retaining it for years to come and striving for it day after day. But, without this perfection, no hospitality unit can retain its reputation and fascinate tourists for a long time.

NOTES AND REFERENCES

CHAPTER - VI

WORKING IN UNISON FOR ENVIRONMENT

The tourism industry keeps growing. Worldwide tourist arrivals in foreign countries have increased by 6.5% yearly since 1950 reaching nearly 900 million arrivals in 2007; whereas in 2013, it is 1087 millions. According to UNWTO Report (2014), the forecast for 2030 is around 1.8 Billion international Tourists. However, this growth often comes with unsustainable consumption practices endangering ecosystems and natural resources.

There is hence a need for greener hotels that are at the heart of the tourism industry. Hotel guests are more conscious of environmental problems and have started to consider the environment in their accommodation choice. “The quality of the environment, both natural and man-made, is essential to tourism. However, tourism's relationship with the environment is complex. It involves many activities that can have adverse environmental effects.”

This is also becoming valid for luxury hotels. The development of eco-labels is thus helping tourists in their choice. Without cutting on clients’ comfort, many efforts can be made in the backstage by the hotel management industry through the application of best available practices and technological innovations.

The hotel industry is now conscious of this new trend and has set policies in this respect. For implementation of daily rules and reduce
the gap between commitments and concrete measures, it is necessary to have a set of eco-efficiency practices and easy-to-implement instructions. It is absolutely necessary to understand that the environment, eco-balance and biodiversities have to be protected from extreme tourism.

To prevent an irreparable damage to the ecosystems around us, Tourism and Hospitality have to work for environment along with the help of main participants, the tourists. Remote places like the Antarctica are extremely susceptible.

“Adventure enthusiasts crave extreme activities, which has the tourism industry finding unique ways to provide one-of-a-kind activities in Antarctica. Wenger argues that “From sky-diving over the ice, to scuba diving under the ice, pollution is slowly ‘leaking’ into the air and water,” according to Wenger. Extreme activities of tourism are hurting the environment.

**Tourism Environment today**

Environmental quality is degraded today all over the Planet, barring a handful few regions, where modernity has not usurped yet and lifestyle is conventional. Human activities are throttling the Nature and its ecosystems. “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. Uncontrolled conventional tourism poses potential threats to many natural areas around the world.”

Undeniably, for tourism, Nature and man-made constructions are necessary. But, we cannot deny the fact that human activities, especially construction, are destroying nature’s own constructions. “The quality of the environment, both natural and man-made, is essential to tourism. However, tourism’s relationship with the
environment is complex... The negative impacts of tourism development can gradually destroy the environmental resources on which it depends. Tourism involves many activities that can have adverse environmental effects.

Many of these impacts are linked with the construction of general infrastructure such as roads and airports, and of tourism facilities, including resorts, hotels, restaurants, shops, golf courses and marinas. “Tourism has now matured to the level of an “industry” in this country. Thirty years ago, tourism would have been considered an activity for the marginally employed, for the leisure set, and for retirees; it was not a serious occupation. Today serious money is involved. Uncontrolled conventional tourism poses potential threats to many natural areas around the world. It can put enormous pressure on an area and lead to impacts such as soil erosion, increased pollution, discharges into the sea, natural habitat loss, increased pressure on endangered species and heightened vulnerability to forest fires. It often puts a strain on water resources, and it can force local populations to compete for the use of critical resources.

Negative impacts:

There are many negative impacts on natural resources, due to tourism and hospitality. Environmental impacts are at the global level and unless all countries join hands, these impacts could not be curtailed. On the other hand Tourism too can be impacted by harmful industrial activities. “The tourism industry impacts water quality through construction and maintenance of tourist infrastructure, recreational boating, and certain activities of the cruise industry. Tourist infrastructure increases the pressure on existing sewage treatment plants and can lead to overflows during peak tourist times.
Australian Department of Environment and Heritage reiterates, “Environment and heritage are valued differently by different people. Those working in tourism recognise them as assets of mainstream and niche tourism products and are in a position to do much to educate visitors about the values of our natural and cultural heritage places.”

Adverse 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. “Some ecosystems can cope with wide variations in climatic conditions and land use impacts whereas others are much more sensitive to any environmental change. The effects of small shifts in rainfall patterns or ambient temperatures can often do great harm to fragile environments and these effects can act as indicators of imminent threats elsewhere.”

Climate change has negatively impacted the environment of the Planet. Tourism too is responsible for climate change with other human activities. “The impacts of natural resource changes on a visitor’s recreation experience may affect decisions about the frequency and duration of future visits to a national park. These changes in visitor behavior will affect local economic activity in the park’s gateway community.”

**Loss of biological diversity at local and global level**

*Biological diversity is the term given to the variety of life on Earth and the natural patterns it forms. "Biodiversity is the degree of variation of life".*

“*It is a measure of the variety of organisms present in different ecosystems. This can refer to genetic, ecosystem variation, or species variation (number of species)*”. Another more inclusive definition says: “*Biological diversity or biodiversity encompasses the variety and abundance of plants, animals and
microorganisms as well as the ecosystems and ecological processes to which they belong."

Tourism, especially nature tourism, is closely linked to biodiversity and the attractions created by a rich and varied environment. "Biologists and physical resources are in fact the assets that attract tourists. However the stress imposed by tourist activities on fragile ecosystems accelerates and aggravates their depletion,"

It can also cause loss of biodiversity when land and resources are strained by excessive use, and when impacts on vegetation, wildlife, mountain, marine and coastal environments and water resources exceed the carrying capacity. This loss of biodiversity in fact means loss of tourism potential.

**The effects of loss of biodiversity:**

It threatens our food supplies, opportunities for recreation and tourism, and sources of wood, medicines and energy. It interferes with essential ecological functions such as species balance, soil formation, and greenhouse gas absorption. It reduces the productivity of ecosystems, thereby shrinking nature's basket of goods and services, from which we constantly draw.

It destabilizes ecosystems and weakens their ability to deal with natural disasters such as floods, droughts, and hurricanes, and with human-caused stresses, such as pollution and climate change. "There is considerable evidence that contemporary biodiversity declines will lead to subsequent declines in ecosystem functioning and ecosystem stability (Naeem et al. 2009). "Certain species have gone from being little known or valued by local people to being highly valued commodities. The commoditisation of plants may erase their social
value and lead to overproduction within protected areas. Local people and their images can also be turned into commodities.

**Introduction of exotic species**

Tourists and suppliers - often unwittingly - can bring in species (insects, wild and cultivated plants and diseases) that are not native to the local environment and that can cause enormous disruption and even destruction of ecosystems. Exotic species can also be explained thus: “An invasive species is one that has been introduced and become a pest in its new location, spreading (invading) by natural means. The term is used to imply both a sense of urgency and actual or potential harm.

For example, U.S. Executive Order 13112 (1999) defines "invasive species" as "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health". Ecotourism is now defined as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" (TIES, 2015).

**Tourism contributing to Environmental Conservation:**

**Natural Resource Management**

Aside from environmental degradation with tourist infrastructure, population pressures from ecotourism also leaves behind garbage and pollution associated with the Western lifestyle. Nor do eco-tourists recognize the great consumption of non-renewable energy required to arrive at their destination, which is typically more remote than conventional tourism destinations. For instance, an exotic journey to a place 10,000 kilometres away consumes about 700 litres of fuel per person.
While governments are typically entrusted with the administration and enforcement of environmental protection, they often lack the commitment or capability to manage ecotourism sites effectively. "The number of state inspectors protecting forests and fauna was very substantially reduced in 2007 and 2008 as a result of government reforms and a transfer of conservation responsibilities from federal agencies to local ("Krai") level." The regulations for environmental protection may be vaguely defined, costly to implement, hard to enforce, and uncertain in effectiveness.

"Ecotourism operations occasionally fail to live up to conservation ideals. It is sometimes overlooked that ecotourism is a highly consumer-centred activity, and that environmental conservation is a means to further economic growth." At the same time, tourism has the potential to create beneficial effects on the environment by contributing to environmental protection and conservation. It is a way to raise awareness of environmental values and it can serve as a tool to finance protection of natural areas and increase their economic importance.

**ECO-TOURISM**

"Since the 1980s ecotourism has been considered a critical endeavour by environmentalists, so that future generations may experience destinations relatively untouched by human intervention." Now, there are arguments that the ecotourism structure must be improved to direct more money into host communities by reducing leakages for the industry to be successful in alleviating poverty in developing regions, but it provides a promising opportunity.

Even though Sustainability is the way to create a working atmosphere for the purpose of environment protection and lofty theory and ideals come from Ecotourism that has become the highest goal.
The aim of **ecotourism** is to reduce the impact that tourism has on naturally beautiful environments and ensuring that tourism does not exploit the natural environment or local communities.

Consultation with local communities on planned developments. Making sure that infrastructure improvements benefit local people and not just tourists. Ecotourism now has the backing of the United Nations, which made 2002 the 'International Year of Ecotourism.' Since the 1980s ecotourism has been considered a critical endeavour by environmentalists, so that future generations may experience destinations relatively untouched by human intervention.

**Definitions**

The problems associated with defining ecotourism have often led to confusion among tourists and academics. Definitional problems are also subject of considerable public controversy and concern because of green washing, a trend towards the commercialization of tourism schemes disguised as sustainable, nature based, and environmentally friendly ecotourism. Generally, ecotourism deals with living parts of the natural environments.

Therefore, in addition to evaluating environmental and cultural factors, an integral part of ecotourism is the promotion of recycling, energy efficiency and creation of economic opportunities for local communities. Ecotourism Society Pakistan (ESP) explains "Ecotourism is a travel activity that ensures direct financial support to local people where tourism activities are being generated and enjoyed. It teaches travellers to respect local cultures of destinations where travellers are visiting. It supports small stakeholders to ensure that money must not go out from the local economies. It discourages mass tourism, mass constructions of hotels, tourism resorts and mass activities in fragile areas". Environmental organizations have generally
insisted that ecotourism is nature-based, sustainably managed, conservation supporting, and environmentally educated. According to the definition and principles of ecotourism established by The International Ecotourism Society (TIES) in 1990, ecotourism is “Responsible travel to natural areas that conserves the environment and improves the well-being of local people.” Martha Honey expands on the TIES definition by describing the seven characteristics of ecotourism, which are:

1. Involves travel to natural destinations
2. Minimizes impact
3. Builds environmental awareness
4. Provides direct financial benefits for conservation
5. Provides financial benefits and empowerment for local people
6. Respects local culture
7. Supports human rights and democratic movements

Raising awareness

Raising awareness is one of the most significant part of fighting for Sustainable or Eco-tourism. Usually, people are unaware of the unfortunate consequences that natural degradation can bring to the region and how long-lasting the effects could be for the coming generations. Educating locals as well as tourists (who are comparatively well-informed today) is one of the foremost tasks of modern tourism.

Eco-regions within tourism sites

It is necessary to have small and big ‘Eco-regions’ where many plants and animal species come together and live in perfect harmony under the supervision of hotel staff. But, there are arguments that “Ecotourism operations occasionally fail to live up to conservation ideals.” The limited numbers of local people who are employed in the
economy enter at its lowest level, and are unable to live in tourist areas because of meager wages and a two market system."

It is sometimes overlooked that ecotourism is a highly consumer-centered activity, and that environmental conservation is a means to further economic growth. Although ecotourism is intended for small groups, even a modest increase in population, however temporary, puts extra pressure on the local environment and necessitates the development of additional infrastructure and amenities. "Ecotourism is intended to be sustainable, focused on the natural world, and beneficial to local communities."

The construction of water treatment plants, sanitation facilities, and lodges come with the exploitation of non-renewable energy sources and the utilization of already limited local resources. The conversion of natural land to such tourist infrastructure is implicated in deforestation and habitat deterioration of butterflies in Mexico and squirrel monkeys in Costa Rica. Ecotourism is now defined as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" (TIES, 2015).

SUSTAINABLE TOURISM

"Sustainable tourism is the concept of visiting a place as a tourist and trying to make only a positive impact on the environment, society and economy. Sustainable tourism and hospitality tries to prepare people to take leadership positions in these sectors, it is necessary to impart modern skills to all connected with this programme to become global citizens, solve tough problems by using tools of sustainable development, innovative and entrepreneurial thinking, and exhibit effective communication skills.

Studying more languages, developing communication skills, involving in community projects is necessary. With work experience,
and global awareness, international experiences can be open to them. This kind of experience is necessary when the Planet is regarded as one, beyond country boundaries. Sustainability has a holistic approach towards environment.

**Planning Sustainable Environmental Practices for the Hotel Industry**

**Sustainable fields**

This involves:

1. Sustainability
2. Waste management
3. Energy use and efficiency
4. Resource use and efficiency
5. Water resource management
6. Recycling and re-use

**Environmental sustainability**

It is the result of using resources so they satisfy the needs and wants of society, but are not damaged or depleted, and are available to future generations. Environmental sustainability is a combination of resource management by society and the ability of an ecosystem to sustain itself and maintain its normal processes, biodiversity and productivity.

**Social sustainability**

It looks at the way we can meet the needs of our current generation without depleting or degrading the resources available for future generations. Social sustainability is achieved when an organisation has adapted ways in which to use their resources more efficiently and effectively to reduce the impact on the environment. This includes practices such as using renewable energy sources,
reducing waste, increasing the recycling and reuse of products and using water more efficiently.

**Checklists**

Checklists are necessary to measure and monitor the hotel’s activities by undertaking a thorough environmental analysis. A detailed environmental assessment should be made to estimate the potential savings of the identified corrective measures and to assess their return on investment and to serve as a decision-making tool. In addition, economic calculations are necessary to summarize the chosen corrective measures within an action plan that will be communicated to the persons concerned.

Then, a proper Action Plan is necessary to identify the environmental problems in each of the hotel’s departments; to become aware of the necessity of targeted actions and to establish priorities and to determine responsibilities.

**Detailed environmental assessment** is necessary before any planning, followed by the **Economic calculations**.

**Waste management**

Waste management is an important issue within the hospitality industry. A good waste management plan should incorporate all elements of waste control including collection, transportation, processing, recycling and/or disposal of materials. Reducing the impact of consumption on the environment and promoting development of local, ecological and social product flows is significant and for that, waste control policy has to be put in place.

**Energy use and efficiency**

Plans are needed to reduce waste at the source and improve waste management and to implement a recovery and recycling
strategy. The reduction in the use of energy is another way the hospitality industry can practice sustainability.

Simple tasks such as changing from traditional light bulbs to energy efficient light bulbs, turning off lights and computers at the end of the day and turning off appliances when not in use can all reduce the amount of electricity the industry uses. Switching to environmentally sustainable energy sources such as solar or wind-generated power will help reduce the amount of coal-fuelled energy the hospitality industry consumes.

**Resource use and efficiency**

Resources such as plastic, paper and wood should be maximised to improve environmental sustainability.

Here the hospitality industry can follow the four steps for improving environmental sustainability; reduce, re-use, recycle and treat waste that cannot be avoided, to make it less hazardous or to reduce the volume.

**Water resource management**

Water is a precious commodity which should be used appropriately. Employing water saving techniques such as installing low flow shower heads and/or taps, and dual flush toilet systems are becoming a more common practice within the hospitality industry. As mentioned earlier, water management is absolutely important and monitoring water consumption and rationalize its use are one of the first steps towards the goal. This helps to save and protect local resources, to control energy use and monitor its consumption and to save energy and reduce atmospheric pollution.

1. Install water meters in each department
2. Determine monthly water consumption and costs
3. Identify processes and areas where consumption is high.
4. Determine the water consumption costs for each department.
Minimise wastage of water

1. Install water-saving devices in the appropriate places (flow regulators, water flow sensors, self-closing taps, low-flush toilets, etc.)
2. Avoid leaving taps open unnecessarily.
3. Avoid cleaning with high pressure hoses.

Eliminate leaks

1. Regularly maintain plumbing fixtures and piping in order to avoid losses.
2. Replace defective seals and repair damage to water pipes.

Kitchen

1. Adjust the water flow according to the type of cleaning to be done
2. Do not let water flow while cleaning or rinsing
3. Soak the dirty dishes before placing them in the dishwasher in order to shorten the prewash
4. Fill dishwashers to their maximum capacity in order to minimise the number of cycles
5. Do not defrost food in water, but leave it to defrost in the air.

Laundry

1. Sort the laundry according to the degree of soiling, so that only the dirtiest items are washed intensively.
2. Use the washing machines in “full load” mode in order to limit the number of wash cycles.
3. Eliminate the prewash (allowing a 25% reduction in water consumption) and use water-saving wash cycles.
4. If possible, wash towels and linen at the request of guests rather than every day.
5. Reduce water pollution by using less polluting detergents (phosphate free, whitener-free, etc.)
6. Check the laundry room’s equipment regularly to avoid leaks.
7. If possible, recover the rinse water from relatively unsoiled loads for the next cycle’s prewash and wash.

**Room service, accommodation**

1. Install flow regulators on the showerheads in order to decrease consumption from 20 to 12 litres/minute (40% saving).
2. Install timed (self-closing) faucets so that they do not keep running for a long time if left open inadvertently.
3. Choose water saving toilets that use 6 litres for each flush (more than 30% of a hotel’s total water consumption can be saved this way) or with a dual flush mechanism (offering a choice of half- or full-cistern flushes).
4. Invite – as far as possible – the guests to reuse the towels and bed-linen (70% of guests readily agree to this).
5. Train the staff to respect the instructions concerning the reuse of towels and bed-linen.
6. Distribute brochures and flyers, or post stickers and posters, inviting guests to save water.
7. Cover the pool outside of the opening hours so that the water does not evaporate or get dirty.
8. Reduce the use of chlorine in the water and /or choose other treatment systems (ozone, electrolysis, salt, etc.)
9. Reuse the pool’s water to wash the floor.

**Gardens**

1. Choose plants that are suited to your region’s climate and rainfall.
2. Avoid flower beds that quickly dry up.
3. Water lawns early in the morning and late at night to limit evaporation
4. Install automatic sprinkler systems and localized devices (micro-sprinklers, drip irrigation systems for roots, etc.)
5. Layout slopes so that water infiltrates the ground without causing erosion.
6. Reuse the water that was used in the kitchen to wash fruits and vegetables for watering the garden.
7. Collect rainwater for watering the lawns.

**Actions to be taken:**

**Measure:** Installation of faucet and shower head aerators in the rooms without altering comfort.

**Environmental impact:** 50% reduction in water consumption.

**Monitor regularly energy consumption**
1. Check the electricity meters at least once a month.
2. Install meters in each department to monitor energy consumption.
3. Monitor hot water consumption as much as possible.
4. Calculate the energy consumption costs for the hotel and departments.
5. Determine which areas consume the most energy.

**Improve the lighting system**
1. Investigate the use of hotel lighting and observe how long the various lights are switched on each day.
2. Use energy-saving bulbs, especially in high consumption areas.
3. Install timers.

**Reduce energy consumption**
1. Code the light switches (using labels or a colour code) so that you can switch on only those lights that you need.

2. Reduce general lighting during daytime and make sure that exterior lighting is switched on only at night (you can use photoelectric cells, for example).

3. Operate machines according to the manufacturers’ recommendations for better energy efficiency.

4. Choose high performance insulation systems to minimise heat losses and gains.

5. Reduce the number of lifts that are operated during off-peak hours.

6. Train the staff to do the right things, and invite guests to get involved.

7. Repair or replace faulty equipment with more efficient and economic alternatives.

8. Use solar panels to heat water for the guest rooms (saving 40% on the energy costs of the hotel).

**Minimise energy losses**

1. Organise preventive maintenance of the electric network and equipment, including heating and air conditioning equipment.

2. Install aerators to reduce the demand for hot water.

3. Check the insulation on hot water pipes to reduce heat losses.

4. Install double glazed windows.

5. Shade windows from the sun to limit air conditioning needs (by means of awnings, curtains, blinds, screens, heat reflecting sheets, etc.).

6. When renovating, install revolving doors to limit drafts.

**Recover energy**

1. Recover the heat generated by the refrigeration units in order to heat the water for guest rooms or the laundry.
2. Install closed loops to recover and reuse steam.
3. Think about the temperature of kitchen rooms when installing or relocating refrigerators and freezers (an extra 5°C increase in room temperature results in a 30% increase in energy consumption for a refrigerator).
4. Switch off equipment when it is not required (especially after busy periods).
5. Do not exceed preheating times.
6. Use cooking pots whose diameters are compatible with the cookers or burners.
7. Cover pots as they are cooking (to boil 1 litre of water in a covered pot requires about 25% of the energy needed if the pot is uncovered).
8. Invest in high-performance cooking units when replacing equipment.
9. Open refrigerators and freezers only when necessary.
10. Defrost refrigerators and clean the door seals monthly.

**Hazardous wastes (HW) Source**

**OBJECTIVE:** TO REDUCE, TO REUSE, AND TO RECYCLE WASTES

**Segregate wastes at source**

**Reduce the total amount of waste**

**Make the necessary arrangements for non-recyclable wastes**

**Reduce packaging wastes**

**Administration**

1. Reduce the printing of documents whenever possible and use e-mail.
2. Reuse the blank side of used paper as scrap paper.
3. Use the two-sided printing option on printers and copying machines whenever possible.
4. Use recycled paper whenever possible.
5. Collect paper and cardboard wastes separately.
6. Limit colour printing and copying.
7. Return toner and ink cartridges of printers and copying machines to suppliers.
8. Avoid using disposable tableware (plastic cups and mugs).

Purchases made by hotels are linked to the need to satisfy guests’ expectations and offer them quality service. Nevertheless, purchased products must be considered in their totality (life cycle). Indeed, the different stages of the life of a product – manufacturing, marketing, use and disposal – all have an impact on the environment. The purchasing of “green” products helps to minimise these impacts. These products favour biodegradable, recyclable, non toxic and less processed materials, and their use in the context of a hotel leads to smaller water and energy consumption. Hotels can encourage the use of “green” products by rising awareness of staff, suppliers and guests. Beyond the ecological aspect, the impact on working conditions must also be factored in when selecting products.

**Self-assessment**

1. Do you favour local products whenever possible?
2. Do you favour biodegradable, recyclable or reusable products?
3. Do you pay attention to processes involved in the preparation of the products?
4. Do you purchase appliances and other equipment that are designed for minimum water and energy consumption?
5. Are you willing to spend a little more in order to protect the environment?
6. Do you ask your suppliers about their practices regarding environment protection and working conditions?

Since 50% of a hotel’s solid wastes consist of the packaging and containers of consumed products, it is extremely important to try to reduce their quantity.

**Purchases**

Buy only what is needed (avoid unnecessary supplies).

1. Buy local products to reduce pollution from transportation.
2. Prefer, whenever possible, products that are recycled, reusable, repairable, biodegradable, recyclable, fair trade and/or eco-labelled (such products should not be imported or transported over long distances; otherwise their ecological advantages will be lessened).
3. Use the hotel’s products and equipment in a rational way.
4. When purchasing new equipment, take their water and energy consumption into consideration.
5. Prefer products with little packaging and that use single-material packaging (homogenous and polystyrene-free).
6. Avoid disposable (one-trip) products.
7. Identify and choose suppliers that have already implemented eco-efficiency measures and who agree to take back packaging and used material.
8. Replace paper towel dispensers in wash rooms with energy-saving hot air blowers.
9. Involve guests in the selection of “green products.”
10. Rent equipment that is seldom used by the hotel, instead of buying it.
11. Purchase appropriate mercury- and cadmium-free batteries and rechargeable batteries for applications involving frequent use.
Recycling and re-use

Recycling has become a common practice in businesses and households. Recycling is the practice of collecting and sorting materials such as paper, plastic and glass and then the processing of these materials into new products. This preserves the raw materials that may have been used to make new products and thus helps with sustainability and resource management. Re-using involves the reuse of materials you would otherwise throw away, such as containers, boxes or bottles. The hospitality industry can contribute to recycling by being aware of the products they use and putting recycling and re-use policies into place.

Purchasing policy

A proper purchasing policy is important to improve product handling and minimize losses and wastage and manage and master the hotel’s supply lines.

Other requirements are improving air quality inside buildings, reduce local landscape impact and limit noise pollution. In addition, footpath maintenance, keeping them clear of litter that might start fires, taking voluntary groups, providing public transport and restricted parking zones etc., are necessary. Don't interfere with wildlife - don't scare or feed the animals. Protect resources - don't take too many showers or use air conditioning. Support local communities - stay in locally owned accommodation and buy produce from local people.

Eat local food and drink - avoid products that have been imported from MEDCs. Respect local customs and traditions - some communities are offended when tourists wear inappropriate clothes in religious places, strip off on the beach or behave in a rowdy manner. Local people appreciate tourists who try to learn the language and show an interest in their culture.
Shops
1. If applicable, encourage the shops in the hotel to sell products that are made in ecologically- and socially-friendly ways.
2. Do not allow shops in the hotel to sell souvenirs made from protected or endangered animal or plant species.

Kitchen
2. Choose seasonal fruits and vegetables.
3. Use fresh products with little or no preservatives and food-colouring and with as little packaging as possible.
4. Purchase in bulk rather than individually packaged items.
5. Pay attention to the origin of the foodstuffs used.
6. Equip the kitchen with energy-efficient appliances.
7. Choose the least polluting cleaning agents.

Laundry room
1. Equip the laundry room with machines in energy class A (saving at least 23% on energy consumption) and with washing machines having low water consumption.
2. Buy compact, concentrated products and/or eco-refills to limit packaging wastes.
3. Avoid using detergents containing bleach (products of chlorine), phosphate, EDTA (ethylenediaminetetraacetic acid), NTA (sodium nitriloacetate), etc.
4. Use active oxygen as whitener and/or use plant-based detergents.
5. Prefer detergents whose components are active at low temperature (30°C)
6. Adhere to recommended dosages to avoid unnecessary pollution of water.
7. Choose dry cleaning products that minimise pollution.
8. If you work regularly with a dry cleaner, return the clothes hangers and replace the plastic protection covers with paper or cloth covers.

**Restaurants, bars**

1. Avoid using paper tablecloths and napkins.
2. Use table linen made with environmentally friendly materials, free of hazardous dyes, heavy metals and formaldehyde.
3. Choose wash-resistant materials
4. Avoid using plastic cups or disposable tableware.
5. Prefer draft drinks or deposit bottles.

**Room service, accommodation**

1. Prefer furniture which is easily disposable, being mostly recyclable.
2. Avoid furniture made from exotic wood and, if possible, purchase products with the FSC label (Forest Stewardship Council) guaranteeing ecologically and socially responsible forest usage.
3. Install refillable soap and shampoo dispensers in the rooms to reduce packaging and rationalize their use.
4. Use recycled toilet paper.
6. When cleaning, avoid the use of disinfectants.

**Administration**

1. Buy reusable ink and toner cartridges which can be sent back to the supplier.
2. Purchase paper with at least 50% recycled fibres, or non-whitened or chlorine-free bleached paper.
3. Prefer equipment with a low energy consumption, having recycled or recyclable components and long life spans.

4. Use the “energy saving” functions that switch an appliance into sleeper mode if it is not used for a certain length of time and the “cancel” function to suspend a print job in case of a mistake.

5. Prefer rechargeable batteries.

**Garden**

1. Use organic or biological fertilizers and garden products.
2. Environmental impact: Reduction in wastes quantities and rationalisation of purchases.

**Planning Sustainability**

Rationalising the use of raw materials, including water and energy, reducing the volume of wastes and improving waste management, adopting a more ecological purchasing policy and improving logistics. Improving the quality of the hotel’s internal environment, making the staff aware of the importance of environmental issues are other necessities. To bring the sustainability approach into practice, careful planning is necessary in hospitality and tourism sector, keeping in mind the environment, heritage, management of tourism-worthy regions, historical sites and monuments:

1. Planning
2. Whose involvement is necessary?
3. What do we know of sustainable tourism?
4. Why is the particular region more suitable for such tourism?
5. What are the connected issues that we have to deal with?
6. How to analyse those problems?
7. What principles and goals will guide the project?
8. What can we contribute to the project?
9. How to prepare a Statement of Directions for guidance?

Such projects should be able to meet today’s tourist demands and tomorrow’s environmental protection and open further opportunities to future tourism and Eco-protection. “It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, and biological diversity and life support systems”.

Many of these impacts are linked with the construction of general infrastructure such as roads and airports, and of tourism facilities, including resorts, hotels, restaurants, shops, golf courses and marinas. The negative impacts of tourism development can gradually destroy the environmental resources on which it depends. Tourism can benefit Environment

On the other hand, tourism has the potential to create beneficial effects on the environment by contributing to environmental protection and conservation. It is a way to raise awareness of environmental values and it can serve as a tool to finance protection of natural environment. “With regard to tourism, concomitantly, in the 1980s, as sustainability agendas were entering global discourses the development of environmentally friendly tourism concepts, such as ecotourism, emerged and resonated with sustainable development and sustainability platforms”.

Protection and preservation

Tourism can significantly contribute to environmental protection, conservation and restoration of biological diversity and sustainable use of natural resources. Because of their attractiveness, pristine sites and
natural areas are identified as valuable and the need to keep the attraction alive can lead to creation of national parks and wildlife parks.

In Hawaii, new laws and regulations have been enacted to preserve the Hawaiian rainforest and to protect native species. The coral reefs around the islands and the marine life that depend on them for survival are also protected. Hawaii now has become an international centre for research on ecological systems - and the promotion and preservation of the islands' tourism industry was the main motivation for these actions.

**Storage of chemicals**

1. Keep all chemical products (especially those that are hazardous) in a designated, protected, and safe area.
2. Respect the storage instructions provided by the manufacturers.
3. Label containers of hazardous substances clearly.
4. Avoid storing substances that could interact in the same area.
5. Ensure that the necessary storage conditions are maintained to avoid accidents (appropriate temperature, ventilation, etc.)
6. Avoid exposing flammable products to the sun or to any other source of heat.
7. Restrict access to hazardous products and control their use.

1. Change the filters of air conditioning equipment regularly.
2. Replace old oil-fired burners with natural gas ones.
3. In cases where fuel oil is specifically required, use low sulphur fuel.
4. Draw up a list of all the cooling equipment (air conditioning, refrigeration), check their air-tightness and remove and dispose appropriately of refrigerant fluids (CFC) which are harmful to the ozone layer.
5. Monitor leaks in refrigerating systems.
6. Select fire-extinguishers and fire fighting systems that are halon-free (since halons also contribute to the destruction of the ozone layer).
7. Ask your suppliers to switch off the engines of their vehicles when delivering supplies.

1. Provide high performance indoor ventilation.
2. Identify sources of pollution and eliminate them or decrease their effects.
3. Create non-smoking places in public areas.
4. Mark smoking and non-smoking rooms clearly, if the hotel is not completely smoke-free.
5. Limit the use of aerosols and check that they will not damage the ozone layer.
6. Choose sprays that do not use propellant gases.
7. Ensure close adherence to the instructions for the use of cleaning agents (e.g. “do not use in a confined space”, “do not inhale fumes”).
8. Prefer products that are solvent-free to avoid emissions of volatile organic compounds (VOC).
9. Choose biodegradable cleaning agents.
10. Do not mix cleaning agents (interactions between substances can increase their toxicity).

Landscape integration and protection of natural resources

Use renewable raw materials. Ensure sustainable development. Prefer variety to uniformity. Use different materials for different functions. Utilize materials that have already been tried. Investigate the eco-balances of the materials used. Prefer a regional approach.
Stick to the basics and save resources. Prefer local materials with cultural links. Evaluate your needs and avoid excesses.

1. Check if you are in conformity with your region’s estate layout policy.
2. Give heed to environmental recommendations in laying out your hotel.
3. Aim for visual continuity with the architectural style of the surroundings.
4. Preserve local identity and the natural heritage
5. Whenever possible, use sustainable materials produced locally.
6. Lay out green areas and gardens to make the site more pleasant (preferably using indigenous plants).
7. Place the parking lot in an inconspicuous area of the hotel.
8. Choose, when needed, mineral materials that have a link with the region’s geology.

Areas with high natural diversity or with an important historical heritage are favourite tourist destinations. To respond to the increasing demand, construction linked to the tourism industry has expanded rapidly. This situation creates certain abuses linked with gradual modifications of the environment and landscape that may become irreversible. The growth of tourism and its aesthetic requirements have direct impacts on soil, landscape and on the surrounding ecosystems. In some places developments on the coastline can lead to severe conflicts. Intensive construction practices are harmful to the environment, especially when the building materials used are not in harmony with traditional architecture. Such construction not only robs the landscape of its natural characteristics but also detracts from its identity.
Self-assessment

1. Does your hotel’s visual appearance fit into its surroundings (in terms of colours, shape, and size) and into the region’s cultural landscape?
2. Did you employ a landscaper during the development of the hotel?
3. Do the building materials contain local natural products?
4. Did you employ local craftsmen when building?
5. Did you lay out gardens and limit the area that paved or built on?

Different cultures and diverse outlooks

Because the ecotourism experience is marketed to a different lifestyle from large scale ecotourism, the development of facilities and infrastructure does not need to conform to corporate Western tourism standards, and can be much simpler and less expensive. There is a greater multiplier effect on the economy, because local products, materials, and labor are used. Profits accrue locally and import leakages are reduced.

The Great Barrier Reef Park in Australia reported over half of a billion dollars of indirect income in the area and added thousands of indirect jobs between 2004 and 2005.

Efforts to preserve ecosystems at risk

Some of the world's most exceptional biodiversity is located in the Galapagos Islands. These islands were designated a UNESCO World Heritage site in 1979, then added to UNESCO’s List of World Heritage in Danger in 2007. IGTOA is a non-profit dedicated to preserving this unique living laboratory against the challenges of invasive species, human impact, and tourism.

Moving forward
Currently, there are various moves to create national and international ecotourism accreditation programs, although the process is also controversial. An environmental protection strategy must address the issue of eco-tourists removed from the cause-and-effect of their actions on the environment. More initiatives should be carried out to improve their awareness, sensitize them to environmental issues, and care about the places they visit. Tour guides are an obvious and direct medium to communicate awareness. With the confidence of eco-tourists and intimate knowledge of the environment, they can actively discuss conservation issues. A tour guide training program in Costa Rica's Tortuguero National Park has helped mitigate negative environmental impacts by providing information and regulating tourists on the parks' beaches used by nesting endangered sea turtles.

Use nature’s energies and rhythms

- Do not fight nature, but make the most of what it offers. In addition, footpath maintenance, keeping them clear of litter that might start fires, taking voluntary groups, providing public transport and restricted parking zones etc., are necessary.
- Don't interfere with wildlife - don't scare or feed the animals.
- Protect resources - don't take too many showers or use air conditioning.
- Support local communities - stay in locally owned accommodation and buy produce from local people.
- Eat local food and drink - avoid products that have been imported from MEDCs. Respect local customs and traditions - some communities are offended when tourists wear inappropriate clothes in religious places, strip off on the beach or behave in a rowdy manner. Local people appreciate tourists who try to learn the language and show an interest in their culture.