no	no	no	no	no	no	yes	no	no
97	no	yes	yes	no	no	no	no	no	no	no	no	no	no
98	yes	no	no	no	no	no	yes	no	no	yes	no	no	no
99	yes	no	no	no	no	no	no	no	no	no	no	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no

**QUESTION 13: REFERENCE**

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
1	no	no	no	no	no	yes	no	no	yes	yes	no	no	yes
2	no	no	no	no	no	no	no	no	no	no	no	no	no
3	no	no	no	no	no	yes	yes	no	no	no	yes	yes	yes

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
4	yes	no	no	no	no	no	no	no	no	no	no	no	no
5	no	no	yes	yes	no	no	no	no	no	no	no	no	no
6	no	no	no	no	yes	no	no	no	yes	no	no	no	yes
7	no	no	no	no	no	no	no	no	no	no	no	no	no
8	no	no	no	no	yes	no	no	no	no	yes	no	no	no
9	no	no	no	no	no	no	no	no	no	no	no	no	no
10	no	no	no	no	no	no	no	no	no	no	no	no	no
11	no	no	no	no	no	no	no	no	no	no	no	no	no
12	no	no	no	no	no	no	no	no	no	no	no	no	no
13	no	no	no	no	no	no	no	no	no	no	no	no	no
14	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes
15	no	no	no	no	no	no	no	no	no	no	yes	no	no
16	no	no	no	no	no	no	no	yes	yes	no	no	no	no
17	no	no	no	no	no	no	no	no	no	no	no	no	no
18	no	no	no	no	no	no	no	no	no	no	no	no	no
19	no	no	no	no	no	no	no	no	no	no	no	no	no
20	no	no	no	yes	no	no	yes	no	no	yes	no	yes	yes
21	no	no	no	no	no	no	no	no	no	no	no	no	no
22	no	no	no	no	no	no	no	no	no	no	no	no	no
23	no	no	no	no	no	no	no	yes	no	no	no	no	no
24	no	no	no	no	no	no	no	yes	no	no	no	no	no
25	no	no	no	no	no	no	no	no	yes	yes	no	no	no
26	no	no	no	no	no	no	no	no	no	no	no	no	no
27	no	no	no	no	no	no	no	no	no	no	no	no	no
28	no	no	no	no	no	no	no	no	no	no	no	no	no
29	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	yes	yes
30	no	no	no	no	no	no	no	no	no	no	no	no	no
31	no	no	no	no	yes	no	no	no	yes	no	no	no	no
32	no	no	no	no	no	no	no	no	no	yes	no	no	yes
33	no	no	no	no	no	no	no	no	no	no	no	no	no
34	no	no	no	no	no	no	no	no	no	no	no	no	no
35	yes	yes	yes	no	no	no	yes	no	no	no	no	no	no
36	no	no	no	no	no	no	no	no	no	no	no	no	no

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
37	no	no	no	no	no	no	no	no	no	no	no	no	no
38	no	no	no	no	no	no	no	no	no	no	no	no	no
39	yes	no	no	no	no	yes	yes	yes	yes	yes	no	no	yes
40	no	no	no	no	no	no	no	no	no	no	no	no	no
41	yes	yes	yes	yes	yes	no	yes	yes	no	yes	no	no	yes
42	no	no	no	no	no	no	no	no	no	no	no	no	no
43	no	no	no	no	no	no	no	no	no	no	no	no	no
44	yes	no	no	no	no	no	no	no	no	no	no	no	no
45	no	no	no	no	no	no	no	no	no	no	no	no	no
46	no	no	no	no	no	no	no	no	no	no	no	no	no
47	no	no	no	no	no	no	yes	no	no	no	yes	no	no
48	yes	no	no	no	yes	no	no	yes	yes	yes	no	no	yes
49	no	no	no	no	no	no	no	no	no	no	no	no	no
50	no	no	no	no	yes	no	no	no	no	no	no	no	no
51	no	no	no	no	no	no	no	no	no	no	no	no	no
52	yes	no	no	no	yes	yes	no	no	no	yes	no	yes	no
53	no	no	no	no	no	no	no	no	no	no	no	no	no
54	no	no	no	no	no	no	no	no	no	no	no	no	no
55	no	no	no	no	no	no	no	no	no	no	no	no	no
56	no	no	no	no	no	no	no	no	no	no	no	no	no
57	no	no	no	no	no	no	no	no	no	no	no	no	no
58	no	no	no	no	yes	yes	yes	yes	yes	yes	yes	no	yes
59	no	yes	yes	no	no	no	yes	no	no	no	yes	no	no
60	no	no	no	no	no	no	no	no	yes	no	no	no	yes
61	no	no	no	no	yes	no	no	no	yes	no	no	no	yes
62	no	no	no	no	no	yes	yes	no	no	no	no	no	no
63	yes	no	no	no	no	no	yes	no	yes	no	no	no	yes
64	no	no	no	no	no	no	yes	yes	no	yes	no	no	no
65	no	no	no	no	no	no	yes	yes	no	yes	no	no	no
66	no	no	no	no	no	no	no	no	no	no	no	no	no
67	no	no	no	no	no	no	no	no	no	no	no	no	no
68	no	no	no	no	no	no	no	no	no	no	no	no	no
69	yes	no	no	no	no	yes	no	no	no	no	no	yes	yes

	CDM	Mun Gov	Prov Gov	Cen Gov	Cust	Local Comm	Ind Ass	Cert Bod	Suppliers	ENGOS	Media	Share-holders	
70	no	no	yes	yes	no	no	no	no	yes	yes	no	no	no
71	no	no	no	no	no	no	no	no	no	no	no	no	no
72	yes	no	no	no	no	no	no	no	no	no	no	no	no
73	no	no	no	no	yes	no	no	no	yes	no	no	yes	yes
74	no	no	no	no	no	no	no	no	no	no	no	no	no
75	no	no	no	no	no	no	no	yes	no	yes	no	no	no
76	no	no	no	no	no	no	no	no	no	no	no	no	no
77	no	no	no	no	no	no	no	no	no	no	no	no	no
78	no	no	no	no	no	no	no	no	no	no	no	no	no
79	no	no	no	no	no	no	yes	no	no	no	yes	no	no
80	no	no	no	no	yes	no	no	no	no	no	no	no	yes
81	no	no	no	no	no	no	no	no	no	no	no	no	no
82	no	no	no	no	yes	no	no	no	yes	yes	no	no	yes
83	no	no	no	no	no	no	no	no	no	no	no	no	no
84	no	no	no	no	yes	no	no	no	yes	no	no	no	yes
85	no	no	no	no	yes	no	no	no	no	no	yes	no	yes
86	no	no	no	no	yes	no	no	yes	no	no	no	no	no
87	no	no	no	no	no	no	no	no	no	no	no	no	no
88	no	no	no	no	no	no	no	no	no	no	no	no	no
89	no	no	no	no	no	no	no	no	no	no	no	no	no
90	no	no	no	no	yes	yes	no	no	no	no	no	no	no
91	no	no	no	no	no	no	no	no	no	no	no	no	no
92	no	no	no	no	no	no	no	no	no	no	no	no	no
93	no	no	no	no	no	no	no	no	no	no	yes	yes	yes
94	no	no	no	no	no	no	no	no	no	no	no	no	no
95	no	no	no	no	no	no	no	no	no	no	no	no	no
96	no	no	no	no	no	no	no	no	no	no	no	no	no
97	no	no	yes	yes	no	no	no	no	no	no	no	no	no
98	yes	no	no	no	no	no	yes	no	no	yes	no	no	no
99	no	no	no	no	no	no	no	no	no	no	no	no	no
100	no	no	no	no	no	no	no	no	no	no	no	no	no

**QUESTION 15: BENEFITS**

	<b>Cost Benefits</b>	<b>Protecting the Natural Environment</b>	<b>Competitive Market Advantage</b>	<b>Reducing Government Policy</b>	<b>Trade Association Membership</b>	<b>Employee Satisfaction</b>	<b>Personal Satisfaction</b>
1	2	4	4	1	2	2	2
2	5	5	4	3	3	3	5
3	5	4	5	1	2	2	2
4	5	4	3	1	3	3	3
5	3	4	3	1	2	2	3
6	3	1	2	4	2	2	2
7	5	5	5	1	5	5	5
8	5	5	3	1	2	2	5
9	5	5	5	5	5	5	5
10	5	5	5	1	3	3	3
11	3	5	3	5	5	5	5
12	5	2	5	1	5	5	5
13	5	5	5	3	4	4	5
14	5	5	5	4	4	4	5
15	5	3	3	1	5	5	5
16	4	5	4	1	4	4	5
17	4	5	1	1	1	1	1
18	5	3	2	1	1	1	1
19	4	5	3	3	4	4	5
20	4	5	1	1	2	2	1
21	3	4	1	1	1	1	5
22	5	1	5	1	5	5	5
23	3	4	1	1	1	1	5
24	5	5	1	2	3	3	5
25	3	5	2	1	1	1	3
26	5	3	3	1	3	3	1
27	5	4	4	1	5	5	5
28	3	4	1	1	4	4	5
29	5	1	5	2	3	3	3



	<b>Cost Benefits</b>	<b>Protecting the Natural Environment</b>	<b>Competitive Market Advantage</b>	<b>Reducing Government Policy</b>	<b>Trade Association Membership</b>	<b>Employee Satisfaction</b>	<b>Personal Satisfaction</b>
30	4	5	1	1	5	5	5
31	5	5	5	1	3	3	3
32	5	3	4	2	2	2	2
33	1	1	1	2	3	3	3
34	5	5	5	5	5	5	5
35	1	5	1	1	5	5	5
36	3	4	3	3	4	4	5
37	5	1	1	1	5	5	5
38	5	4	5	3	5	5	5
39	3	4	4	2	3	3	3
40	4	4	5	4	3	3	3
41	5	5	4	3	4	4	5
42	5	1	1	1	1	1	1
43	4	5	5	1	3	3	5
44	4	5	5	2	4	4	3
45	4	3	2	1	2	2	1
46	3	5	5	1	5	5	5
47	1	5	3	1	5	5	5
48	5	3	5	3	5	5	5
49	5	5	3	1	3	3	5
50	5	3	2	1	3	3	5
51	99.00	99.00	99.00	99.00	99.00	99.00	99.00
52	4	5	4	1	2	2	2
53	5	5	3	2	5	5	5
54	5	4	5	1	4	4	5
55	5	3	3	1	2	2	5
56	5	5	1	1	1	1	1
57	5	5	5	3	4	4	5
58	4	5	3	1	3	3	2
59	4	5	3	3	3	3	5
60	5	5	2	1	3	3	5
61	5	5	5	5	5	5	5

	<b>Cost Benefits</b>	<b>Protecting the Natural Environment</b>	<b>Competitive Market Advantage</b>	<b>Reducing Government Policy</b>	<b>Trade Association Membership</b>	<b>Employee Satisfaction</b>	<b>Personal Satisfaction</b>
62	4	4	4	1	4	4	5
63	5	5	5	1	5	5	5
64	5	5	1	1	5	5	5
65	3	3	3	2	4	4	2
66	4	4	3	2	3	3	3
67	2	3	2	3	4	4	5
68	5	3	5	1	1	1	1
69	3	5	3	3	4	4	3
70	2	2	3	1	2	2	2
71	5	5	2	1	1	1	2
72	4	5	4	2	3	3	3
73	5	3	3	2	2	2	3
74	4	5	5	5	5	5	5
75	5	5	4	2	3	3	5
76	99.00	99.00	99.00	99.00	99.00	99.00	99.00
77	5	3	2	2	2	2	1
78	4	3	4	5	4	4	5
79	5	4	5	2	3	3	5
80	5	5	5	4	5	5	5
81	5	3	3	4	5	5	5
82	5	5	5	4	4	4	5
83	5	5	4	4	5	5	5
84	5	3	5	3	5	5	3
85	4	5	5	4	5	5	3
86	5	5	5	3	5	5	5
87	5	4	4	3	4	4	5
88	5	5	5	1	5	5	5
89	5	5	3	1	4	4	5
90	4	4	3	2	2	2	3
91	5	5	5	5	1	1	1
92	5	2	5	1	2	2	2
93	1	5	5	3	5	5	5

	<b>Cost Benefits</b>	<b>Protecting the Natural Environment</b>	<b>Competitive Market Advantage</b>	<b>Reducing Government Policy</b>	<b>Trade Association Membership</b>	<b>Employee Satisfaction</b>	<b>Personal Satisfaction</b>
94	5	5	5	1	5	5	5
95	99.00	99.00	99.00	99.00	99.00	99.00	99.00
96	3	4	4	2	3	3	3
97	3	4	3	1	2	2	3
98	5	5	5	1	5	5	5
99	4	5	5	1	5	5	5
100	5	5	5	3	4	4	5

**Key:**

- 1- 1
- 2- 2
- 3- 3
- 4- important
- 5- 5
- 99- missing

**QUESTION 16: STATEMENTS OF ENVIROMENTAL COMMITMENT**

	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	State 9	State 10	State 11	State 12	State 13	State 14	State 15	State 16	State 17
1	4	3	2	3	1	2	2	2	2	1	2	1	2	3	2	2	2
2	1	3	2	2	1	2	2	3	2	1	1	1	3	2	2	2	2
3	2	2	2	2	2	2	3	3	1	1	2	2	2	3	2	2	2
4	2	2	3	3	2	2	2	2	2	1	1	2	2	2	2	2	2
5	2	2	3	3	2	2	2	3	2	1	2	2	2	3	2	2	2
6	2	3	2	3	1	2	2	2	2	1	2	2	3	2	5	3	1
7	1	1	2	1	2	2	2	3	2	1	2	1	2	2	5	2	2
8	1	2	3	2	2	2	2	2	2	1	2	3	3	3	2	2	2
9	2	1	1	3	1	1	2	2	2	1	1	1	1	1	5	1	1
10	2	2	2	2	1	2	2	2	2	1	2	2	2	2	2	1	2
11	1	2	2	2	2	1	2	2	2	1	1	2	2	2	5	2	2
12	2	2	2	2	2	2	1	3	2	1	2	2	2	2	2	2	1
13	1	2	1	1	2	2	2	2	2	1	2	1	2	2	5	2	1
14	1	2	1	2	1	2	2	2	2	1	1	1	1	2	5	1	2
15	2	2	2	3	2	2	2	3	2	1	2	2	2	2	2	2	2
16	2	2	2	3	1	2	1	1	2	1	2	1	1	2	5	3	3
17	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2
18	2	2	2	2	2	2	3	3	3	1	2	2	3	3	2	2	1
19	2	3	2	3	2	2	2	1	1	1	2	2	2	2	2	2	2
20	2	2	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2
21	2	2	2	2	2	2	2	2	2	3	2	2	2	2	4	4	3
22	2	3	2	2	1	2	1	1	2	1	2	2	1	2	2	1	1
23	2	2	2	2	2	2	2	2	2	1	2	2	2	2	4	4	2
24	2	3	2	3	1	2	3	3	2	3	1	2	1	2	5	2	1
25	2	3	3	2	2	1	2	3	2	3	1	3	3	2	3	2	3
26	2	2	2	1	2	2	2	2	2	1	1	2	2	2	2	2	2
27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	2
28	1	1	2	1	1	1	2	2	1	1	1	1	2	1	5	1	1
29	1	1	2	1	1	3	2	3	1	1	1	3	3	1	5	1	3
30	2	2	2	2	2	1	1	1	2	1	2	2	2	2	5	2	2

	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	State 9	State 10	State 11	State 12	State 13	State 14	State 15	State 16	State 17
31	2	3	3	3	2	3	3	2	1	1	2	3	3	3	2	3	3
32	1	1	1	1	2	2	3	2	2	1	1	2	2	2	3	2	2
33	2	1	1	1	1	2	3	1	2	1	2	2	3	3	4	4	3
34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	1
35	1	1	1	2	1	1	1	1	1	1	1	1	1	1	5	1	1
36	2	3	2	2	3	2	2	2	3	3	2	2	2	3	2	2	2
37	2	3	3	2	2	2	2	3	3	1	2	2	3	2	3	3	2
38	1	3	1	3	3	2	1	1	2	1	2	1	1	2	5	1	1
39	2	2	2	3	2	2	3	3	2	1	2	2	2	2	2	2	2
40	2	3	3	2	1	1	2	2	2	1	2	1	1	1	5	2	2
41	1	1	3	1	1	1	1	2	1	1	1	1	1	1	5	1	1
42	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
43	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2
44	3	2	2	2	1	2	2	2	3	1	2	2	2	2	2	2	2
45	2	2	2	2	1	2	2	3	2	1	2	1	2	2	5	2	2
46	2	2	2	2	1	2	2	2	2	1	1	2	2	2	5	2	2
47	2	3	2	2	1	1	2	2	2	1	2	2	2	2	5	1	1
48	2	2	1	2	2	3	2	2	2	1	2	2	2	3	2	3	2
49	1	2	3	2	2	2	2	2	2	1	2	2	2	2	5	4	2
50	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2
51	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
52	1	2	1	1	2	2	3	3	2	1	1	1	1	2	5	2	2
53	2	2	2	2	2	2	2	2	2	1	2	2	2	2	4	2	2
54	2	3	2	2	1	2	2	2	1	1	1	2	2	2	2	2	2
55	2	2	2	2	2	1	3	3	2	3	2	3	3	2	5	2	2
56	2	2	2	2	2	2	2	1	1	1	1	2	2	2	5	1	1
57	1	2	3	3	1	2	2	2	2	1	2	1	1	2	2	2	1
58	2	2	2	2	1	2	2	1	2	1	1	2	2	2	2	2	2
59	2	2	1	3	1	1	2	3	2	1	2	2	2	2	5	2	2
60	1	2	2	2	2	2	2	2	2	1	3	2	2	3	2	2	2
61	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	1

	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	State 9	State 10	State 11	State 12	State 13	State 14	State 15	State 16	State 17
62	2	3	2	3	3	2	2	2	2	3	2	2	2	3	2	2	2
63	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2
64	2	1	2	3	1	2	2	1	2	3	2	2	2	1	2	3	2
65	2	1	3	1	3	3	3	2	3	3	3	2	3	3	3	3	3
66	2	2	3	2	2	2	2	2	2	1	2	2	3	2	2	2	2
67	3	1	1	2	3	2	3	1	1	1	1	1	2	1	5	2	1
68	2	2	2	2	3	2	3	3	2	1	3	3	3	2	4	2	3
69	2	3	3	2	1	2	3	2	2	1	1	2	3	3	2	2	2
70	2	2	1	2	2	2	2	2	2	1	2	1	2	3	2	2	2
71	1	2	3	3	2	2	2	2	2	1	2	2	2	3	2	2	2
72	2	2	2	2	1	1	2	2	2	1	2	2	2	2	5	2	1
73	2	2	2	2	3	2	2	2	2	1	1	3	2	2	2	2	2
74	1	2	2	2	2	3	2	2	2	1	2	2	2	2	2	2	2
75	2	3	3	3	1	2	2	3	2	1	2	2	3	3	2	2	2
76	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
77	2	2	3	3	2	2	3	2	3	1	1	3	3	3	3	2	3
78	3	3	2	3	1	3	1	1	3	3	3	3	3	2	2	1	2
79	1	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2
80	1	2	1	3	2	1	1	2	2	1	2	1	2	2	5	1	1
81	2	2	3	2	2	2	2	2	3	3	2	3	3	2	2	2	3
82	1	2	2	2	2	2	1	2	2	1	2	1	2	2	5	2	1
83	1	3	2	2	1	2	2	2	2	1	2	2	2	2	2	2	2
84	2	3	2	2	2	3	2	2	2	1	2	2	3	3	2	2	2
85	2	3	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2
86	2	3	2	3	2	2	1	2	3	1	2	2	2	2	5	2	2
87	2	3	3	2	2	2	2	2	2	1	2	2	2	2	5	2	2
88	1	3	1	1	1	2	2	3	1	1	1	1	1	2	2	1	1
89	1	2	2	3	2	1	1	3	2	1	1	1	1	2	5	1	1
90	2	2	2	3	2	2	2	2	2	1	2	2	2	3	2	2	2
91	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2
92	1	2	2	2	1	1	2	3	3	1	2	3	2	2	2	2	1
93	2	2	2	2	2	2	2	2	1	1	1	1	1	2	2	2	2

	State 1	State 2	State 3	State 4	State 5	State 6	State 7	State 8	State 9	State 10	State 11	State 12	State 13	State 14	State 15	State 16	State 17
94	1	1	1	1	1	1	1	3	3	1	1	1	1	2	5	1	1
95	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
96	3	3	3	2	2	2	2	3	2	1	2	2	2	2	2	2	2
97	2	2	3	3	2	2	2	3	2	1	2	2	2	3	2	2	2
98	2	3	2	1	2	1	1	1	1	1	2	1	2	2	5	2	2
99	1	2	2	2	2	2	2	3	2	1	2	2	2	2	2	2	2
100	2	3	2	3	2	2	2	2	2	1	2	1	2	1	5	2	2

**Key:**

1=strongly agree

2=agree

3= neutral

4=disagree

5=strongly disagree

Statement One: Environmental programs increase profitability

Statement Two: Return on investments on environmental programs can be measured accurately in our organization

Statement Three: Benefits from implementing environmental programs outweigh cost needed to implement the program in our organization

Statement Four: Our organization has already reaped monetary benefits from its environmental program

Statement Five: Environmental programs increase customer satisfaction

Statement Six: Our organization will adopt an environmental program if required by our customers

Statement Seven: Environmental programs increase employee satisfaction

Statement Eight: Our employees support environmental programs as it is linked to their welfare

Statement Nine: Environmental programs improve relationships with local communities

Statement Ten: Environmental programs help with public relations

Statement Eleven: Environmental programs are implemented because it's the right thing to do

Statement Twelve: Environmental programs provide a marketing advantage over competitors

Statement Thirteen: Our organization will implement environmental programs only if our competitors have done so or have the intention to do so

Statement Fourteen: There is a competitive pressure in our industry to adopt environmental initiatives

Statement Fifteen: Caring for the environment is an important consideration for our organization

Statement Sixteen: Our organization will adopt an environmental program if it is required by environmental regulation

Statement Seventeen: Corporate decision makers are supportive of environmental initiatives implemented

**QUESTION 20: BARRIERS**

	Bar 1	Bar 2	Bar 3	Bar 4	Bar 5	Bar 6	Bar 7	Bar 8	Bar 9	Bar 10	Bar 11	Bar 12	Bar 13	Bar 14	Bar 15	Bar 16
1	2	2	2	3	2	2	2	1	2	3	3	2	3	3	3	3
2	3	2	2	3	3	3	3	2	2	3	3	2	2	2	3	3
3	2	2	1	2	2	3	3	1	1	2	2	3	99	99	99	99
4	1	2	2	2	3	2	3	2	1	2	3	3	3	3	3	3
5	3	2	2	3	2	3	3	2	2	3	3	3	3	3	3	3
6	2	1	1	2	3	3	3	2	1	2	1	2	99	2	99	99
7	1	3	2	3	3	3	3	3	2	3	3	3	3	3	3	3
8	1	2	2	3	3	3	3	2	1	3	3	3	2	3	3	3
9	2	3	1	3	2	3	2	2	2	3	3	2	2	3	3	3
10	1	2	2	3	3	3	3	3	2	3	2	1	2	3	3	3
11	3	3	2	3	3	3	3	2	3	2	3	2	2	3	3	3
12	2	1	3	3	3	3	2	3	3	3	3	3	3	3	3	3
13	2	2	3	3	3	3	3	3	1	2	3	2	2	3	3	3
14	2	2	3	3	3	3	3	3	2	2	2	3	3	3	3	2
15	3	2	2	3	1	3	3	1	1	2	3	3	1	2	3	3
16	1	2	2	2	2	3	3	3	2	3	3	2	3	1	3	2
17	1	3	3	3	2	3	3	1	3	2	1	2	1	1	3	3
18	1	2	3	3	3	3	3	3	3	3	3	3	3	1	3	3
19	2	3	2	3	2	3	3	2	2	3	3	3	2	2	3	3
20	2	1	1	2	3	3	3	1	1	2	2	3	2	1	2	2
21	3	3	3	3	3	3	3	3	3	3	3	3	99	99	99	99
22	1	2	1	2	2	3	2	2	1	1	2	1	1	2	3	1
23	3	3	3	3	3	3	3	3	3	3	3	3	99	99	99	99
24	2	2	2	3	2	3	2	2	1	3	2	1	2	3	3	2
25	1	1	1	3	2	3	3	2	1	2	2	2	1	1	2	1
26	1	2	2	2	1	1	1	2	2	3	1	1	3	1	2	3
27	2	2	3	3	2	2	1	3	1	2	1	3	1	2	2	2
28	1	1	1	3	3	3	1	3	1	3	2	2	3	1	2	1
29	1	1	1	2	1	3	3	1	1	1	2	1	1	3	3	3
30	1	2	3	2	2	3	2	2	3	2	3	3	3	3	3	3
31	1	1	1	3	2	3	3	2	1	3	3	1	1	2	3	3



	Bar 1	Bar 2	Bar 3	Bar 4	Bar 5	Bar 6	Bar 7	Bar 8	Bar 9	Bar 10	Bar 11	Bar 12	Bar 13	Bar 14	Bar 15	Bar 16
32	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3
33	1	1	3	1	3	1	1	1	1	1	1	1	3	3	3	3
34	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
35	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
36	2	2	2	3	2	3	3	2	2	3	3	3	3	2	3	3
37	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
38	1	1	3	2	1	3	1	2	3	1	3	1	3	3	3	3
39	1	2	1	2	2	2	2	1	2	2	2	2	2	2	2	2
40	1	1	2	3	2	3	2	2	1	2	1	1	99	99	99	99
41	3	1	1	3	2	3	3	3	2	1	1	1	99	99	99	99
42	99	99	99	99	99	99	99	99	99	99	2	99	99	99	99	99
43	3	2	1	2	1	3	3	3	1	3	3	1	3	3	3	1
44	1	2	1	3	1	3	3	1	1	2	1	2	3	3	3	3
45	1	3	2	3	2	3	3	3	1	2	2	3	2	1	3	3
46	2	3	2	3	2	2	3	3	2	2	3	1	3	1	3	2
47	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
48	2	3	3	3	3	3	3	3	1	3	3	3	3	3	3	3
49	1	2	3	2	1	3	2	2	1	1	1	1	1	1	3	2
50	1	1	1	2	2	3	3	2	1	2	2	3	3	2	3	3
51	99	99	99	99	99	99	99	99	99	99	2	99	99	99	99	99
52	1	2	2	3	2	3	2	1	1	3	3	3	3	3	3	3
53	2	2	2	3	2	3	3	3	1	3	3	2	2	3	3	3
54	2	3	2	3	2	3	2	2	2	3	3	2	3	2	3	3
55	1	1	1	1	1	3	3	1	1	2	3	2	2	1	2	2
56	2	3	2	3	2	3	2	2	2	3	3	3	3	2	2	3
57	2	3	3	3	3	3	3	1	1	3	3	3	2	2	3	2
58	1	2	1	3	3	3	3	2	1	3	2	3	3	3	3	3
59	2	2	1	3	2	3	2	2	2	3	2	3	2	3	2	2
60	1	2	1	2	1	3	2	1	1	3	3	3	2	3	3	3
61	1	2	1	1	2	2	2	2	1	1	1	2	3	3	3	3
62	1	2	2	3	2	3	3	3	2	3	3	2	3	1	3	3
63	2	2	3	3	3	3	3	2	1	2	3	3	3	3	3	3
64	1	2	3	3	3	3	3	2	1	1	2	1	2	3	3	3

	Bar 1	Bar 2	Bar 3	Bar 4	Bar 5	Bar 6	Bar 7	Bar 8	Bar 9	Bar 10	Bar 11	Bar 12	Bar 13	Bar 14	Bar 15	Bar 16
65	1	1	1	2	1	1	1	2	1	1	1	3	3	1	1	2
66	1	1	1	2	2	2	2	1	2	1	3	3	3	3	3	3
67	1	2	1	2	2	1	1	2	1	2	1	1	1	2	1	2
68	1	2	3	2	2	3	2	3	1	1	2	2	1	3	3	3
69	2	3	3	2	2	3	2	2	2	3	3	2	2	3	2	2
70	2	2	2	3	2	3	3	3	2	2	2	2	2	3	3	3
71	1	2	1	2	3	3	3	2	3	3	3	3	3	3	3	3
72	2	3	3	3	3	3	1	3	3	3	2	3	3	3	3	3
73	2	1	1	2	1	3	2	1	1	2	2	1	2	2	1	1
74	2	2	2	3	1	3	3	2	2	3	3	3	2	3	3	3
75	2	1	1	3	3	3	2	2	1	1	3	2	2	2	3	3
76	99	99	99	99	99	99	99	99	99	99	2	99	99	99	99	99
77	2	3	3	3	3	3	3	2	2	3	3	3	3	2	3	3
78	2	3	2	3	1	2	2	1	2	3	3	2	1	1	3	3
79	2	3	2	2	2	3	1	3	1	3	3	1	3	1	2	3
80	3	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3
81	2	2	2	3	1	1	2	2	3	1	2	2	2	3	3	3
82	2	3	3	3	3	2	3	2	2	3	2	3	3	3	3	3
83	2	2	1	3	2	3	2	1	2	2	2	2	2	3	2	2
84	2	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3
85	2	3	3	3	3	3	3	3	2	3	3	2	3	3	3	3
86	2	2	3	2	3	2	3	2	1	3	3	3	3	3	3	3
87	1	2	1	3	3	3	1	3	2	2	3	1	3	2	3	3
88	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
89	2	1	3	1	3	2	1	2	1	2	3	2	2	2	3	3
90	3	2	2	3	2	3	3	2	2	3	3	2	2	3	3	2
91	1	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1
92	2	2	1	3	3	3	3	3	1	3	2	2	2	3	2	2
93	1	2	1	2	2	3	2	1	1	3	3	3	2	1	3	3
94	3	3	3	3	1	3	3	3	3	3	3	3	3	3	3	3
95	99	99	99	99	99	99	99	99	99	99	2	99	99	99	99	99
96	2	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3
97	3	2	2	3	2	3	3	2	2	3	3	3	3	3	3	3

	Bar 1	Bar 2	Bar 3	Bar 4	Bar 5	Bar 6	Bar 7	Bar 8	Bar 9	Bar 10	Bar 11	Bar 12	Bar 13	Bar 14	Bar 15	Bar 16
98	1	1	1	2	3	3	3	1	1	1	3	1	1	1	3	3
99	1	2	2	3	3	3	3	3	2	3	2	3	2	1	3	1
100	2	3	1	3	2	3	3	2	1	3	3	3	2	3	3	3

**Key**

**1= often**

**2=somewhat**

**3=not at all**

**Barrier 1:** Costs of implementing environmental initiatives are too high and not acceptable

**Barrier 2:** Lack of information regarding the types of environmental initiatives that can be implemented and the benefits associated with this implementation

**Barrier 3:** Lack of skills, knowledge and expertise in the organization

**Barrier 4:** Reluctance by corporate decision makers to implement environmental management initiatives

**Barrier 5:** Reluctance by corporate decision makers to implement environmental management initiatives

**Barrier 6:** Lack of identification of specific motivations affecting the organization

**Barrier 7:** Incompatibility with the organization's corporate culture

**Barrier 8:** Belief by corporate decision makers that the current practices are adequate

**Barrier 9:** Multiple stakeholders with conflicting interests

**Barrier 10:** Problems with resources (time, money, skills, knowledge)

**Barrier 11:** Lack of concern from corporate decision makers about environmental issues

**Barrier 12:** Isolation of environmental issues from other aspects of the organization (for example housekeeping or engineering)

**Barrier 13:** Reluctance to use external assistance i.e. consultants

**Barrier 14:** Lack of required support from shareholders

**Barrier 15:** Hotel structure (size, location and age) does not allow for environmental management initiatives to be implemented

**Barrier 16:** Reluctance by employees to implement environmental management initiatives

**Barrier 17:** Customers do not appreciate or support the implementation of environmental management initiatives

**QUESTION 22: STRATEGIES USED TO OVERCOME BARRIERS**

	<b>Convincing CDMs of Benefits</b>	<b>Phasing In Initiatives</b>	<b>Employee Education</b>	<b>Customer Education</b>	<b>Disciplining Actions For Employees</b>	<b>Job Descriptions</b>	<b>Sharing Resources</b>	<b>Alternatives</b>	<b>Other</b>
1	no	no	no	no	no	no	no	no	no
2	yes	no	yes	no	yes	yes	no	yes	no
3	yes	yes	yes	no	yes	yes	no	no	no
4	no	no	no	no	no	no	no	no	no
5	yes	yes	yes	yes	no	yes	no	no	no
6	no	yes	yes	no	yes	yes	no	no	yes
7	yes	yes	yes	no	no	no	no	no	no
8	no	yes	yes	no	yes	yes	no	no	no
9	yes	yes	yes	no	yes	yes	no	yes	no
10	yes	yes	yes	yes	no	yes	no	no	no
11	yes	yes	yes	yes	yes	yes	no	yes	no
12	no	no	yes	no	yes	yes	no	yes	no
13	yes	yes	yes	no	yes	yes	yes	yes	no
14	yes	yes	yes	yes	yes	yes	yes	no	no
15	yes	yes	yes	no	no	yes	no	yes	no
16	yes	yes	yes	yes	no	yes	no	no	no
17	yes	no	no	yes	yes	no	yes	no	yes
18	yes	yes	no	no	no	no	no	no	no
19	yes	yes	yes	no	yes	yes	no	yes	no
20	no	no	no	no	no	no	no	yes	no
21	no	no	yes	no	no	no	no	no	no
22	yes	yes	no	yes	yes	no	no	no	no
23	no	no	yes	no	no	no	no	no	no
24	yes	yes	no	yes	yes	yes	no	no	no
25	no	yes	yes	no	yes	yes	no	yes	no
26	yes	yes	yes	yes	yes	yes	no	yes	no
27	no	no	no	no	no	no	no	no	no
28	no	no	3.00	no	yes	yes	no	no	no
29	no	yes	yes	yes	no	no	no	yes	no
30	yes	yes	yes	yes	yes	yes	no	yes	yes

	Convincing CDMs of Benefits	Phasing In Initiatives	Employee Education	Customer Education	Disciplining Actions For Employees	Job Descriptions	Sharing Resources	Alternatives	Other
31	yes	yes	no	no	no	no	no	no	no
32	yes	yes	yes	yes	yes	no	no	yes	no
33	no	no	yes	no	no	yes	no	no	no
34	yes	yes	yes	yes	yes	no	no	no	no
35	yes	yes	yes	yes	no	yes	no	no	no
36	yes	yes	yes	no	no	yes	no	no	no
37	no	no	no	no	no	no	no	yes	no
38	yes	yes	yes	yes	yes	yes	no	yes	no
39	yes	yes	yes	no	yes	no	no	yes	no
40	yes	yes	yes	yes	yes	no	no	yes	no
41	yes	yes	yes	yes	yes	yes	no	no	no
42	no	no	no	no	no	no	no	no	no
43	no	yes	yes	no	yes	yes	no	yes	no
44	yes	yes	yes	yes	yes	yes	yes	no	no
45	no	yes	yes	yes	yes	yes	no	yes	no
46	no	yes	yes	no	yes	yes	yes	yes	no
47	yes	no	yes	no	no	yes	no	yes	no
48	yes	yes	yes	no	yes	yes	no	yes	no
49	yes	no	no	no	no	no	no	no	yes
50	yes	yes	no	no	no	yes	no	no	no
51	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	no
52	yes	yes	no	no	yes	yes	no	yes	no
53	yes	no	yes	no	no	no	no	no	no
54	yes	yes	yes	no	yes	yes	no	no	no
55	no	yes	no	no	no	yes	no	no	no
56	yes	yes	yes	yes	yes	yes	no	no	no
57	yes	yes	yes	yes	yes	yes	no	no	no
58	yes	yes	yes	yes	yes	yes	no	no	no
59	yes	yes	yes	yes	no	yes	no	yes	no
60	yes	yes	yes	yes	no	yes	no	yes	no
61	yes	yes	yes	yes	yes	yes	no	yes	no

	Convincing CDMs of Benefits	Phasing In Initiatives	Employee Education	Customer Education	Disciplining Actions For Employees	Job Descriptions	Sharing Resources	Alternatives	Other
62	yes	no	yes	no	yes	yes	no	yes	no
63	yes	yes	yes	yes	yes	yes	no	no	no
64	yes	no	no	no	no	no	no	no	no
65	no	no	yes	no	no	no	no	no	no
66	no	yes	yes	yes	no	yes	no	no	no
67	no	no	yes	yes	no	yes	no	no	no
68	yes	no	no	no	no	no	yes	yes	no
69	no	no	yes	no	no	yes	no	no	no
70	yes	no	yes	no	yes	no	no	no	no
71	yes	no	no	no	no	yes	no	no	no
72	no	yes	yes	yes	no	no	yes	no	no
73	yes	no	yes	no	no	yes	no	no	no
74	yes	yes	yes	yes	no	yes	no	yes	no
75	yes	yes	yes	no	yes	yes	no	yes	no
76	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
77	no	yes	no	no	no	no	no	no	no
78	yes	yes	yes	no	no	no	no	yes	no
79	no	yes	yes	no	yes	no	no	no	no
80	no	yes	no	no	no	no	no	yes	no
81	no	no	no	no	no	no	no	no	no
82	yes	yes	yes	no	yes	yes	no	yes	no
83	yes	yes	yes	no	yes	yes	no	yes	no
84	yes	no	no	no	yes	yes	no	no	no
85	yes	yes	yes	no	yes	yes	no	yes	no
86	no	no	no	no	no	no	no	no	no
87	no	no	no	no	no	no	no	no	no
88	no	no	no	no	no	no	no	no	no
89	no	no	yes	no	yes	yes	no	yes	no
90	yes	no	yes	no	yes	no	no	no	no
91	yes	yes	yes	no	no	no	no	no	no
92	no	no	no	no	yes	no	no	yes	no

	<b>Convincing CDMs of Benefits</b>	<b>Phasing In Initiatives</b>	<b>Employee Education</b>	<b>Customer Education</b>	<b>Disciplining Actions For Employees</b>	<b>Job Descriptions</b>	<b>Sharing Resources</b>	<b>Alternatives</b>	<b>Other</b>
93	yes	yes	yes	no	yes	yes	yes	no	no
94	yes	yes	yes	no	yes	yes	yes	yes	no
95	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00	99.00
96	yes	yes	no	no	no	yes	no	no	no
97	yes	yes	yes	yes	no	yes	no	no	no
98	yes	yes	yes	no	yes	yes	no	no	no
99	yes	no	no	no	no	no	no	no	.00
100	no	no	no	no	no	no	no	no	no

**Key**

99= missing

**QUESTION 24: INCENTIVES**

	<b>Guidance Gov Agencies</b>	<b>Guidance International Trade Associations</b>	<b>Guidance Local Tourism Associations</b>	<b>Education On Benefits</b>	<b>Tax Breaks</b>	<b>Subsidies Retrofit</b>	<b>Subsidies Environmental Audits</b>	<b>Advertising Of Green Hotels</b>
1	high	medium	low	low	high	high	high	medium
2	medium	low	medium	high	low	low	low	low
3	high	high	medium	high	medium	high	medium	high
4	high	low	low	high	high	high	low	low
5	medium	medium	medium	medium	high	medium	medium	medium
6	high	low	medium	high	high	medium	low	high
7	high	high	medium	medium	high	high	high	medium
8	medium	medium	high	medium	high	high	high	low
9	medium	low	low	high	low	low	low	medium
10	medium	high	medium	low	low	low	low	medium
11	high	medium	medium	medium	low	low	low	high
12	medium	medium	medium	high	high	high	high	high
13	medium	medium	medium	medium	high	high	high	high
14	medium	high	medium	high	high	medium	medium	high
15	medium	low	low	high	high	medium	high	high
16	medium	low	high	high	high	high	high	high
17	low	low	low	low	high	high	high	low
18	medium	high	high	high	low	low	low	high
19	medium	medium	medium	high	low	low	low	low
20	high	high	high	high	high	high	high	high
21	high	medium	medium	medium	high	high	high	medium
22	high	low	medium	low	high	medium	medium	medium
23	high	low	low	low	high	high	high	low
24	medium	medium	low	low	medium	high	medium	high
25	low	high	low	high	high	high	high	high
26	high	low	low	medium	medium	high	high	low
27	high	high	high	high	high	high	high	high
28	high	low	high	medium	high	high	high	high
29	high	low	high	medium	high	high	high	high



	<b>Guidance Gov Agencies</b>	<b>Guidance International Trade Associations</b>	<b>Guidance Local Tourism Associations</b>	<b>Education On Benefits</b>	<b>Tax Breaks</b>	<b>Subsidies Retrofit</b>	<b>Subsidies Environmental Audits</b>	<b>Advertising Of Green Hotels</b>
30	medium	high	low	high	low	medium	medium	high
31	high	low	low	medium	high	high	high	medium
32	high	medium	high	medium	high	high	high	medium
33	low	low	low	low	high	high	high	high
34	high	high	high	high	high	high	high	high
35	high	medium	high	high	low	low	medium	high
36	medium	low	medium	high	medium	medium	medium	low
37	low	high	medium	high	medium	low	low	high
38	high	high	high	low	low	high	high	low
39	medium	medium	medium	medium	high	high	high	high
40	medium	medium	medium	high	high	high	high	high
41	high	high	high	high	medium	medium	high	medium
42	low	low	low	low	high	high	high	low
43	medium	low	low	low	high	high	high	medium
44	high	medium	low	high	medium	high	high	medium
45	high	medium	medium	low	high	high	high	medium
46	high	medium	high	medium	high	high	high	medium
47	high	high	high	high	high	high	high	high
48	medium	medium	low	medium	low	low	low	low
49	high	medium	medium	medium	low	low	high	low
50	high	medium	high	high	high	high	high	medium
51	missing	missing	missing	missing	missing	3	missing	missing
52	high	high	high	medium	low	medium	medium	medium
53	medium	medium	medium	low	low	low	low	medium
54	high	medium	medium	high	low	high	medium	medium
55	high	high	high	high	high	high	high	low
56	high	low	medium	high	high	high	high	low
57	medium	high	medium	high	medium	high	medium	medium
58	high	high	medium	medium	medium	medium	medium	medium
59	high	medium	low	high	medium	medium	medium	low
60	medium	high	medium	high	high	high	high	high

	<b>Guidance Gov Agencies</b>	<b>Guidance International Trade Associations</b>	<b>Guidance Local Tourism Associations</b>	<b>Education On Benefits</b>	<b>Tax Breaks</b>	<b>Subsidies Retrofit</b>	<b>Subsidies Environmental Audits</b>	<b>Advertising Of Green Hotels</b>
61	high	high	medium	low	medium	medium	high	missing
62	medium	low	medium	medium	medium	medium	medium	medium
63	high	medium	medium	high	low	low	low	high
64	low	low	low	medium	high	medium	high	medium
65	medium	high	medium	high	low	medium	medium	high
66	high	high	high	medium	high	medium	high	low
67	high	medium	medium	high	high	high	medium	high
68	medium	low	low	high	high	high	high	medium
69	high	medium	high	medium	low	medium	low	low
70	medium	low	low	low	low	low	medium	medium
71	high	low	low	medium	low	low	low	low
72	medium	medium	medium	high	high	medium	medium	low
73	medium	medium	low	high	high	high	medium	high
74	high	high	medium	medium	medium	low	low	high
75	high	medium	low	medium	high	high	high	medium
76	missing	missing	missing	missing	missing	3	missing	missing
77	medium	low	low	medium	medium	medium	medium	medium
78	high	low	medium	high	low	low	low	low
79	low	low	medium	low	high	high	high	low
80	high	medium	low	high	low	medium	medium	high
81	high	high	medium	medium	high	medium	medium	medium
82	high	high	high	high	high	medium	medium	high
83	high	low	medium	medium	medium	medium	medium	low
84	medium	medium	medium	high	high	high	high	high
85	medium	high	medium	medium	medium	medium	medium	high
86	high	medium	high	high	high	high	high	medium
87	high	low	low	high	low	low	low	low
88	low	low	low	low	high	high	high	low
89	high	medium	high	high	low	medium	medium	medium
90	high	high	high	high	high	high	high	high
91	medium	high	high	medium	high	high	high	high

	<b>Guidance Gov Agencies</b>	<b>Guidance International Trade Associations</b>	<b>Guidance Local Tourism Associations</b>	<b>Education On Benefits</b>	<b>Tax Breaks</b>	<b>Subsidies Retrofit</b>	<b>Subsidies Environmental Audits</b>	<b>Advertising Of Green Hotels</b>
92	high	medium	medium	high	high	high	high	low
93	high	high	high	medium	high	high	high	medium
94	high	high	high	high	high	high	high	high
95	missing	missing	missing	missing	missing	3	missing	missing
96	high	medium	medium	medium	medium	medium	medium	high
97	medium	medium	medium	medium	high	medium	medium	medium
98	missing	high	high	high	high	high	high	high
99	low	low	low	medium	high	high	high	high
100	high	high	high	high	high	high	high	high

**Key**

- 1= high**
- 2= medium**
- 3= low**