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INCREASING ENVIRONMENTAL AWARENESS OF HOTEL CUSTOMERS, CASE: A TURKISH ECO HOTEL
ABSTRACT
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The purpose of this project-based thesis was to design an eco-booklet for hotel customers of a Turkish eco hotel for increasing their environmental awareness. The booklet is divided into three parts. It first describes the main environmental impacts of tourism globally, in Turkey and in the Bodrum Peninsula. In the second part, the partner hotel of this final year thesis is introduced as an eco hotel. The last part introduces the hotel customers environmentally responsible ways of behaving while staying at a hotel and in its surroundings. The subject is delimited to consider mainly the hotel sector with only a few references to the whole tourism industry.

The project was carried out in Turkey between March and September, 2010. First the theory related to the subject was gathered and it formed the basis for the contents of the booklet. In the theoretical part of the study the main aim was to determine the central concepts of sustainable tourism and to describe the main environmental impacts of tourism. In addition, an aim was to find out what sustainable hotels are and how their customers can behave in an environmentally friendly manner.

Information was gathered from multiple literary sources as well as from electronic publications, research and websites. Furthermore, personal communication with environmental specialists and the hotel personnel had an important role in collecting material. After the material was gathered, it was compiled and the eco-booklet designed. As a result, an informative eco-booklet for the hotel customers was created.

Keywords: booklet, eco hotel, ecotourism, environmental impacts, environmental management, responsible tourist, sustainable hotel, sustainable tourism, Turkey
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APPENDIXES
Appendix 1 Eco-booklet
1 INTRODUCTION

This final year thesis, ‘Increasing Environmental Awareness of Hotel Customers, Case: a Turkish Eco Hotel’ was carried out as a project-based thesis. The main task was to design an eco-booklet for increasing the environmental awareness of hotel customers. The booklet describes how tourism harms the environment, how the partner hotel protects the environment in its daily operations and how a tourist can minimize his environmental impacts when staying at a hotel. The partner hotel is a small family-owned boutique and an eco hotel in south-western Turkey. It is located at the shore of an undisturbed bay, a few kilometres from the nearest village and thirty kilometres from the nearest city, which offers it a convenient location for ecotourism purposes.

1.1 Reasons for Choosing the Topic and Project Aims

Turkey is a traditional mass tourism destination where the impacts of tourism can clearly be seen. Unfortunately the Turkish tourism industry has not yet developed to a stage where the environmental impacts of the industry are taken into consideration and where environmental conservation is one of the priorities. There are only a few real eco hotels in the country, but even a few of them might be able to start the change of the Turkish tourism. Moreover, these hotels have the chance to educate their guests about the environmental problems facing the world today and introduce them ways to help in environmental protection. This is also the main aim of this project.

Due to my interest in Turkey, its culture and sustainable tourism and my concern about the impacts of our actions on the environment, Turkey as a country suffering from large-scale tourism impacts was a convenient choice for the project. I hope that with this eco-booklet the hotel will be able to arouse environmental awareness among its customers and convince them to make even small changes to their daily actions for saving the planet.

As sustainable tourism is continuously receiving more interest in today’s world and will be an integral part of tourism in the future, the thesis topic is very
current and interesting. The thesis topic serves the needs of the partner hotel as it wants to arouse environmental awareness among its customers, but is lacking this sort of booklet. Therefore, with the help of the booklet, the partner hotel will be able to provide its customers with extensive information about the environmental impacts of tourism both globally and locally and about the ways to minimize these impacts. Actually, increasing customers’ environmental awareness is one requirement for a good eco hotel. Moreover, the booklet makes the hotel’s work efforts for the good of the environment more visible and emphasizes the hotel’s contribution to environmentally friendly tourism. In fact, it will provide the partner hotel a way to promote itself more as an eco hotel and make its image as an environmentally responsible hotel even stronger. The fact that the hotel is in need of such a booklet adds value to the thesis work as well.

As an international project, this thesis will assist my professional development in the field of tourism and give me courage and skills to work with international companies. I will be able to gain new knowledge concerning the related topics and experience a complete booklet designing process from the beginning to the end. In the future I would like to work in a company that acknowledges the importance of sustainable business and therefore I feel this project-based thesis will give me valuable knowledge and experience on these issues.

1.2 Delimitations of the Topic

The thesis topic is narrowed to concern mainly the hotel industry with only a few references to the rest of the tourism field. The contents are limited to cover mostly the physical environment of tourism. The social and economic environments have only a minor role in this project. The booklet is designed and viewed from the customer’s point of view. The booklet first describes the main environmental impacts of tourism with a specific concentration on the hotel industry. The second part describes how the partner hotel conserves the environment. In the last part, the hotel customer is introduced a few ways for minimizing his environmental impacts.

Unlike other brochures, this eco-booklet is designed to be informative and not targeted to selling purposes. The material is designed so that it can be used for
a longer term and easily updated. The eco-booklet is done in English, from which it can be translated into Turkish or other languages if needed. Material for the project was gathered from multiple sources, such as related literature, Internet sources and through personal communication with the hotel personnel and experts in the field of tourism. After the material was gathered and processed, it was compiled and the actual booklet designed. The project was carried out between March and September, 2010. The reporting and finalizing of the thesis was implemented between September and October, 2010. The booklet will be published by the hotel in a form of a small booklet and it will be placed in each hotel room for the use of the hotel customers.

1.3 Risk Management

Every project has its own risks and it is essential to identify them before starting the project and to eliminate them before and during the project process. Risks can occur in any kind of project and at any stage in a project process. The concept of managing risks is the ability to control and identify what risks will probably arise during the project, determining their severity and probability and then deciding the methods for reducing or avoiding their probability to happen. (Lock 2007, p. 99 - 100).

The most severe risk this project could be facing is related to the access to information, materials and resources. Due to Internet restrictions in Turkey, access for instance to the electronic databases of the Saimaa University of Applied Sciences might be restricted; therefore it is essential to collect the needed information before arriving in Turkey. If this risk happened, it would prevent me from finding reliable information and material.

The fact that I am not a professional with many years of experience in the field of tourism nor an expert of designing is a risk. Due to these facts, I might not notice to take some important issues into consideration with the design or not understand to put essential information in the booklet. In addition, language barrier and cultural differences might form a problem. As this is an international project and English is not mine nor the hotel personnel’s native language,
misunderstandings and miscommunication are likely to happen as some issues might be understood differently between the Finnish and the Turkish cultures.

Furthermore, the results of the project might not satisfy the client company and they might find the final booklet unacceptable. However, this is not likely to happen as the project is done in Turkey with continuous communication with the hotel personnel. Moreover, the planned time frame for the project work is flexible enough for possible changes. Lack of time could form a risk due to the busy high season (approximately from June to September) at the hotel. The hotel will be full and the employees busy and therefore they might not have enough time to assist with the project process.

Chapters from two to five of this final year thesis introduce the theory part of the project which also forms the basis for the booklet. First the general environmental impacts of tourism are described, following with descriptions of the impacts in Turkey. The next chapter introduces sustainable tourism, after which the topic moves on to sustainable hotels and to environmental management at hotels. Chapter five introduces ways for a tourist for protecting the environment while travelling. The whole booklet designing process from the beginning to the end is described in chapter six. In the seventh and final chapter the whole thesis process and its results are evaluated and discussed.

2 ENVIRONMENTAL IMPACTS OF TOURISM

During the last decade tourism has grown to be among the world’s fastest growing industries and is a major source of foreign exchange earnings for many countries (Wood 2002, p. 7). However, the phenomenon of growth of mass tourism has caused a range of problems and placed enormous pressure upon natural environments and resources as well as raised ethical concerns over the usage of a destination’s physical and cultural environment (Holden 2008). Traditionally mass tourism has been large-scale tourism, ‘sun, sea and sand – packaged holidays’ which are based on seasonality and generally have only a minimal direct economic benefit for destination communities (The International
As a matter of fact, tourism has impacts on the environment at a number of different levels and there is a growing concern over the impacts and the direction of their development (Holden 2008; Hall & Lew 2009).

Often the tourists are careless or not aware of the negative impacts that their visit might cause, for instance disturbing special ecosystems such as rainforests or coral reefs (Holden 2008). When the huge number of visitors daily demand and consume large quantities of resources such as energy and water, it also puts enormous pressure on the environment’s carrying capacity (United Nations Environment Programme). Carrying capacity is a concept that is an essential measurement tool for environmental protection and sustainable development. Carrying capacity ‘refers to maximum use of any site without causing negative effects on the resources, reducing visitor satisfaction, or exerting adverse impact upon the society, economy and culture of the area’ (The World Tourism Organization 1991, according to Holden 2008, p. 187).

However, the tourist and tourism industry of today have also become more aware of the environmental consequences of tourism (Holden 2008). In contrast to negative impacts, tourism can also positively affect the environment and local economies. The main environmental impacts, both negative and positive, are described in more detail in the following chapters with a concentration especially on the hotel sector. In addition, environmental impacts of tourism in Turkey are introduced.

2.1 Negative Impacts

‘Negative impacts from tourism occur when the level of visitor use is greater than the environment’s ability to cope with this use within the acceptable limits of change’ (UNEP).

The environment, whether at a global or local level, is always changing. Most of the time the change occurs so slowly that the human eye is not able to notice it (Hall & Lew 2009). Environmental impacts of tourism can be both direct and indirect and they can occur at global and local levels. However, the changes
that are identified at the global scale are ultimately the resulting effects of the changes occurred at multiple local levels. (Gössling 2002).

2.1.1 Climate Change

Climate change is a current subject not only in the field of tourism, but also in other fields of business. In fact, it is at the moment considered one of the most severe threats of humankind (Hemmi 2005). Climate change is caused by the release and increase of greenhouse gases in the atmosphere in which they are accumulated and in which they captivate heat from the sun, resulting in a rise of the Earth’s surface temperatures. The most influential greenhouse gas is carbon dioxide (CO₂), which is generated for instance by burning fossil fuels such as coal and oil. (UNEP). Climate change can have severe consequences as even a minor increase in temperature can cause melting of polar ice caps and lead to increased sea levels, which further on can cause more severe storms, coastal floods, diseases and droughts (Webster 2000, p. 9).

Tourism is a significant contributor to climate change especially due to the transport needed for the functioning of touristic activities. In fact, forty percent of all leisure trips are done by flying to a destination and it causes even ninety percent of a trip’s effects on climate. (Reilun Matkailun Yhdistys; WWF Finland). The hotel sector is said to generate twenty percent of all emissions in the field of tourism. The hotel sector generates emissions mainly through the use of heating and air-conditioning systems and through the maintenance of restaurants, pools and bars. Naturally, the amount of emissions varies according to the size, type and location of the hotel establishment. (UNWTO).

2.1.2 Depletion of the Ozone Layer

The ozone layer is situated in the upper atmosphere, 9 - 50 kilometres above the Earth’s surface, and it absorbs the damaging wavelengths of the sun’s ultraviolet radiation, thus protecting the life on Earth. Ozone is a form of oxygen that filters to reduce the amount of the sunlight’s ultraviolet radiation reaching the Earth. (Webster 2000, p. 15). Chlorofluorocarbons (CFCs) and halons are the main ozone depleting substances used in tourism. Sources for these
substances are the construction of tourist facilities and the daily operations such as the use of air conditioners, refrigerators and fire extinguishers. Emissions from jet aircrafts belong to this category as well. (UNEP).

2.1.3 Biological Diversity and Ecosystem Issues

Tourism has a close relationship with biological diversity and the environment because in many cases a rich and varied environment is a tourism attraction in itself. Biological diversity consists of the variety of life on Earth and the natural patterns it forms and is therefore an essential requirement for life on Earth. Tourism has been putting enormous amount of stress on the environment through pollution and careless behaviour which has further resulted in loss of biodiversity. Loss of biodiversity is caused when the environmental impacts of tourism, for instance on vegetation, wildlife and coastal environments exceed their carrying capacity and when there occurs excessive use of land and resources. If the tourism industry wants to continue operating in attractive environments, more attention should be paid to this issue because when there is a loss of biological diversity there is also a loss of tourism potential. (UNEP).

Loss of biodiversity is a serious problem which eventually results in various other problems. It can reduce the productivity of ecosystems which causes a decrease in nature’s own goods, resources and services and therefore threatens food supplies, tourism and recreation opportunities and sources of energy, wood and medicines. Loss of biodiversity also disturbs vital ecological functions such as species balance, greenhouse gas absorption and soil formation. Further on, it destabilizes the ecosystems which weakens their ability to manage natural disasters such as hurricanes and human-caused stresses like pollution and climate change. (UNEP). In the worst case scenario, species extinction might be a result of global tourism (Hall & Lew 2009).

Disturbing, trampling, collecting and buying plant and animal species (especially rare ones) are among the most common reasons for the extinction of species. Due to, for instance increased interest in viewing wildlife species in their natural habitats, humans have invaded into untouched areas of the wildlife, disturbed its habitat and the territorial spaces of animals and caused disturbances to their
normal life-cycles. (Holden 2008). In addition, while travellers are wandering around the destination, they are usually not aware of the trampling they make when they are continuously using the same trails. Trampling the vegetation and soil causes damages to the natural environment and can eventually lead to loss of biodiversity. (UNEP).

**Ecosystems**

According to UNEP, an ecosystem is

‘a geographic area including all the living organisms (people, plants, animals, and microorganisms), their physical surroundings (such as soil, water, and air), and the natural cycles that sustain them.’

Ecosystem damages are often caused by continuous tourist activities, construction of tourism facilities, such as hotels and by infrastructure development. Careless behaviour of tourists, such as littering the natural environment is a problem affecting the ecosystems and the wildlife. In addition, overdevelopment of tourism with too large numbers of visitors causes congestion and overcrowding and puts stress on the environment, which further on causes damages in the fragile environments and ecosystems, erosion in the natural spaces and loss of wildlife habitats. (Middleton 1998, p. 76; Holden 2008).

Further on, tourists and the tourism industry have introduced invasive exotic species to destinations which has further caused extinction of local species and even destruction of ecosystems. In fact, many hotels in coastal areas often import foreign species to their establishments in order to have flourishing gardens for the attraction of tourists. (Gössling 2002, p. 293; UNEP).

**2.1.4 Pollution**

Pollution is probably the best-known negative environmental impact of tourism. As tourism is such as multifaceted industry, including sectors from accommodation and restaurant businesses to the transport sector with airlines and car rental companies, the range of pollution both in the local and global scale is wide. However, tourism alone is not the only industry to cause pollution.
Air Pollution

Air pollution in tourism is mainly caused by the transport industry such as airlines or any transportation services used for tourism. These forms of transport use fossil fuels and release emissions to the climate which are further linked to the cause of acid rain and global warming. Air pollution in the touristic areas also leads to bad air quality. (Holden 2008, pp. 93 - 95).

The transport of the hotel sector includes direct transport of the business, visitor travelling and import of goods needed in the business operations. In addition, the use of energy in the hotel sector pollutes the air which further causes global warming, acid rain and low-level smog. The hotels’ use of CFCs and halons bring their share to ozone depletion as well. (Middleton 1998, p. 148).

Water Pollution

Water pollution is a major problem in many touristic areas, such as the Mediterranean and can have severe effects on human and animals’ health. Water pollution is mainly a result of inefficient and improper disposal of human waste due to insufficient sewage systems or fertilisers, herbicides and other chemicals that are used, for example in hotel gardens and golf courses. (Holden 2008, p. 93). In many destinations wastewater has already polluted seas and lakes near the tourist attractions which has led to damages in flora and fauna (UNEP). The hotel sector causes water pollution mainly due to untreated waste water from swimming pools, guest rooms, laundries, kitchen and from golf courses as well as from the discharge of sewage (Middleton 1998, p. 148).

Noise Pollution

Noise pollution is a problem especially for local residents who live near the major touristic areas or transportation routes such as airports (Holden 2008, p. 95). Noise pollution generated by tourism transport and by the construction of tourism facilities causes not only annoyance to the humans but also distress to wildlife as it might disturb and alter the animals’ natural activity patterns like breeding. Moreover, noise pollution evolving from normal tourist activities such
as night clubs might be a factor of irritancy for both the tourists and local residents. (UNEP; Holden 2008, p. 96).

**Aesthetic Pollution**

Construction of tourism facilities that decrease the aesthetic quality of the environment cause aesthetic pollution. Buildings, parks and gardens built for tourism purposes might, for instance ignore the uniform style, building traditions and normally used building materials of the area’s infrastructure. Another source is human waste and litter that is thrown away in nature. This careless behaviour is a problem affecting the ecosystems and the wildlife as it can lead to the death of animals that see litter as nutriment and to the overall pollution of the natural environment and water. (Holden 2008, pp. 89, 96). In addition, the hotel sector produces solid waste for landfill sites and sometimes might do illegal dumping which is a reason for landscape deterioration and an aesthetical problem (Middleton 1998, p. 148).

2.1.5 **Depletion of Natural Resources**

As tourism is an industry that is dependent on its natural and cultural environment, it needs natural resources such as land and water for functioning. Usage and exploitation of natural resources, however, causes transformation of ecological habitats and ecosystems as well as loss of flora and fauna. (Holden 2008). Tourism can put enormous pressure on natural resources in destinations where the consumption is huge but resources already limited (UNEP).

The main resources used by the hotel sector include use of energy which is generated by fossil fuels, use of non-renewable natural resources like oil and fresh water consumption (Middleton 1998, p. 148). Especially in the hotel sector, the key and one of the most critical natural resources used besides land is water. Depending on the size of the business, a hotel uses enormous amounts of water for its daily operations. Water is needed for instance for swimming pools, golf course irrigations and for the personal use of the hotel customers who use an enormous amount of water for daily showering and exchanging clean sheets and bath towels. In fact, water consumption in bigger
resorts might even overcome the amount of consumption required for fulfilling the consumption needs of the local population. (UNEP; Holden 2008, p. 84). This leads to shrinkage in water supplies and to water shortages and produces larger amounts of waste water (UNEP). In the areas of limited water resources, local people might not be able to access the water resources they used to use and suffer from water shortages. For hotels this shortage is not a problem as they can afford to pay to have the fresh water imported. (Holden 2008, p. 85).

Especially due to seasonality of tourism, overuse of the already scarce local resources like food and energy is a problem. Many destinations have multiple times more visitors in the high season which causes a high demand and pressure on how to meet the needs and expectations of the tourists who might require, for instance proper heating, air-conditioning and hot water. Naturally, this places enormous pressure on the resources needed for the functioning of the tourism industry and might force local people to fight for the critical resources that they need for their every-day life. (UNEP). In fact, due to tourism development in some areas, local people have already been restricted from access to general natural resources and recreation areas. In some cases beaches, for instance, have been privatised by hotels. In less developed countries, this phenomenon of land takeover has even forced people to leave their homes away from the tourism establishments. (Holden 2008, pp. 85 - 87).

2.1.6 Land Alteration

The use and conversion of land is typical for tourism, and land alteration can be regarded as the single most important component of global environmental change because of its negative impacts on ecological systems in terms of change and loss of habitat. In fact, it can be considered the most important driver of change of biodiversity as it might even threaten the ecosystems’ ability to provide essential services to humankind. Tourism causes land alteration due to the conversion of land for tourism use, for instance for transportation infrastructure and attractions, but especially for hotel facilities. The increase of tourism in a destination increases the construction work of facilities and buildings built specifically for tourism and leisure purposes. This sort of development further causes tourism urbanization and pollution problems which
are common especially in coastal areas. Land alteration is also a major cause for the release of greenhouse gases that cause global environmental change at different levels. (Gössling 2002, p. 284, 298; Hall & Lew 2009).

2.2 Positive Impacts

There are more negative than positive impacts of tourism on the environment. Although tourism is directly or indirectly involved with the negative impacts, it can be part of the solution as well.

2.2.1 Tool for Conservation and Protection

Tourism is seen as an agent for conservation and biodiversity protection, damage prevention and for sustainable use of the environment and natural resources (Holden 2008). Earlier conservation was not seen as important as today. Nowadays natural parks and other conservation areas are seen as essential for the wellbeing of communities and states. (Hemmi 2005). Tourism can provide a good-quality environment for a destination by maintaining or improving the level of quality in the natural environment so that it also satisfies the needs and demands of the tourists. Historical sites can be restored and the infrastructure developed which also enhances the image of the destination. (Holden 2008, pp. 98 - 100).

When the environment is better conserved, also the general comfort and cleanliness of it is improved. In fact, a good-quality environment is a competitive advantage for companies and creates more comfortable surroundings also for their customers. (Hemmi 2005, p. 42). Quality of the environment can also be improved with different environmental programmes, management and planning, which is a way to environmental conservation, especially for hotels. Hotels can, for instance carefully plan and control the development of their facilities and minimize their environmental impacts already in the building phase, for example by using energy-efficient and non-polluting construction materials. (UNEP).

In addition, tourism companies are able to increase the environmental awareness of the public. Increasing the awareness of environmental problems and thus increasing the knowledge of the environment and environmentally
conscious behaviour of tourists is an essential part of environmental protection. (UNEP). When the tourists learn to know nature and its processes, they also learn to protect it and acknowledge the importance of a healthy environment for themselves (Hemmi 2005, p. 42).

2.2.2 Enhancing the Local Economy

Tourism can bring economic benefits for a destination, for instance through the revenues from tourist visitation and by generating further demand for goods and services in the local economy (Holden 2008, p. 100). These revenues can be further used for conservation goals of the environment. Tourism can provide economic funds for environmental conservation also by establishing conservation areas and programmes. Natural resources can be managed and conservation activities and programmes established also with indirect funds received from government revenues, such as from license fees for hunting and fishing, income taxes or user fees. (Hall & Lew 2009, p. 204; UNEP).

Enhancing the local economy is essentially important for the developing countries as through tourism the income and livelihood of the local population can be ensured and more funds directed towards protection and conservation. This further on decreases the illegal use of the environment and forests. (Hemmi 2005, p. 42). Additionally, tourism generates revenues which enable secondary businesses to invest in the destination and gives an opportunity also for the smaller businesses to survive in the area. This further on gives employment opportunities for the local residents, raises the standard of living and at the same time alleviates poverty. (Middleton 1998, p. 76; Holden 2008).

2.3 Environmental Impacts of Tourism In Turkey

Turkey has experienced a rapid growth of tourism in terms of value and volume since the mid 1980s, however, in the absence of a proper tourism development plan (Tosun 2009, p. 976). While the tourism developed, the main interest was on the economic benefits of tourism as it was the primary source of foreign currency earnings and employment. Maximizing these economic benefits were seen as the main priority and environmental impact minimization was neglected.
(Tosun 2001, p. 292, according to Tosun 2009, p. 976). Although this development has brought large amounts of revenues and increased economic growth, it has also brought numerous problems.

The rapid tourism development in Turkey combined with lack of experience and expertise from the field and absence of a proper tourism development plan, among other things, have lead to a considerable amount of environmental problems (Tosun 2009). Tourism causes overcrowding, traffic problems and overload of noise which disturbs the life of the local residents, but on the other hand is also a major source of employment. In Turkey especially the coastal environment is in danger. Tourism development has caused coastal urbanization, pollution of different types, waste and wastage of landscapes as well as ecosystem degradation. Hotel developments in Turkey have had very large impacts on the beach and coastal environments. (Tosun 2001; Tosun 2009). Especially in the area Bodrum these impacts are common.

However, in some cases tourism has saved the coastal environment from more polluting heavy industry. In the area where the partner hotel is situated a fishery farm was originally operating and at the same time polluting the bay. During the construction of the hotel, the bay was cleaned from pollution.

2.3.1 Pollution and Impacts on Natural Resources

The rapid development of mass tourism has caused overload of local sewage treatment and disposal systems that were in the beginning designed and installed only for the needs of the local population. The carrying capacity of these systems has been exceeded because of the rapid increase in the number of hotels. In the beginning of the tourism development in Turkey there was no strict regulation and control for the hoteliers to prevent them polluting the environment, nor were there measures to cope with the increased waste. Polluted water from the poorly treated sewage effluents has negatively affected the local aquatic life and the health of tourists and local residents. It has further on disturbed the ecological balance of the area and caused loss of species diversity. Linking a hotel’s sewage disposal system to the main system causes expensive installation costs and therefore some hotels outside the main
settlements have not done it. Instead, they have continued polluting the environment. (Tosun 2001, p. 295; Tosun 2009, p. 974).

Furthermore, litter and waste from tourism businesses and tourists have caused not only environmental but also aesthetic pollution and negatively impacted the agricultural industry. Yacht tourism, for instance, has created a large amount of water pollution especially on the coastal areas of Turkey. They have, for example polluted the sea water by throwing solid waste and discharging dirty polluted water into the sea. (Tosun 2001, p. 295 - 296).

Because of neglecting the construction regulations, ribbon buildings that are not similar to the scale and style of the local surroundings have been established along the coasts. These buildings have not taken into consideration sustainable design and in the long run these developments are unsustainable. Not only are these buildings aesthetically unpleasant and cause visual pollution, but they also destroy the uniformity of the landscape and scenic areas. In addition, when a large number of hotels have been built along Turkey’s coastal areas, they have at the same time destroyed the livelihoods of local agricultural workers and their olive and citrus fruit gardens. (Tosun 2009, pp. 974 - 975).

Moreover, fresh water resource depletion, resulting in shortages of water is a major problem in the dryer regions like the Mediterranean. Tourism industry and especially the hotel sector is a major source for this depletion. The hot climate and the holiday behaviour of tourists with increased water consumption lead to the overuse of water in these destinations and normally the tourists use fresh water many times more than the local residents. (UNEP; Tosun 2009).

2.3.2 The Case of Bodrum Peninsula

The Bodrum Peninsula is located in the juncture of the Aegean and Mediterranean Seas and like whole Turkey, also this region has experienced a rapid tourism growth over the last two decades. The touristic areas of Bodrum are focused on the coastal areas which has resulted in major changes in the natural and cultural landscapes. The burst of tourism can be seen especially during the peak summer season when the population of the peninsula explodes
to over six times more than in the low season. This increase lays high pressure on the physical and social infrastructure of the area and in fact, the physical infrastructure becomes insufficient in the summer season. Negative impacts on the environment in Bodrum are mainly consequences of lack of tourism planning and uncontrolled urbanization. (Idikut & Edelman 2003). A summary of these impacts is described in figure 1.

Figure 1 Environmental impacts of tourism in the Bodrum Peninsula (adapted from Idikut & Edelman 2003, p. 128)

The rapid tourism development in the Bodrum Peninsula has caused destruction of natural flora and fauna and forests, damaged historical sites and decreased the amount of urban green areas. This destruction is partly caused by the pollution from construction, solid waste as well as from untreated water which are also major reasons for coastal and marine pollution. In addition, seasonal overloading has caused inadequacy of the physical infrastructure and caused loss of agricultural land because of constructions of secondary houses. Changes in occupation from farming to tourism and land use change have caused loss or change in traditional values. All these negative impacts have

2.3.3 Positive Environmental Impacts

As already mentioned in earlier chapters, tourism can also have positive environmental impacts. In Turkey tourism has helped the conservation, rehabilitation and reactivation of heritage resources and thus made Turkey more attractive as an international tourism destination and brought both social and economic benefits for the local communities as well as for visitors. Tourism has also helped the conservation of natural resources, for instance through the establishment of national parks. (Tosun 2009, p. 976).

3 SUSTAINABILITY AND TOURISM

‘All tourism should be sustainable – economically, socially and environmentally’ (Newsome, Moore & Dowling 2002, p. 16).

This is an important sentence to be remembered when thinking about the current status of tourism and the world of today. Sustainable tourism and the relationship between tourism and the environment are a growing trend in the field of tourism and hospitality and are increasingly causing hot debates all over the world (Holden 2008). In fact, ecotourism and tourism to protected areas are one of the fastest growing sectors within the industry (Ishwaran 2004, p. xi).

3.1 Sustainability and Sustainable Development

Increased concern over the negative effects of development upon the environment has led to the generation of a new concept, sustainable development, which has spread into all forms of development, including tourism (Holden 2008, p. 148). Sustainability means doing activities in a way that they are sustainable also for the indefinite future (Bien 2006, p. 4). The definition for sustainability goes hand in hand with the one for sustainable development as the most commonly used definition for it still today is the one described by the
World Commission on Environment and Development in 1987, according to which sustainable development is

‘a process to meet the needs of the present without compromising the ability of future generations to meet their own needs’ (World Commission on Environment and Development 1987, according to UNEP & UNWTO 2005, p.8).

Sustainable development is usually defined with three main overlapping dimensions: economic, social and environmental sustainability. Economic sustainability means doing business in a sustainable way so that the businesses and activities will stay viable for a long term. Sustainable business activities for instance aim to contribute the economic well-being of the local communities. (UNEP & UNWTO 2005, p. 9; Bien 2006, p. 4).

Environmental sustainability is the management and conservation of resources with efforts to minimize pollution and conserve natural heritage. Essential is to minimize any damage to the environment and its versatility by environmental conservation. (Hemmi 2005; UNEP & UNWTO 2005, p. 9). This requires that each country and business puts effort on stopping the decrease in natural resources and in return attempts to increase the amount of renewable natural resources (Hemmi 2005, p. 77).

Social sustainability emphasizes respect for human rights, equality and focuses on poverty alleviation (UNEP & UNWTO 2005, p. 9). Local communities and different cultures should be respected, revitalized and strengthened, not exploited or damaged (Bien 2006, p. 4).

Activities done on the basis of these three main aspects are also called the Triple Bottom Line. Triple Bottom Line involves operating a business, an organization or a government in a way that does not destroy the natural, cultural, economic or any resources on which it depends. A business that follows these principles can operate in a profitable way and at the same time bring benefits for the local communities and natural areas. (Bien 2006, p. 4). However, sustainable tourism development is an ongoing process and not a target that can be reached (UNEP & UNWTO 2005, p. 12).
3.2 Sustainable Tourism

Sustainable tourism is not a discrete special form of tourism, but all forms of tourism should strive for sustainability (UNEP & WTO 2005, p. 2). It is important to notice that sustainable tourism and sustainable development have different meanings and sustainable tourism might not necessarily be equal with the aims and objectives of sustainable development (Holden 2008, p. 158). Holden (2008, p. 158) describes sustainable tourism to have an emphasis on the customer and on the marketing considerations of tourism for sustaining the industry. Sustainable development on the other hand emphasizes development of tourism as a means for achieving further social and environmental goals.

Sustainable tourism has been defined in many ways in different sources, but in each of them it bases on the definition for sustainable development. An environmental expert, Erja Mähönen (2010), describes sustainable tourism as socially, economically and ecologically balanced tourism that respects the people, culture, religion and nature of the destination country. The International Ecotourism Society sees sustainable tourism as ‘tourism that meets the needs of present tourist and host regions while protecting and enhancing opportunities for the future’ (2006, p. 4).

Tourism can be either an opportunity or a threat for improving global sustainability. On the other hand, tourism produces many negative social, economic and environmental impacts, but it can also for instance improve the awareness of social and environmental problems, enhance the local economies and help in environmental conservation. (Buckley 2003, p. 219).

3.3 Ecotourism

Ecotourism is seen widely as the most rapidly growing sector within the global tourism industry (Newsome et al. 2002 p. 15). Although tourism has many impacts on the natural environment, ecotourism is able to provide the industry with models for reducing these impacts on the environment and on the local communities. In fact, ecotourism destinations are usually nature destinations
that follow the principles of sustainability and use the destination in a way that it remains appealing even after hundreds of years (Mähönen 2010).

Ecotourism is a multifaceted concept, seen from many perspectives and interrelated components. There has been a lot of debate among tourism researchers concerning the definition of it, resulting in various definitions without a common guideline. According to the International Ecotourism Society, ecotourism is

‘responsible travel to natural areas that conserves the environment and improves the well-being of local people’ (TIES 1990, according to TIES 2006, p. 2).

Ecotourism is a sub-part of sustainable tourism and these two concepts are often thought as the same which, however, they are not. Ecotourism unites conservation, communities and sustainable travel (TIES). Ecotourism is a useful tool towards more sustainable tourism but it is also a product niche which sustainable tourism is not. It is mainly about travelling to natural, protected and fragile destinations. It is based on the natural environment and strongly emphasizes biodiversity conservation and minimization of environmental impacts for instance through the lowest possible consumption of non-renewable resources. Ecotourism is also locally beneficial as it supports local economies and their well-being, respects local cultures and promotes local service providers in the supply of products. (Wood 2002; Newsome et al., 2002).

Moreover, ecotourism is seen as environmentally educative tourism as it provides tools for increasing environmental awareness of both the tourists and tourism businesses. With environmental education the target is to change the tourists’ knowledge, attitudes and behaviour by making them more environmentally aware but also at the same time ensuring a satisfying tourism experience. Education in ecotourism is seen as an important way to influence the tourist, community and industry behaviour for ensuring long-term sustainability for a natural area’s tourist activity. (Blamey 2001, p. 9; Newsome et al., 2002, pp. 15, 17).
Eco-tourists

In the late 1980s and early 1990s a view developed which introduced the raise of a new consumer, the green consumer, to whom environmental issues were important when buying a product or service. Green tourists have been described with various alternative terms, for instance ethical tourist, environmentally responsible tourist, good tourist and eco tourist. (Swarbrooke & Horner 2007, p. 177 - 179).

As hard as it is to define ecotourism, as hard it is to find a specific definition for an ecotourist due to the limited studies of markets and the fact that the ecotourist markets are not homogenous (Wight, according to Weaver 2001, p. 2). In general it could be said that ecotourists are tourists who consciously minimize their impacts on the environment and local cultures. They enjoy nature and cultures that are harmoniously coexisting with the natural environment. (Ishwaran 2004, p. xi). Ecotourists are also motivated to learn while travelling and to experience new things. They enjoy to hike, walk, view wildlife, admire the scenery and visit parks and protected areas. (International Finance Corporation 2004, p. 7).

Main motivation for an eco tourist for taking a trip is to view the wildlife and communities in their natural habitats (Swarbrooke & Horner 2007, p. 208). A ‘typical’ ecotourist is said to generally come from a more developed country, has an income and education level above average, is female and older than an average tourist, although ecotourists are also of all ages (IFC 2004, p. 6).

3.4 Tourism Relationships

As mentioned earlier, sustainable tourism is not a discrete special form of tourism, but all forms of tourism should strive for sustainability. Forms of tourism that are regarded as sustainable are mostly the forms of alternative tourism, not mass tourism. Alternative tourism is specific interest or responsible tourism, for instance ecotourism. (Newsome et al., 2002, p. 11; Fennel 2008).

It is interesting to notice that although traditionally mass tourism has been regarded as an unsustainable form of tourism, the developments today have
brought it closer to sustainable tourism practices. This development has been enabled by the introduction of sustainable operations and for instance energy-saving or waste disposal facilities for tourism businesses that are operating in the mass tourism sector. (Fennel 2008, pp. 15 - 16). Figure 2 shows the relationships of different forms of tourism in a wider conceptual framework.

![Figure 2: Tourism relationships (Fennell 2008, p. 15)](image)

Ecotourism is mainly seen and advertised as equal to nature tourism and often mixed with other related concepts such as adventure tourism. Although these concepts have a linkage between each other, they should be viewed as different types of tourism. (Newsome et al., 2002). In the marketplace ecotourism is mostly individual or small-scale tourism delivered to small groups by small- and medium sized enterprises. Ecotourism is a small industry working within a niche market but still growing rapidly and seen as a potential and important sustainable development tool. (Wood 2002, pp. 7, 11).
4 SUSTAINABILITY AND ENVIRONMENTAL MANAGEMENT AT HOTELS

Tourism can be regarded as one of the largest industries in the world as it offers employment for nearly 200 million people. Yearly there are approximately 800 million travellers and the number is expected to be doubled by the year 2020. (WWF Finland). A huge number of visitors also puts enormous stress on the environment. However, with responsible actions negative impacts on the environment can be minimized. Responsible actions apply to the whole tourism industry.

This chapter takes a closer look at hotels, their sustainability and environmental management as a part of the larger tourism industry. Sustainability at hotels today is starting to be a requirement in order for a hotel to keep up with the growing competition. There will be a growing demand for sustainable hotels in the future, not only because of customer demand but also because of the increased awareness of the state of our environment. When a hotel commits to environmental protection, it not only brings environmental benefits but also cost savings and increased profitability for the hotel, preserves the hotel's natural assets and surroundings and enhances its image and reputation as an environmentally responsible hotel, which especially today is becoming a factor of choice for the customers. (Han, Hsu & Sheu 2010).

4.1 Sustainable Hotels

According to Mähönen (2010), an environmentally conscious hotel operates all sections of its business responsibly, is committed to continuous improvement of its environmental work and to decreasing negative environmental impacts. Moreover, a sustainable hotel is seen as a hotel that acknowledges the most significant environmental aspects of its operations, controls and measures them and actively attempts to reduce their causes (Jantunen 2010). To be properly ‘green’, a company needs to incorporate sustainable thinking in its decision-making at all levels throughout the organisation (International Tourism Partnership, p. 2).
Eco hotels and lodges

Eco hotels (also named as green hotels) are an example of sustainable hotels. They are environmentally friendly lodging properties that follow the principles of sustainability and institute ecologically sound practices into their operations in order to help to protect the Earth. They aim to be more environmentally friendly through different methods of minimizing the negative impacts on the environment. These methods include for instance efficient use of water, energy and materials, recycling and reduction of solid waste. At the same time as operating in an environmentally friendly way, green hotels aim to provide quality services. (Alexander 2002; Green Hotel Association 2008, according to Han, Hsu & Sheu 2010, p. 325). The aim of these hotels can also be a certain kind of self-sufficiency with regards to resources, for instance with the use of energy and water (Jantunen 2010).

According to Mehta et al. (according to Wood 2002, p. 28), an ecolodge is a tourism accommodation facility that meets certain criteria. It is said that it contributes to the conservation of the surrounding natural and cultural environment. While constructing the establishment, an ecolodge minimizes its impacts on the environment and is designed and built in a way that it fits into the specific physical and cultural contexts by its form, colour and landscaping, without forgetting the local architecture. An ecolodge also takes into consideration the principles of sustainability for example in water usage, energy consumption, disposal of solid waste and sewage as well as by cooperating with the local communities. Furthermore, an ecolodge contributes to environmental awareness training of both the tourists and the employees.

4.2 General Guidelines to Environmental Management at Hotels

Environmental management at hotels is a planned and organized operation that minimizes the use of energy, water, waste and chemicals. Instead, renewable forms of energy are used, waste is sorted and purchasing is done in a responsible way. The use of the above-mentioned issues is regularly monitored with regards to amount and cost. In addition, staff members are regularly educated to work according to the company’s environmental values.
Environmental conservation is essential and the maintenance of the surroundings is done according to the principles of sustainability, for instance by planting local plants, collecting rainwater for watering the garden and using as little asphalt as possible. Further on, cooperation with environmentally responsible organizations is important. (Mähönen 2010).

4.2.1 Energy Management

Energy, its consumption and production are one the most important themes in today’s world as future generations might not be able to use the current energy sources (Reilun Matkailun Yhdistys). At hotels an enormous amount of energy is used for daily operations and activities requiring energy are among the highest areas of costs at hotels. There is a high demand for energy as the hotels try to provide their customers with modern comforts and high-technology, such as air-conditioning. Most hotels get their energy from burning fossil fuels, such as coal, oil and natural gas which further on causes local air pollution and global climate change in addition to other environmental problems. (Sweeting & Sweeting 2003, p. 2).

There is a wide range of environmental damages that energy production causes, ranging from the supply of fossil fuels to the building of power plants. The use of non-renewable natural resources such as oil and coal should be decreased as these resources will not last forever. In addition, power plants and other equipment needed for energy production require huge areas of land, transform the landscape and destroy natural habitats. With wise and thoughtful energy use, natural resources can be saved also for the next generations. Moreover, the demand for energy will be minimized which further on eases the pressure for new power plants and energy supply. As a result, environmental impacts caused by energy production and transport will decrease. (Eronen 2008, p. 70).

Ways to More Efficient Use of Energy

A hotel can reduce its energy use and costs in various ways. These ways and their effect, however, depend on the type, size and location of the hotel facility.
The following energy-saving methods introduced are only general ways. First, energy use should be regularly monitored to identify the areas of largest energy consumption and to know the amount of total energy costs for each month and for each department separately. After this needed actions can be chosen for minimizing the use of energy. (Sustainable Business Associates 2008, p. 13).

Probably the biggest cost saving improvement at a hotel is to use renewable energy sources such as solar energy. Solar panels can be used for heating water for the guest rooms and they might save up to forty percent of a hotel’s total energy costs. (SBA 2008, p. 13). Energy consumption can be also reduced by replacing or repairing broken equipment with more economic and efficient, low-energy alternatives and by using these equipment only when needed. A hotel can for instance install energy-saving bulbs, movement detectors and timers for minimizing the use of lighting for instance in hallways. Furthermore, hotel windows should be shaded from the sun and double-glazed windows installed for minimizing air-conditioning needs and for reducing heat losses. In order to maximise the energy efficiency effect, also the staff and the customers should be trained about the environmental activities and energy saving methods at the hotel in question. (Sweeting & Sweeting 2003, p. 2; Hemmi 2005, p. 162).

4.2.2 Water Management

‘Of all the water used by the hospitality industry, only 5 per cent is used for eating and drinking; the vast majority of it is used either for cleaning or for the preparation of food’ (Webster 2000, p. 90).

When it comes to water management at a hotel, the main task for an environmentally conscious hotel business is to monitor its water consumption and bring it to a rational level by means that also save and protect the local resources (SBA 2008, p. 7). Water should be used only when needed. Especially in the Mediterranean countries water shortages are a problem and water usage is many times more than that of a local resident. (Sweeting & Sweeting 2003, p. 4).

A hotel establishment requires a vast amount of water resources for its daily operations, for instance for laundry and for the maintenance of swimming pools,
lawns, garden and golf courses. Water needed for all these operations is also costly; therefore, when operating in an environmentally friendly manner, a hotel will not only save in water costs but also help protect the local water resources, ensure availability of water also for the local residents as well as preserve the quality of the local water resources by eliminating the need for expensive drinking water treatment processes. (Ibid, p. 4).

**Ways to More Efficient Use of Water**

In order for a hotel to achieve better water management, it is first important to identify the main areas with largest water consumption at the hotel as these are the areas where the most significant water savings can be achieved. Secondly, water consumption of each department should be regularly monitored with water meters for identifying leaks and quantifying water savings. With monitoring, monthly water consumption and its costs can be determined and the areas and activities of high water consumption identified. (Ibid, p. 4).

For minimising wastage of water, for instance water reducing technologies should be used and water-saving devices (for example self-closing taps and low-flush toilets) installed where possible. It is also important to eliminate leaks with regular maintenance and repairing of water equipment. By setting the water temperature of showers to the optimal temperature, also energy can be saved. (Hemmi 2005, p. 163).

**4.2.3 Waste and Pollution Management**

Especially in the Mediterranean region the rapid development of the hotel and tourism industry has not only resulted in lack of water resources but also in overload of waste. This has further caused lack of waste disposal infrastructure and sanitation. Hotels produce large amounts of waste, solid and liquid, toxic and non-toxic, some of which end up in the surrounding environment because of inadequate handling and careless behaviour. Many times waste has been dumped directly into seas and rivers which has caused not only visual pollution to the environment and harm to the hotel’s image but also has lead to soil and water pollution. (Sweeting & Sweeting 2003, p. 8; SBA 2008, p. 17).
Over ninety percent of the natural resources used by humans transform into waste through the production of products and nutriment. The more a hotel aims to produce as little waste as possible, the less natural resources are used and environmental damages minimized. Waste has direct impacts on the environment. It can pollute the soil, water and air and can cause harm to both humans and animals. (Eronen 2008, pp. 90 - 91; Reilun Matkailun Yhdistys). Environmentally friendly use of waste also decreases the need for landfill sites and waste treatment facilities. Landfill sites and other places of waste cause environmental damages by polluting the soil and water systems. Waste and especially biotic waste at the landfill site produces methane, which is a greenhouse gas that accelerates global warming. In addition, pollution and noise caused by waste transportation and treatment will decrease. By using environmentally friendly products, the harms caused by waste for humans and the environment will decrease as well. (Eronen 2008, pp. 90 - 91).

Ways to More Efficient Waste and Pollution Management

Waste management is important for each hotel and not only for the ones who contribute to environmental protection. A hotel needs to first identify the major sources of waste and consider ways to reduce the amount of waste. Waste should always be sorted. (SBA 2008, p. 19). Sorting of waste is essential because sorted waste can be used as raw material for new products. It also reduces the need for new natural resources. (Reilun Matkailun Yhdistys). However, precise sorting of waste in Turkey is quite difficult because of lack of proper waste disposal system. When there is no possibility to sort the waste, the most important issue is to at least reduce the amount of it (Reilun Matkailun Yhdistys).

There are multiple ways for a hotel to reduce the amount of waste. Most waste comes from different packaged goods and products; therefore a hotel should always try to aim to buy products with less packaging and use refillable products instead of disposable ones. Non-recyclable and hazardous waste should always be handled with given instructions and special attention paid to it so that this sort of waste is not thrown in the environment. Waste should not be burned outside as it releases harmful gases and substances in the environment.
A hotel should always prefer to buy ‘green’ and environmentally labelled products that are sustainable, recyclable, non toxic, biodegradable, less-processed and preferably made from local materials. In addition, products and materials that are as long-lasting and non-polluting as possible should always be preferred. (Hemmi 2005, p. 163 - 164; SBA 2008, pp. 19 - 20).

Effective and caring waste handling and management at hotels will not only save the environment but also cut down purchasing costs as well as waste disposal fees of the hotel. Proper waste disposal will also limit the risk of causing illnesses to hotel guests, and keeps the surrounding water suitable for recreational activities. All in all, a hotel business should always develop its waste management program around the three Rs: reduce, reuse, and recycle. (Sweeting & Sweeting 2003, p. 8).

4.2.4 Destination Protection and Local Community Development

In order to a hotel to name itself as an environmentally responsible hotel, it has to contribute to conservation of both the environment and the local community. Tourism businesses are usually based on their natural environment which serves as the main attraction. This is already one reason why contribution to conservation can help to preserve natural tourism resources and why it is vital for a nature-based tourism business. When a hotel supports conservation, it can also minimize the risk of environmental problems in the future and preserve the quality of the destination. (Sweeting & Sweeting 2003, p. 14).

Contribution to local community development should be taken into consideration as well because tourism development can have significant impacts on local communities. Local people might be restricted from access to natural resources such as water and forests upon which they depend. Their living areas might be destroyed because of new infrastructure and hotel buildings. When a hotel takes part in local community development, it can also build strong relationships with the local communities and offer them employment opportunities. This further generates positive publicity for the hotel. By buying local goods and services, supporting other locally run tourism-related businesses and supporting
local schools, for instance, a hotel can help local communities as well. (Ibid, p. 16).

4.3 Ecolabelling and Certification

Nowadays ‘green’ is the key word in tourism. The postmodern tourists are moving away from mass tourism consumption and starting to look for alternative holiday concepts such as specialized trips. The tourists and tourism industry of today are also increasingly environmentally conscious which has made the consumers prefer choosing greener alternatives while travelling. This development among the industry and the consumers has enabled the tourism businesses to gain competitive advantage as being and promoting themselves as a greener business. (Font 2001, pp. 1 - 2).

One way to gain competitive advantage in the eyes of the consumers is to go through an ecolabelling or eco-certification process and get the ability to call oneself a green business as well as have the access to the usage of eco logos. The purpose of this in tourism is to emphasize the best practices for products and services. They aim to ensure that both the demand and supply sides of tourism conduct their practices in a sustainable way with as minimal impacts on the environment, society and economy as possible. Worldwide there are already now hundreds of ecolabelling and certification schemes and their number has been continuously growing since the outbreak of ecolabels in the 1990s. (Diamantis & Westlake 2001, p. 27; Mowforth & Munt 2009).

Ecotourism certification and ecolabelling are often considered as similar concepts, although they signify different things. Eco-certification is a written assurance awarded for businesses and activities that absolutely conform to specific requirements. Ecolabel is an award for businesses, activities, products or services that have a remarkably better or an ‘acceptable’ level of environmental impacts compared to the other businesses in the same field. (Bien 2006, pp. 16, 24; Font and Buckley 2001, according to Fennel 2008, p. 196). The criteria varies between different ecolabels of the world and the same absolute standard of environmental performance for companies in all countries is impossible to implement. This means that the concept of environmental
performance belonging to an ecolabel scheme in one country might actually be required by law in another country. (Buckley 2001, p. 24). Buckley (2001) also notes that eco-certification in tourism is a form of ecolabel in the international trade sense.

An ecolabel should enable both the producers as well as the consumers to identify service providers whose business operations do not cause damage to the environment and to the society of their area (Mowforth & Munt 2009, p. 202). However, unfortunately some companies might use the labels only in marketing purposes without actual commitment on environmental protection work. This is called “greenwashing” which is the false usage of eco-policies, that is, a hotel might advertise itself as a truly green hotel which it in real life is not. (Morgan 2009, p. 175; Mowforth & Munt 2009).

5 RESPONSIBLE TOURISTS

The growth of environmental consciousness has made the consumers behave in a more environmentally friendly manner and take responsibility of the environment. An environmentally conscious person actively finds information himself and observes the environment more carefully. In addition, he follows the news and statements concerning the state of the environment, has conversations about environmental concerns with other interested parties and is well aware of the recent environmental problems. Further on, preferring environmentally labelled products is common. (Hemmi 2005, p. 103).

There are plenty of ways a hotel customer can green his hotel stay. First of all, an environmentally friendly accommodation place should be chosen and small family-owned hotels favoured as then the money spent for staying overnight ends to the local people (Kalmari & Kelola 2009, p. 83). Everything should be used reasonably: short showers, switching off the lights, air-conditioning and television when not needed, and if there is hot weather, curtains should be closed for maximizing heat. In addition, waste should always be sorted out, garbage not thrown in nature and hazardous waste brought back home. Towels
and bed linen should be used for a longer time. Local businesses should always be favoured and tourists should always buy local foods and choose local handicrafts as souvenirs. (Mähönén 2010).

All in all, a tourist in a foreign country should remember to behave in a way that he would wish a tourist to behave in his country of origin, taking into consideration the local customs (Reilun Matkailun Yhdistys). If each person makes a few changes in their daily consumption habits, the impacts on the environment altogether might be strong enough to change the fate of our planet (Morgan 2009). In the following chapters general ways to environmentally friendly behaviour of hotel customers are introduced.

5.1 Saving Energy and Water

As introduced before, a hotel uses huge amounts of energy and water for its daily operations which also puts stress on the environment. A hotel alone cannot maximise the energy and water savings. Instead, everybody involved, the staff and the customers, should actively be encouraged to participate in the energy and water saving practices. Consumption of energy and water have the biggest effect on a trip’s ecological footprint (Reilun Matkailun Yhdistys).

The main advice for hotel customers for saving energy and water is to use them only when really needed. The use of energy greatly contributes to the Earth’s greenhouse gas emissions; therefore, for instance by always switching off the lights and air-conditioning system as well as closing the hotel room’s window shades before leaving the room, a customer will not only help to save energy but also to lower the greenhouse gas emissions. Moreover, when ventilating the rooms, windows should be opened instead of using electrical appliances. Towels and linen should also be used for more than one day in order to avoid excessive and unnecessary washing. (Sweeting & Sweeting 2003, p. 2). When leaving the room, all possible electrical equipment should be switched off and not left on stand-by. A single television set that is set on standby can consume 193 kWh of electricity in one year. (SBA 2008, p. 15, Reilun Matkailun Yhdistys).
There is a water crisis at the moment on our planet. In the developed countries most people tend to have long, hot and steamy showers, while more than 900 million people are living without access to clean and safe water. In addition, even 2.6 billion people (forty percent of the earth’s population) do not have access to basic sanitation facilities. Each year dirty water causes the death of 1.5 million children aged under five. (United Nations Children’s Fund). Saving water is important. For saving water, shower should be used instead of bath and the tap should not be left open when putting on soap or shampoo while washing. A tumbler could be used instead of running water for washing teeth. A hotel customer should prefer environmentally friendly washing detergents as this further on minimizes the cost of water treatment. (Morgan 2009, p. 27; Reilun Matkailun Yhdistys).

5.2 Minimizing Waste and Pollution

A hotel customer’s efforts to minimizing waste and pollution can largely affect to environmental conservation. The less litter tourists throw in nature and the less packaged products they use, the less there is pollution and waste. Each hotel customer should be advised to careful consumption. Ways for saving water and electricity and for producing as little waste and emissions as possible should be introduced. Waste should always be put in the garbage bin and sorted out. Recycling will reduce waste in landfill sites and oceans, help prevent global warming and reduce the usage of energy for manufacturing. (Morgan 2009, p. 14; Reilun Matkailun Yhdistys).

When there is no proper waste handling system in the country in question, hazardous waste such as batteries should be brought back to the country of origin (WWF Finland). A tourist travelling in a foreign country might not always understand and see the harms caused by waste and pollution in that country; therefore, it is important to pre-empt the production of waste especially while travelling. By always using the same shopping bag and not unnecessary plastic bags a tourist can decrease the amount of waste. Wherever possible, tap water should be used and drinking bottles (preferably stainless steel reusable bottles) refilled which helps to decrease the amount of plastic bottles. Disposable
products should not be favoured and products with less packaging or bigger package sizes used. (Morgan 2009, p. 178; Reilun Matkailun Yhdistys).

5.3 Destination Protection and Local Communities

The environment surrounding a destination is burdened much because of tourism. A tourist in a destination or a hotel customer can help the business in environmental protection by burdening the environment as little as possible. Walking, running and biking are forms of transport that cause only a minor ecological footprint. If there is a need for vehicle use, public transport should always be the choice because trains, buses and metros cause only a little burden on the environment. (Morgan 2009).

It is essential to leave the destination how it is without further destroying or harming it. Instead, tourists should respect nature and participate in protecting it and the destination. In fact, often some natural places can only be preserved with the help of tourism. While moving in the surrounding environment a tourist should move carefully without harming the existing vegetation or disturbing local animals. Nature should be left how it is and nothing collected from there, especially endangered species. The animals should not be fed or photographed without permission. In addition, nature trails should be used whenever possible. (Reilun Matkailun Yhdistys, WWF Finland).

As much as tourism causes harmful impacts for the local communities, it can also be a source of revenue and enrichment for them. A tourist should always prefer local products and services wherever possible as this gives economic aid for the local people whose living in many cases is dependent only on tourism. However, a tourist should never buy products and souvenirs that are made of endangered plants and animals, such as products made from turtles. (Reilun Matkailun Yhdistys).

Before a trip a tourist should always find information about the local culture and in the destination behave and dress in a way that does not offend the local people, culture and religion. By getting to know local people a tourist will not only broaden the locals’ knowledge but also learn about new cultures. However,
it should always be remembered to respect privacy. (Reilun Matkailun Yhdistys).

6 STEPS OF THE DESIGN PROCESS

The main output of this project was the design of an eco-booklet for a Turkish eco hotel for raising customer awareness about environmental issues. The project was done in different steps. First, the aims and objectives were defined to find out what is to be achieved with the project. Second, the target audience was defined to make sure that the booklet will reach its desired target customers. Third, information and material that would serve the needs of the target audience were gathered and processed, after which the collected material was compiled to a visually good-looking and informative eco-booklet (Appendix 1). Figure 3 illustrates the steps of the designing process.

<table>
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<tr>
<th>Step</th>
<th>Description</th>
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<tr>
<td>Defining Aims and Objectives</td>
<td>What is the purpose of the material? What is wanted to achieve with it?</td>
</tr>
<tr>
<td>Defining Target Audience</td>
<td>To whom is the material created?</td>
</tr>
<tr>
<td>Deciding About Contents and Collecting Material</td>
<td>Determining the contents</td>
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<tr>
<td>Style and Design</td>
<td>Decisions concerning the colours, typing and general design</td>
</tr>
<tr>
<td>Production, Printing and Distribution</td>
<td>Deciding the ways the booklet will reach its target customers and deciding about the printing methods</td>
</tr>
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Figure 3 Brochure Designing Process (Adapted from Raza 2005, pp.110 - 111; Mutanen 2010, pp. 17 - 24)

This chapter introduces the whole booklet designing process in more detail from the beginning to the end and the work methods used during the process.
6.1 Aims, Objectives and Target Audience

When the whole booklet designing process was started, the aims and objectives of the project were first defined. This means defining what is wanted to be achieved with the booklet, what is the purpose of it and how will it be used (Raza 2005, p. 110 - 111). The main aim and objective of this project work is to make the hotel customers aware of the environmental issues related to tourism. It should arouse new thoughts in the customers’ minds about the impacts of general touristic behavior on the environment and introduce them ways to minimize these impacts while staying at a hotel and in its surroundings. In addition, one of the aims is to promote the hotel’s image as an environmentally conscious hotel. The eco-booklet may also be used as information material for the staff members to further educate themselves.

Designing marketing material can be difficult and careful consideration is needed for deciding what is marketed and to whom. This means defining the the customer groups to be influenced and the desired effect of the material. (Parker 1998, p. 319, according to Mutanen 2010, p. 17). Therefore, before starting the material collection and actual designing, the target audience had to be also defined. This means defining to whom the material is designed and produced. The more narrowly defined the target is, the better it is to focus on the specific target and design the booklet in a way that would attract that specific audience. Defining the target audience or segmenting your market is essential for every business as it allows you to tailor your products and services to meet the specific needs of your market segment. The customers can be segmented according to different criteria such as transaction history and buying behaviour, demographics and geography. (Raza 2005, p. 14 – 15, 111).

In this project, knowing the market segment of the client hotel is essential in order to design the brochure in a way that would take the attraction of this specific segment. As the hotel is an adults-only hotel and its market segment comprises of adults with higher average income and education, professionals, managers or company owners and of couples as well, it was important to think about the design of the booklet and adapt it so that it would serve the needs of this specific segment. Therefore, the style and design was to be taken special
account of to make the customers feel the desire to open the brochure and actually start reading it. In this case, the booklet should look professional but still informative and deliver a message of environmental concern. The style and design of the booklet are described in more detail later in this chapter.

6.2 Contents, Material Collection and Work Methods

The next step was to decide which information was to be written to the eco-booklet and decide the delimitations of information. The basis for the contents of the booklet was the collected information and theory presented in earlier chapters of this final year thesis. The topic was delimited to cover mainly the hotel industry with a few references to the whole tourism field generally. It was decided that the information in the booklet would comprise of three different parts.

The first part makes the hotel customer aware of both the negative and positive environmental impacts of tourism, in general as well as of the impacts in Turkey and in the Bodrum Peninsula. It is essential to make the customer first aware of the environmental impacts of our actions to make them realize why it is important to pay attention to their behaviour against the environment. After they have understood the severity of the situation and are convinced to make changes in their behaviour, it is convenient to give them advice for environmentally friendly behaviour in the third part of the booklet. To make the information more effective, examples from every-day life from all around the world were shown in the booklet as well. (Appendix 1, pp. 1 - 4). This was also a wish of the partner hotel.

The second part introduces the client hotel as an eco hotel, that is, how the hotel in question takes environmental protection into consideration in their daily operations. The hotel is taken a look at as an eco hotel according to four different categories: energy management, water management, waste and pollution management, destination protection and local community issues. Each category includes a small introduction text to the subject before the partner hotel’s environmental activities are described. (Appendix 1, pp. 5 - 6).
In the third and final part, the eco-booklet introduces the hotel customers ways to minimize their impacts on the environment while staying at the hotel and in its surroundings. The advice is divided into four different categories: save energy and water, minimize waste and pollution, protect the destination and nature and help local communities. Like in the second part of the booklet, also the third part includes a small introduction text to these subjects before describing the actual advice for the customers. The advice presented in the third part of the booklet can be simply put into practice not only while travelling but also at home. (Appendix 1, pp. 6 - 7).

When the main topics for the contents were determined, the information collection was started. The literature part formed the theory and the basis for the whole thesis and for the booklet contents. The information was collected from multiple sources that were either in Finnish or in English. Secondary data was collected through desk study from literature related to the topic. Literature was used as the main source for the theory, following with some use of Internet sources as well. In addition, electronic databases of the Saimaa University of Applied Sciences were used.

Primary data was collected through emails that were sent to a few specialists specialized in environmental issues at hotels. Altogether five specialists were contacted (three Finnish and two Turkish), however, of which only two replied. The two respondents from Finland were Erja Mähönen from Miljöönääri Ltd and Mikko Jantunen from Travelcon Ltd. In addition, personal communication with the hotel personnel had an important part in the whole process from the beginning to the end.

Reliability of Information

There is plenty of literature available concerning sustainable tourism. It is important to be critical about the reliability of information, especially when talking about Internet sources. In this final year thesis the main sources used were literary works, electronic publications, research and websites, both domestic and foreign sources from the 21st century. The organisations and associations responsible for the Internet sources used are well-known,
respected and supervised, such as the United Nations Environment Programme and the World Tourism Organization, which makes the information they provide more reliable. In addition, the fact that the information is up-to-date increases the reliability of information as well.

6.3 Style and Design

Raza (2005, p. 89 - 90) states,

‘The best print ads are simple; they grab you with a stunning visual and a solid headline, and if you are intrigued enough by these two elements, you will be pulled into interesting and factual body copy.’

Keeping this sentence of Raza in mind, the design of the actual eco-booklet was started. Decisions concerning for instance the choice of colours, graphics and the style and density of photographs are made at this point of the designing process. The chosen design should also support the target customer groups. (Middleton 2001, p. 280). The aim with the style and design was to have an appealing but balanced and simple look that would communicate a message of environmental concern. This is why all the colours chosen are earthy colours; different shades of green and brown. White colour was chosen as the main background colour in order to save colour when printing and therefore making the printing more sustainable. The size of the booklet is one third of a A4 paper as it was the wish of the partner hotel. The font type used is Segoe Print, which gives the booklet a professional but not too serious look. (Appendix 1).

The cover of a booklet is used to grab attention of your audience and it should deliver the key message to the customer (Raza 2005, p. 112). An interesting cover page is crucial for getting the interest of the target customer. If the booklet is not appealing enough already in the beginning, the customer will probably not pay attention to it and does not even look it through. (Middleton 2001, p. 281). In this booklet the cover with a green leaf is effective with the slogan ‘Go Green!’ as it gives an insight to what the whole booklet is all about (Appendix 1, p. 1). In fact, it is said that a single photograph on the cover will have more impact on the target audience than multiple smaller pictures (Raza 2005, p.
The same leaf is also presented on the back cover of the booklet with an introduction to what the booklet contains (Appendix 1, p. 8).

The first and third parts of the booklet (environmental impacts of tourism and how to green your hotel stay) have mainly green colours, but the second part which introduces the partner hotel as an eco hotel has shades of brown and orange as its colour themes. The aim with this slightly different colour choice for the second part is to emphasize the hotel’s part of the booklet. The same colours are also used on the hotel website and therefore the same colours were chosen for the booklet as well to maintain consistency. (Appendix 1).

As the main aim was to take the attention of the hotel customers and make them aware of environmental issues, the images have an important role in the whole design. As known, images tell more than a hundred words. With the images the main focus was to show the different sides of the environment, for instance plants and animals, and their colour theme followed the general theme of the whole booklet. The images selected support and enliven the information texts, thus completing the message and making the information more effective and readable. The images also bring colour and variability to the booklet, which makes it look more interesting. (Appendix 1). I would have wanted to find more effective and describing pictures for the environmental impacts of tourism –part of the brochure, but unfortunately lack of access to multiple picture sources due to copyrights restricted the image selection.

**Copyrights**

When dealing with images that you have not taken by yourself, it is important to remember the copyrights of the images used. In this project, the images used were collected from the Microsoft Office Clipart archives, which offers a free use of images unless they are meant for selling purposes (Microsoft Office). However, to make sure copyrights are not misused, a text ‘illustrations provided by Microsoft Office Clipart’ was placed on the back cover of the booklet.

The only problem with the design was the lack of access to professional brochure designing tools. In this project the tool used was the GNU Image
Manipulation Program (GIMP), with which the pages of the booklet were designed and created. With more professional design tools, maybe the booklet might look more professional and be more effective.

6.4 Production, Printing and Distribution

The last step in a brochure designing process is to decide about the production, printing and distribution of it (Mutanen 2010). This means deciding the ways the business in question wants the booklet to reach its customers (Middleton 2001). At this stage the hotel should also decide whether they will do in-house printing or go to a printing office.

In this project my purpose was only to design the booklet; therefore, the production, printing and distribution of it is taken care by the partner hotel. However, I would suggest the hotel to have the booklet printed on an environmentally friendly material that is recyclable and non-toxic. In addition, it would be better to choose a responsible printing company that has some values for the environment as well. I would also suggest to print out the booklet in a printing company as then it would be of a higher quality than if in-house printing is chosen.

7 DISCUSSION

All in all, the project succeeded very well. The result satisfies the client hotel and the project was implemented in the planned timeframe. The aims and objectives described were well met. The subject is very current and interesting as well as beneficial for the partner hotel which adds value to the thesis work. The needs of the partner hotel were fulfilled and I strongly believe that this booklet will be of advantage for the hotel and supports its image as an eco hotel. As ecotourism is a growing industry also in Turkey, this sort of eco-booklet might be an opportunity for the client company to be one of its kind in Turkey in producing this sort of material for its customers.
One of the reasons for the success of the booklet was careful planning of the project in the beginning and careful implementation of the plan during the design process. As I started the whole project process, I had high motivation for it and it lasted through the whole process because of my interest in the thesis subject. I felt confident to do the project and got help each time I needed it either from my thesis tutor or from the partner hotel. The fact that the hotel was actually in need of such a booklet made the project beneficial and further on increased my motivation to do the work well. Since I was staying in Turkey while doing the project, it was a strength as I could meet the client more often if any problems occurred. In addition, I believe that close contact to the Turkish culture helped me to conduct the project in a way that would not offend the local values. The schedule of the project was very flexible and enough time was reserved for completing each part of the project. This gave me the chance to deeply focus on the subject, think of it from different angles, use multiple information sources and effectively concentrate on the design.

The most important step in the whole process was to find reliable information as it formed the basis for the whole project work. In general, the subject matter of sustainable tourism is very wide and there is much information, reliable and unreliable, available. This also brings us to the hardest part of the project work: deciding about the delimitations of information. I had to pay much attention to the size and contents of the information so that it would not grow too big, specific or be irrelevant. Despite the fact that there is plenty of information available concerning sustainable tourism, it was surprisingly hard to find literature about sustainable hotels, eco tourists and about environmental management at hotels from the 21st century as most of the books that were dealing with these issues are from the 1990s. I wanted to use sources mostly from the 21st century to keep the information up-to-date. There are more Internet sources available for the abovementioned topics; therefore, in the parts of the theory introducing sustainability at hotels and behaviour of responsible tourists, more Internet sources were used. However, I do not think this lowers the reliability and validity of information because the Internet sources used are from known organisations or associations. In fact, I could say that reliability of information is after all one of the strengths in this project.
I was given freedom to design the booklet as I wanted and therefore I was able to do the booklet the best way I could and found information that I thought was important to be mentioned. I believe that as a Finnish person designing a booklet for the foreign customers of the partner hotel (who are mostly Europeans) I was able to do the booklet from a European perspective; therefore, it might be more convincing for the hotel's European customers. If consumer behaviour of the customer segment of the partner hotel had been researched more, maybe the design and contents of the booklet could have been made even more effective for the certain target group. However, this would have needed a complete research through surveys and questionnaires about the consumer behaviour of the hotel customers of this particular hotel. This sort of research would have made the thesis topic too wide.

The whole project work was an opportunity for myself to improve my professional development in the field of tourism and gain new knowledge. I received enormous amount of new information about sustainable tourism, environmental impacts of tourism and about environmentally friendly ways of travelling and doing business. I had also the chance to experience a complete booklet designing process from the beginning to the end. As the project work was implemented outside Finland I was able to gain new experience of working in an international working environment as well.

How effective and interesting this eco-booklet is for the hotel customers of the partner hotel and how much it increases their environmentally responsible behaviour cannot be known until the booklet is printed out and made available for their use by, for instance placing it in each hotel room or in the lobby. Creating an eco-booklet that is effective and serves its purposes is a complicated process because it is hard to define which information is appealing, effective or interesting for the customer. However, I strongly believe that the booklet offers comprehensive information for the hotel customers about the environmental issues concerned with tourism and actually can positively affect their behaviour against the environment.
FIGURES

Figure 1 Environmental impacts of tourism in the Bodrum Peninsula, p. 19

Figure 2 Tourism relationships, p. 25

Figure 3 Brochure designing process, p. 38
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Go Green!

**Environmental Impacts of Tourism, p. 4**

- Our Environmental Policy, p. 16

- How to Green Your Hotel Stay, p. 22

**For Our Environment**

During the last decade tourism has grown to be one of the world's fastest growing industries. However, the fast growth of tourism has contributed to a range of problems and placed enormous pressure on a destination's physical and cultural environment. Our natural resources are diminishing, rare species suffer from extinction and people have even been forced to leave their homes away from the new tourism establishments. Although tourism is such a fun activity, it has its price as well on the environment.

However, the game is not lost yet. The impacts can be minimized. With responsible actions we can prevent the destruction of our livelihoods. Hotels, for instance, have major environmental impacts at different levels. Our mission as an eco hotel is to actively minimize our impacts and conserve the environment as much as possible. In the second section of this booklet you will find out how our hotel takes the environment into consideration in our daily operations. Also you as a visitor can help. With responsible behaviour, we can together protect the Earth and ensure the same natural resources and surroundings also for the next generations. This booklet includes information that will make you well aware of the state of our environment and introduce you ways to minimize your impacts on the environment. You really can help. Even the smallest responsible actions make a difference, and the environment will thank you.
**Environmental Impacts of Tourism**

Flight for instance from Finland to Thailand and back produces approximately 2.5 tons of carbon dioxide per each passenger and consumes a lot of energy, in this case about 4000 kWh. With this amount you could use a 40 W light bulb for 100000 hours, that is, over 11 years.

In the Canary Islands, an average tourist staying in a luxury hotel consumes the same amount of water in less than three weeks than a local farmer in one year.

Every year 635000 tonnes of crude oil is spilled by vessels in the Mediterranean Sea which causes severe marine pollution.

Almost 85% of Mediterranean forests have already disappeared because of for instance tourism and road constructions.

These are only a few examples of the negative impacts tourism has on the environment. In the following pages we take a look at both the negative and positive environmental impacts of tourism and at the impacts in Turkey and in the Bodrum Peninsula.

**Climate Change**

Climate change is at the moment considered as one of the most severe threats of humankind. It is caused by the release and increase of greenhouse gases in the atmosphere in which they are accumulated and in which they captivate heat from the sun, resulting in a rise of the Earth's surface temperatures. The most influential greenhouse gas is carbon dioxide (CO2), which is generated for instance by burning fossil fuels like coal and oil. The hotel sector generates emissions mainly through the use of air-conditioning and heating systems and the maintenance of basic facilities such as restaurants, pools and bars.

**Biodiversity and Ecosystems**

Biological diversity is an essential requirement for life on Earth. Unfortunately, tourism has been harming the vegetation and territorial spaces of animals, further causing other serious problems such as loss of biodiversity, extinction of local species and even destruction of ecosystems. You might be surprised to hear that even the touristic activities that we thought have the smallest impacts, can have serious consequences. For instance, while we are wandering in nature and continuously using the same trails, we are at the same time trampling the existing vegetation and even destroying ecosystems. To continue, viewing wildlife in their natural habitats can cause disturbances to the animals' normal life-cycles. Litter through to nature might be deadly for the animals. Collecting and buying a plant and animal species (especially rare ones) are a serious reason for species extinction.

**Ozone Layer Depletion**

The ozone layer is situated in the upper atmosphere, 9 - 50 kilometers above the earth’s surface, and absorbs the damaging wavelengths of the sun’s ultraviolet radiation, thus protecting the life on Earth.

Ozone is a form of oxygen that filters to reduce the amount of the sunlight's ultraviolet radiation reaching the earth.

The use of chlorofluorocarbons (CFCs) and halons, among other ozone depleting substances in air-conditioning and refrigerating systems at hotels harmfully thin out the protective ozone layer. Emissions from airports are a major contributor to ozone layer depletion as well.
Transport such as flying or any transportation services used for tourism are major contributors to air pollution as they use fossil fuels and release emissions to the climate which are further linked to the cause of acid rain and global warming. At hotels, the use of energy, CFCs and halons pollute the air as well.

Water pollution can have severe consequences on human and animals' health. Inefficient and improper disposal of human waste and wastewater as well as littering have already in many destinations polluted seas and lakes near the tourist attractions which has led to damages in flora and fauna.

Noise pollution is a problem especially for local residents who live near major touristic areas or transportation routes like airports. Noise generated by transport, construction of tourism facilities and on-going music from night clubs causes annoyance not only for the humans but also distress to wildlife as it might disturb and alter the animals' natural activity patterns like breeding.

Aesthetic pollution occurs when buildings, parks and gardens built for tourism purposes ignore the uniform style and building traditions of the area's infrastructure. This sort of pollution is also caused by human waste and litter that is thrown in nature. This careless behaviour negatively affects ecosystems and the wildlife as it can for instance lead to the death of animals that see it as nutriment.

Depletion of Natural Resources

Due to seasonality of tourism, overuse of the already scarce local resources like food, water and energy is a problem. Many destinations have multiple times more visitors in the high season which causes high pressure on how to meet the needs and expectations of tourists but still ensure functioning of the industry. Especially this is the case in destinations where consumption is high but resources already limited.

Let's take water, for instance. A hotel uses enormous amounts of water for its daily operations such as for swimming pools, golf course irrigations and for the personal use of the hotel customers. In fact, water consumption in bigger resorts might even overcome the consumption needs of the local population. This leads to the shrinkage of water supplies, to water shortages and produces larger amounts of waste water. In the areas of limited water resources, local people might not even have access to the water resources they used to use and suffer from water shortages.

Many times local people have been forced to fight for the critical resources that they need for their every-day life and in some areas they actually have been restricted to have access to these resources. In less developed countries, land takeover has even forced people to leave their homes away from the tourism establishments. This sort of usage and exploitation of natural resources eventually puts high pressure on a destination's environment, leads to transformation of ecological habitats and ecosystems and to loss of flora and fauna.
Land Alteration

Use and conversion of land is typical for tourism and land alteration can be regarded as the single most important component of global environmental change and as the most important driver of change in biodiversity as it might even threaten the ecosystems’ ability to provide essential services to humankind. Conversion of land for tourism use, for instance for transportation infrastructure and attractions but especially for hotel facilities is the origin of land alteration. When tourism in a destination increases, it also increases the construction work of facilities and buildings. This sort of development further causes tourism urbanization and pollution problems which are common especially in the coastal areas. Land alteration is also a major cause for the release of greenhouse gases.

Impacts in Turkey

Tourism in Turkey has caused overcrowding and especially coastal urbanization, resulting in traffic problems and overload of noise which disturbs the life of the local residents. In addition, second homes and ribbon buildings that neglect the local building traditions have been built along the Turkish coasts. As an example, construction of tourism facilities has destroyed the livelihoods of local agricultural workers and their olive and citrus fruit gardens. Because of excessive amount of tourists in the high season, natural resources are insufficient and water shortages are common.

Waste and pollution of different types is a major problem which has even disturbed the ecological balance of the Turkish environment. Yachts, for instance, have polluted the sea water by throwing solid waste and by the release of dirty polluted water into the sea. The rapid development has also caused overload of local sewage treatment and disposal systems that were in the beginning designed only for the needs of the local residents.

The Bodrum Peninsula

The touristic areas of the Bodrum Peninsula are focused on the coastal areas which has resulted in major changes in natural and cultural landscapes. The burst of tourism can be seen especially during the peak summer season, when the population of the peninsula explodes to over six times more than normally. This increase lays high pressure on the physical and social infrastructure of the area and in fact, the physical infrastructure becomes insufficient in the summer season.

Environmental impacts of tourism in the Bodrum Peninsula:

- Pollution, especially coastal pollution
- Destruction of natural flora and fauna, which is partly caused by the pollution from construction and as well as from untreated water which is also a major reason for coastal and marine pollution
- Insufficient infrastructure, non-traditional ribbon buildings and second homes
- Land use change, disappearance of urban green areas and loss of agricultural land
- Damage to historical sites and loss of traditional values

Positive Impacts of Tourism

There are more negative than positive impacts of tourism on the environment. Although tourism is directly or indirectly involved with the negative impacts, it can be part of the solution as well. Tourism can for instance act as an agent for conservation and biodiversity protection. With the help of tourism, the quality of the destination can be maintained and improved, historical sites restored, infrastructure developed and general comfort and cleanliness improved. Tourism also brings economic benefits like employment and increased demand for goods and services for the local communities. In some countries, tourism can also bring more funds to environmental protection.

In Turkey tourism has for instance helped conservation, rehabilitation and reactivation of heritage resources and thus made Turkey more attractive as an international tourism destination and brought both social and economic benefits for the local communities.
**SPREAD 8 (PP. 16 & 17)**

**Hotel X** is located in an undisturbed Bay X, which is one of the few untouched bays in the region X. As an eco hotel, our aim is to minimize the negative impacts of our hotel operations on the environment. In the following pages, you will find out how we at our hotel daily focus on minimizing these impacts and conserving the environment the best way we can.

**Water**

In the region X water is scarce and water shortages are a problem. At Hotel X we take this concern seriously, because a hotel can and should protect the local water resources and help to ensure the availability of water also for the local residents.

**What do we do for saving water?**

- We use water only when needed.
- All water leaks are carefully monitored and repaired immediately to prevent any leakage. Leaks can waste huge amounts of water.
- Our hotel has an artesian well which collects the water coming from the mountain.
- We recycle water with our hotel’s own water purification system. It purifies the used water of the hotel, which is then used to water the garden.
- Our garden is watered with a water-dripping system. The most plants that you find from our garden belong to the local flora and are durable against drought. Therefore, they need only low maintenance and less watering.
- We have adjusted the flush of toilets to minimize the use of excessive water.

**SPREAD 10 (PP. 18 & 19)**

**Energy**

At hotels there is a high demand for energy as the customers are provided with modern comforts and high-technology. The main source of energy for most hotels is through burning fossil fuels like coal, oil and natural gas which unfortunately further on causes local air pollution, global climate change and other environmental impacts.

**What do we do for saving energy?**

- We use energy savers as key holders in the rooms. Energy savers prevent the use of electricity when guests are not in the room, all electric equipment will shut down automatically.
- Where possible, we use energy saving light bulbs. The marina of the hotel is illuminated by projectors with LED lightings and for lighting the garden, we use movement detectors and timers.
- We regularly monitor the use of energy through energy consumption amounts. We use solar power to heat the water at the hotel. The solar panels might save up to 40% of a hotel’s total energy costs and have only a minor impact.

**Waste and Pollution**

Hotels produce large amounts of waste, solid and liquid, toxic and non-toxic, some of which end up in the surrounding environment because of inadequate handling and careless behaviour. Many times waste has been dumped directly into seas and rivers, which further on has led to soil and water pollution. Over 90% of the natural resources used by humans transform into waste through the production of products and nutrient. The more a hotel aims to produce as little waste as possible, the less natural resources are used and environmental damages minimized. Environmentally friendly use of waste also decreases the need for landfill sites and waste treatment facilities. Waste and especially biotic waste at the landfill site causes climate change through the production of methane, which is a greenhouse gas that accelerates global warming.
**APPENDIX 1**

**SPREAD 11 (PP. 20 & 21)**

**What do we do for minimizing waste and pollution?**

- We sort out organic and other wastes. Organic waste is composted in the hotel’s garden and other wastes are disposed at the municipality’s garbage points. These wastes are separated at the region X Garbage Center and then recycled.
- Refillable bottles are used where possible to minimize the amount of packages and waste. We offer for instance use soap and shampoo dispensers to prevent the use of plastic amenity bottles, which form a lot of waste. In addition, natural products such as natural soaps are offered to our guests.
- All detergents we use at the hotel and especially at the laundry department are biodegradable.
- We have our own biological filtration system for black and grey water. The water, which has been filtered is reused for watering the garden. As a result, the hotel does not produce any black or grey water, which will harm the environment.
- We change the sheets at the hotel once in 3 days. Towels are changed on demand. Our aim with this is to reduce the amount of chemicals and electricity used for laundry and further minimize environmental damages.

**SPREAD 12 (PP. 22 & 23)**

**Destination Protection and Local Communities**

When a hotel supports conservation, it can also minimize the risks of environmental problems in the future and preserve the quality of the destination. Tourism can have significant impacts also on local communities. Local people might be restricted from access to natural resources such as water and forests upon which they depend. Their living areas might be destroyed because of new infrastructure and hotel buildings. By communicating with local communities, a hotel can help the locals and build strong relationships with them.

**How do we take care of our surrounding environment and communities?**

- We do our shopping from local bazaars so that the ingredients are more fresh and the local community can benefit from the hotel’s trade.
- We try to employ local people, especially from the X region of Turkey.
- We work with local companies, which are based in the city X.

**Save Energy and Water**

There is a water crisis on our planet. In the developed countries most people tend to have long, hot and steamy showers, while more than 400 million people are living without access to clean and safe water. In addition, even 2.6 billion people (40% of the earth’s population) do not have access to basic sanitation facilities. Each year dirty water causes the death of 1.5 million children aged under five.

**Ways to save water:**

- Use towels and linen for a longer time to avoid excessive washing.
- Use shower instead of bath (preferably short showers) and do not leave the tap open when putting on soap or shampoo while washing and you will save huge amounts of water.
- Use a tumbler instead of running water for washing teeth.
- Always try to use environmentally friendly washing detergents whenever possible as they cause less harm to the environment.
Actually, consumption of energy and water have the biggest effect on a trip's ecological footprint; therefore, always remember to use energy and water only when needed. The use of energy greatly contributes to the Earth's greenhouse gas emissions, so for instance by always switching off the lights and air-conditioning system, you can help to lower the harmful greenhouse gas emissions. Even a single television set that is set on standby can consume 143 kWh of electricity in one year. Further on, always try to ventilate the room by opening the window instead of using electrical appliances. In case of hot weather, curtains should be closed for maximizing heat and saving energy.

**Minimize Waste and Pollution**

A tourist travelling in a foreign country might not always understand and see the harms caused by waste and pollution in that country; therefore it is important to pre-empt the production of waste especially while travelling. The less litter is thrown in nature and the less packaged products used, the less there is pollution and waste. Litter should always be put in the garbage bin and sorted. Recycling will reduce waste in the landfill sites and oceans, help to prevent global warming and reduce the usage of energy for manufacturing.

**Ways to minimize waste and pollution:**

- Sort waste when possible, recycle or reuse it.
- Do not throw garbage in nature, put it in the garbage bin.
- Hazardous waste should be brought back to the country of origin.
- To prevent huge amounts of waste, use less-packaged and disposable products. You can for instance use the same shopping bag and refuse using unnecessary plastic bags to decrease the amount of waste.
- Wherever possible, use tap water and refill your drinking bottles (preferably stainless steel reusable bottles) for decreasing the amount of plastic bottles.

**Protect the Destination and the Nature**

The environment surrounding a destination is burdened a lot because of tourism. It is essential to leave the destination how it is without further destroying or harming it. Instead, nature should be respected and protected.

**Ways to minimize your impacts on the destination's environment:**

- Walk or bike in the destination whenever possible.
- If there is a need for vehicle use, use public transport because trains, buses and metros cause only a little burden on the environment.
- Leave the nature how it is and do not collect anything from there, especially endangered species.
- You should not disturb local animals or harm existing vegetation. Please do not feed or photograph the animals without permission.

**Help Local Communities**

*When in Rome, do as the Romans do*

- favour green, family-owned hotels to ensure that the money spent for staying overnight goes to the local people.
- Support local businesses for instance by buying local food and choosing local handicrafts as souvenirs. However, do not buy souvenirs that are made of endangered species such as turtles.
- In the destination, behave and dress in a way that does not offend the local people, culture and religion.
- By getting to know local people you will not only broaden the locals' knowledge but also learn about new cultures.
- Remember to respect privacy.
This booklet is all about the environment: how does tourism harm it, how do we as an eco hotel conserve it and how can you as a tourist protect it. Take a look inside and become a responsible tourist.