Green Hotels in Antalya from Ecological Interior Architecture Perspectives

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ABSTRACT

After UNWTO announced year 2002 as the "World Ecotourism Year", ecotourism and tourism became significant notions for people. We, as mankind, are damaging nature and ecosystem since the very first day we have discovered fire. With years passing by, advancement in technology and usage of more chemicals than ever before, the destruction level has increased a lot. Mankind has always used the nature as if it is a never ending source, but people have recently realized that even nature itself has a limited rejuvenation ability which needs lots of time, hence, some damages done may be irreversible. One of the ways for helping nature is ecotourism.

Preserving green spaces and keeping the ecological balance both in urbanisation and development have a lot of importance for our society and future generations. In the current century, countries which have raised their awareness about sustainable tourism have realized that preservation may only be provided through going in step with a natural and fertile environment, while considering negative impacts of the possible developments on it, hence, these countries have started to take precautions. However, still it is questionable if these precautions are enough or not. This study has aimed to evaluate the interior design related to the ecological design principles in a selected ecological Green Hotel in Antalya Province located in the Mediterranean Region of Turkey. An in-depth investigation has been done for a Five-Green-Star-Hotel in terms of its interior space and ecotourism relationship.

Keywords: Ecotourism, Green Hotels, Sustainability, Antalya, Ecology, Interior Architecture.

ÖZ

UNWTO 2002 yılını "Dünya Ekoturizm Yılı" olarak ilan etmesinden sonra, ekoturizm insanlar ve turizm için önemli bir kavram haline gelmiştir. İnsanlar, ateş keşfedildiği günden itibaren doğaya ve ekosisteme zarar veriyorlar. Her yıl gelişen teknoloji ve her geçen gün daha fazla kullanılan kimyasal maddeler bu yıkım düzeyini artırmaktadır. Çoğalan nüfus ve gelişen dünya faktörlerine rağmen doğa her seferinde kendini yenilemeyi başarmaktadır. Fakat son zamanlarda, insanlar doğanın her seferinde kendisini yenilemesine rağmen, yapılan bazı hataların ve hasarların geri dönüşü olmayabileceğini ve doğaya yardımcı olabilmenin bir yolunun da ekoturizmi desteklemek olduğunu fark etti.

Bu çalışma, Türkiye'de Akdeniz Bölgesinde bulunan Antalya Kenti'ndeki ekoturizm temalı yeşil otellerden seçilen bir örneğin içmekanla ilişkili ekolojik tasarım prensipleri açısından incelenmesini içermektedir. Bir turizm yöresinin tarihi ve doğal güzellikleri, turistleri o turizm yöresine çekmektedir. Kentleşme ve yapılanma içinde, yeşil alanların korunması ve ekolojik dengeyi korumanın, toplum ve gelecek nesiller için önemli bir yeri vardır. Yaşadığımız yüzyılda, sürdürülebilir turizm açısından bilinçli ülkeler, doğayı ve verimliliği korurken, potansiyel gelişimin zararlı etkilerini dikkate almak gerektiğinden önlemler almaya başladılar. Alınan önlemlerin yeterli olup olmadığı halen sorgulanmaktadır.

Anahtar Kelimeler: Eko turizm, yeşil oteller, sürdürülebilirlik, Antalya, ekoloji, iç mimarlık.

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I would like to express my appreciation:

Firstly, to my family for their overwhelming support;

And to my husband, for his care, attention and support.

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Dedicated to my family & my husband…

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Chapter 1

INTRODUCTION

Tourism has always kept its statue of being the most advancing industry in the world and continues to grow each passing day. One of the most important factors for tourism to advance and improve is the environment. Certain values such as historical values and natural beauties of the regions have effects on the tourists getting attracted to the regions. Nowadays tourists are considering the pureness of a region and the natural aspects of the environment, in addition to many other factors, before they plan for a vacation.

The first and major difficulty of studying a topic associated to tourism is that there is no clear or accurate definition of tourism. The reason is that defining such a broad, multi-faceted, complex term is extremely complicated. So far, the definitions for tourism only encapsulate a few aspects of it. The amount of studies aiming to define the concept of tourism dates back to the present century. To this point, authors have incorporated different levels of importance to different aspects of the term, and their definitions are moderately separated from each other. Several definitions of the term have occurred due to the variety in the perspectives of tourism.

It is widely accepted that The Mediterranean Region of Turkey is one of epicentres of tourism and touristic locations. It is also one of the most important and significant regions within Turkey regarding tourism. The coastline is approximately 8000

kilometres (Kaypak, 2009), with an abundance of historical architecture, artefacts, culture, and traditional architecture that has been accumulated through various cultures and civilizations which have inhabited the region in the past. Besides, the Mediterranean region has an extraordinary amount of bio-diversity. Furthermore, the considerations of a well-planned city, location, and topographical features, have contributed to the developments and structuring of tourism and touristic facilities in an astounding measure throughout Turkey in general (Kaypak, 2009).

The typical climate of the Mediterranean is one of the major factors of attraction which provides a suitable environment for tourism within Antalya. Aspects such as, sea, sand, and hot weather is what is needed for coastal tourism. These aspects are the major points for the development of 3S (sea/sun/sand) tourism within Antalya. Alongside the richness of the natural environment of Antalya, the historical artefacts and architecture makes it easier for Antalya to find its place in the foreign market. The growth of touristic activities and investments are mostly found in coastal cities, due to the fact that tourists generally prefer an environment that is completely different from their own environment. Tourists prefer regions that are unaffected by environmental and natural problems. However the growing touristic industry poses and brings about its own threat towards the environmental issues. Unplanned and fast structuring of touristic facilities, without the evaluation of environmental values, poses a threat of losing ecological sustainability within the settlements. The rapid growth of structuring is generally regarded as accommodation complexes or "tourist complexes". These unplanned and rapid constructions of hotels without the sub-structuring, landscaping or appeal are the cause of pollution within coastal regions. The unnoticed rapid growth of structuring is transforming the natural texture, context

and harmony of the environmental values. Furthermore, the aim is to understand the effects on human health by interior materials or objects, and the ecological assessment of the impacts caused (Ay et al., 2010).

The concept of sustainability is popularised recently through ecotourism. Ecotourism is a field whose aim is to discover and explore, and in recent years it has started to acquire value within Turkey. The abundance of natural qualities and geological formations such as forests, shores, lakes, watercourses, flora/fauna, caves, canyons and etc. are adding to the richness and natural beauty of Turkey, putting the country into the position of an attractive place for ecotourism (Akpınar & Bulut, 2010).

1.1 Research Problem

The negative impacts of touristic facilities cannot be prevented nor can it be undone. At present, there is no legal law towards this issue, but there is a solution through ecotourism which can minimize the impact of these types of facilities on the environment. Antalya Province in Turkey is one of the hotspots for the development and structuring of touristic facilities. However, there is a risk that if development continues in the area, there is a possibility that the natural environmental values which are the main attraction points for tourists in Antalya will be damaged in the process (Erdoğan, 2003). Tourism buildings and their interior spaces should be built with the consideration of the natural environment surrounding their context. This issue applies to both built constructions which need renovation as well as constructions in process. Whatever the case is, eco-tourism should be involved in the architectural or interior design process to minimize the damage that the environment receives. The ecological design principles need clarification in order to serve interior designers.

1.2 Aim and Objectives

The aim of this study is to examine the selected Green Hotels for evaluating them in terms of ecological interior architecture in rapidly growing and developing area of Antalya, which is located in the Mediterranean region and is accepted and announced (URL1) as an “ecotourism area” by the Ministry of Tourism and Culture of Turkey.

To analyze the relation between interior architecture and ecological tourism, and to point out the problems in this area are of the main objectives of this thesis. Moreover, there will be an investigation to find the answer to the following question: “What is the significance of ecological interior design while designing hotels and what are the points which the designer must take into consideration while creating ecological designs?’’ will be searched. The aim of the current study is the evaluation of interior design related ecological design principles in selected cases of ecological themed Green Hotels in Antalya Province. It is also expected that other similar tourism complexes in Turkey and in the world will benefit from this study.

1.3 Limitations of Research

The study investigates on the regulations of the Green Star classification for 5 star accommodation complexes. In order to obtain the title of a ‘5 Green Star Hotel’, complexes must be graded 300 points by the Ministry of Tourism and Culture of Turkey. The Green Star Hotels which have the highest points for the 5 Green Star Hotels provide the highest capability regarding the necessary criteria. The theoretical background given in Chapter 2 and 3 about ecological tourism is generally based on definitions from UNWTO and WRIT.

The primary structure of the study in the eminently general sense focuses on the 'Green Stars' project for the environmentally sensitive accommodation, located in Antalya and launched by the Ministry of Culture and Tourism in 2008 which still is going on. There are a variety of different evaluation criteria and points systems for ecological buildings around the world.

The most world-wide known criteria and point system is specified by LEED and BREEAM. The Ministry of Culture and Tourism supports ecological buildings and has initiated the Green Hotel project, according to which, there are 122 criteria for becoming a Green Hotel. The criteria that is used for this thesis is extracted and filtered to suit interior design which has been used for the evaluation.

Every single touristic region has its own appeal and points of attraction. The greatest advantage that Antalya Province has is undoubtedly the environment; the abundance of history, sea/sun/sand and nature, that brings about the best attractions of the province. A momentum research done by the Ministry of Tourism and Culture states that Turkey's advancement in tourism will be carried out through decided areas, up until the year 2023, and Antalya (Figure 1) has been broadly acknowledged as an "Ecotourism Region" in the country (Koç, 2011).

Figure 1: Antalya in Turkey (URL2).

There are certain classifications that come with eco-touristic facilities in Antalya. The types of eco-touristic facilities are defined by ecological aspects and features such as buildings that adapt used materials, the one using modern technology solutions or the ones with design principles. In the "Green Star" venture, launched by Turkey's Ministry of Culture and Tourism in 2008, 25 Green Star lodgings were chosen in Turkey as ecotourism locale. In total there are 12 Green Star facilities which are additionally five star facilities.

In other words, they are all considered as equal. They are located in Kemer, Lara, Belek and Side. Each of these cities has their own natural and historical assets. Among the 12 hotels in Turkey, one of them is located in Lara, 3 in Side, 4 in Belek and 4 in Kemer. As all of these hotels are considered to be equal according to the criteria, one of these hotels was selected randomly and evaluated further. The content of this study is constructed from a physical analysis. This study has been viewed from the user's perspective rather than an interior space and design criteria.

1.4 Methodology

The Ministry of Culture and Tourism carries out applications for the examination of accommodation facilities, referencing knowledge on Green Hotel varieties. When considering countries such as Turkey, environmental sensitivity is one of their criteria modules, along with the interior design criteria. The actual infrastructure of the study is the promotion and evaluation of the Green Stars accommodations located in Antalya which have prevailed to be entitled as a 5 star accommodation facility.

The study covers qualitative research that evaluates the pointing systems and criteria that is required for a Green Star Hotel. Furthermore, it is an informative study showing the exact musts within ecological buildings, and it goes over topics such as sustainability, ecotourism and ecological architecture. Ecological concept can be referred as being nature friendly, eco-friendly, ecologic and green.

The literature review for the study is done through the use of various articles, books, websites and on-site observations of the case studies. There have been on-site observations for site analysis as well as analysis of the interior design items of the criteria for Green Hotels besides interviews with the hotel staff for reaching to more direct and clear answers of how Green Hotels operate. The literature review provided reveals the necessary information that is used to determine the charts for evaluating Green Hotels. It brings to light the interior design relationship with ecological principles, the significance of Green Hotels, their advantages and the general role that these hotels play within a touristic field.

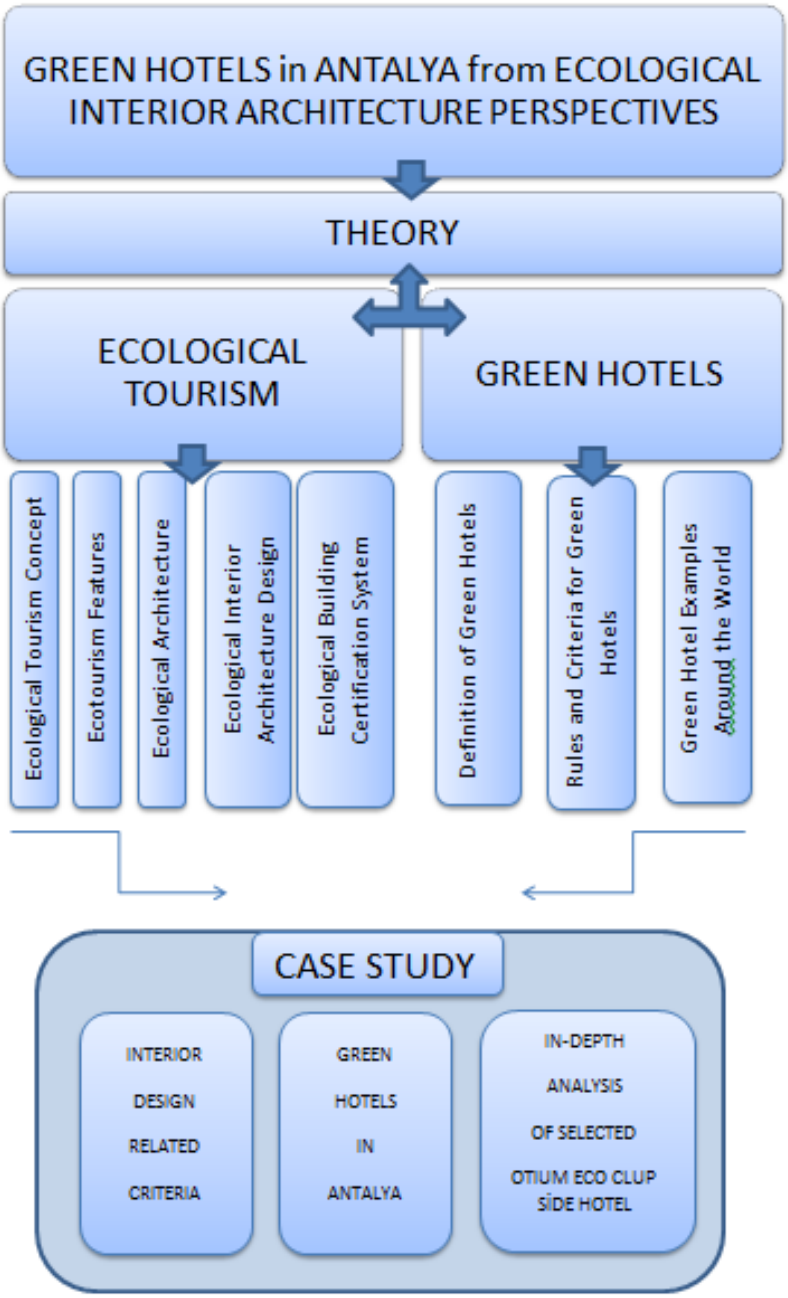


Figure 2: Schema of the Logic of the Study.

In order to contribute to the methodology chapter, the basic logic of the study has been summarized in a schematic form in Figure 2.

1.5 Background of the Study

Tourism

The term tourism has been constituted by people and was attempted to be defined by experts and scientists. However, the most frequent and adopted definition was given

by the OECD (Hunziker, 1941). According to this definition, tourism is “all the events based on earning money and having the ability to grow continuously to desired format, providing accommodation for foreigners where they can travel the main attractions of the location”.

Although the definition above is the the most widely adopted definition of tourism, there are other definitions regarding the term as well, for example the first one was made by E. Guar-Freuler in 1905. Freuler defines tourism in his book as “the increasing need for rest and change of air, natural beauty, the development of trade and industry, means of transport to establish relations based on a variety of human communities as a result of perfection, an important event of our time”.

Trying to define the concept of multi-faceted tourism sector, it can be said that tourism is located outside of the usual housing area, where people do not tend to settle in, away from political and work-like areas. It is typically situated in unrestricted areas where people are free to carry out hobbies and everyday practices such as their interests, sports, entertainment facilities, visiting friends and family as well as attending conferences and seminars. The place truly becomes a sector and service when people stay at the accommodation in these areas for over 24 hours in order to perform these business and social relation activities as a consumer (URL 3).

Sustainability in definition is to treat the earth and environment as if it was intended for habitation. This does not only imply living in a "Green" way. Balancing economic, social and environmental factors for creating a better world is one issue of sustainability. The pressing issues and realities within our world are increasing in a

negative pattern. Some of them include climate change, drought, dwindling resources, energy consumption, social injustice and conflict. Sustainability implies a world where we can make decisions to create a greener, happier environment that is more fair (URL 4). Sustainability has three major strands: social, economic, and environmental, which are explanied as follows:

Social: The social aspect of sustainability is to ensure a strong, healthy society for future communities.

Economic: The economic aspect is determined where the costs of environmental and social resources are distributed fairly and efficiently.

Environmental: The environmental aspect of sustainability involves the protection and respect against the limits within the planet's environment, resources and biodiversity.

The major thought processes behind sustainability is fairness and understanding regarding the environment. Its aim is to develop a world that future generations will be thankful for. One of its main goals is to spread publicity by opening up ears, eyes and minds, to think alike, to aid/inspire all, and to act differently towards nature and the environment (URL 5).

Sustainable Tourism

Being one of the fastest growing sectors in the world, tourism relies on natural and cultural resources to obtain its importance. Therefore, where these factors are harmed, tourism cannot function well. Accordingly, the concept of sustainability plays a major role in tourism. To maintain a sustainable developing tourism sector,

the host must ensure that the environment as well as natural, historical and cultural resources, essential ecological processes, and biological diversity remain untouched plus preventing any damage to the location (Demir & Çevirgen, 2006).

The raw material which enables tourism to maintain its sustainability is the environment; hence, by sustaining the environment, new tourism cultures occur. This perspective argues that the environment should be transferred to future generations with a minimum loss by efficient use of non-renewable resources and if necessary with re-using and recycling (İçöz & Yılmaz, 2006).

Water is a standout amongst the most valuable assets and it is compulsory to stock and spare water. There are numerous routes for accomplishing supporting water e.g. agricultural watering ought to adjust the dribble watering innovation; using items that expend less water ought to be favored; downpour water ought to be used and supplied; and the waste water ought to be kept blocked so to defile clean water assets and oceans (Erengezgin, 2011).

Solar power is a vital source that has picked up prevalence particularly after 1970's, when the movement of engineering has furnished sun powered machinery with the clean and regular vital source and decreased support/utility expenses (Schaik, 2010).

The heart of sparing trust in numerous settlements accompanies tourism; however, as mentioned before, tourism has a negative side which is unsafe to the nature's turf because of the unplanned development in touristic offices. Practical situations have an extraordinary part in the improvement of civilizations and they advance

settlements to a certain level. When common and national qualities are lost, the fate of national and nearby tourism gets under danger. This on-going loop is not useful to anyone (Dağlı, 2000).

Antalya

The presentation of recorded history and social abundance inside a locale gives high caliber of touristic fascination. The protection, reclamation and versatile reuses of these authentic and social spots must be maintained and transformed occasionally, likewise, must be secured from consumption and open violation (Camgöz, 2000). Antalya city, located in the Mediterranean area of Turkey, has a standout amongst the hugest improvements towards tourism. Antalya is one of the trademarks and focal points of tourism in Turkey. Decently considered city arranging, protections and rebuilding efforts of chronicled landmarks and structures, alongside the generally protected customary structural engineering of the area, particularly inside the Kaleiçi (Walled City) ruins, plus an expansive scale of touristic financing and overall known undertakings adds to its touristic worth. The topographical area of Antalya reflects the common excellence of the Mediterranean as well. Moreover, the specialties of ecotourism are appropriate for this locale as a result of the overall safeguarded common delights, for example, sea, sand, verdure, and fauna generally adjust the atmosphere and protect the historical treasures.

Each touristic area has its certain offerings, for example in the case of climate it can offer ocean or sun, or it can offer magnificence characteristics, chronicled qualities, advanced mechanics and so forth. The district of Antalya is overflowed with touristic offices near its regular excellence and authentic quality. The Ministry of Culture and

Tourism has directed a research and characterized that the touristic improvements inside Turkey until the year 2023 will be handled through decided areas (Koç, 2011). Antalya is one of the districts that are acknowledged as an "Eco-Touristic Region" by the Ministry of Culture and Tourism. Inside Antalya is one of the few areas which have the capacity to ensure its regular surroundings, and its verifiable structures customary construction modelings are all inside today's circumstances. Apart from all the constructive variables of Antalya, and the social wealth that has been protected for quite sometime, the expanding migration examples are transforming its general aspects, and likewise, people's methodology is mostly towards nature and manageable quality is tragically acquiring contamination to the district.

Information regarding tourism, sustainable tourism, ecologic tourism and Antalya has been given in the part explaining the background of the study.

Chapter 2

ECOLOGICAL TOURISM

2.1 Ecological Tourism Concept

Due to the consistency and demanding needs of tourism, touristic facilities all around the world consume significant amount of energy and water and consequently a rapid need of change is felt.

Ecotourism is sometimes viewed as "painting all around green". Notwithstanding, it is an instrument used to change the current state of tourism into more natural amicable foundations. This is a more suitable methodology towards touristic offices. The most suitable way for tourism is to go with the concept of eco-tourism which is to expand welfare of the tenants and ensure the nature's domain (Honey, 1999).

In fact the emergence of the concept ‘eco-friendly’ touristic hotels owes its transformation to the ‘eco-friendly traveller’ customers. Customers are beginning to show importance and concern to the hotel facilities which show more attention towards sustainability and eco-friendly. Especially, around the globalized locations where CO2 reduction is in process, international business employees and managers who arrange business trips also show concern and care to reside at eco-friendly and Green Hotels. Therefore, Green Hotels are beginning to document and receive certificates to show their concern for the environment as the hotel operators and

managers have noticed that this awareness attracts a larger quantity of customers compared to standard hotels (URL 6).

"Ecotourism, in natural areas, protecting the natural environment and resources, the local people to improve the economic well-being is described as a reliable form of tourism" (Selimoğlu, 2004).

Ecotourism and sustainability research explores defining a very different region of ecotourism, remarked by UNEP. The basic characteristics of ecotourism have been defined by a common consensus of the subject. However, the complete definition of the idea is not agreed upon when it comes up to a large number of eco-touristic environments.

The Worldwide Fund for nature known as WWF describes ecotourism as the least impactful against wildlife and natural environments, and in the meantime believes it being a type of tourism that provides economical benefits to the local communities and regions that adopt its policies. The definitions and aspects of ecotourism can be described through a consensus. There are certain characteristics that can be sorted as follows:

- Nature-based environments;
- Bio-diversity contributes to the protection and preservation;
- The support of welfare for the local communities;
- Positive environmental and socio-cultural impacts for activities that concern both tourists and local communities;
- The minimum usage of resources that cannot be refreshed;

- The prediction of production through local property and local community oriented employment (TÜRSAB Ar-Ge Department, 2002).

Mass tourism, ecotourism and tourism are generally spread throughout the year to reduce the pressure towards the natural environment. Stating that destruction comes with tourism is not correct. Planning long-term economic interests and ecotourism is to prevent destruction (Öztunalı & Kayır, 1998).

Sustainability debate was popularized in recent years through the use of the concepts known as ecotourism, tourism and the environment. The relationship between these subjects fitted exceptionally well with the concept of sustainability, therefore, the frequently used debate was brought to light considering the topics and in reality they strengthened the bonds between the phenomena known as environmental, economical and social aspects as a whole (URL 7).

2.2 Ecotourism Features

There are different types of features that ecotourism encompasses. These features can be categorised to understand the full extent of what ecotourism offers (Demir & Çevirgen, 2006). Its five features are explained below:

Tourist type: The concept of tourist type includes characteristics such as value the local regions, cultures and environments, travel loving, natural beauty desires, and the understanding of various traditions and cultures that surround the region.

Location: The concept of tourism location includes characteristics such as historical values, nature protected areas, traditional value and cultural essences.

Activities: Activities include environmental education supported by the domain, in addition the environment from the use of resources.

Facilities: All facilities are focused on environmental-friendly technologies and are processed through local-found resources. The conservation and protection of natural environments go hand in hand with the development approach of the eco-touristic regions and facilities.

Development Processes:

a) The negative effects of development should be reduced to the minimum level towards the environment and should cover all the local residents actively during its process.
b) It should always provide some sort of economic benefit to the local community and the region it is located in (Demir & Çevirgen, 2006).

2.2.1 Principles of Ecotourism

There are certain aspects within ecotourism that identify the implementation of eco-touristic principles in five categories which are as follows (Kahraman & Türkay, 2006).

1- Reducing the damage

- Reducing the damage that is given to the natural environment and traditional downloading, in addition to preserving the area that it is located in.
- Supports longterm monitoring and assessment programs so to minimize the negative impact of the socio-cultural and natural environment.

2- Protection

- Encouraging local communities and tourists to protect the environment and the traditional socio-cultural education inhabited within the given region.
- Promotions of environmental friendly, compatible traditional socio-cultural life nestings, compatibility infer-structure towards protecting wildlife, natural beauties and greenery.
- The management of resource allocations and protection under the thoughts of natural and traditional socio-cultural areas.

3- Improvement

- Encouraging the tourists, local governments and local people of the region to develop the provision of responsible trade.
- The improvement of social and environmental capacity and promoting the realization of the region through the development of tourism.

4- Maintain

- Encouragement of local communities to contribute to the development and maintenance of the process.

2.2.2 Trends in Ecotourism

Towards the end of the 1990's, many organiztions conducted studies in order to spread ecotourism. A research held by the United Nations Environment Program (UNEP), found that ecotourism and the tourist industry are two rapidly growing segments.

According to the travel and eco-tourism report by the UNWTO, travel expenses of ecotourism have increased rapidly in recent years. These rapidly growing expenses are said to be five times more than the past years. With the rapid growth of the industry, global consciousness of nature-based tourism and environmental perseverance has been brought to light throughout the world. The recognition came through the publication of nature documentaries and other sorts of publications such as magazines, newspapers, articles etc. These types of publications were major supports in the recognition of eco-tourism and nature preservation (TÜRSAB Ar-Ge Department, 2002).

The value of economic activities of ecotourism is hard to measure due to the fact that ecotourism participates in a wide range and various types of economic endeavors. It also participates in other portions of different touristic activities within the business.

Nature-based tourism is a sensitive subject where the preservation of natural environment has importance. This type of tourism is also significant in developing countries because of its financial production and industry. Due to its nature being more abundant within developing regions, it has a critical importance. Also in these regions, tourism attracts more attention; therefore, the conservation and protection of the ecosystem is of utmost importance.

According to the World Bank (1996), on the matter of ecotourism, in conjunction with certain aspects of the region such as culture and adventure travel, travels that are long in duration and cost more money were reflected on the polls, showing that half

of the tourists and touristic resources go into requests of natural tourism, and hold a very large marketing position (URL 8).

2.2.3 Ecological Tourism in the World

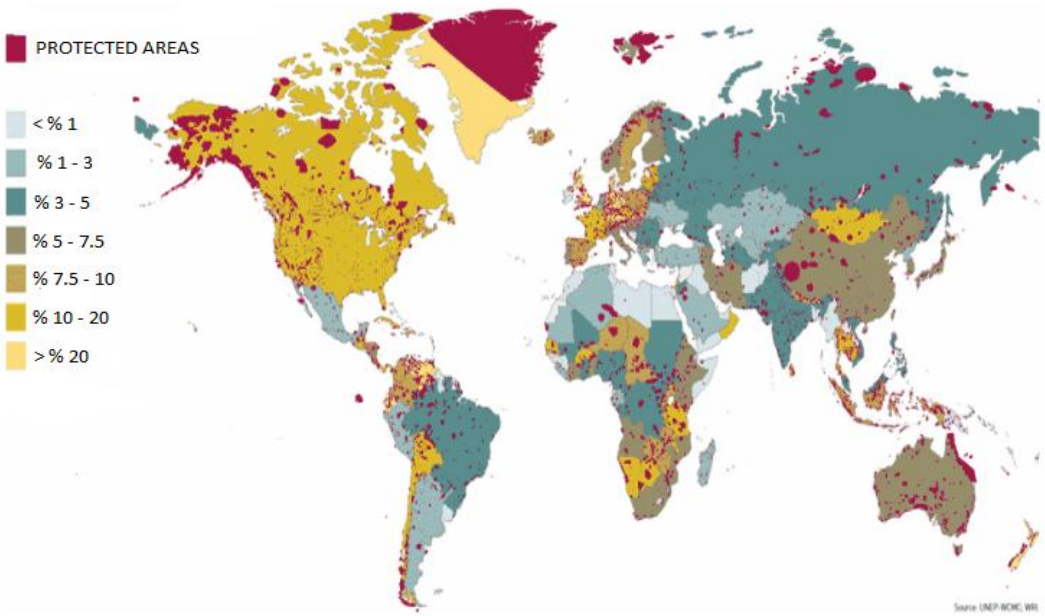


Figure 3: Natural Sites of the World under Conservation (URL 9).

The areas of the world which are under conservation are indicated in the figure above (Figure 3). When the areas under conservation are examined, it is possible to see that the percentage of this conservation in Turkey is around 1-3%. While the other the other competing countries in terms of tourism in the Mediterranean have percentages which range from 7, 5 - 10% or 10 - 20%. It is also possible to notice that the conserved areas, which are indicated by using the color red, are much more in the other Mediterranean countries in comparison to Turkey.

World developments reveal that tourists no longer want to follow the path of traditional tourism. UNWTO's research which was carried out in 1997, suggests that 7 percent of all international tourism expenditure is a large amount of investment

within this sector. World Resources Institute of Tourism (WRIT) research carried out in 1990 also shows that nature tourism was at a rate of 30 percent, while the annual growth rate was 4 percent. Regions which adopted ecotourism are usually in concern due to the touristic profile of the audience who accompany these regions. The issue lies in the high level of education needed and environmental consciousness that is related to ecotourism. It also has no relation with the revenue that is generated from the average age group of 35-55, or the local residents where people can be seen.

Figure 4: Regions that Adopt Eco-tourism in the World (URL 10).

Figure (4) above represents the regions in the world; the ones indicated in red are the regions that adopt ecotourism intensively. As shown on the map, southern regions of Turkey are covered in red. Turkey in general is a country that is rich in natural beauties and has a natural geography. Almost all of the country is close to the regions indicated in red making the country an eco-touristic place (Selimoğlu, 2004).

The statistics that are taken from the American citizens explains that 43 million tourists had visited Greece in the 1990s shows, and there was a constant ratio of 3

percent per year of British tourists in France. These are mainly related to ecotourism and the nature walks and observations (Selimoğlu, 2004).

In the 2000's, the definition of ecotourism richened by the inclusion of concepts such as; nature-based, environment friendly, respect for local life, rational and measured, environmental education and local participation.

Today, ecotourism is a misused concept which is perceived to include definitions which are related to nature tourism. This misuse of the concept results in a confusing and unclear understanding of what ecotourism is in reality. To determine the definitions of such concepts is beneficial in terms of communication not only within the public but also with authority. This communication is significant in terms of achieving the specific objectives which nature based tourism is set out to do. Being 'green' has become a popular and common way of life for the past two decades.

Using this popularity as an advantage, many people, organizations and companies market and advertise their product or service under the impression that they are environment friendly. Raising awareness and informing the public, which includes both the consumers and the tourists, is vital in order to make green stamps or green seal meaningful. If the travelling public is not aware, these stamps or seals could possible be used to deceive them (Shores, 2011).

2.2.4 Ecotourism Components and Purposes According to UNWTO

Two separate lists were prepared by UNWTO in the year 1999. Although they are completely different list, the objective of both of them was the same; to list all the cautions to be taken in order to prevent the world from receiving any more damage

due to tourism and to spread the concept of ecotourism. While the first list includes the components of ecotourism, the second list includes the purposes of ecotourism.

Firstly; ecotourism components are listed below (UNWTO, 1999):

- Contribution to the perseverance and protection of biodiversity within the region.
- Education of locals and observance of wellbeing to ensure sustainable culture and traditions, and to contribute to awareness toward nature.
- Profit of small businesses through touristic group services.
- Responsibility of tourists and local people towards the tourism industry.
- Usage of minimum resources and irreversible exhaustion.
- Leaded effort on tourism management on a local level.
- Opening of business opportunities in relation to local residents, openings for property development within the region, and observation regarding these developments (URL 11).

Hereinbefore, the second list of the two lists prepared by UNWTO in 1999. Eco-tourism goals are listed below (UNWTO, 1999):

- To reduced the destruction against nature and the environment to the lowest level through tourism.
- To ensure local facilities and locally focused benefits such as tourism that is in collaboration with the needs of local people, development that follows through with the local government as well as public trade and the awareness of ensuring preservation, protection of the natural environment and socio cultural resources and management.

- To minimize negative impacts of tourism through the transfer of socio cultural and nature for the support toward long term evaluation programs.
- To ensure the contribution of local people towards development and maintenance of the regions.
- To ensure an increase in supply towards touristic developments and the region's social and environmental capacities.
- The realization of investment in tourism towards environmentally compatible with nature and socio-cultural life, local vegetation and wildlife preserves within the regions occupied for tourism (URL 12).

There are three other aspects that are followed by the UNWTO and by the countries which have accepted these goals (URL 12):

a) Improvement in protecting nature and cultural heritage status.

b) Local communities that dwell within rural areas and are prone to tourism need to be protected and be level with the surroundings. This is one of the main objectives of the policy carried out by the Ministry of Culture and Tourism diversification.

c) Teaching respect and encouragement towards nature and the diversity of local cultures and inserting it in the knowledge of the region.

2.3 Ecological Architecture

Ecological architecture can be defined through its usage of natural materials; the way these materials transform into clean fourth energy systems based on consumption; the consideration of taking advantage of materials in a more conservative manner; and producing the same outcomes. The basic idea and logic of ecological architecture

follows the natural principles, designing methods, and design based on the venue of the ecosystem (Berktan, 2006).

Ecological architecture follows certain rules and aspects to gain the optimum result. This kind of architecture is designing a building so not to have any sort of effects towards the environment. Techniques used in these types of projects are environmentally friendly, affecting the outcome of the final form (building) to be in harmony with the surrounding environment while being contextual in its approach.

Building's threat toward nature should be omitted. It must not hold any sort of threat to the nature, flora and fauna, wildlife that surrounds it. One of the main goals in constructing an ecological building is that human inhabitants also should not have any adverse effect on the surrounding ecology. Maintaining a good healthy relationship between human and the natural environment is one of the sole aims of ecological architecture (URL13).

Understanding of the structure, ecological tourism has become an important entry within designing structures. The expanding concept of ecological tourism drives countries to produce building structures so to both compliment the concept of ecological building and to maintain a touristic attraction which fall hand in hand with nature tourism. What makes ecotourism an outstanding growing concept is its sustainability and environmentally friendly aspects. This is where alternative tourism types occur (URL14).

The world has many different hotel types and structures which can hold many different types of alternative tourism activities all in regards to nature. Some of these examples can be photo safari, plateau tourism, bird watching, wildlife watching, under water diving, sports tourism, bike tourism, hunting and tourism, agriculture and farm balloon tourism, botany tourism, cave tourism, trekking, camping caravan tourism, paragliding, streams, the belief of the ancient Silk Road, travel, filming locations, mountaineering and many other types of tourism adventures concerning the region that they are located in (Erdoğan, 2003). In this part, the specific design principles of ecological architecture and its basic objectives have been examined.

2.3.1 Design Principles for Ecological Architecture

Architects and interior designers who want to pursue the ecological design path should consider many tasks. Particularly, in the design stages of the project when the designer must follow a great number of criteria to achieve an eco friendly facility, following these criteria reduces the issues that may arise, and saves an extra spenditure. Design principles in general, can be listed into 5 categories. These include Natural Resources, Environmentally Friendly, Climate, Flexibility and Orientation which can also be seen in Table 1.

Table 1: Ecological Design Principles in Architecture (adapted from Tönük, 2001).

1-Natural Resources	To decrease the amount of artificial damage, the design aims to use natural resources and the environment.
	The current positioning of buildings is in reconciliation with the existing soil, water, air topography and is also contextual with the natural surroundings.
2-Environmentally Friendly	To create topographical features which are compatible with nature, in order to create the most successful coherent concept.
3-Climate	To design climate-appropriately and to maximize the conditions and solar energies vigilance.
4- Flexibility	To use flexibility in design, to use the designs and provide possibility for criteria's which have functional spaces.
5-Orientation	To design as much as possible in the direction of North, irrigated volume for designs of horizontal circulation elements and functional venue.

In Table 2, the factors which a designer must follow and the design approaches are expressed. Factors and designs are separated into 5 categories. These are; design, siting and land use, materials, equipment and job and business. Table 2 includes of the main structure of the Table 2. In the boxes below Table 2 the main structure, the characteristics are explained in detail.

Table 2: Factors and Design Approaches in Ecological Architecture (URL15).

Summary of Factors and design approaches in ecological architecture				
DESIGN	SITING & LAND USE	MATERIALS	EQUIPMENT	JOB SITE & BUSINESS
Smaller is better	Renovate older buildings	Avoid ozone-depleting chemicals in mechanical equipment and insulation	Install high-efficiency heating and cooling equipment	Protect trees and topsoil during site work
Design an energy-efficient building	Create community	Use durable products and materials	Install high-efficiency lights and appliances	Avoid use of pesticides and other chemicals that may leach into the groundwater
Design buildings to use renewable energy	Encourage in-fill and mixed-use development	Choose low-maintenance building materials	Install water-efficient equipment	Minimize job-site waste
Optimize material use	Minimize automobile dependence	Choose building materials with low embodied energy	Install mechanical ventilation equipment	Make your business operations more environmentally responsible

DESIGN	SITING & LAND USE	MATERIALS	EQUIPMENT	JOB SITE & BUSINESS
Design water-efficient, low-maintenance landscaping	Value site resources	Buy locally produced building materials		Make education a part of your daily practice
Make it easy for occupants to recycle waste	Locate buildings to minimize environmental impact	Use building products made from recycled materials		
Look into the feasibility of grey water	Provide responsible on-site water management	Use salvaged building materials when possible		
Design for durability	Situate buildings to benefit from existing vegetation	Seek responsible wood supplies		
Design for future reuse and adaptability		Avoid materials that will off gas pollutants		
		Minimize use of pressure-treated lumber		
		Minimize packaging waste		

Table 2: Factors and Design Approaches in Ecological Architecture (URL15).

Details of Factors and Design Approaches in Ecological Architecture		
DESIGN	**Smaller is better**:	Minimizing the resource needed to construct and operate the building, and maximizing the interior space through careful design in regards to the building size, to gain optimum results.
	Design an energy-efficient building:	Using advanced finishing techniques such as the applications of high level insulations, high performance windows, tight construction and the right usage of materials, to gain the most energy efficient results in regards to climate changes and the location of the building must be considered.
	Design buildings to use renewable energy:	Using renewable energy, this can come in many forms even through simple design decisions such as, passive solar heating, the use of daylight, natural cooling systems, to contribute to the cost efficiency and energy consumption of the building. Also using solar water heating, and photovoltaics, or even the consideration of designing the building towards future solar installations.
	Optimize material use:	Optimizing material use, through the design of standardized building sizes and standard ceiling heights/building dimensions. Simplifying the building geometry, with the thought of optimum engineering and value/ advanced framing.

	Design water-efficient, low-maintenance landscaping:	Using landscaping with drought resistance native plants and perennial ground covering is preferred, due to conventional lawns being high maintenance with water usage and pollution from mowing.
	Make it easy for occupants to recycle waste:	Creating storage for processing recyclable materials such as recycling bins near kitchens and other areas of consumption, also other methods such as under sink compost receptacles etc.
	Look into the feasibility of grey water:	Using grey water recycling meaning water that is used from sinks, showers, or laundry to be reused for irrigation purposes, if the region is not fit for these operations make the designing of the building to be open towards future adaptations.
	Design for durability:	Structuring the building for long term purposes, and in order to support the environmental impacts which may be caused by the building. 'Timeless architecture' is a phrase used to imply a long life structuring of the buildings.
	Design for future reuse and adaptability:	Considering materials and there reuse or recyclable qualities. Making the structure open and adaptable to other usages after its time.

SITING & LAND USE	**Renovate older buildings:**	Renovating existing building in order to provide the most sustainable contraction.
	Create community:	Developing different patterns to support, inhibit or contribute in the construction of healthy and strong communities.
	Encourage in-fill and mixed-use development:	Building structures on undeveloped Greenfield sites is not preferred, it is however preferred to build on in-fill development sites if the density could be increased. Adapting a mix used development is preferred such as residential and commercial areas being combined to reduce transportation usage and create a more healthy community.
	Minimize automobile dependence:	Developing locations that allow access for transportation needs such as; bicycle paths, walking pavements and basic public needs for transportation, the community could also support this movement by implementing home offices and needs with layouts and wiring.
	Value site resources:	Evaluating the site in terms of solar access, vegetation, natural shadowing, soils, water resources and other important natural areas. The site should indicate as a guide for the designing of the building.

	Locate buildings to minimize environmental Impact:	Minimising the damage on the environment, which could be done through the careful observation and decision towards, constructing clustered buildings to Preserving open spaces and wildlife that habit the area, avoiding areas that are sensitive such as wetlands, keeping roads and services short in distance, the preservirance of pristine areas. Preferring to build on sites that have been damaged or used before is mostly preferred. Considering the preservation of the ecosystem as the most significant goal.
	Provide responsible on-site water management:	Designing landscapes that support the absorption of rainwater, rather than having rainwater carried off through storm sewers. Considering rooftop water catchment systems for the irrigation of the landscape in order to add sustainability to water consumption.
	Situate buildings to benefit from existing vegetation:	Using foliage and vegetation properly, to create dramatically cooling loads, which should be considered on the east and west sides of the building. Placing vegetation to block cold winter winds and at the same time to channel cool summer breezes towards the building.

MATERIALS	**Avoid ozone-depleting chemicals in mechanical equipment and insulation:**	Keeping pollution to the minimum level, by avoiding insulation materials made by HCFCs, and reclaiming CFCs when carrying out services and the deposing of materials. Although CFCs have been phased out, the replacement for them has been HCFCs which also have a negative effect on the ozone layer; these should be avoided at all costs.
	Use durable products and materials:	Using long life products since they have longer use and require less maintenance is energy efficient, due to manufacturing being very intensive energy consumption. The durability of products contributes to the waste problems of solid materials.
	Choose low-maintenance building materials:	Building materials that require less maintenance is preferred where possible, this could be painting, treatments, or waterproofing and other finishing's alike, selecting materials that will have less of an impact on the environment is recommended.
	Choose building materials with low embodied energy:	Using materials that have low embodied energy from manufacturing is preferred, rather than heavily processed/manufactured products and materials, these are usually intensive in energy consumption.
	Buy locally produced building materials:	Using locally produced materials are preferred such as local hardwoods rather than tropical woods, also transportation is costly energy consuming and pollution generating, therefore local materials should

	be considered.
Use building products made from recycled materials:	Reducing solid waste problems, cost cuts on energy consumption in manufacturing, and also to cut on natural resources that are used building products that are manufactured from recycled materials are preferred. Some examples that contain recycled materials are cellulose insulation, Homasote, Thermo-ply, floor tiles that are made from ground grass, and recycled plastic lumber, these can all contribute to the sustainability, energy, and cost of the construction.
Use salvaged building materials when possible:	Using salvaged materials is of significance reducing landfill pressure and saving natural resources of the environment, for example the salvaged materials could contain lumber, millwork, plumbing fixtures, and other types of hardware. The testing of these salvage materials is important to asses their safety. The usage of old toilets and windows should be avoided.
Seek responsible wood supplies:	Using certified wood is of significance, the use of wood from independently certified and well managed forests should be considered, the avoidance of products that are old growth timber unless they too are certified, another way to avoid old growth timbers is by the usage of engineered woods this can

		substitute the old growth timbers, tropical hardwoods also must be avoided, however if the supplier can document the location of where the wood is from and if it is from a well-managed forest.
	Avoid materials that will off gas pollutants:	Avoiding harmful chemicals from materials that can effect workers or the occupants health at all cost, materials such as, adhesives, particleboards, carpeting, solvent based finishes, and other building materials that contain and release formaldehyde and VOCs (volatile organic compounds) into the air. These materials can also effect smog and ground level ozone pollution in exterior spaces.
	Minimize use of pressure-treated lumber:	Detailing that avoids soil contact to managing rot and decay; this can be treated by the usage of recycled plastic lumber. All measures must be taken to ensure the workers safety when cutting and processing pressure treated woods, extra materials (scraps) should not be incinerated, but used for other constructions or recycled.
	Minimize packaging waste:	Controlling packaging waste by expressing to sellers to avoid over packaging, this could be difficult due to some materials being very sensitive and is in need of over packaging, excessive packaging should be avoided for example plastic wrapping on plumbing fixtures or fasteners, these could be packaged in

		bulks to control packaging wastes.
EQUIPMENT	**Install high-efficiency heating and cooling equipment:**	Producing less pollution and saving on costs, well designed high efficiency boiler, air conditioning and Furness and other distribution systems must be used. Sealed combustion appliances must be used to avoid the risk of combustion and gas spillage.
	Install high-efficiency lights and appliances:	Using lighting that is more suitable and energy efficienct with improvement of lighting technology. Fluorescent lighting is more suitable and energy efficient in recent years, and is adaptable to any type of interior. Using high efficiency appliances rather than conventional counterparts in order to gain economic and environmental advantage.
	Install water-efficient equipment:	Saving water can be approached in many ways, such as, water conserving toilets, faucet aerators, showerheads, these appliances not only reduce water usage they also reduce the demand on sewage treatments and septic systems. Using solar heating since extensive use of hot water could be energy consuming.
	Install mechanical ventilation equipment:	Installing appropriate ventilation which can come in two forms natural ventilation and mechanical ventilation. Mechanical ventilation is required, to ensure healthy air within an interior space, other

		mechanical ventilation appliances are required to recover heat in colder climates related to energy saving methods, the less expensive method could be to use exhaust only ventilation.
JOB SITE & BUSINESS	**Protect trees and topsoil during site work:**	Protecting trees within construction sites by shielding off their drip line around them and steering away major changes to their surface grade.
	Avoid use of pesticides and other chemicals that may leach into the groundwater:	Considering less toxic methods to treat grounds with termite treatments, due to the fact that the toxicity could reach groundwater and contaminate other water supplements. Other insect and termite prevention could come through by removing debris from the construction site rather than burying them when grading the ground.
	Minimize job-site waste:	Setting up different types of recycling bins around the site could help with the waste management and recycling of materials such as wood scraps, sawdust etc. Donation of these materials to low income housing projects, or other projects in need. The education of the worker crew on how to dispose materials correctly in a recyclable manner would be beneficial.
	Make your business operations more	Planning and arranging of meetings, planning schedules and site visits, arranging carpools to

	environmentally responsible:	minimize the transportation and unnecessary driving, in order to be energy efficient and environmentally responsible. Within the office the usage of recycled materials plays an important role such as recycled papers and supplies, mugs instead of disposable cups.
	Make education a part of your daily practice:	Using processes of design and construction in order to train your personal and workers and educating clients, employees, third party subcontractors, and general public about the effects of construction on the environment and how these impacts can be reduced to the minimum level.

As mentioned previously, a designer should consider the 5 groups and the principles listed under these groups, which are shown in Table 2, while conducting ecotourism aided design.

2.3.2 Evolution of Ecological Architecture

Energy sources that the buildings use and the resources needed for sustainability must be provided form a renewable structure. Resources must somehow renew themselves without harming the environment. This issue has become of significance recently and designers have major responsibility toward it (Çelebi, 2002).

Within the last quarter of the 20th century, the growing environmental/ecological approaches towards green buildings have significant implications, when considering the rate of growth, with the improvements of technology and the refusal of old harmful technologies, there is a way of creating a variety of powerful reflections

upon nature and the environment. Environmentally friendly technologies are also human friendly in nature due to their being less palliative against the environment. But there is also another side to these changes in technologies, there is always a risk of creating other types of resource consumption and energy usage. Contemporary technologies can bring up both consuming and laying out atmospheric pollution, gaining environmental problems within their framework. The importance of clean energy and conservation has been extensively covered in 70's, with the emergence of passive/active solar technologies which seem to be the most efficient design approach based on the perspective of environmentalists (Utkutuğ & Çeviker, 2002).

The two names of green architecture or ecological architecture can be defined as the birth and death of all sorts of inputs and outputs structures that can integrate within the biospheres of our ecological system. Converting to reuse can take care of our environment, while providing hazardous waste can be defined as an approach (Utkutuğ & Çeviker, 2002).

2.3.3 The Basic Objectives of Ecological Buildings

One of the renowned architects, Le Corbusier, in the 20th century, has stated that 'Building is experience in'. This expression is necessary in explaining the technological advancements and engineering solutions that were in place within the century. The buildings' history and architecture can be determined by the century. Machines and machinery that was integrated and used to build also mimic the buildings' historical preference. Due to the reasons, that wake the industrial revolution, machinery as a symbol in general, has become the nature of human kind. Through the usage of modern machinery, culture and climate have been downgraded

and not considered. By bringing to light the line based production and typical features one comes to see only machine made architecture (Erengezgin, 2000).

Another problem that occurs with the usage of machinery is the threat towards life on earth. This can be seen with the pollution levels, which also downgrade the level of sustainability of resources and energy consumption in the environment. This is all due to artificial comfort that can come from machine made products. Up until the 1990's, advantages where taken in the usage of energy and pollution to the realization of buildings, which came in the form of technology. On the other hand, developing countries which were not aware of ecology or energy based sensitivity were considered non-environmentally friendly. However, after 1990's, ecology and energy sensitivity or awareness were brought down to discussion and were in fast development. When it comes down to it, the education of the general public and society is of significance in creating consciousness on the importance of the environment regarding architecture. Yet, this process is slow and intensive and requires the support of the public (URL16).

The definition of a green building is the right usage of energy, resources, processing, and the integration of climate and natural environment fused with healthy and harmony with the building's architecture. In the 19th century, buildings were the crown jewels of the environment with much focus on its realization and no effort in complimenting the natural context that surrounds them; they were the example of living organism and machinery. Nowadays, architectural buildings have transformed to develop the 'ecology and energy' information society, and to be competitive

within the field of architecture. This is the global sense within the roots of architecture in recent years (Erengezgin, 2000).

Buildings in different phases of their life time use different rates of energy consumption. For example, when taking a 50 year old building with its materials, production and the phases of construction into consideration, the building differs in energy consumption compared to modern architecture. Maintenance of these buildings also differs due to the consideration of future conversions. It is at least five times as much to maintain the energy usage and operation phases when compared to contemporary buildings. It is important to note the climate and its effect on the energy consumption of old buildings. Energy consumption of buildings sometimes depend on the type of the building, design, and the climate in which it dwells. A large proportion of energy consumption is related to heating, air conditioning, ventilation and artificial lighting.

Buildings that often are over 50 years old are especially prone to more energy usage and operating maintenance. Considering potential energy efficiency approaches must be considered to decrease their overall consumption (Utkutuğ & Çeviker, 2002).

In the light of these facts, the basic objectives of green buildings will be discussed as buildings that are healthy, durable, safe, comfortable, and sustainable in their own and with nature, which are the buildings that are often regarded as green buildings.

Ecological systems must be integrated with the main infrastructure of the buildings such as, energy, water, material usage protection of land, greenery, capital, the use of

resources to the minimum and be efficiently conducted. There are many types of approaches for designing green buildings, such as basic targets in the framework of resource usages for increasing activities, with the golden rules of savings, reuse, conversion, and renewability.

Savings: Prevention of waste and the performance of materials and other mechanical items, by using the same quality to catch the performance systems of high qualities.

Reuse: Usage of old materials which are safe and sufficient to balance the weight of cost and to be healthy towards the rate of consumption.

Conversion: Preferability and conditions needed for creating the reuse of old materials, spaces etc. One should always prefer conversion.

Renewability: Decreasing the levels of pollution and environmental exhaustion by using environmentally friendly and healthy machinery and materials prioritising diagnosis of pollution, and renewable energy (Utkutuğ & Çeviker, 2002).

2.4 Ecological Interior Architecture

Interior architectural has been a dominant subject from time to time regarding there being many ideas and suggestions on how to improve the ecological state of it. One of the most dominant subjects in this perspective is the climatic aspects such as natural light and ventilation. These two aspects are the main topics that are discussed when it comes to interior, and interior is a fundamental ecological context when considering the designing patterns of the building (Krishan, 2009).

Building materials that are often used in interior may have negative effects on the environment. These types of issues are often not realized and could even be threatening to the occupants' health. There is always the option of researching on

eco-friendly materials to use for the internal finishes. One of the interior designers' objectives is to ensure that no harmful materials would endanger the environment and put their client at a risk to repertory problems or other conditions caused by inappropriate finishing materials. If the choice is to create an environment that supports safety and eco-friendly materials, there are many options that can be practiced. With floor materials to furnishing and walls, every aspect of finishes and materials can be eco-friendly or harmful; hence, distinguishing these aspects before purchase can pave the way to healthier indoor environments (URL17).

Interior arrangements and architecture, especially in firms and enterprises, focus on ecological products and equipments such as water heating, and technical issues such as natural resources. The implementation of solar and wind energy generations is important in sustaining heating and hot water requirements of the buildings in modern times. Building materials used within the design stage of ecological buildings differ in value considering their usage. Even if they are materials of nature such as wood, natural, stone, or water based ecological interior orientations, they are still a form of resource exhaustion. It is of significance to create building methods to suit most primitive forms of construction, while being durable within the processes (Berktan, 2006).

If we are to discuss based on 3 examples, the combination of efficiency, aesthetics and functionality is one of the turning points in inspiration that we see from the most awe inducing designers the world has ever met. One of the largest green buildings in the world is the Taipei 101 which is a 101 story skyscraper in China. It has gained a

platinum certification from the Leadership in Energy and Environmental Design known as LEED (URL18).

Another Green building is the India Tower (Figures 9, 10), which was completed in 2010, and is smaller than the Taipei (Figures 5, 6). It is a 74 floor architectural wonder, which was famed for its usage of solar heating patterns and unique ventilation systems which forms the fully functional internal space of offices, homes and retail stores. Another eco-friendly building is the Bank of America Tower (Figures 7, 8) that is located in New York City and is made from recycled materials and uses rainwater to its maximum capacity as a sustainable water problem solution (URL19).

Figure 5: Taipei, Exterior (URL20).

Figure 6: Taipei, Interior (URL 21)

Figure 7: Bank of America Tower, Exterior (URL22).

Figure 8: Bank of America Tower, Interior (URL23)

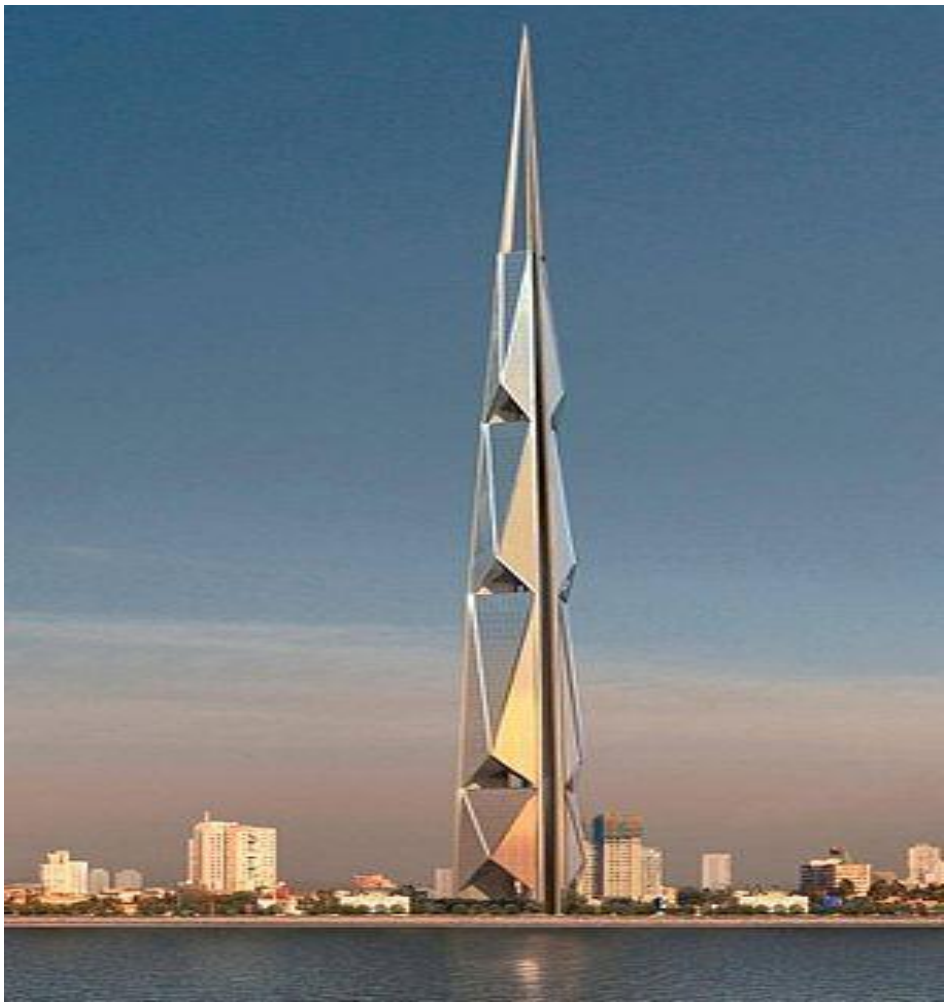


Figure 9: India Tower, Exterior (URL24).

Figure 10: India Tower, Interior (URL25).

All of these buildings keep one simple principle into consideration: to work with nature rather than against it. Environmentally aware architecture is quickly becoming the norm, rather than an outlying concept (URL26).

2.5 Ecological Building Certification System

Today, buildings and interior spaces are evaluated by the surrounding environment and the impact the building poses towards the environment. Therefore, many systems have been developed or are in the process of development to lessen the impact architecture has on the environment.

There are vast numbers of green building certification systems in the world. Some of these have emerged in England in 1990 by BREEAM (Building Research Establishment Environmental Assessment Method). In 1998, the United States founded LEED (Leadership in Energy and Environmental Design). Joint efforts by developed countries resulted in the establishment of IISB (International Initiative for Sustainable Built Environment). Adapted from BREEAM, came Green Star in Australia 2003; CASBEE (Comprehensive Assessment for Building Environmental Efficiency) was founded in Japan 2004; and DGNB was established in Germany 2009 (URL27).

The most trusted and most widely used system is the LEED certification. This point system and criteria module was developed for constructions of new buildings or renovation of existing buildings and sustainable designs. The United States' Green Building Council USGBC (USA green building certification institute A) issues the results. LEED certification is a system which depends on guidance and standards to ensure environmental sustainability and energy efficiency.

2.6 Conclusion of Chapter 2

In Chapter 2, the concept of ecological tourism has been discussed. The ecological tourism concept, ecotourism features, ecological architecture, ecological interior architecture and ecological building certification have been examined in relation to ecological tourism. Issues such as ecotourism principles, trends and its significance in the world have also been discussed. Principles and suggestions about ecotourism have been categorized and shown in tables. In this part, the purposes and components defined by UNWTO have also been explained.

Chapter 3

GREEN HOTELS

The concept of Green Hotels gradually begun to spread and lead to changes in design and functions in boutique hotels and many well-known franchised hotels. The continuously growing franchised 'Green Hotels' provide retrenchment by not using any unnecessary electronic equipment and changing bed sheets/towels with only the demand of the customers. However, the globalized touristic facilities should use the latest technology to reduce the carbon use and water consumption. The next heading will investigate the guidelines and principles for Green Hotels.

3.1 Definition of Green Hotels

Tourist facilities throughout the world are in need of innovation to make facilities sustainable by considering the renovation of energy sources and paying further attention to decrease the amount of energy and water consumption.

Tourism and touristic facilities across the globe seriously contribute to the adverse use of CO2 and SEG (Greenhouse Gas Emissions Indicator) at a rate of 25 percent. According to statistics a guest spends around 130Mj energy per day. In addition, the average CO2 emission for a hotel is about 20.6kg per day. However, other touristic facilities have the figures of 98Mj and 9.7kg respectively which confirms the fact that the highest energy consuming buildings are hotels. Therefore, the time for change has emerged. In recent years, the concept of 'green' or sustainable facilities has got increasing intentness. The current facilities aim to reduce the negative impact

on environment as well as taking steps toward high performance and emphasizing their becoming eco-friendly and sustainable (Canbay, 2011).

The cost of constructing an ecological building is evidently more extravagant compared to the average standard buildings. However, planning concordantly and wisely in advance, though calculating the operation cost can decrease the amount of cost. More than 5-10% of the advanced investments are usually disconcerted on behalf of the investor, although they find the outcome of the building proportional to the cost. During the design phase, the architect's intent is to build more environmentally friendly buildings not exhibiting the cost required (Tönük, 2001).

The concept of sustainability is increasing in hotels, boutique hotels and well known hotel chains. Hotels are being preferred by the design through the concept of becoming eco-friendly. There are a growing number of Green Hotels and some of which refuse to use electronic gadgets and change the towels/linens only by the request of customers. However, the most accurate solution for the touristic facilities in the globalizing world is to use the new technologies, controlling water consumption and decreasing the total carbon use (Canbay, 2011).

The Benefits of Green Buildings are listed below:

- The value increase of building in urban living areas which are close to natural environment.
- The use of new technologies and reducing the use of energy utilization.
- The evaluation of waste materials and use implementation of rain waters for the sewage system.

- The reduction in the use of adverse solar energy.
- The increase of the use of natural light with solar rays.
- The use of green layers that creates the greenhouse effect to develop and provide energy-saving oxygen layers.
- The reduction of oscillation of the temperature by using the current insulation systems, for heating/cooling and the use of carbon dioxide (URL28).

3.2 Rules and Criteria for Green Hotels

Green Star certification is given by the Ministry of Culture and Tourism in Turkey. It is a joint project of TURÇEV (Foundation for Environmental Education in Turkey) and the Tourism and Environmental Journalists Association which has taken almost a year of work. In the future the icon will be replaced by the "Green Pine" icon given by the Ministry of Culture and Tourism. Belek is the first location by Calista Resort which has earned this certificate along with the other 15 hotels and resort hotels (Canbay, 2011).

Green Star is a project launched by the Ministry of Culture and Tourism that certify accommodation facilities that are able to meet the criteria levels listed in the documentation. For gratification, facilities which get certified are shown as 'Green Tourism Businesses' and include an environmental label (eco-label) application.

Facilities must agree to certain regulations in order to obtain a Green Star. They have to endure in 10 categories with 122 different assessments to proceed in earning points. They divided into two criterias of holiday facilities and city facilities must meet the expectations to deserve and obtain a 'Star' and accord to assertive characteristics that the 'Green Star' has set. The hotels or holiday villages that are

suitable for a ‘Green Star’ certification are given plaques by the Ministry of Culture and Tourism which are placed at the entrance, with Green Stars that are painted accordingly to the level of how ‘environmentally friendly’ the facility is. To incline a 5 Green Star the holiday facilities must earn a minimum score of 300 points whereas for 1 or 2 star hotel facilities the minimum score is 140 points. Tourism facilities located in the city must earn a minimum score of 250 points in order to obtain the title of being a 5 Green Star hotel or facility; however, for 1 or 2 star hotels/facilities the minimum score is 140. Essential criteria for green tourism business are listed in Table 3 below.

Table 3: Essential Criteria for Green Tourism Business are as Follows (Miralbell, 2007).

a)	The business must have an environmental policy and action plan.
b)	The business must consult with authority or a private enterprise with the authority responsible for the application of this service to be an expert or specialist firms to implement the action plan.
c)	The business is to ensure the ability to implement the action plan by providing; environmental awareness, environmental measures and staff training.
d)	The business must have an environmentally sensitive plan for waste water.
e)	The business must be keeping verification of periodic records for all the installation, equipment, preventive maintenance and repair of equipment used for the touristic accommodation.
f)	There must be regular collection of data and monitoring of the businesses; including water consumption, energy consumption for heating and cooling, electricity consumption and overall energy consumption (for indoor area’s;

	per square meters, or energy consumption per overnight, monthly, quarterly and annual reports).
g)	There must be regular collection of data and monitoring of the businesses; including use of chemicals (volume/weight)
h)	There must be regular collection of data and monitoring of the amount of waste produced in the facility; (for indoor area's; per square meters or energy consumption per overnight, monthly, quarterly and annual reports).

Sustainable Criteria for Green Hotels

There are certain criterias for following the stages of sustainability, which can be possibly seen in Green Hotels. Criterias can differ according to the city and region the hotels are located in, but it is a generalization and summary of the most important factors (Table 4) in creating sustainable buildings. Followings are sustainability criterias for building:

Table 4: Sustainability Criterias for Buildings (URL29).

1.	Situated in a central location to be in context with its surrounding.
2.	Its proximity to public transport, social facilities, and so on.
3.	To contribute to the correct retrieval of daylight.
4.	Focus on all systems and reduce the CO2 emissions of the building.
5.	Energy and water consumption is lower than the international standards.
6.	Least and lean material usage in interior.
7.	Minimizing the use of circulation and elevator between floors are common to the design of the hotel.

8.	Environmental friendly, which material usage does not contain toxic chemicals and environmental labels.
9.	Using eco-friendly materials such as wool or Green Label.
10.	Local material usage.
11.	Recyclable material usage.
12.	The use of Renewable materials.
13.	The general hotel service spaces that consume elektrik and energy must be monitered by sperate electrik measuring meaters.
14.	Advanced automation system especially in the rooms throughout the building.
15.	The use of Dim lighting and motion sensors as fixtures.
16.	With the use of highly efficient LED fixtures and lighting energy reduction per square foot.
17.	Maximum daylight usage and thus reducing the need to import the lighting.
18.	To take measures such as: Stor, blinds or Sun breakers.
19.	Measures of control of glare and noise such as Maximum efficient use of the low permeability of the heat, the light permeability of high glass.
20.	Good insulated façade.
21.	On the roof, reducing the heat island effect with the use of light-coloured materials,
22.	Electromechanical systems, the use of high-efficiency equipments.
23.	Cogeneration, the use of technologies such as trigeneration and photovoltaic panels.

24.	The use of low water consuming fixtures, waterless urinal technologies etc.
25.	Grey water, rainwater and condensate water collection from usage.
26.	Solar water heater systems must be present in all areas where the access of solar energy is abundant.
27.	The use of more natural ventilation.
28.	Enhanced indoor air quality.
29.	Electrik consuming Systems that are an energy or energy star should be implemented.
30.	Washing with ozone technology.
31.	Waste management policy and waste recycling and disposal of harmful wastes should not threaten the human health.
32.	Waste decomposition for different garbage cans must be inserted in rooms.
33.	Sustainable personnel transport plan, arising from the use of the vehicle with emissions should be minimized.
34.	To create awareness on customer and hotel staff for environmental training.
35.	By creating green building owner's manual contribution of the hotel customers, in providing better recognition the building and the environment.
36.	Hotel towels will not be replaced every day at regular intervals.
37.	The use of packaging and cans can be filled in reducing the use of shampoo and dispensers.

38.	Supplies can be made from recycled materials, as much as possible.
39.	FSC-labelled or recycled paper usage.
40.	Food preference from Organic and local products.
41.	Increasing food and food distribution to the people who need charities donation.
42.	Usage of the glass or ceramic cups instead of plastic or paper cups.
43.	All chemicals storage, photocopying machines in located a separate good ventilated space.
44.	Adaptation to the local Landscape with plants, reducing water consumption.
45.	Drip irrigation system for plants.
46.	Granting of the information required for public transport at the entrance to the hotel, bicycle use encouraging in short distances.
47.	While building business activities test and commissioning the execution of the international standards.
48.	All systems on the basis of the periodical maintenance.
49.	Cleaning with eco-friendly cleaning supplies and chemicals.

3.2.1 Green Hotel Design Requirements

There are certain requirements that must be followed in Green Hotel design. These requirements are to take control of the buildings future developments, plus receiving future status. Green building design requirements (Table 5) must be taken into consideration to be executed in the best possible way, so to reflect on the future endeavors of the facility both financially and morally. Priority should be given to heat recovery systems, cooling, natural ventilation, high efficiency and low emission

air conditioning, and the right design of natural lighting to save on energy consumptions and cost, exploitation of fluorescent lighting, energy saving fridges, washing machines, TV's and other household electronic appliances should be considered.

Table 5: Green Hotel Design Requirements (Utkutuğ & Çeviker, 2002).

1-	To be energy efficient since energy efficiency is one of the major requirements of green buildings, energy and resource saving approaches and source enabled energy is preferred.
2-	To be surrounded by biodiversity in the natural ecosystem of the building and its environment.
3-	To renovate old dated buildings. If necessary the use of new fields for development with priority to pedestrian access to scale basic utilities.
4-	To consider the proximity of neighbourhood units with design, so that transportation issues are resolved, rather than individual transport, therefore strengthening disseminating events.
5-	To consider plans for future expansions. Renewable, easy to repair and functional design through the changing of time. The ability of adapting the design according to height of the building.
6-	To use simple geometry, framing, structuring, creations of smaller designs, since all these aspects could lower the cost of the construction and optimize the source material, by the preference of material types
7-	To use materials that do not harm the natural environment and human kind, and which are not based on limited resources should be used.

8-	To use durable, long lasting, low energy consumption during construction, recycled materials and reuse of old materials while giving priority to locally supplied materials to save transportation expenditures.
9-	To function with right applications to preserve water and minimize water consumption. Environmentally designed buildings will not lower water consumption, certain techniques could be used to address these problems such as renewable water from gray water for irrigation, the supplement of rainwater, the right usage of pluming materials, right storage of water tanks and purifiers to sustain waste water.
10-	To control and consider the environment and human health. Paying attention materials which emit toxic, natural ventilation and natural lighting. The right usage of shading and openings is crucial. Possible toxic substances should be checked and monitored not to be allowed into the environment.

3.2.2 Material/Product Selection Criteria in the Design of Green Hotel Interiors

Green Hotels must use recyclable materials that are not harmful to human health; the use of conservative systems must be adapted for water and energy. Materials that are used in the interior hold a major significance; therefore, interior design plays an integral role within the structure of the Green Hotel. Materials are one the most significant elements in the design of Green Hotel. The designer must select the materials by taking into consideration the overall material selection criteria (Table 6) which includes 5 categories.

1-Resource efficiency

2-Indoor air quality

3-Energy efficiency

4-Water conservation

5-Affordability

Table 6: Overall Material Selection Criteria (URL30).

1-RESOURCE PRODUCTIVITY might be achieved by using materials that meet the accompanying criteria:	Recycled Content: Products with identifiable reused substance, including post-modern substance with an inclination for postconsumer content.
	Natural, copious or renewable: Materials reaped from reasonably oversaw sources and ideally have a free confirmation (e.g., confirmed wood) and are guaranteed by an autonomous outsider.
	Resource productive assembling methodology: Products produced with asset proficient courses of action including lessening vitality utilization, minimizing waste (reused, recyclable as well as source lessened item bundling), and decreasing nursery gasses.
	Locally available: Building materials, segments, and frameworks discovered mainly or territorially sparing vitality and assets in transportation to the venture site.
	Salvaged, repaired, or remanufactured: Includes sparing a material from transfer and redesigning, repairing, restoring, or by and large enhancing the appearance, execution, quality, usefulness, or estimation of an item.

	Reusable or recyclable: Select materials that could be effortlessly destroyed and reused or reused at the end of their valuable life.
	Recycled or recyclable product packaging: Products encased in reused substance or recyclable bundling.
	Durable: Materials that are longer enduring or are practically identical to accepted items with long futures.
2-INDOOR AIR QUALITY (IAQ) is upgraded by using materials that meet the accompanying criteria:	Low or non-toxic: Materials that transmit few or no cancer-causing agents, conceptive toxicants, or aggravations as showed by the maker through fitting testing.
	Minimal chemical emissions: Products that have negligible discharges of Volatile Organic Compounds (Vocs). Items that likewise augment asset and vitality productivity while decreasing concoction outflows.
	Low-VOC assembly: Materials introduced with negligible VOC-delivering mixes, or no-VOC mechanical connection strategies and insignificant risks.
	Moisture safe: Products and frameworks that oppose dampness or restrain the development of natural contaminants in structures.
	Healthfully kept up: Materials, segments, and frameworks that require just basic, non-lethal, or low-VOC strategies for cleaning.
	Systems or supplies: Products that advertise solid IAQ by recognizing indoor air contaminations or upgrading the air quality.

3-ENERGY EFFICIENCY could be augmented by using materials and frameworks that meet the accompanying criteria:	Materials, parts, and frameworks that help diminish vitality utilization in structures and offices.
4-WATER CONSERVATION might be acquired by using materials and frameworks that meet the accompanying criteria:	Items and frameworks that help decrease water utilization in structures and moderate water in finished zones.

5-AFFORDABILITY could be acquired by using materials and frameworks that meet the accompanying criteria:	Moderateness could be considered when building item life-cycle expenses are practically identical to tried and true materials or overall, are inside a task characterized rate of the general plan.

One does not generally understand that the materials utilized for inside configuration can undermine the earth or even well being of human beings. Hence, it depends on a savvy choice to pay special attention to an eco-accommodating interior architect who can bring plans to life at a competitive expense, while verifying that the materials utilized do not imperil the earth or put users at the danger of respiratory issues and different conditions.

In order to create designs which are eco-friendly in interior spaces, it is significant to use materials which are environmentally friendly and healthy for the people which will be using the spaces. A guide which explains the various materials is shown in Table 7.

Table 7: Eco-Friendly Interior Design Guide for Creating a Sustainable and Ecological Interior (Hall, 2009).

Paint:	The usage of paint that has less harmful features towards the environment, the concentration of harmful elements could be reduced through the examination of low-VOC and No-VOC paints.
Wallpaper:	Wallpapers that are eco-friendly, this could be through water based inks, printed on chlorine free paper, from certified and managed forests for this purpose alone.
Carpets:	There is a large variety of flooring materials, that can be used and are eco-friendly such as bamboo, cork, recycled, metal and glass tiles, linoleum, stones and sustainable reclaimed woods.
Carpet Tiles:	Carpet tiles are mostly made of recycled materials they resemble conventional carpets. The advantage is that they can be recycled even after their use square by square.
Bamboo:	Bamboo usage is mostly for aesthetical purposes of decorating the interior, they come in a variety of finishes' polished, matte, or rough finishes, and they are mostly used for fashionable purposes contrasting between the conventional wood materials used within an interior.
Wood:	These sustainable and reclaimed woods are mainly from well managed and certified forests; these type of forests unsure the constant supply of wood without the depletion of land and its tree cover.

3.3 Green Hotel Examples around the World

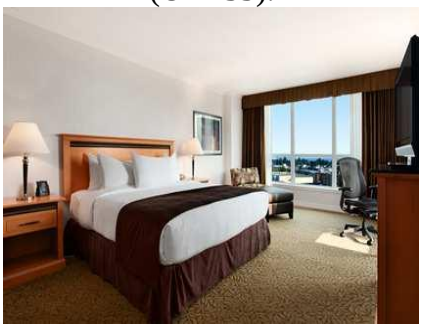
Successful examples of Green Hotels around the world are chosen according to the LEED certification system. The most widely known ecological building certification system is LEED green building. There are certain criteria and point collection system

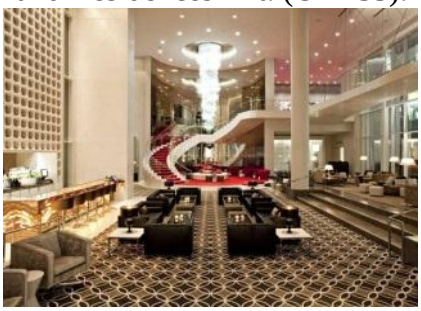
for green buildings in order to receive the LEED certificate. The certification system is divided into 4 groups ranging from the lowest to the highest rated in order: Certified, Silver, Gold and Platinum. Organizations need at least 40 points to get a certification from LEED. The assessment over 100 points is as follows:

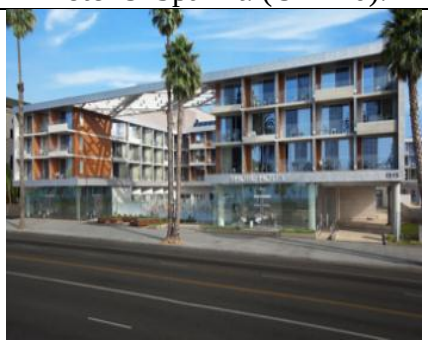
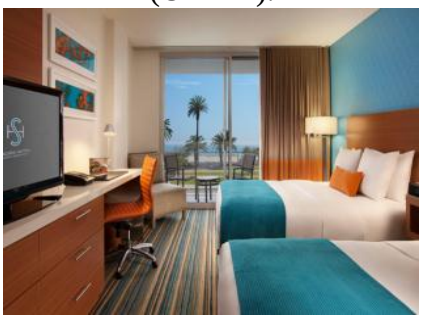
- Platinum: 80 points or higher
- Gold: 60-79 points
- Silver: 50-59 points
- Certified: 40-49 points

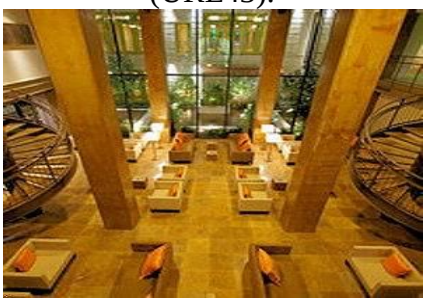
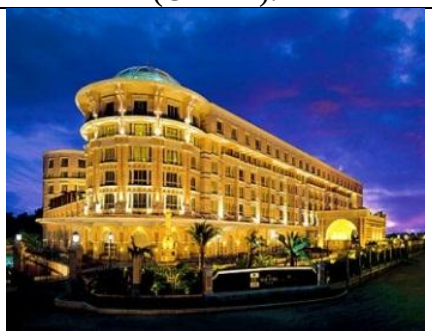
Table 8 shows examples of LEED-certified Green Hotels around the world. Scoring system based on what discussed above is available for all the examples. The highest and lowest rated certificate types are shown in the table, listed according to the type of certificate. At the same time, Table 8 summarizes the characteristics of Green Hotels.

Table 8: Sample Green Hotels with LEED Certificates around the World.

CERTIFICATION LEVEL	HOTEL NAME	CERTIFICATION DATE	PHOTOS	GREEN HOTEL CHARACTERISTICS
Certified	Tambo del Inka Hotel, Urubamba / PERU	2010	 Figure 11: Tambo Del Inka Hotel Ext. (URL31).  Figure 12: Tambo Del Inka Hotel Int. (URL32).	*40% less energy * High-efficiency lighting *Water conservation and smart irrigation system
	Hilton Vancouver Conf Center & Hotel, Vancouver/US	2006	 Figure 13: Hilton Vancouver Conf Center & Hotel Ext. (URL33).  Figure 14: Hilton Vancouver Conf Center & Hotel Int. (URL34).	*Energy efficiency and conservation *Elimination of hazardous substances *Waste water management *Recycling

CERTIFICATION LEVEL	HOTEL NAME	CERTIFICATION DATE	PHOTOS	GREEN HOTEL CHARACTERISTICS
Silver	W Hollywood Hotel and Residences, Hollywood/US	2010	 Figure 15: W Hollywood Hotel and Residences Ext. (URL35).  Figure 16: W Hollywood Hotel and Residences Int. (URL36).	*40% water less *Recycling *Minimum energy *Paperless meeting
	FMO-Tapiola, Espoo / FILAND	2011	 Figure 17: FMO-Tapiola Ext. (URL37).  Figure 18: FMO-Tapiola Int. (URL38).	*50% Recyclable *40% less energy *30% less water

CERTIFICATION LEVEL	HOTEL NAME	CERTIFICATION DATE	PHOTOS	GREEN HOTEL CHARACTERISTICS
Gold	GAIA Napa Valley Hotel & Spa, American Canyon/ US	2007	 Figure 19: GAIA Napa Valley Hotel & Spa Ext. (URL39).  Figure 20: GAIA Napa Valley Hotel & Spa Int. (URL40).	*45% less energy *30% less water *Recyling
	The Shore Hotel, Santa Monica/ US	2012	 Figure 21: The Shore Hotel Ext. (URL41).  Figure 22: The Shore Hotel Int. (URL42).	*45% less energy *40% less water *50% of the furniture locally

CERTIFICATION LEVEL	HOTEL NAME	CERTIFICATION DATE	PHOTOS	GREEN HOTEL CHARACTERISTICS
Platinum	PROXIMITY HOTEL, GREENSBORO/US	2008	 Figure 23: Proximity Hotel Ext. (URL43).  Figure 24: Proximity Hotel Int. (URL44).	*39% less energy *33% less water *90% of the furniture locally *40% of the building materials locally
	ITC HOTEL - THE MARATHA, MUMBAI /INDIA	2011	 Figure 25: ITC Hotel - The Maratha Ext. (URL45).  Figure 26: ITC Hotel - The Maratha Int. (URL46).	*50% less energy *55% less water *Recyling

In Table 8, two green hotel examples have been given from each certificate category from the LEED certification system. The ecological values of the two examples chosen from the four groups of the LEED certification system, have been determined and given in the characteristics column. According to the information given in the characteristics column, while less energy ranges between 39%-50%, less water ranges between 30%-55%. While the usage of local materials and local furniture is emphasized, recycling has also been stated among the characteristics of most green hotels.

3.4 Conclusion of Chapter 3

In Chapter 3, the definition of Green Hotels, the rules and criteria for Green Hotels and examples of these Green Hotels have been discussed. While the general criteria and rules for Green Hotels have been discussed, the rules and criteria regarding the interior and interior design of the Green Hotels have also been examined in detail. Finally, the LEED certification system, the four groups which are included in the system and 2 examples from each group have been explained. The similar qualities of the examples have been analysed and discussed.

Chapter 4

GREEN HOTELS IN ANTALYA FROM ECOLOGICAL INTERIOR ARCHITECTURE PERSPECTIVES

One of every three tourists who visit Turkey is hosted in Antalya, where the tourism sector which started only 30 years ago is now two thousand times larger. In 1980s, there were five thousand tourists in the main city and today the number is sixty six thousand (URL47).

Antalya is one of the most preferred hotspots for tourists and tourism with its abundance of historical assets, organic farming, mild climate, and untouched nature. The subject chosen for this study involves a research on ecotourism and the facilities of ecotourism within Antalya.

For a fast-growing sector such as tourism, implementation of sustainability concept is crucial. It is needed to be more conscious and aware about tourism in a region that has so much for circulation of touristic facilities. Although there are a great number of touristic facilities that try to implement the concept of sustainability, but there are also facilities without the necessary criteria and a sole agenda of making profit. Hence, the Ministry of Culture and Tourism has an evaluation criteria module for hotels and it has stated that "hotels in Turkey are engaged in this business in the right manner".

The study is evaluated through the regulations of the Green Stars classification for 5-star accommodation facilities. In order to obtain the title of ‘5 star accommodation’, facilities must have minimum 300 points. Hotels which have the highest points as a 5-star hotel and were Green Star were chosen here as examples. The Green-Star hotels provide the highest capability regarding the necessary criteria.

The interest towards ecological life styles has increased recently. Because of the deterioration of the natural environment, there is no end to production; however, there is ecological production. With the growing attention and awareness towards ecological products, humans have made way for architecturally sustainable designs. Hence, ecological architecture, green buildings, and the ecological principles concerning architecture and interior design are going to be discussed in detail in the following sections.

Twelve hotels had a Green Star reside within Antalya and were under the Green Star entitlement of the Ministry of Culture and Tourism within Antalya. Due to the fact that all those 12 hotels had equal amount of points, the Otium Eco Clup Side Hotel, was chosen for the case study, as a random choice amongst the 12 hotels. Moreover, the 122 criteria given by the Ministry of Culture and Tourism was filtered in terms of interior architecture related principles, and a specific chart was prepared showing the criteria needed for the interior design of the hotels in detail.

4.1 Ecological Tourism in Turkey

Turkey has a unique geographical spot in the world and is among the few countries that are rich in natural beauties and potentials. Including various cultures, Turkey holds a very lucky position in ecotourism. The hype towards natural tourism can be

analyzed by the changes in the world's touristic plates, and traditional touristic destinations. Turkey truly enables its potential through its remote faculties of natural beauty, and environments of pristine integrity. This is the difference between the standard touristic destinations and one of good and clean services. Taking these differences into account, Turkey stands out within the eco-touristic field, by investing in a conscious way of tourism to diversify its great potential (Selimoğlu, 2004).

Energy efficiency and the use of clean energy is one of the focal points in ecotourism which can be classified in a variety of forms such as regional food, nature friendly energy, nature friendly cleaning, nature friendly architecture, recycling the waste, energy efficiency and sustainable maintenance (Halkbank, 2011).

The chance of success in tourism section of Turkey has a higher rate than other countries within the Mediterranean region. Due to the fact that there are different believes and cultures throughout the country, being created at the forefront, provide authentic values for each of the regions within Turkey. Tourism potential in the Mediterranean area can be seen at a high level in comparison to the European counterpart where the urban population concentrated is composed of mostly industrialized countries. Taking these aspects into account, Turkey has a substantial benefit in the viewpoint that there are more natural beauty and cultural varietiesas well as its being a developing country. This supports its attraction towards tourism and holds a large presence in sustainable ecotourism (TÜRSAB, 2002).

As mentioned above, Turkey is a country with a rich nature, in addition to its rich cultural resource. All three sides of the country go through four seasons and make

differences in culture all through Turkey. The country has its unique essence and there is a huge potential that can be accumulated within the field of ecotourism in conjunction with its economic viability. However, this potential in ecotourism can be very concrete within the Mediterranean region. Accordingly, it gains the upper hand when considering its European counterparts or rivals. European rivals are largely industrialised and their cultures are authentic due to the transformations of cities. Turkey, on the other hand, is still a developing country where most of its regions are still improving, as a result of which there is still a wide variety of cultural differences and untouched natural environments. The major difference and advantage that Turkey has is that it hosts the best of both sides. Its main cities are industrialised but the scope of Turkey and its position gives it the diversity of nature and modern development, and most regions of the country show great potential for eco-touristic developments (TÜRSAB, Nisan 2002).

As previously stated, Turkey has high potentials for ecotourism, and due to this fact many parts of the country holds endemic species, untouched flora and fauna which are considered a rarity amongst its piers of wealth. These aspects combined with its diverse socio cultural values supports the statement (URL48).

According to a research carried out by the World Travel and Tourism Council, Turkey will have up to a 10.2 percent annual growth till 2015, making it a considerably fast growing country in the tourism sector. As pointed out before, natural values and cultures are the main importance of ecotourism which also fits well with daily life. Taking action on the destruction of natural environments and cultural erosion and contributing to these matters needs public awareness. The first

development of ecotourism association in Turkey was founded in Istanbul at the end of the year 2002 (Halkbank, 2011).

4.2 Ecological Tourism in Antalya

Antalya in Turkey, hosts a variety of natural tourism making it one of the regions that has adopted ecotourism due to its rich nature. Most of the touristic establishments in Antalya are built around the natural beauties, adapting Green Hotels, to accompany the idea of ecotourism.

One of the main concepts in Antalya is that it accompanies ecological touristic facilities, by following the criteria and values of sustaining environments, preservations, and clean energy. In year 2011, the numbers of touristic visits to Antalya have increased an estimation of 12 percent compared to the previous years.

According to the statistics, transit entries through Antalya in 2011 were around 11,291,931. This figure together with the total number of visitors arriving will make a large number. In 2011, there were also 2 million domestic tourists visiting the natural areas of Antalya (Antalya Provincial Directorate of Culture and Tourism, 2012).

The Ministry of Culture and Tourism has declared Antalya as a touristic attraction area. The Culture and Tourism Conservation and Development in this region has four culture and tourism conservation development areas. Bed capacity in Antalya is 50 thousand in the main city and extends outwards the towns of Manavgat or Oymapınar which host a bed capacity of 30 thousand (URL49).

Tourism in the city of Antalya has very positive values which significantly are seen in economic terms. There are many tourism plan based decisions; public fields are derived from migration for occupation in Antalya; private sectors also support the touristic values and investments of Antalya in general. Tourism allocations of raw materials, cultural, natural environment and social values can be lost in the development processes, but then again they are sustained through public awareness towards tourism.

Although Antalya is prone to extensive tourism, local inhabitants of the city and its surrounding regions maintain the cultural values and historic endeavours. Human beings are uninterrupted to the present time. This can be seen through the existence of settlement commencements and remaining architecture of the past civilisations being occupied by local inhabitants of the city. Antalya is also regarded as the 'City of Culture' (URL50).

4.3 Categorisation of Ministry of Culture and Tourism on Green Star Criteria

Turkey's Ministry of Culture and Tourism project has prepared 122 criteria for for Green Star certification. The criteria are determined by the hotel's features developing a scoring system. For a hotel to become Green Star it must make an application to the Ministry of Culture and Tourism and its entry points are determined according to the classification of the hotel.

In Table 9 below, the 122 (URL51) criteria are divided into 7 parts according to this study. The criteria are marked according to the following divided disciplines:

- Electric Engineer – EE
- Mechanical Engineer – ME
- Civil Engineer – CE
- Architect – A
- Interior Architect / Designer – ID
- Landscape Architect – LA
- Tourism Management – TM

The reason behind the classification done in the table is to identify the criteria that are meant for interior architecture or design discipline. After the division is made, a different table is presented showing the interior design criteria.

Table 9: Categorized Criteria for Receiving Green Star based on different Disciplines

THE RULES AFFECTING INTERIOR DESIGN OF GREEN STAR HOTELS: **CRITERIA** The criteria of receiving a Green Star listed below only applies for tourism facilities in concern to the architecture;	**POINTS:** (Each-E)	KEY: Electric Engineer – EE Mechanical Engineer – ME Civil Engineer – CE Architect – A Interior Architect / Designer – ID Landscape Architect – LA Tourism Management-TM **RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
1- The businesses must have an environmental policy and action plan.	5							√
2- The implementation of action plans;								
The business must have specially trained personnel (Environmental Engineer, Energy Efficiency Specialist, Biological, Agricultural Engineer, etc.).	10							√
The service must be taken from an expert or a specialist firm (along with one person responsible for the application in the systems).	7							√
3-The operation of water consumption for heating and cooling, energy consumption, power consumption and overall energy consumption, must have data collection and monitoring (indoor space per square meter or per overnight stay, energy consumption, monthly, quarterly and annual reports to be prepared and filed in a storage).	5	√	√					√
4-The usage of chemicals (volume and / or weight) must be monitored and data collected (covered area per square meter or per overnight stay, consumption, monthly, quarterly and annual reports to be prepared, and filed in a storage).	5		√					√
5-The control of waste (volume and / or weight) must be monitoring and data collected (covered area per square meter or per overnight stay, consumption, monthly, quarterly and annual reports to be prepared and filed in a storage).	5		√					√

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
6-The business must have certificates to an internationally recognized environmental management (EMAS, ISO 14000, ISO 14001, such as Blue Flag).	E = 3, 9							√
7-Facilities serving or at least one of the main companies who supply goods must be certified in environmental management (EMAS, ISO 14001).	3							√
8-Businesses must calculate the energy and water consumption and monitor the use of additional counters and measuring instruments such as, (Kitchen, laundry, accommodation units, garden, technical unit).	E = 2, 6	√	√					
9- The business must have awards for its studies on the environmental sensitivity	2	√	√	√	√	√	√	√
10-Local management, administration or other facilities in the region must work together on environmental awareness and the organization of events.	5							√
11-Environmental protection organizations must contribute or participate regularly in organizations (associations, foundations, etc).	E = 2, 6							√
12-Tourism accommodation establishments must require specific installations and equipment such as (energy, heating, ventilation, air conditioning equipment, dishwashers, washing machines, refrigerators, elevators, etc.) The periodical maintenance and repair conducted must be done by a trained specialists.	5							√
13-Heating boilers and burners must have periodical maintenance at least once annually, to be conducted by authorized persons and released the boiler flue emissions must be measured by authorities and reported	5							√

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
14-Property must increase environmental awareness, environmental measures and ensure the implementation of the action plan periodically and provide training for staff.	5							√
15- In determination of water leakages, the staff must be trained in taking immediate measures.	2							√
16-Business personnel, using detergents and disinfectants in the package must not exceed the amount of the proposed use and be trained in the methods of its usage.	2							√
17-Facility equipment used in the technical section of the kitchen, must be used energy efficiently, personnel operating the equiptment must be trained.	2							√
18- The reception must have clear information on the policies towards environmental awareness and how guests can support or participate in the environmental polocies.	3							√
19- Education and activities for children on environmental sensitivity must be arranged.	3							√
20- The rooms must be equipt with visuals that explain environmental sesitivity (newspapers, magazines, brochures, closed-circuit channel, etc.).	2							√
21- Facilities must obtain feedback and opinions from guests on environental sesitivity through surveys, etc.	3							√
22-Automatic shutdown of the cooling and ventilation (air conditioning, etc.) must be used in the event of opening of windows and doors.	4		√		√	√		√
23-In facilities that have cooling and ventilation systems without automatic shut-off, guests must be advised.	1							√

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
24- Automatic shutdown B of the electrical system, must shutdown when the customer leaves the room (Energy-saving systems).	6	√			√	√		√
25- In facilities with no energy saving systems guests must be advised to turn off electrical systems when leaving the room (television, air conditioning, etc.).	1							√
26-Room heating and cooling must be controlled by;								
Centrally controlled system.	5		√					√
Independent control system (thermostat).	3		√					√
27- The devices and machines stationed in the room (mini-bar, fridge, TV, air conditioner, and so on) must be highly efficient and less energy consuming.	E = 2, 6	√				√		
28- Less energy consuming lighting elements must be used.	2		√			√		
29- The location of devices such as fridges, minibar, etc must be place in order to be efficient and to consume less energy; and must be located to be far from sunlight or heat sources and providing their ventilation.	2					√		
30- The curtains or blind in rooms without guests must be closed.	1							√
31- Shower heads and bathroom fittings which decrease water consumption must be used (photocell, air injected systems, etc. not exceeding 12 litres/minute).	4		√			√		
32- Reservoirs which consume 6 litres or less water each time must be used. Reservoirs where different amounts of water flow is set or the flow of water can be stopped must be used.	4		√			√		
33- Bathtubs or shower trays with reduced depth for less water consumption must be used in all the bathrooms.	2					√		

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
34- Customers must be informed about the efficient use of water in the bathroom and toilets.	2							√
35-In case of water leaks guests must be informed to contact personnel.	2							√
36- The use of single-use materials (shampoo, soap, shower caps, cups, plates, cutlery, etc.) in rooms must be avoided.	4					√		
37- Toilets with litter boxes must be supplied and directions for customers on disposing of tissues to the litter boxes instead of throwing them directly in the toilet must be provided.	2					√		√
38-The facility must have non-smoking rooms;								
Have at least %50 non-smoking Rooms.	5					√		√
Have at least %20 non-smoking Rooms.	2					√		√
39- Information about waste separation, within bedrooms must be given.	2							√
40- Guests must be informed about the fact that pillowcases, sheets, bed linen and towels will be changed at their request.	6							√
41-Guests must be informed about, easiest possible ways to access public transport for accommodation establishments and other attractions.	2							√
42-Guests must be informed about, biodiversity and the environment, and the measures for environmental protection.	2							√
43-Facility precedent (total construction area ratio of the total land area);								
0.20 or less	8				√			
Is 0.30	6				√			
Is 0.40	4				√			
Is 0.50	2				√			
44-Landscaping and gardening.	5						√	
45- The structures that form the facility, must be visually compatible with natüre.	5				√	√		

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
46- Activities which contribute to the protection of, local historic, natural and cultural values must be arranged.	5							√
47- Wildlife and domestic animals must be protected, healthcare and feeding must be provided.	2							√
48-Plants within the garden of the ficility, with inventory of endemic plants must be protected to avoid deterioration of the ecosystem.	2						√	√
49 - The resort's architectural design must be environmentally conscious.	10				√		√	
50-The architectural structure, orientation, location and building elements of the facility must provide natural ventilation.	6				√	√		
51- Facility's heat insulation must be synchronized with climate conditions so that minimum energy is spent to provide enough cooling and heating.	5				√	√		
52- Exterior windows which are used on the facades of the facility must be;								
Special glass to prevent the ingress of heat controls, insummer and reduces heat loss in winter.	3				√	√		
Double glazing.	2				√	√		
53- The exterior building must be equipped with construction elements that make sun control.	2				√	√		
54 - Management plans for the land that will be used for the construction of the facilities must make reservations during the construction. Measures must be taken to prevent damage to the environment, for the building construction elements environmentally sustainable materials must be selected, and documented.	10				√			
55 - Facility must be constructed with least harm to the environment (EIA Report is requested.).	2	√	√	√	√	√	√	

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
56- Environmental friendly paint-wax, lead-free glass etc must be used. (eca-labeled).	E = 2, 4					√		
57- An air curtain or weather guard must be present at the entrances of buildings.	2		√		√	√		
58- Automatically controlled heating and cooling must be used in the general locations of the facility (thermostat).	4		√					
59- The devices and machinery used in the facility boiler, air conditioning (Chiller, etc.), cold room, wardrobe, washing and drying machine, etc.) must be highly efficient and having a technology which consume less electricity.	E = 2, 6		√			√		
60- The amount of energy consumption must be decreased by the use of lighting in the facility.	2					√		
61- Lighting applications must be prepared by external experts so that lighting can be used efficiently and accordingly to the purpose of use in the facility's interior and exterior.	4	√				√		
62- Lighting systems with movement sensors or daylight sensors such as;(corridors, gardens, technical units, personnel areas, etc.) must be used in the facility.						√		
63- Garden like outdoor lighting systems must be used to prevent loss of light to sky.	2					√	√	
64- The location of devices such as; cold rooms, fridge motors, central air conditioning equipment etc must be arranged in kitchen and technical departments must be located far from sunlight and heat sources and providing their ventilation for high efficiency and consuming less energy.	5					√		

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
65- The entire facility's use of considerable energy savings with the use of new technology must be considered;								
Frequency inverter.	10	√	√					
Heat recovery system.	10	√	√					
Heat pump.	10	√	√					
66- The facility must use an exchanger device in the production of hot water.	2	√	√					
67- Central heating system must be used.	2		√					
68 -Central heating system must be used in order to fulfill the needs, with the opportunity for the heating portions of the building.	2		√		√			
69- Plant electricity, heating and cooling must be ensured with the use of new technologies;								
Trigeneration system.	15		√					
Cogeneration system.	10		√					
70-Hybrid systems must be used for the Facilities energy usage.	5	√						
71-Control panels must be used in sauna.	2				√	√		
72-Laundry must be dried by natural methods (Closed as not to create visual pollution at the site, or in the open field).	2							√
73- Power-efficient lighting must be used im public places in order to achieve electricity saving by personnel.	2					√		
74- in order to reduce the amount of greenhouse gases in the air, coal or heavy oil products (sulfur rate which is over 0.2%) must be used as resources for energy.	5		√					√

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
75-Provision of electricity from renewable energy sources;								
The entire amount of the total electricity used from renewable energy sources.	20	√						
50% of the total amount of electricity used to be supplied from renewable energy sources.	10	√						
The amount of 20% of the total electricity used from renewable energy sources.	4	√						
Used 10% of the total amount of electricity from renewable energy sources.	2	√						
76-The energy used by the heating system must be supplied from renewable energy sources (Except electrical, solar panels, geothermal, etc.);								
From all renewable energy sources, ensuring.	20		√					
Provision of 50% from renewable energy sources.	10		√					
Provision of 10%or 20% from renewable energy sources.	E, 2		√					
77-Plant cooling systems must be used in the provision of energy from renewable energy sources (electricity, except that of sea water, sun, etc.);								
From all renewable energy sources, ensuring.	20		√					
Provision of 50% from renewable energy sources.	10		√					
Provision of 20% from renewable energy sources.	4		√					
Provision of 10% from renewable energy sources.	2		√					
78- The facilities clean hot water must be supplied from renewable energy sources (electricity, except that solar panels, geothermal, etc.);								
From all renewable energy sources.	20		√					
Provision of 50% from renewable energy sources.	10		√					
Provision of 20% from renewable energy sources.	4		√					
Provision of 10% from renewable energy sources.	2		√					

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
79– Water must be used accordingly with the management of water conservation plans prepared by local authorities; documents on these plans in accordance with the relevant water authorities must be prepared.	5		√					
80 - Special shower heads and bathroom fittings which decrease water consumption (photocell, adjustable, air injected, water consumption not exceeding 12 litres/minute) in public and staff toilet and showers must be used.	2		√			√		
81- Reservoirs which consume 6 liters or less water each time must be used (reservoirs where different amounts of water flow is set or the flow of water can be stopped.	2					√		
82 - Guests and staff must be informed about the general efficient use of water in the showers and toilets.	1							√
83- Toilets with litter boxes must be supplied and directions for customers on disposal of tissues to the litter boxes instead of thowing them directly into the toilet must be provided.	1					√		√
84- Water-efficient washing machines and dishwashers must be used (ecolabeled).	2					√		
85 - Monitoring and meticulous attention must be given to water leakages.	2		√					
86 - Green fields must be watered before daylight or sunlight effectively loses its effect.	2						√	√
87 - Waste water must be treated;								
Property is connected to the central treatment system.	4		√					
Presence of its own waste water treatment system (according to the criteria of having the legislation and is working according to the criteria provided documentation).	2		√					

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
88-Waste water must be planned;								
Accommodation businesses and local authorities prepare plans to comply with the environmentally sensitivity of waste water.	4		√					
Facility approved by the local administration of the plan is environmentally aware of waste water (waste water plan in the absence of local government).	2		√					
89- Rainwater must be cleaned or waste water and drinking water must be purified (garden irrigation and / or in the toilet tank).	E ,2 , 4		√					
90 - Potable water must be obtained from sea water for drinking (in the case of local government's permission).	1 0		√					
91- Water systems that pours automatic water to the urinals must be used (photocell).	2					√		√
92 – An off - automaticall timed system must be provided for the water used in the kitchen and in the garden.	2		√					
93 - Drip preventing garden irrigation systems must be used to prevent unnecessary water consumption, water fountains and so on.	4		√				√	
94 - Golf courses, such as forested areas, large areas of the facility must be watered with the use of specific computer-controlled irrigation systems.	4		√					
95 - Hygiene requirements must be used in the form of disinfectants.	2							√
96 - Detergents and disinfectants (Eco- label) must be used in a wnvironmentally sensitive way.	4							√
97 - Automatic dosing systems must be used for swimming pools with proper hygienic results using the minimum amount of disinfectant.	4							√

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
98 -Proper cleaning processes must take place without the use of chemicals in places (mechanical cleaning, microfiber, etc).	2							√
99- Garden must be maintained in accordance with the principles of the organic farming regulation.	2						√	
100 - Bugs and environmental must be prevented without damage to human health with the use of drugs or natural measures (Flies holder, adhesive paper, fish, etc.).	2							√
101 - Healthy daily food to charities must be provided (nursing homes, dormitories, animal shelters, etc) The Administration must cooperate with relevant institutions and organizations in this regard.	5							√
102-Sufficient dustbins must be provided for the customers in appropriate parts of the facility, for seperation of wastes.	2					√		
103- Hazardous waste must be determined by staff (oil filters, paint, fluorescent bulbs, toner, ink, refrigeration equipment, batteries, medicines, medical waste, etc.) and must be distinguished from others (local administration of hazardous waste separation service is provided as to whether the documentation is received).	E = 2, 10							√
104- Waste must be identified by personnel and the kinds of waste (plastic, paper, glass, etc.) must be separated (Separation of waste assessed by local governments or firms is determined that the points are given).	E = 3, 9							√
105 - Organic waste separation and evaluation must take place (compost, biogas etc).	4							√

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
106 – Waste must be seperated by local authorities, in case of no service this service is available to local governments for the purpose that is requested.	2							√
107- In the absence of the possibility of waste collecting by local authorities it must be transported to places where it isappropriate (local administration in the case of writing on the subject is evaluated).	2							√
108- Single use materials (shampoo, SOAP, shower caps, cups, plates, cutlery, etc.) must be avoided in public showers and wcs.	4					√		
109 - disposable use of products, beverage cans (tins, etc.) must not be provided, instead of glass bottles, postmix, premix etc.	4							√
110 - Single-use packets must beused for breakfast (butter, jam, honey, cheese, etc).	4							√
111- Oil separators and the collection of the oil used must be disposed in accordance with regulations or evaluation.	5							√
112 - Used or sale of goods and materials must be donated to charity.	2							√
113 -Transportation vehicles with low greenhouse emmisions must be used for large green, residential areas which are great for golf, resorts, and so on.	2							√
114- Bicycles must be provided for guests use.	2							√
115- Regarding Toilet paper and / or office paper, environmentally-friendly types of paper must be used.	4							√
116 - Facility must use system that minimize paper consumption, electronic methods of communication must be implemented in administrative affairs, invoices, electronic messaging etc.	3							√

CRITERIA The criteria of receiving a Green Star listed bellow only applies for tourism facilities in concern to the architecture;	**POINTS**	**RELATED DISCIPLINES:**						
		EE	ME	CE	A	ID	LA	TM
117- The facility must supply rooms with; eco-labelled goods (pillows, sheets, tablecloths, furnitures, washing machines, dishwashers, refrigerators, vacuum cleaners, bulbs, etc.).	E = 2,10					√		
118 - Meals that listed on the menu and at least two-course meal and a beverage must be prepared by organic farming methods and products.	2							√
119 - At least two local food product must be offered for breakfast and meals.	2							√
120 - Facility that are in the range of forest must require measures to prevent fire (Observation, alarm, notification, necessary devices and equipment, staff training, cooperation with the local authorities).	5							√
121- Noise pollution measures must be required; in indoor and outdoor								
Usege of silent spaces devices,	2		√			√		
Insulating the installation sites and music playing spaces sites,	4					√		
Broadcasting, according to the audio broadcast done in appropriate decibels for human health.	2							√
Blanketing the noise source.	4				√	√		
122 - Activities or technologies, system or devices which make an additional contribution to environmental sensivity studies but not listed on this form must be used.	E = 3,9	√	√	√	√	√	√	√
TOTAL NUMBER OF ITEMS RELATED TO EACH DISCIPLINE		11	35	3	17	38	10	67

As it can be seen in Table 9, the 122 criterion has also been separated into groups. While the TM's take a large portion of responsibilities, it can be seen that ID's also have a lot of suits. 38 of the 122 criteria is under the responsibility of the ID's. As

indicated in Table 9,the criteria is divided according to the related field as follows; 67 for TM's, 10 for LA's, 17 for A's, 3 for CE's, 35 for ME's, 11 for EE's and 38 for ID's. Table 9 shows that while the most duties are assigned to ME's, in terms of design most of the responsibility is assigned to ID's while constructing a Green Hotel. While A and ID's total responsibility is 55 (17 + 38=55), it is possible to state that since 38 of these criterions is related to ID's, the ID's play a significant role in the construction of Green Hotels. After this analysis, a chart is achieved for evaluating Green Hotels in terms of Table 14's interior architecture / design related criteria in section 4.5.

4.4 A List of 5-Star Green Hotels in Turkey and Antalya

The major consumer of electrical energy is known to be hotels. This energy consumption can be the focal point of reduction by countries around the world. In 2008, Turkey's Ministry of Culture and Tourism started the Green Hotel applications. Now Turkey has 25 Hotels (Table 11) with Green Star qualifications; this number is growing each passing year. To gain the Green Star title, hotels must qualify according to the criteria and point system that the ministry has constituted.

The form to be filled consists of the following criteria: energy, water, reduction of substances that are risk to the environment, increase in energy efficiency, encouragement toward using renewable energy sources, accommodation businesses being sensitive toward the environment at the first stage of their production plans, improving the organization of events and managing the environment, awareness reafrding becoming environment friendly, increasing education around this topic as well as partnership of relevant organisations are parts of the list.

Hotels which apply for a Green Star entitlement are considered to be environmentally sensitive facilities by the Ministry of Culture and Tourism. They gain the right to pursue the title. There are approximately 122 criteria and evaluation systems that hotels need to pass. There are two different sections that hotels fall under, during the evaluation: city hotel facilities and valation facilities. After the separation of the two different hotel types, each are evaluated upon the 122 criteria for determining the points that a hotel receives.

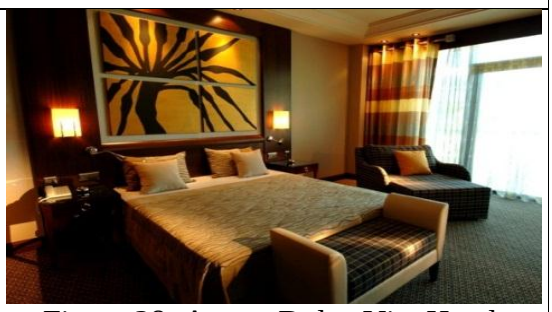
Table 10: Ministry of Culture and Tourism, Green Star Hotel Point System (GREEN POİNT SYSTEM FORM, 2008).

VALATION FACILITIES	
CLASS	**MINIMUM POINTS**
5 STAR HOLIDAY VILLAGE	330
5 STAR HOTEL	300
4 STAR HOLIDAY VILLAGE	280
4 STAR HOTEL	230
3 STAR HOTEL	170
1 -2 STAR HOTEL -AND OTHER ACCOMODATION FACILITIES	140
CITY HOTEL	
CLASS	**MINIMUM POINTS**
5 STAR HOTEL	250
4 STAR HOTEL	200
3 STAR HOTEL	170
1 -2 STAR HOTEL -AND OTHER ACCOMODATION FACILITIES	140

The points which are indicated in Table 10 have been determined by the Ministry of Culture and Tourism. Each of the 122 criteria has their own points. If a designer bases their design on the criterion given above, they receive points according to the criteria and if they reach a specific total point value indicated in Table 10, then they are classified into the equivalent group. The hotels which are located in Antalya are positioned in the 5 Green Star Hotel categories, which is equal to 300 points.

The gradual increase of attention towards Green Hotels from tourists and locals has been the inspiration for normal hotels to apply for Green Star entitlement from the Ministry of Culture and Tourism.

Table 11: Twenty-Five Green Hotels in Turkey that have been Aproved by the Ministry of Culture and Tourism.

1-Amara Dolce Vita Hotel (Kemer / Antalya)
 Figure 27: Amara Dolce Vita Hotel Exterior (URL52).
 Figure 28: Amara Dolce Vita Hotel Interior (URL52).
2-Calista Luxury Resort Hotel (Belek / Antalya)
 Figure 29: Calista Luxury Resort Hotel Exterior (URL53).
 Figure 30: Calista Luxury Resort Hotel Interior (URL53).
3-Club Hotel Rixos Tekirova Hotel (Kemer / Antalya)
 Figure 31: Club Hotel Rixos Tekirova Hotel Exterior (URL54).
 Figure 32: Club Hotel Rixos Tekirova Hotel Interior (URL54).

4-Concorde De Luxe Resort Hotel (Lara / Antalya)

Figure 33: Concorde De Luxe Resort Hotel Exterior (URL55).

Figure 34: Concorde De Luxe Resort Hotel Interior (URL55).

5-Dedeman Konya Hotel (Konya)

Figure 35: Dedeman Konya Hotel Exterior (URL56).

Figure 36: Dedeman Konya Hotel Interior (URL56).

6- Ersan Tatil Köyü (Bodrum)

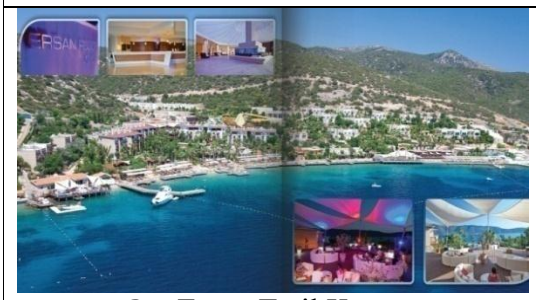


Figure 37: Ersan Tatil Köyü Exterior (URL57).

Figure 38: Ersan Tatil Köyü Interior (URL57).

7-Four Seasons Hotel (İstanbul)

Figure 39: Four Seasons Hotel Exterior (URL58).

Figure 40: Four Seasons Hotel Interior (URL58).

8-Hilton Dalaman Golf Resort & Spa Hotel (Muğla)

Figure 41: Hilton Dalaman Golf Resort & Spa Hotel Exterior (URL59).

Figure 42: Hilton Dalaman Golf Resort & Spa Hotel Interior (URL60).

9-The President Hotel (İstanbul)

Figure 43: The President Hotel Exterior (URL61).

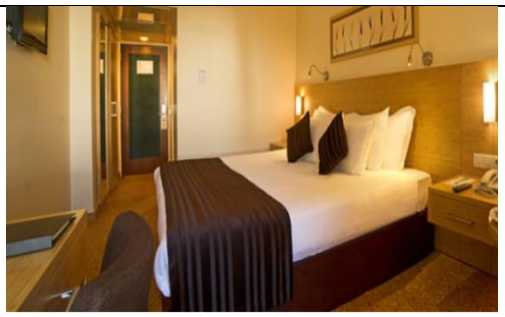


Figure 44: The President Hotel Interior (URL62).

10-Tuğcan Hotel (Gaziantep)

Figure 45: Tuğcan Hotel Exterior (URL63).

Figure 46: Tuğcan Hotel Interior (URL64).

11-Xanadu Resort Hotel (Belek / Antalya)

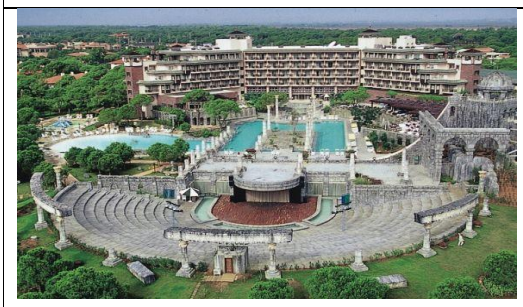


Figure 47: Xanadu Resort Hotel Exterior (URL65).

Figure 48: Xanadu Resort Hotel Interior (URL65).

12-Double Tree by Hilton Avanos Kapadokya Hotel (Kapadokya)

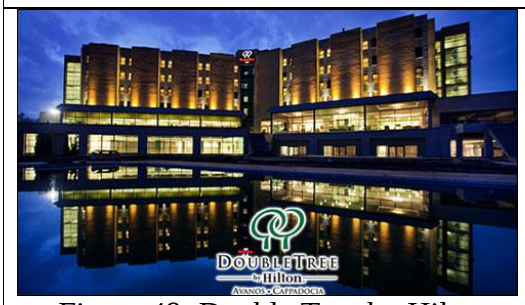


Figure 49: Double Tree by Hilton Avanos Kapadokya Hotel Exterior (URL66).

Figure 50: Double Tree by Hilton Avanos Kapadokya Hotel Interior (URL66).

13-The Sofa Hotel (İstanbul)

Figure 51: The Sofa Hotel Exterior (URL67).

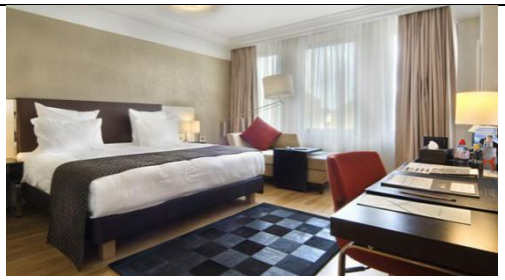


Figure 52: The Sofa Hotel Interior (URL67).

14-Holiday Inn İstanbul City Hotel (İstanbul)

Figure 53: Holiday Inn İstanbul City Hotel Exterior (URL68).

Figure 54: Holiday Inn İstanbul City Hotel Interior (URL69).

15-Otium Eco Club Side Hotel (Side / Antalya)

Figure 55: Otium Eco Club Side Hotel Exterior (AUTHOR, 2013).

Figure 56: Otium Eco Club Side Hotel Interior (AUTHOR, 2013).

16-Crystal Palace Hotel (Side / Antalya)

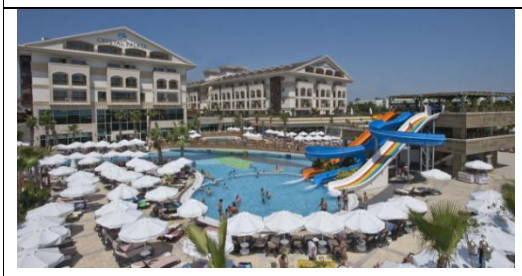


Figure 57: Crystal Palace Hotel Exterior (URL70).

Figure 58: Crystal Palace Hotel Interior (URL70).

17-Crystal Hotels Flora Beach Hotel (Kemer / Antalya)

Figure 59: Crystal Hotels Flora Beach Hotel Exterior (URL71).

Figure 60: Crystal Hotels Flora Beach Hotel Interior (URL71).

18-Crystal Sunrise Queen Luxury Resort & Spa Hotel (Side / Antalya)

Figure 61: Crystal Sunrise Queen Luxury Resort & Spa Hotel Exterior (URL72).

Figure 62: Crystal Sunrise Queen Luxury Resort & Spa Hotel Interior (URL72).

19-Crystal Palace Family Resort Hotel (Belek / Antalya)

Figure 63: Crystal Palace Family Resort Hotel Exterior (URL73).

Figure 64: Crystal Palace Family Resort Hotel Interior (URL73).

20-Crystal Paraiso Verde Resort & Spa Hotel (Belek / Antalya)

Figure 65: Crystal Paraiso Verde Resort & Spa Hotel Exterior (URL74).

Figure 66: Crystal Paraiso Verde Resort & Spa Hotel Interior (URL74).

21-Antakya Ottoman Palace Thermal Resort Hotel (Antakya)

Figure 67: Antakya Ottoman Palace Thermal Resort Hotel Exterior (URL75).

Figure 68: Antakya Ottoman Palace Thermal Resort Hotel Interior (URL75).

22-Crowne Plaze İstanbul Asia Hotel (İstanbul)

Figure 69: Crowne Plaze İstanbul Asia Hotel Exterior (URL76).

Figure 70: Crowne Plaze İstanbul Asia Hotel Interior (URL76).

23-Kemer Holiday Club (Kemer / Antalya)

Figure 71: Kemer Holiday Club Exterior (URL77).

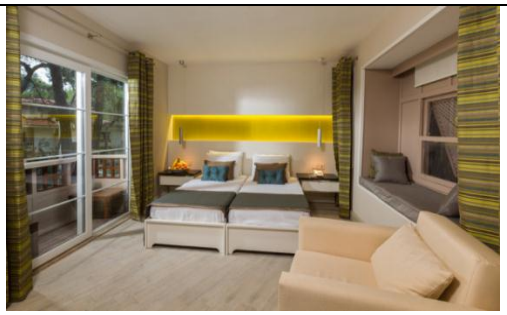


Figure 72: Kemer Holiday Club Interior (URL77).

24-Şanlıurfa Dedeman Hotel (Şanlıurfa)

Figure 73: Şanlıurfa Dedeman Hotel Exterior (URL78).

Figure 74: Şanlıurfa Dedeman Hotel Interior (URL78).

25-Martı Myra Hotel (Kemer / Antalya)

Figure 75: Martı Myra Hotel Exterior (URL79).

Figure 76: Martı Myra Hotel Interior (URL79).

Antalya has been the center of the most attention towards the Green Star Hotel project that the Ministry of Culture and Tourism have started. Twelve out of the 25 hotels that have the Green Star certificate reside within Antalya. They are located in 4 districts of Antalya Province namely Kemer, Belek, Lara, and Side. Four of them are located in the region of Kemer; 1 in the Lara Region; 4 in the Belek; and 3 are in the Side Region. Table 12 includes the 5 Green Star Hotels which have collected 300 or more point (< 330 points) from the 122 criteria determined by the Ministry of culture and Tourism. As mentioned above, due to being identical in terms of hotel type and having equal points, the Otium Eco Clup Side Hotel has been selected randomly. The hotel was selected to be examined as a case study and is located in

Side, in the middle of a triangle surrounded by a sea, lake and river and is in touch with nature since it is close to the Sorgun Pineys.

Table 12: Twelve Green Hotels in Antalya Province with Green Star Points Approved by the Ministy of Culture and Tourism.

ANTALYA			
KEMER	**BELEK(SERİK)**	**SİDE(MANAVGAT)**	**LARA**
Martı Myra	Crystal Paraiso Verde Resort&Spa	Crystal Sunrise Queen Luxury Resort & Spa	Concorde De Luxe Resort
Club Hotel Rixos Tekirova	Crystal Palace Family Resort	Crystal Palace Resort	
Crystal Hotels Flora Beach	Xanadu Resort Hotel	Otium Eco Club Side	
Amara Dolce Vita Luxury	Calista Luxury Resort Otel		

As mentioned before, 12 hotels in Antalya have received the Green Star certificate given by the Ministry of Culture and Tourism within 2008. Table 12 shows the 12 Green Hotels within Antalya and their residential distribution from the center. Table 13 shows the interior design of those 12 hotels and their exterior facades with visual examples.

Table 13: Twelve Hotels with 5 Green Stars which were Aproved by the Ministry of Culture and Tourism in Antalya.

Amara Dolce Vita Hotel (Kemer / Antalya) 5*

Figure 77,78,79: Amara Dolce Vita Hotel (URL80).

Calista Luxury Resort Hotel (Belek) 5*

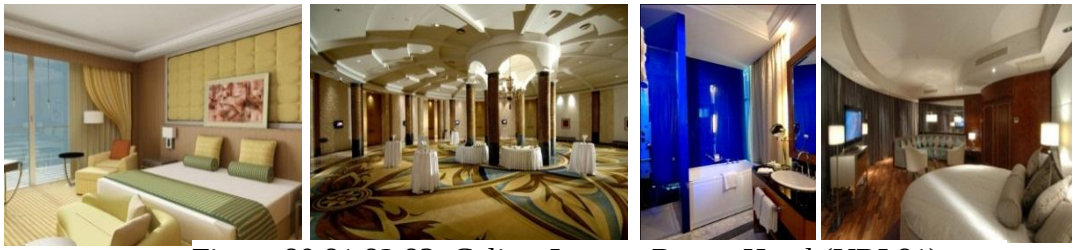


Figure 80,81,82,83: Calista Luxury Resort Hotel (URL81).

Concorde De Luxe Resort Hotel (Lara) 5*

Figure 84,85,86: Concorde De Luxe Resort Hotel (URL82).

Xanadu Resort Hotel (Belek) 5*

Figure 87,88,89,90: Xanadu Resort Hotel (URL83).

Otium Eco Club Side Hotel (Side) 5*

Figure 91,92,93: Otium Eco Club Side Hotel (by Author).

Crystal Palace Resort Hotel (Side) 5*

Figure 94,95,96,97: Crystal Palace Resort Hotel (URL84).

Crystal Hotels Flora Beach (Kemer) 5*

Figure 98,99,100,101: Crystal Hotels Flora Beach Hotel (URL85).

Crystal Sunrise Queen Luxury Resort & Spa Hotel (Side) 5*

Figure 102,103,104,105: Crystal Sunrise Queen Luxury Resort & Spa Hotel (URL86).

Crystal Palace Family Resort Hotel (Belek) 5*




Figure 106,107,108,109: Crystal Palace Family Resort Hotel (URL87).

Crystal Paraiso Verde Resort & Spa Hotel (Belek) 5*



Figure 110,111,112: Crystal Paraiso Verde Resort & Spa Hotel (URL88).

Martı Myra Hotel (Kemer / Antalya)



Figure 113,114,115: Martı Myra Hotel (URL89).

Club Hotel Rixos Tekirova Hotel (Kemer / Antalya)



Figure 116,117,118: Club Hotel Rixos Tekirova Hotel (URL90).

As mentioned above the 12 5-Green Hotels located in Antalya, as indicated in Table 13 are classified into the same group. In the next part, the Otium Eco Club Side Hotel, which is number 5, will be evaluated in terms of interior design criteria.

4.5 Evaluation of a Selected Green Hotel in Antalya Province

The 12 Green Star Hotels in Antalya are all qualified with the 122 criteria pointing system appointed by the Ministry of Culture and Tourism. Based on the pointing system class that hotels fall under, hotel level can be determined according to Table 13. Hotels that gained the Green Star certificate from the Ministry of Culture and Tourism in Antalya are all 5 star hotels. Some of the hotels have gained the minimum 300 point marker, and classed as 5 star hotels, while others gaining the minimum point are categorized into the 5 star touristic hotel or 5 star holiday village categories.

The Green Hotel project by the Ministry of Culture and Tourism initiated with 25 hotels, 12 of which received 330 points and higher. These hotels were classified as 5 star holiday villages which were derived from the pointing system of the Ministry of Culture and Tourism. In this system, an equal evaluation structure for every type of hotel is provided.

The region of Antalya hosts the majority of tourists. The annual visitation of tourists to Antalya is around 11 million. Three and a half million of them prefer the region of Manavgat. Side resort of Antalya, which is one of the center points for tourism, is one of the country's busiest touristic locations in Turkey located in Manavgat. Previously explained, the hotels within the Side region have 330 points, evaluated by the Ministry of Culture and Tourism. These hotels are almost equal to each other

regarding the services they provide. Consequently, the case study of this research has been chosen to be the Otium Eco Clup Side Hotel that has a Green Star within the Side region, and was randomly chosen out of the 3 hotels.

Antalya in Turkey Map, (URL91).	Side on Antalya Map, (URL92).
Titreyengöl Aerial View, (URL93).	Otium Eco Club Side Hotel Aerial View, (URL94).

The Otium Eco Club Side Hotel with the ecological concept was renovated by OTI in 2008. The Hotel resides in the province of Antalya, in the Manavgat district which is located in the town of Side. It has a 75 km distance from Antalya and is 7 km away from Manavgat. It is shaped as a peninsula and based on the inscriptions, the history

of Side is believed to date back to the Hittites. Side is one of the oldest settlements in Anatolia and is said to have set up before the 7th century (URL95).

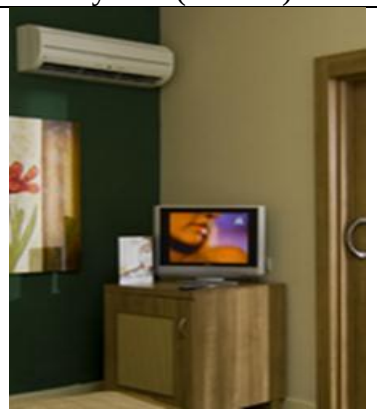
In 2011, based on the assessments, the Ministry of Culture and Tourism documented the Otium Eco Club Side Hotel as the first resort who obtained a 'Green Star' certificate. In the east side of the facility, there are over 100 migratory birds that use Titreyengöl as a place of rest and transition. The hotel was renovated with the ecological concept of OTI Holding, and continued its growth since 2009 and had served over 1 million and 23 thousand tourists each year. In 2012, the number of customers served was 1 million 873 thousand, while in 2013 this amount increased over 30 % to reach the figure of 2 million 400 thousand tourists. In 2008, Otium Eco Clup Side Hotel's changed concept and switching to the eco-hotel concept led to an increase in its number of tourists. The tourists are mainly coming from countries such as: Germany, Belgium, France, UK, Netherlands, Poland, Balkans, CIS (Community of Independent States) countries, Nordic and Turkey (URL96).

The hotel establishment is built on a 51.000 m² with three main buildings and 17 villas. There are 7 different types of rooms located in the hotel. With 285 standard rooms, 5 disabled rooms, 69 guest rooms, 7 suites family rooms, 22 villas suite family rooms, 32 villa family rooms and 6 hotel suites, a total of 426 rooms are available in this hotel (URL97).

Table 9 shows the 122 criteria that are categorised into specific classifications. In accordance with this classification, those related to the interior architecture/design is re-tabulated. Table 14 illustrates the 38 criteria for interior design which are filtered

from the 122 Green Hotel criteria to evaluate Otium Eco Clup Side Hotel. In order to conduct this in-depth study, a first visit was made in 2011 where the hotel was visiually examined and photographed. In 2012, the hotel was visited once again and conversation about the hotel with the hotel employees took place. In the year 2013, in order to gain information about the ID's and the evaluate them, the hotel was visited again. The hotel eas examined regarding the ID's and Table 14 was prepared accordingly. The original numbering of the criteria has been shown in a specific column in addition to the pointing system in another column. Every criterion has their own section; some criteria have visual examples, and some have brands and models. The specification is done by an appropriate selection for each criterion.

Table 14: In-Depth Evaluation of Otium Eco Clup Side Hotel in terms of Interior Architectural Criteria for Receiving a Green Star.						
CRITERIA The criteria for receiving a Green Star listed bellow only applies for tourism facilities concerning the interior architecture		Points	Criteria sequence number in the table	HOTEL		
				OTTIUM ECO CLUP SİDE	PHOTO	TRADE BRAND
1-	The business must have awards for its studies on the environmental sensitivity	2	9	√	 Figure 119: Green Hotel Certificate (URL98).	5 STAR HOTEL GREEN CERTIFICATE FROM T.C. MINISTRY OF CULTURE AND TOURISM
2-	Automatic shutdown of the cooling and ventilation (air conditioning, etc.), in the event of opening of windows and doors	4	22	√		TSEK CERTIFICATE YÖNNET BRAND

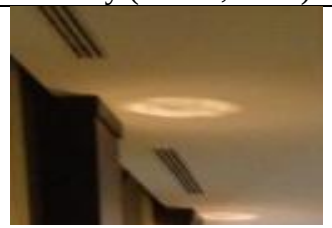
3-	Automatic shutdown B of the electrical system, when the customer leaves the room (Energy-saving systems)	6	24	√	 Figure 120: Room Card System (URL99).	Chapier, SALTO 012D
4-	The devices and machines stationed in the room (mini-bar, fridge, TV, air conditioner, and so on) to be highly efficient and less energy consuming	E=2, 6	27	√	 Figure 121: Standard Room, TV Stands (author, 2013).	TV BRAND : BEKO MINIMUM ENERGY SYSTEM MINI-BAR/FRIDGE: BEKO MINIMUM ENERGY SYSTEM A+ ENERGY CONSUMPTION: 0.323 kWh / 24 h AIR CONDITIONER:MITSUBISHI ELECTRIC G-INVERTER

5-	The use of less energy consuming lighting elements	2	28	√	 Figure 122: Standard Room, Lamp (author, 2013).	EAE BRAND LM/ W MODEL COLOUR 4000K MINIMUM LEVEL OF ENERGY CONSUMPTION
6-	To arrange the location of devices such as fridges, minibar, etc must be high in efficiency and consume less energy; and must be far from sunlight or heat sources and provide their ventilation	2	29	√	 Figure 123: Standard Room, TV Stands (author, 2013).	IN ENCLOSURE MINI-BAR/FRIDGE: BEKO MINIMUM ENERGY SYSTEM A+ ENERGY CONSUMPTION: 0.323 kWh / 24 h

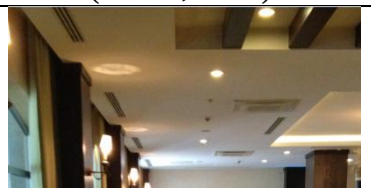
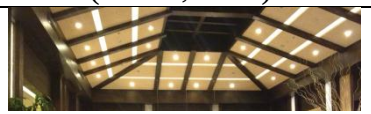
7-	The use of shower heads and bathroom fittings which decrease water consumption (photocell, air injected systems, etc. not exceeding 12 litres/minute)	4	31	√	 Figure 124: Standard Room, Bathroom (author, 2013).	E.C.A
8-	The use of reservoirs which consume 6 litres or less water each time. Reservoirs where different amounts of water flow is set or the flow of water can be stopped	4	32	√	 Figure 125: Standard Room, Bathroom (author, 2013).	VİTRA, STANDARD MODEL

9-	The use of a bathtub or shower tray with reduced depth for less water consumption in all the bathrooms	2	33	√	  Figure 126: Standard Room, Bathroom (author, 2013).	NO BATH TUB
10-	Avoiding the use of single-use materials (shampoo, soap, shower caps, cups, plates, cutlery, etc.) in rooms	4	36	X	 Figure 127: Standard Room, Bathroom (author, 2013).	

11-	To supply toilets with litter boxes and providing directions for customers on disposal of tissues to the litter boxes instead of throwing them directly in the toilet	2	37	√	 Figure 128: Standard Room, Bathroom (author, 2013).	
12-	The facility to have non-smoking rooms;		38			
	Have at least %50 non-smoking rooms	5		√	 Figure 129: Lobby, No Cigarette Panel (author, 2013)	
	Have at least %20 non-smoking rooms	2		X		
13-	The structures that form the facility, to be visually compatible with nature	5	45	√	 Figure 130: Hotel Exterior, Garden (author, 2013).	

14-	The architectural structure, orientation, location and building elements of the facility to provide natural ventilation	6	50	√	 Figure 131: Hotel Exterior, Balcony (author, 2013).	
15-	Facility's heat insulation to be synchronized with climate conditions so that minimum energy is spent to provide enough cooling and heating	5	51	√	 Figure 132: Interior, Air Conditioning System (author, 2013).	
16-	Exterior windows which are used on the facades of the facility to be;		52			
	Special glass to prevent the ingress of heat controls, in summer and reduces heat loss in winter	3		√	 Figure 133: Windows (author, 2013).	BRAND IS TRAKYA CAM
	Double glazing	2		X		

17-	Equip the exterior building with construction elements that provide sun control	2	53	√	 Figure 134: Exterior (author, 2013).	
18-	Facility to be made with least harm to the environment (EIA Report is requested.)	2	55	√	 Figure 135: EIA Report (URL100).	MINISTRY OF ENVIRONMENT AND URBAN PLANNING
19-	Use of environmental friendly paint-wax, lead-free glass etc. (eca-labeled)	E=2	56	√	 Figure 136: Standard Room, Wall Paint-wax (author, 2013).	EXTERIOR-MARSHALL BRAND, AKRİKORSILICONE FLAT KEEP COOL PRODUCT INTERIOR –MARSHALL BRAND, AG+ IONIC HYGIENEPRODUCT

20-	The presence of an air curtain or weather guard at the entrances of buildings	2	57	√	 Figure 137: Entrance (author, 2013).	
21-	The devices and machinery used in the facility (such as; boiler, air conditioning Chiller, etc., cold room, wardrobe, washing and drying machine, etc.) must be highly efficient and have a technology which consumes less electricity	E=2, 6	59	√	 Figure 138: Interior; Air Conditioning System (author, 2013).	
22-	Usage of lighting which decreases the amount of energy consumption the use of lighting in the facility	2	60	√	 Figure 139: Interior; the use of Lighting in the Facility (author, 2013).	ECOLITE
23-	Lighting applications must be prepared by external experts so that lighting can be used efficiently and accordingly to the purpose of use in the facility's interior and exterior	4	61	√	 Figure 140: Exterior; Lighting Applications (author, 2013).	ECOLITE

24-	To use lighting systems with movement sensors or daylight sensors (such as; corridors, gardens, technical units, personnel areas, etc.) in the facility	4	62	√	 Figure 141: Exterior; Lighting Applications (author, 2013).	ECOLITE
25-	To arrange garden outdoor lighting systems, to prevent loss of light to sky	2	63	√	 Figure 142: Exterior; Lighting Applications (author, 2013).	
26-	To arrange the location of devices such as; cold rooms, fridge motors, central air conditioning equipment etc. in the kitchen and technical departments to be far from sunlight and heat sources, providing their ventilation for high efficiency and in order to consume less energy	5	64	√	 Figure 143: Kitchen; Cold Rooms, Fridge Motors, Central Air Conditioning Equipment etc. (author, 2013).	

27-	To have control panel in sauna	2	71	√	 Figure 144: Control Panel in Sauna (author, 2013).	
28-	To use power-efficient lighting in public places to provide electricity saving by personnel	2	73	√	 Figure 145: Power-Efficient Lighting (author, 2013).	ECOLITE
29-	The use of special shower heads and bathroom fittings which decrease water consumption (photocell, adjustable, air injected, water consumption not exceeding 12 litres/minute) in public and staff toilet and showers	2	80	√	 Figure 146: Public WC (author, 2013).	E.C.A

30-	The use of reservoirs which consume 6 liters or less water each time (reservoirs where different amounts of water flow is set or the flow of water can be stopped)	2	81	√	 Figure 147: Standard Room, Bathroom (author, 2013).	VITRA
31-	To supply toilets with litter boxes and providing directions for customers on disposal of tissues to the litter boxes instead of thowing them directly into the toilet	1	83	√	 Figure 148: Public WC (author, 2013).	
32-	The use of water-efficient washing machines and dishwashers (eco-labeled)	2	84	√	 Figure 149: Launderette (URL101).	

33-	Creating water systems that pours automatic water to the urinals (photocell)	2	91	√	 Figure 150: Public WC (author, 2013).	VITRA
34-	To provide enough dustbins for the customers in appropriate parts of the facility, for seperation of wastes	2	102	√	 Figure 151: Standard Room, Recycle Box (author, 2013).	
35-	Avoiding the use of single use materials (shampoo, soap, shower caps, cups, plates, cutlery, etc.) in public showers and toiletts	4	108	√	 Figure 152: Public WC (author, 2013).	

36-	The facility must supply rooms with; eco-labelled goods (pillows, sheets, tablecloths, furnitures, washing machines, dishwashers, refrigerators, vacuum cleaners, bulbs, etc.)	E=2, 10	117	√	 Figure 153: Family Room, (author, 2013).	
37-	Having noise pollution measures; in indoors and outdoors		121			
	Usege of silent spaces devices	2			 Figure 154: Disco, (URL 102).	
	Insulating the installation sites and music playing spaces sites	4				
	Broadcasting, according to the audio broadcast done in appropriate decibels for human health	2		√		
	Blanketing the noise source	4		√		
38-	The use of activities or technologies, system or devices which make an additional contribution to environmental sensivity studies but not listed on this form	E=3, 9	122			
E= Each, Note: Brands, some are in Turkish.						

The table (Table 14) which has been prepared in regards to Otium Eco Clup Side Hotel, includes criteria regarding the ID's formulated by the Turkish Republic Ministry of Culture and Tourism. The Otium Eco Clup Side Hotel has been evaluated according to 38 ID criteria in the table above (Table 14). As a result, it can be seen that, the 38 ID criteria out of the 122 criteria prepared as part of the Green Star project has been provided.

4.6 Conclusion of Chapter 4

In Chapter 4 the following topics were discussed; green Hotels in Antalya from an ecological architecture perspective, ecological tourism in Turkey, ecological tourism in Antalya, the categorisation of the Ministry of Culture and Tourism regarding the Green Star criteria. A list of 5-Star Green Hotels in Turkey and Antalya was provided and the selected Green Hotel (5-Green-Star) located in Antalya Province was evaluated.

After discussing the ecological tourism in Turkey and the ecological tourism of Antalya, the 122 criteria prepared by the Ministry of Culture and Tourism was divided into groups and evaluated. After the evlauation, the ID section was found. 25 hotels which were granted by the Ministry of Culture and Tourism with green stars in Turkey and the 12 hotels which were granted with green stars in Antalya were subject to the discussion and evaluation.

The ID criteria which was formulated at the beginning of this chapter, was then examined in detail and placed into a table, while taking the Otium Eco Club Side Hotel as a case study. As a result an evaluation table was formulated. The

characteristics of the Otium Eco Club Side Hotel which complied with the criteria from the table were explained and supporting examples were given.

Chapter 5

CONCLUSION

With the ever growing cities and concrete expansions of the world, ecotourism has the utmost importance in the context of preservation and energy sufficiency of the environment, particularly in contemporary hotels. In 2008, Turkey’s Ministry of Culture and Tourism started the Green Star Hotel project and 25 hotels in the country gained the title of Green Star Hotel.

The first chapter of the current research was composed of the purpose of the study, its methodology, research questions, theoretical and scientific background information.

The second chapter goes over the principles and the fundamentals of ecotourism which are all derived from searching to answer the question of "What is ecotourism?" UNWTO in terms of decisions and principles of ecotourism is directed towards people. The world of ecotourism, from the smallest proportion to the largest, has been continued within the region of Antalya in Turkey. The reason behind choosing Antalya is the unspoilt nature, as well as historical and cultural heritage of the city, its sun-sea-sand and all its other potentials. In addition, and more importantly, 12 hotels out of the 25 Green Star Hotels within Turkey reside in Antalya. Hence, the Ministry of Culture and Tourism has named Antalya as an ecotourism region up until the year 2023.

In the third chapter, Green Hotels are discussed in detail. Nowadays, due to increasing interests toward the energy consumption, Green Hotels have become very popular. Hence, sustainable hotel criteria and material usage of Green Hotels are discussed. As mentioned, the LEED certification system is composed of four sections. Examples of LEED-certified hotels in the world have been shown as 'Certified', 'Silver', 'Gold', and 'Platinium'. Hotel certification levels are determined according to their score. Each certification level statement was examined on two separate certified hotels in the world.

After the examination of the LEED certified ecological hotels, in the fourth chapter, the Green Star Hotels certified by the Ministry of Culture and Tourism in Turkey are introduced, followed by some examples within the region of Antalya. Moreover, the certification system and 122 criteria of the Ministry of Culture and Tourism are examined and categorised into separate disciplines. The criteria needed for interior design were filtered, and used as evaluation criteria for the case under study.

The Otium Eco Clup Side Hotel was chosen as the most sustainable hotel in terms of random and in-depth investigations, amongst the 12 Green Star Hotels that are located in Antalya. Although the scores are considered to be in a similar range, the Otium Eco Club Side Hotel was evaluated according to the 122 separate criteria and also with regards to different interior architecture criteria.

The principle of sustainable living was targeted through obtaining lessons from the many countries in the world which have demolished their nature and then aimed to

leave a better world behind for the future generations. Gradually, interest towards green building design and the construction of green buildings are increasing. Taking the massive energy consumption of a hotel into consideration, many hotels are now renovating with an ecological concept. Although initial investment is perceived to be abundant, it is profitable in long-term. Consequently, concept change is appropriate.

In this regards, the interior architect must take these criterias into account while designing the building as they play a major role in the creation of the building. Showing importance of the necessary criterias enables the restoration need to fit the ecological concept and it has resulted in hotels investing large amounts on renovating with an ecological concept. For this reason the interior architects as well as architects and engineers must design according to the related criterias.

This study contributes to the development process vision of ecological architecture for researchers working on ecology and tourism; for architects and interior architects who design buildings; for environmentally aware tourism investors; and for the local and central governments. It is expected that deeper research on the effect of ecological tourism on tourists, especially Green Hotels, and building designs can take place while including the user profile. For traditional touristic accommodation facilities, i.e for eco-tourism or alternative tourism facilities, the main target should always be managing tourism correctly and having an understanding of sustainable conservation-use balance.

This study will be sent to the Chamber of Interior Designers in Turkey and will be suggested to be published as a handbook. It will also be beneficial for investors in

Green Hotels. A copy will also be sent to the Ministry of Culture and Tourism. For future studies regarding this topic, a study which focuses on the satisfaction of the users of the 5 Star Green Hotels which are located in Antalya.

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APPENDIX

Appendix A: Criteria for Green Star project (Turkish)

The Turkish version of the criteria for the Green Star Project which was initiated by the Turkish Republic Ministry of Culture and Tourism can be found in the Appendix A Table below. There are 122 criteria in total. The star symbol (*) next to some of the criterion indicates that the particular criterion is related to interior design (ID).

GREEN STAR PROJECT CRITERIAS		PUAN
1	İşletmelerin çevre politikası ve eylem planının olması,	5
2	Eylem planının uygulanması;	
	Uygulayacak özel bir yetkilinin olması (Konusunda eğitim almış, Çevre Mühendisi, Enerji Verimliliği Uzmanı, Biolog, Ziraat Mühendisi vb.),	10
	Bu hizmetin bir uzmandan veya uzman firmadan alınması (İşletmede uygulamadan sorumlu bir yetkili ile birlikte),	7
3	İşletmenin, su tüketimi, ısıtma ve soğutma için enerji tüketimi, elektrik tüketimi ve genel enerji tüketimi konusunda verileri toplaması ve izlemesi (Kapalı alan m² başına veya geceleme başına enerji tüketimi, aylık, üç aylık ve yıllık raporların hazırlanması ve dosya halinde saklanması),	5
4	İşletmede kullanılan kimyasal maddelerin (hacim ve/veya ağırlık olarak) izlenmesi ve verilerin toplanması (Kapalı alan m² başına veya geceleme başına tüketim, aylık, üç aylık ve yıllık raporların hazırlanması ve dosya halinde saklanması),	5
5	Tesiste ortaya çıkan atık miktarının (hacim ve/veya ağırlık olarak) izlenmesi ve verilerin toplanması (Kapalı alan m² başına veya geceleme başına tüketim, aylık, üç aylık ve yıllık raporların hazırlanması ve dosya halinde saklanması),	5
6	İşletmenin uluslararası kabul gören çevre yönetim sertifikalarına sahip olması (EMAS, ISO 14000, ISO 14001, Mavi Bayrak gibi), **(**Her sertifika 3 puan, toplam 9 puanı geçemez)	Azami 9 puan
7	Tesise hizmet veren veya mal tedarik eden ana firmaların en az bir tanesinin çevre yönetim sertifikasına sahip olması (EMAS, ISO 14001 gibi),	3
8	İşletmenin enerji ve su tüketimini hesaplamak ve izlemek için ilave sayaç ve ölçü aletleri kullanılması, (Mutfak, çamaşırhane, konaklama üniteleri, bahçe, teknik üniteler vb. her biri 2 puan, toplam 6 puanı geçemez)	Azami 6 puan
9*	İşletmenin çevreye duyarlılık çalışmalarının ödül kazanması,	2
10	Yerel yönetim veya idareler veya yörede bulunan diğer tesislerle çevreye duyarlılık konusunda ortak çalışma ve etkinlikler düzenlemek,	5
11	Çevre koruma organizasyonlarına düzenli olarak katkıda	Azami

	bulunmak veya bu organizasyonlara düzenli olarak katılmak (Dernek, vakıf, vb.), (Her biri 2 puan, toplam 6 puanı geçemez.)	6 puan
12	Turizm konaklama işletmesinde kullanılan tüm tesisat ve donanımların (enerji, ısıtma, havalandırma, iklimlendirme ekipmanları, bulaşık, çamaşır makineleri, buzdolapları, asansörler vb.) koruyucu bakım ve onarımının periyodik olarak yetkili servise veya konusunda eğitim almış uzman kişilere yaptırılması,	5
13	Isıtma kazanının ve brülörün yılda en az bir defa periyodik olarak bakımının yetkili kişilere yaptırılması ve kazan bacasından açığa çıkan emisyonların yetkili kuruluşlar tarafından ölçülüp raporlanması,	5
14	İşletme tarafından, çevre bilincinin artırılması, çevresel tedbirlerin ve eylem planının uygulanmasını temin etmek için personele periyodik olarak eğitim verilmesi,	5
15	Personelin olası su sızıntılarının belirlenmesi ve hemen önlem alınması konusunda eğitilmesi,	2
16	İşletme personelinin, deterjan ve dezenfektanları kullanırken paketlerinde veya kutularında önerilen kullanım miktarlarını aşmamaları ve kullanım yöntemleri konusunda eğitilmeleri,	2
17	Tesisin mutfak ve teknik bölümlerinde kullanılan cihazların tasarruflu ve verimli kullanılması konusunda personele eğitim verilmesi,	2
18	Misafirlere tesise gelişte, resepsiyonda çevreye duyarlılık politikası ve alınan önlemler hakkında bilgi verilmesi, çevresel politika için destek istenmesi ve müşterilerin katılımının sağlanılması,	3
19	Çocuk misafirlere yönelik çevreye duyarlılık konusunda eğitim ve etkinliklerin yapılması,	3
20	Misafirlere, odalarda kolayca görebilecekleri bir yerde çevreye duyarlılık çalışmalarının yazılı, görsel-işitsel olarak duyurulması (Gazete, dergi, broşür, kapalı devre kanal vb.),	2
21	Misafirlerin, tesisin çevreye duyarlılık çalışmaları hakkında görüşlerinin alınması ve değerlendirilmesi (anket vb.),	3
22*	Soğutma ve havalandırmanın (klima vb.), pencere ve kapıların açılması durumunda otomatik kapanması,	4
23	Soğutma ve havalandırma sistemlerinde otomatik kapatma bulunmayan tesislerde, müşterilere kapı ve pencerelerin açılması halinde, soğutma ve havalandırmanın kapatılmasını hatırlatan bilgilendirme,	1
24*	Odalarda elektrik sisteminin, müşteri odadan ayrıldığında otomatik olarak kapanması(Enerji tasarruf sistemi),	6
25	Enerji tasarruf sistemi bulunmayan tesislerde, müşterilere odadan çıkarken elektrikli cihazların (televizyon, klima vb.) ve ışıkların kapatılmasını hatırlatan bilgilendirme,	1
26	Odalarda ısıtma ve soğutmanın kontrollü olması,	
	Merkezi kontrollü sistem	5
	Bağımsız ayar sistemi (termostat)	3
27*	Odada yer alan cihaz ve makinelerin(minibar, buzdolabı, tv,	Azami

	split klima vb.) yüksek verimli ve az elektrik tüketecek teknolojide olması, (Her biri 2 puan, toplam 6 puan)	6 puan
28*	Oda aydınlatılmasında az enerji tüketen aydınlatma elemanlarının kullanılması,	2
29*	Odalarda kullanılan cihazların (buzdolabı, minibar, vb.) yüksek verimle ve az enerji harcayacak şekilde; güneş ışığı, ısı kaynakları gibi etkilerden uzak ve cihazın havalandırması sağlanacak şekilde yerleştirilmesi,	2
30	Misafir bulunmayan odalarda perde veya güneşliklerin kapalı tutulması,	1
31*	Duş başlıkları ve musluklarda, akan suyun tasarrufuna yönelik özel armatürlerin kullanılması (Fotoselli, ayarlı, hava karışımlı başlıklı vb. su tüketimi dakikada 12 litreyi aşmayan),	4
32*	Rezervuarların her kullanımda 6 litre veya daha az su harcaması (Farklı miktarda su akışını sağlayan veya su akışını durdurabilen ayarlı rezervuarlar),	4
33*	Tüm banyolarda duş teknesi veya derinliği azaltılmış küvet kullanılması,	2
34	Banyo ve tuvaletlerde suyun tasarruflu kullanılması konusunda müşterilerin bilgilendirilmeleri,	2
35	Misafirlerden, olası su sızıntılarını işletmeye bildirmelerinin istenilmesi,	2
36*	Odalarda tek kullanımlık (şampuan, sabun, duş bonesi, bardak, tabak, çatal bıçak takımları vb.) malzemelerin kullanılmaması,	4
37*	Tuvaletlerde çöp kutularının bulunması ve müşterilerin çöplerini tuvalet yerine çöp kutularına atması yönünde bilgilendirilmeleri,	2
38*	Tesiste sigara içilmeyen odalar;	
	-Odaların en az %50 sinin sigara içilmez olması,	5
	- Odaların en az %20 sinin sigara içilmez olması,	2
39	Yatak odalarında, atıkların ayrılması hakkında bilgilendirmenin yapılması,	2
40	Aynı misafir için yastık kılıfı, çarşaf, nevresim ve havluların misafirlerin isteğiyle değiştirileceği konusunda bilgilendirilmeleri,	6
41	Misafirlerin, konaklama işletmesine ve diğer turistik yerlere toplu taşım araçlarıyla en kolay nasıl ulaşabilecekleri konusunda bilgilendirilmeleri,	2
42	Misafirlerin, çevre koruma tedbirleri, bio-çeşitlilik ve çevre hakkında bilgilendirilmesi,	2
43	Tesisin emsalinin (Toplam inşaat alanının toplam arsa alanına oranı);	
	0,20 veya daha az olması,	8
	0,30 olması,	6
	0,40 olması,	4
	0,50 olması,	2
44	Peyzaj düzenlemesi ve ağaçlandırma,	5

45*	Tesisi oluşturan yapıların görsel olarak doğa ile uyumlu olması,	5
46	Tesisin çevrede bulunan tarihi, doğal ve kültürel değerlerin korunmasına katkıda bulunmasına yönelik etkinlikler,	
47	Çevrede bulunan vahşi veya evcil hayvanların korunması, sağlık, bakım ve beslenmeleri ile ilgili çalışmaların yapılması,	2
48	Tesis bahçesinde, envanteri bulunan endemik bitkilerin korunması ve ekosistemin bozulmaması için özen gösterilmesi,	2
49	Tesisin mimari tasarımının özel (çevreye duyarlı) olması,	10
50*	Tesisin mimari yapısının, konumunun ve yapı elemanlarının doğal havalandırmayı sağlayacak şekilde olması,	6
51*	Tesisin ısı yalıtımının iklim şartlarına uygun, minimum enerji ile yeterli soğutma ve ısıtma imkânı sağlayacak şekilde olması,	5
52*	Tesis dış cephesinde kullanılan camlar;	
	Yazın ısının içeri girmesini engelleyecek geçirgenliği kontrol eden, kışın ise ısı kaybını azaltan özel cam,	3
	Çift cam,	2
53*	Bina dış cephesinde güneşi kontrol eden yapı elemanlarının bulunması,	2
54	Tesisin inşaatının yapılacağı arazinin amenajman planının yaptırılması, inşaat sırasında çevreye zarar verilmemesi için önlemlerin alınması, tesisin inşasında kullanılan yapı elemanları, malzemelerin çevreye duyarlı olanlarının seçilmesi ve yapılan çalışmaların belgelendirilmesi (Amenajman planı, film, fotoğraf vb. belge),	10
55*	Tesisin çevreye en az zarar verecek şekilde yapılmış olması (ÇED Raporu istenir.),	2
56*	Çevreye duyarlı boya- cila, kurşunsuz cam vb. kullanılması (Çevre etiketli), (Her biri 2 puan, toplam 4 puan)	Azami 4 puan
57*	Binaların giriş kapılarında rüzgarlık veya hava perdesi bulunması,	2
58	Tesisin genel mahallerinde ısıtma ve soğutmanın otomatik kontrollü (termostat) olması,	4
59*	Tesiste kullanılan cihaz ve makinelerin (Isıtma kazanı (boiler), merkezi klima (Chiller vb), soğuk oda, dolap, çamaşır yıkama ve kurutma makinesi vb.) yüksek verimli ve az elektrik tüketecek teknolojide olması, (Her biri 2 puan, toplam 6 puanı geçemez)	Azami 6 puan
60*	Tesiste az enerji tüketen aydınlatma elemanlarının kullanılması,	2
61*	Tesisin iç ve dış aydınlatmasının, konunun uzmanı kişilerce hazırlanan proje doğrultusunda, mahal ve alanların kullanım amacına göre, gereği kadar yapılması,	4
62*	Tesiste (Koridorlar, bahçe, teknik üniteler, personel mahalleri vb.) harekete veya ışığa duyarlı aydınlatma sistemlerinin kullanılması,	4
63*	Bahçe vb. açık alan aydınlatmalarında kullanılan aydınlatma elemanlarının, ışığın gökyüzüne gitmesini engelleyecek şekilde düzenlenmesi,	2
64*	Tesisin mutfak ve teknik bölümlerinde kullanılan cihazların	5

	(soğuk oda, buzdolabı motorları, merkezi klima cihazları vb.) yüksek verimle ve az enerji harcayacak şekilde; güneş ışığı, ısı kaynakları gibi etkilerden uzak ve cihazın havalandırması sağlanacak şekilde yerleştirilmesi,	
65	Tesisin bütünü dikkate alındığında önemli ölçüde enerji tasarrufu sağlayacak frekans invertörü, ısı geri kazanım sistemi veya ısı pompası gibi yeni teknolojilerin kullanılması, (Her biri 10 puan toplam 30 puan)	Azami 30 puan
66	Tesisin sıcak su üretiminde eşanjör cihazının kullanılması,	2
67	Merkezi ısıtma sistemi olması,	2
68	Merkezi ısıtma sisteminin ihtiyaca uygun olarak kullanılabilmesi amacıyla, binanın bölümlere ayrılarak ısıtılabilmesi imkanı,	2
69	Tesiste elektrik, ısıtma ve soğutma sağlanmasında yeni teknolojilerin kullanılması;	
	Trijenerasyon sistemi,	15
	Kojenerasyon sistemi,	10
70	Tesiste enerji kullanımında hibrit sistem bulunması,	5
71*	Saunada zaman kontrol paneli bulunması,	2
72	Çamaşırların doğal yollarla kurutulması (Kapalı mahalde veya görüntü kirliliği yaratmayacak şekilde açık alanda),	2
73*	Genel mahallerde servis hazırlığı yapan personelin elektriği tasarruflu kullanmasını sağlayan aydınlatma donanımının bulunması,	2
74	Havaya fazla miktarda sera gazı veren kömür veya ağır petrol ürünleri (sülfür oranı %0,2'den fazla olan) gibi kaynakların enerji olarak kullanılmaması,	5
75	Yenilenebilir enerji kaynaklarından elektrik sağlanması; (Enerjiyi sağlayan firmadan yenilenebilir enerjini kaynağını ve oranını gösteren bir yazının alınması halinde değerlendirilir) (Yenilenebilir enerjinin tesis bünyesinde sağlanması halinde 2 puan ilave edilir)	
	Kullanılan toplam elektrik miktarının tamamının yenilenebilir enerji kaynağından sağlanması,	20
	Kullanılan toplam elektrik miktarının %50 sinin yenilenebilir enerji kaynağından sağlanması,	10
	Kullanılan toplam elektrik miktarının %20 sinin yenilenebilir enerji kaynağından sağlanması,	4
	Kullanılan toplam elektrik miktarının %10 unun yenilenebilir enerji kaynağından sağlanması,	2
76	Tesiste ısıtma sisteminde kullanılan enerjinin yenilenebilir enerji kaynaklarından sağlanması (Elektrik haricinde; Güneş paneli, jeotermal vb.);	
	Tamamının yenilenebilir enerji kaynağından sağlanması,	20
	%50 sinin yenilenebilir enerji kaynağından sağlanması,	10
	%20 sinin yenilenebilir enerji kaynağından sağlanması,	4
	%10 unun yenilenebilir enerji kaynağından sağlanması,	2
77	Tesiste soğutma sisteminde kullanılan enerjinin yenilenebilir	

	enerji kaynaklarından sağlanması (Elektrik haricinde; Deniz suyu, güneş vb.);	
	Tamamının yenilenebilir enerji kaynağından sağlanması,	20
	%50 sinin yenilenebilir enerji kaynağından sağlanması,	10
	%20 sinin yenilenebilir enerji kaynağından sağlanması,	4
	%10 unun yenilenebilir enerji kaynağından sağlanması,	2
78	Tesisin temiz sıcak su ihtiyacının yenilenebilir enerji kaynaklarından sağlanması (Elektrik haricinde; Güneş paneli, jeotermal vb.);	
	Tamamının yenilenebilir enerji kaynağından sağlanması,	20
	%50 sinin yenilenebilir enerji kaynağından sağlanması,	10
	%20 sinin yenilenebilir enerji kaynağından sağlanması,	4
	%10 unun yenilenebilir enerji kaynağından sağlanması,	2
79	İşletmelerin, yerel idareler tarafından hazırlanan su kullanma koruma planına uygun olarak su kullanması (Tesisin bu plana uygun olarak su kullandığına ilişkin ilgili idare yazısı aranır),	5
80*	Genel ve personel duş ve tuvaletlerinde bulunan duş başlıkları ve musluklarında, akan suyun tasarrufuna yönelik özel armatürlerin kullanılması (Fotoselli, ayarlı, hava karışımlı başlıklı vb. su tüketimi dakikada 12 litreyi aşmayan),	2
81*	Genel tuvaletler ve personel tuvaletlerinde rezervuarların her kullanımda 6 litre veya daha az su harcaması (Farklı miktarda su akışını sağlayan veya su akışını durdurabilen ayarlı rezervuarlar),	2
82	Genel duş ve tuvaletlerde suyun tasarruflu kullanılması konusunda misafirlerin ve personelin bilgilendirilmeleri,	1
83*	Genel tuvaletlerde çöp kutularının bulunması ve müşterilerin çöplerini tuvalet yerine çöp kutularına atması yönünde bilgilendirilmeleri,	1
84*	Pisuvarlarda suyun akıtıldığı sistemin otomatik (fotoselli) olması,	2
85	Su kaçaklarının izlenmesi ve giderilmesine özen gösterilmesi,	2
86	Yeşil alanların gün ışığı etkili olmadan önce veya gün ışığı etkisini kaybettikten sonra sulanması,	2
87	Atık suların iyileştirilmesi;	
	İşletmenin merkezi arıtma sistemine bağlı olması,	4
	İşletmenin kendine ait atık su arıtma sisteminin bulunması (Mevzuata uygun kriterlere sahip olması ve kriterlere uygun çalıştığının belgelendirilmesi şartıyla),	2
88	Atık su planı;	
	Konaklama işletmelerinin, yerel idarelerin hazırladığı çevreye duyarlı atık su planına uymaları,	4
	Yerel idare tarafından onaylanmış tesise ait çevreye duyarlı atık su planı olması (Yerel idarenin atık su planının olmaması halinde),	2
89	Yağmur sularının veya arıtılmış atık suların temizlik ve içme haricinde (bahçe sulaması ve/veya tuvalet rezervuarlarında) kullanılması, (Her biri 2 puan, toplam 4 puan),	Azami 4 puan
90	Deniz suyundan içme veya kullanma suyu elde edilmesi	10

	(Yerel idarenin izni olması halinde),	
91*	Su tasarruflu çamaşır ve bulaşık makinelerinin (Çevre etiketli) kullanılması,	4
92	Mutfakta ve bahçede kullanılan suların otomatik olarak kapanmasını sağlayan zaman ayarlı sistem,	2
93	Bahçe sulamasında, gereksiz su tüketimini engelleyen damlama, fıskiye vb. teknolojilerin kullanılması,	4
94	Golf sahaları, ormanlık alanlar gibi sulanması gereken geniş alanları bulunan tesislerde bilgisayar kontrollü özel sulama sistemlerinin kullanılması,	4
95	Dezenfektanların hijyen gerekliliği halinde kullanılmaları,	2
96	Çevreye duyarlı deterjan ve dezenfektanların kullanılması (Çevre etiketli),	4
97	Yüzme havuzlarında uygun hijyenik sonuç için minimum miktarda dezenfektan kullanan otomatik dozaj sisteminin kullanılması,	4
98	Uygun mahallerde kimyasal maddeler kullanılmaksızın temizlik yapılması (mekanik temizlik, mikrofiber vb.),	2
99	Bahçelerinin organik tarım esaslarına uygun olarak düzenlenmesi ve bakımının yapılması,	2
100	Haşere ile mücadelede insan sağlığına ve çevreye zarar vermeyen ilaçların kullanılması veya doğal tedbirlerin (Sinek tutucu, yapışkanlı kağıt, balık vb.) alınması	2
101	Artan sağlıklı günlük yiyeceklerin hayır kurumlarına (Bakım evleri, yurtlar, hayvan barınakları vb.) verilmesi, bu konuda ilgili kurum ve kuruluşlarla işbirliği yapılması,	5
102*	Müşterilerin atıkları ayırabilmeleri için tesisin uygun yerlerinde yeterli kutu bidon sağlanması,	2
103	Personel tarafından zararlı atıkların (Yağ filtreleri, boya, florasan ampuller, toner, mürekkep, soğutma ekipmanları, piller, ilaçlar, tıbbi atıklar vb.) diğerlerinden ayrılması (Yerel idareden zararlı atıkların ayrıştırılması hizmetinin verildiğine ilişkin yazı alınır.), (Her biri 2 puan, toplam 10 puan)	Azami 10 puan
104	Atıkların personel tarafından çeşitlerine (plastik, kağıt, cam vb.) ayrılması (Ayrıştırılan atıkların yerel idare veya firmalarca değerlendirildiğinin tespiti halinde puan verilir), (Her biri 3 puan, toplam 9 puan)	Azami 9 puan
105	Organik atıkların ayrılması ve değerlendirilmesi(kompost, biogaz vb.),	4
106	Yerel idare tarafından atıkların ayrıştırılması hizmeti verilmemesi halinde, yerel idarelere bu hizmetin verilmesi amacıyla talepte bulunulması,	2
107	Yerel idarelerin atıkları toplama imkânının bulunmaması halinde atıkların yerel idare tarafından uygun bulunan yerlere taşınması (Yerel idarenin konuya ilişkin yazısının bulunması halinde değerlendirilir.),	2
108*	Genel duş ve tuvaletlerde, ortak alanlarda tek kullanımlık (şampuan, sabun, duş bonesi, bardak, tabak, çatal bıçak takımları vb.) malzemelerin kullanılmaması,	4

109	Tek kullanımlık içecek kutularının (teneke vb.) sunulmaması, bunun yerine cam şişe, postmix, premix vb. ürünlerin kullanılması,	4
110	Tek kullanımlık paketlerin (tereyağ, reçel, bal, peynir vb.) kahvaltı için kullanılmaması,	4
111	Yağ ayrıştırıcılarının tutucularının kullanılması, kullanılan yağların toplanması, mevzuata uygun bir şekilde imhası veya değerlendirilmesi,	5
112	Kullanılmış eşyaların ve malzemelerin satılması veya hayır kurumlarına bağışlanması,	2
113	Yerleşim alanı büyük olan golf, tatil köyü vb. tesisler içerisindeki ulaşımın çevreye sera gazı vermeyen araçlarla sağlanması,	2
114	Misafirlerin kullanımı için bisiklet imkanının sağlanması,	2
115	Tuvalet kağıtlarının ve/veya ofis kağıtlarının çevreye duyarlı tip kağıtlardan kullanılması,	4
116	Tesisin idari işlerinde kağıt tüketimini en aza indirecek elektronik yazışma, adisyon, fatura vb. sistemlerin kullanılması,	3
117*	Tesiste çevre etiketli eşyaların kullanılması (yastık, çarşaf, masa örtüsü, mobilya, çamaşır makinesi, bulaşık makinesi, buzdolabı, elektrik süpürgesi, ampul, vb.), (Her biri 2 puan, toplam 10 puanı geçemez)	Azami 10 puan
118	Menüde belirtilen yemeklerden, en az iki çeşit yemeğin ve bir çeşit içeceğin organik tarım metotlarıyla üretilen ürünlerden hazırlanması,	2
119	En az iki yerel yiyecek ürününün kahvaltı ve öğünlerde sunulması,	2
120	Tesisin orman içinde veya yanında olması durumunda yangın için gerekli önlemlerin alınması (Gözlem, alarm, ihbar, gerekli cihazlar teçhizat, personelin eğitimi, yerel idare ile işbirliği),	5
121*	Açık ve kapalı mahallerde gürültü kirliliği konusunda alınacak önlemler;	
	Gürültüsüz cihazların kullanımı,	
	Tesisat mahallerinin, müzik yayını yapılan mahallerin yalıtımının yapılması,	4
	İnsan sağlığına uygun desibellerde ses yayını yapılması,	2
	Gürültü kaynağının perdelenmesi,	4
122*	Bu formda yer almayan, çevreye duyarlılık çalışmalarına ilave katkı sağlayan faaliyetler veya teknoloji, sistem veya cihazların kullanılması, (Her biri 3 puan, toplam 9 puanı geçemez)	Azami 9 puan