Ecotourism practices to protect the environment- Examples of practices in some Arab and foreign countries in aviation, green airports, and eco-hotels

Amraoui Soumia*[1]

[1]University of Blida 2 (Algeria)The Laboratory of Entrepreneurship, Human Resources Management,and Sustainable Development, s.amraoui@univ-blida2.dz/
sm.amraoui123@yahoo.com

Abstract:

This research investigates the potential of ecotourism practices in mitigating environmental impact within the tourism sector. The study analyzes the application of eco-friendly approaches in aviation (green airports and airlines) and hospitality (eco-hotels) across Arab and international contexts. Methodologies include a comparative analysis of case studies exploring the implementation of sustainable strategies such as resource conservation, waste management, and community engagement. Results demonstrate the efficacy of ecotourism practices in achieving environmental protection and sustainable development within the tourism industry.

Keywords: Eco-Tourism; Sustainable Hospitality; Green Airports; Eco-friendly Airlines; Environmental Protection.

Jel Classification Codes: L83, Q56, Z32

*Amraoui Soumia

1. INTRODUCTION

The rapid acquisition of new areas for construction has led to the destruction of a large amount of vegetation, especially in coastal and mountainous areas, because it is the most attractive to tourists. In addition, tourism projects contribute to the depletion of water resources, consume energy and pollute the environment because of air and land transport, the use of fossil energy, and the negative impact on monuments. Hotels and restaurants are the basis and vital part of tourism and travel industry, as the hotel industry includes various types of them, such as luxury hotels, tourist hotels of various degrees, hotel suites, and travellers' hotels, as well as airports and aircraft. By tracking the effects that tourism may have, it is necessary to find solutions to these various problems by making them pay attention to environmental considerations, through the so-called *ecotourism*. It is one of the mechanisms or solutions to reduce these problems through the so-called environmental green hotels, airports and aircraft, in addition to other mechanisms, including green transport, environmental reserves in order to protect the environment.

Thus, our problem is as follows:
How can ecotourism contribute to environmental protection?
The sub-questions are as follows:
- What does ecotourism mean?

- What are ecotourism practices that contribute to the environmental protection?

For this, our hypothesis was as follows:

- Ecotourism can contribute to the environmental protection through airports, green planes, and eco-hotels.

The work was divided into the following axes:
- First: The concept of ecotourism

- Second: Eco-tourism practices in the field of airports and green aircraft with the foreign countries models
- Third: Eco-tourism practices in the field of eco-hotels with some foreign countries models

2. The concept of ecotourism

2.1 Definitions of ecotourism

There are many definitions of ecotourism, including:

According to the World Environment Fund, ecotourism is defined as: "Traveling to natural areas that have not been affected by pollution and whose natural balance has not been disturbed, in order to enjoy their landscapes, plants, wild animals and manifestations of their civilizations, past and present."(Bin Ghadban, 2015, p. 70)
Also known as: "A type of tourism that focuses on the enjoyment and conservation of nature, seeking to develop local communities through tourism in a sustainable way, and it is a partnership between the travel industry, tourists and community to preserve the environment to promote environmental sensitivity through responsible travel.(Giannecchini, 1993, p. 429)

We can say that due to the miserable situation of the environment, it is necessary to work to protect it, and that ecotourism is considered a clean green tourism that combines the material and the moral aspects by trying to preserve the integrity of the environment by taking into account the environmental aspects. It represents an environmentally friendly tourism activity, practiced by humans to preserve the environmental balance, as it revolves around awareness of the environment and its various aspects and attention to the local community.

A distinction must be made between **ecotourism and eco-tourism**. Diving to see coral reefs and safari tourism in the desert are tourism activities that use the environment but are not ecotourism unless subject to the conditions of the latter.(Bin Ghadban, 2015, p. 71)

It should be noted that it is necessary to differentiate between natural tourism and **ecotourism**. Natural tourism is a type of tourism that depends mainly on visiting natural areas, as is ecotourism, but it may affect the resources available in these areas, whether they are plants or animal sources, and therefore it does not take into account the issue of environmental conservation, which may significantly affect the region. Since it affects the environment, ecotourism came to reduce these effects to a minimum, meaning that ecotourism came as a result of the negative effects resulting from natural tourism.(Khan & Zawi, 2010, p. 228)

2.2 Activities of Ecotourism:

Ecotourism activities include a variety of activities, including:

- **Hiking:** Hiking is one of the most popular eco-tourism activities.

- **Camping:** Camping is an eco-tourism activity that allows tourists to communicate closely with nature.

- **Birdwatching:** Birdwatching is an ecotourism activity that allows tourists to discover the biodiversity of natural areas.

- **Scuba diving and snorkeling:** These ecotourism activities allow tourists to explore marine life.(Giannecchini, 1993, p. 432)

The ecotourism sector is experiencing rapid growth, with a projected economic value of more than US $100 billion by 2027. (Jackson & Wood, 2022, p. 2)Global reports revealed that in Australia and New Zealand, 32% of visitors searched for landscapes, wild plants and wildlife as part of their trip. In Africa, 80% of tourists who visited countries on this continent considered wildlife a key motivational feature. In North America, 69-88% of European and Japanese travellers considered wildlife and bird watching as one of the most important features of their visits. In Latin America, 50-79% of visitors supported visits to protected areas as an important factor in choosing these destinations. In America, more than 100 million people participated in wildlife activities, of which 76.5million were associated with wildlife viewing, and 24.7 million were interested in nature viewing. In any case, it was estimated that nature and wildlife tourism represents a total of 20-40% of international tourism revenues, with an estimate that it will increase by 20-50% annually.(Sharqi & Saadi, 2023, p. 474)

2.3 Characteristics and dimensions of ecotourism:
Ecotourism has several characteristics, including:

- **Focus on nature:** Ecotourism focuses on visiting natural areas, such as nature reserves, forests and deserts.

- **Conservation of the environment**: Ecotourism seeks to preserve the natural environment by reducing the negative impacts of tourism on it.

- **Sustainable development**: Ecotourism seeks to develop local communities through tourism in a sustainable manner, so that it does not harm the environment and does not exploit local communities.(Selkani, 2018, p. 3)

2.4 Dimensions of Ecotourism:
Ecotourism aims to achieve the following three dimensions:

- **Environmental dimension**: This dimension aims to:
- Maintain environmental balance.
- Insure Environmental security
- Protect the natural life from environmental pollution.
- Maintain the quality of the environment.
- Maintain water and energy.
- Environmental compatibility
- Distinctive architecture designs.

- **Economic dimension**: This dimension includes the following:
- Stop the dissipation of natural resources.
- The responsibility of developed countries for pollution and its treatment.
- Reducing the dependency of developing countries.
- Sustainable development of poor countries.
- Providing jobs and working to increase incomes.
- It helps regional development as a source of income for the local population.

- **Social Dimension**: This dimension aims to:
- Providing an easy, simple life away from worry and inconvenience.
- Provide equity in the distribution of benefits between tourism promoters and members of the host community.
- Relevance of population distribution
- Total and optimal use of human resources.
- Spreading culture and knowledge.

- Protection of the cultural heritage.(Bin Ghadban, 2015, pp. 81-82)

2.5 The rules and foundations of ecotourism:
The most important rules related to ecotourism are:
- Reduce the negative impacts of tourism on natural, cultural and social resources in tourist areas.
- Instruct tourists on the importance of preserving the original environment in natural areas.
- Emphasize the importance of responsible investment, which focuses on cooperating with local authorities in order to meet the needs of the local population and preserve their customs and traditions.
- Conducting social and environmental research in tourist and environmental areas.
- Work to intensify efforts to achieve the highest profit for the host country, through the use of local natural resources and human potential
- Tourism development should go hand in hand with social and environmental development that developments in all fields should coincide so that society does not feel a sudden change.

- Relying on infrastructure that is consistent with the conditions of the environment, reducing the use of trees in heating, and preserving wildlife and culture.

- Focus on the potential energy of ecotourism, that is, the maximum number of tourists who can be received on site by providing them with all requirements and services without pressure.

- Integrating the local population, raising their awareness and educating them about the environment and tourism, and encouraging the establishment of income-generating projects for the local population, such as traditional craft industries.

- Concerting all efforts for the success of ecotourism, through the cooperation of all sectors related to tourism, such as the public and private sectors, official institutions, non-governmental bodies and the local population.(Ayachi, 2016, p. 144)

2.6 Importance of ecotourism:
The importance of ecotourism is:

- Ecotourism contributes to the preservation of the natural environment by reducing the negative impacts of tourism on the environment, such as pollution and overfishing.
- Ecotourism contributes to the development of local communities by providing employment and income opportunities.

- Ecotourism contributes to spread environmental awareness among tourists and locals.(Ştefănică & Vlavian-Gurmeza, 2010, p. 15)

- Ecotourism supports the economy of rural areas by highlighting the natural components, tourist attractions and the integration of the tourist product along with the required specifications.
- Ecotourism builds interpersonal relationships
- Ecotourism has a positive impact on the local economy, as tourism becomes more diversified and businesses directly related to tourism such as transportation, accommodation, food and more prosperous attractions.
- Ecotourism is increasingly seen as a way to learn more about different cultures while supporting local economies.

- Ecotourism is responsible travel that helps preserve the environment and improve the well-being of local people through economic support, with the number of tourists increasing every year it is more important than ever to promote sustainability.(Sharqi & Saadi, 2023, p. 475)

3. Eco-tourism practices in the field of airports and green aviation with some foreign and Arab countries models

3.1 Green aviation

International passenger aviation has increased threefold over the past 25 years, and is expected to continue to increase over the next 25 years. Although it brings significant economic benefits, the growth of the aviation sector leads to greater negative social and environmental impacts. To address this, a sustainable green aviation policy has been developed within a "balanced strategy" that emphasizes the economic benefits of the aviation sector, and aims to address the environmental and social impacts that may arise from its expansion.

Aviation around the world today consumes about 238 million tons of jet kerosene annually, (Qaid, 2021, p. 182)and contributes to climate change by releasing greenhouse gases, such as carbon dioxide, into the atmosphere. In 2020, the global aviation industry produced about 916 million tons of carbon dioxide,(Askr, Hssanien, & Darwish, 2023, p. 28) as aviation contributes of 2% carbon dioxide emission, considered a greenhouse gas causing climate change, expected to reach 3% by 2050.(Qaid, 2021, p. 182)

Green aviation is one mechanism to reduce or mitigate these emissions; it is used to display efforts to make the aviation industry more sustainable by reducing greenhouse gas emissions, noise pollution, and fuel consumption.(Qiu, Hou, Chen, & Meng, 2021, p. 2443)

Aviation can be made more sustainable in several ways:

- **Improving fuel efficiency**: Improving the fuel efficiency of aircraft can help reduce fuel consumption and greenhouse gas emissions, with many ways in which fuel efficiency can be improved: the use of lighter-weight materials in aircraft as well as the improvement of aircraft designs.

- **Switching to fuel alternatives:** Switching to fuel alternatives, such as biofuels or hydrogen, can help reduce greenhouse gas emissions from aviation, yet biofuels and hydrogen are still in the early stages of development, and it remains unclear whether they will be able to meet the growing demand for the aviation industry fuel.

- **Changes in operational processes:** Changes in operational processes, such as reducing the number of unnecessary flights and improving the use of airports, can help reduce greenhouse gas emissions from aviation.

In 2016, a record number of renewable energy installations were installed worldwide, coupled with an 80 percent reduction in solar PV panel costs and a 30 percent decrease in wind energy costs in the past five years alone, and we can consider this a historic turning point in the effort to design and implement sustainable airports.(ICAO, 2017)

The global aviation industry is committed to making aviation more sustainable. In 2019, the International Civil Aviation Organization (ICAO) launched an ambitious action plan to reduce greenhouse gas emissions from aviation, calling for a 50% reduction in global aviation greenhouse gas emissions by 2050 compared to 2005 levels. (Qiu, Hou, Chen, & Meng, 2021, pp. 2444-2450)

3.2 Examples of some airports and green aircraft

The following are **examples of some airports and green aircraft and their environmental practices**:

As the world's leading aircraft maker, Boeing plays a key role in helping the commercial aviation industry achieve its goals of zero-carbon growth from 2020 and a 50% reduction in carbon emissions by 2050.(Qaid, 2021, p. 182)

It is also investing in the development of new, more fuel-efficient aircraft, such as the 787 Dreamliner, also investing in the development of new, more fuel-efficient aircraft, such as the A350. General Electric is also investing in developing more fuel-efficient aircraft engines.(Qiu, Hou, Chen, & Meng, 2021, pp. 2444-2450)

3.3 Groningen Airport Eelde, Netherlands:

The operations of the Green Sustainable Airports Project began at Eelde Airport in the Netherlands. Among the most important environmentally friendly practices adopted by the airport are the following:
- **Continuous landing techniqueCDO**: The application of continuous landing technique CDO, or what was previously called CDA at this airport, contributed to:
- **Noise reduction**: The results of the study at this airport proved that the Boeing 737-800 aircraft, using the CDO technology, has a noise reduction footprint of 40%: that is, the noise reduction is equivalent to 5-7 decibels for 1200 arrivals per year for the long flight (20-40 km), and there is no impact and noise exposure if the flight is near the airport (13 km away) when using the CDO.
- **Fuel savings: Fuel** savings were calculated for two models of aircraft used by the airport (Boeing 737-800 and Embraer 135-145). The fuel savings on the arrival of the Boeing 737-800 aircraft was 15kg, or 7% , while the Embraer 135-145 aircraft was 2 kg, or 2%, equivalent to 10 thousand tons of fuel that could be saved for a total of 1200 arrivals of the two types of aircraft used at the airport.
- **Reducing CO2 emissions:** Results from burning 1 kg of aviation fuel 3.2 kg of CO2, and based on the research carried out by the North Sea Region, reveals that (Boeing 737-800) reduces 46 kg of CO2 per arrival, while Embraer 135-145)) reduces 5 kg of 2 CO per arrival, equivalent to 32 tons, which is reduced annually to 1200 arrivals.

- **Extension of the airport runway:** The runway was extended in June 2012 and this project is considered a milestone in the history of the airport, as well as a model of sustainability in Europe. For this reason, this project has been documented in a film to report its idea for other airports around the world about this special project.

- The film reviews the sustainability aspects of this project, for example: there is a reduction in CO2 by 24% compared to other projects, saving more than 61,000 tons of raw materials; in addition, the electricity required comes from wind energy and the use of light-emitting diode (LED) technology, which yielded 60% energy savings at the runway level.

- **Encouraging eco-friendly transport**: In the field of promoting eco-friendly transport, the airport has a pilot project represented in an electric vehicle charging station, one of four points in the municipality of Tynaarlo where the airport is located. Tynaarlo wants to draw attention to electric cars and stimulate alternative forms of transport.

3.4 Airport Billund, Denmark:

The willow is an agricultural energy crop that aims to introduce wood chips to produce heat at a local heating plant, replacing fossil energy and contributing to the absorption of CO2 gas.In 2011, 12 hectares of willow were planted to produce energy next to Billund Airport. Every two or three years, the willow is harvested and delivered to a local heating plant to be used for heating, knowing that 12 hectares of willow energy cover 10% - 13% of the energy needs for heating.

3.5 London Southend Airport:

More than 100 million British pounds (£) have been invested in Southend Airport by its owners Group Stobart since it was acquired in 2008. New facilities include a train station on London Liverpool Road (only 53minutes in the heart of the city), air traffic control of the terminal tower, extension of the runway and radar. There is also a 4-star hostel for holidays

within walking distance of the station. The hotel features 129 panoramic rooms, a rooftop restaurant as well as private dining and high-tech conference facilities.

Aviation floor lighting lamps have also been used by the airport as part of the Green Sustainable Airports project, by placing light-emitting diodes (LED) technology to illuminate the aviation floor, by applying this new technology (LED), superior operational performance can be obtained, and that is presented as an independent model to be used again in the development of airports.

3.6 Kortrijk-Wevelgem Airport Belgium:

Kortrijk-Wevelgem Airport began studying environmental sustainability criteria, as the Airport Council selected Plus Enviro to carry out a study under the Green Sustainable Airports Project.

The company (Plus Enviro), which is based in Belgium, consists of 03 environmental experts active in environmental issues in Belgium and the Netherlands. The main purpose of this study is to seek for the "best available technologies" and integrate them into the airport structure, as well as infrastructure, making it more environmentally friendly and ensuring its sustainability for a longer period.(Qaid, Developing green tourism to keep pace with global environmental changes in the tourism sector "Studying some global models with reference to the Emirate of Dubai", 2021, pp. 176-178)

3.7 Houari Boumediene Airport Algiers:

Houari Boumediene airport has been granted the quality certificate "ISO 9001 Edition 2009" and the environmental conservation certificate "ISO 14001 Edition 2004" in November 2009. This certificate has been renewed since then every three years in accordance with the law. The company develops an integrated management system, which aims, on the one hand, to improve the quality of its services and equipment to meet the needs of its passenger customers, airlines, state services and shops, and, on the other hand, to develop its facilities and activities and preserve the environment. Thus, every employee in the airport company is concerned with the matter and contributes to his work disposal in the effectiveness of this system. Every new employee is also sensitized to take into account quality and preserves the environment of the institution by the operating leader or by the quality and environment actors under the responsibility of the operating leader of the concerned authority.

The company's employees constantly strive to improve the services provided to customers and constantly participate in the protection of the environment by achieving the following quality and environmental objectives:

- Controlling the consumption of drinking water and discharging water waste into nature.
- Controlling energy consumption and production.
- Managing waste resulting from airport activity by preferring treatment, recycling and selective sorting of waste.
- Controlling the risk of contamination of the ground and its subsoil.
- Improving the level of satisfaction of all customers and users of the airport.
- Increasing commercial and non-commercial services by improving quality and adapting them to the needs of customers and airport users.

- Increase the frequency of users of Algiers Airport.

- Improving constantly the quality of services by respecting the environment.

The Algiers Airport Services Management Company has established principles and rules that must be observed by passengers and car users, which are as follows:

- No smoking inside the stations.
- Conserving water by sealing faucets tightly.
- Contributing in environmental protection.
- Using disposed containers to maintain the cleanliness of the airport.
- Not washing or maintaining cars at the parking level.
- Sorting and recycling waste at the airport to improve the environment of Algiers airport as well as for the following reasons:
  - Considering it as an environmental citizenship.
  - Respecting the Algerian strict regulations.
  - Participating in environmental protection.
  - For Materials control
  - Facilitating waste recycling process.
  - Contributing to maintaining cleanliness and hygiene at the airport.

The Algiers Airport Services Company displays the trash bins in different colours to facilitate the sorting of waste at the airport:
- Blue Trash bin is for plastic waste.
- Green Trash bin is for paper waste.

- Red Trash bin is for all other types of waste.(Qaid, Environmental Management System as a Tool for Airport Sustainability "Case Study of Houari Boumediene International Airport in Algeria, 2020, pp. 93-94)

4. Eco-tourism practices in the field of green hotels with models for foreign countries

4.1. Green hotels

Green hotels are hotels that strive to be more environmentally friendly, through efficient use of energy, water and materials while providing good quality services. Green hotels save and conserve water and reduce energy use and solid waste, and have many benefits such as reduced costs and charges, high profits, low risk investments, increased earnings and positive cash flows.

- The eco-hotel is defined according to the World Tourism Organization as "A place of residence that is based on sound environmental practices, offers a new type of consumption systems in innovative forms and works to encourage production so that it achieves the set of goals pursued by eco-tourism."(Sharqi & Saadi, 2023, p. 477)

- And is also defined as: "A place of residence based on sound environmental practices that introduces a new type of consumption systems in innovative forms and works to encourage production so as to achieve the set of goals pursued by ecotourism."(Qaid & Hadeer, Activating green (environmental) tourism to keep pace with global environmental changes - Case Study of the Green Carbon Project in the UAE, 2017, p. 12)

- Green hotels are also known as sustainability hotels or eco-hotels: "They are accommodation institutions that are concerned with environmental sustainability and mainly seek to reduce their impact on the environment, and these hotels represent part of the sustainable tourism industry that aims to preserve the environment and cultural heritage and promote awareness of social responsibility."(Christianto, Amalia, & Furqan, 2023, pp. 12-13)

Thus, we can say that green hotels represent environmentally friendly facilities through the effective management of their various resources and waste. They save water and energy and reduce solid waste, and therefore, they work to protect the environment as well as save money for their owners, in addition to taking into account the local community, and working to gain the satisfaction of their customers and employees.

A study was conducted in the United States on a group of small hotels, as it showed the trend of the pioneers of these hotels in preserving the environment, and stressed the importance of these hotels to protect the environment, and the trend towards green tourism to win more guests. The study included a selected sample of 280 small hotels in countries such as the United States, Britain, and Australia. The most prominent results of the study are as follows:

- 70% of American tourists are willing to pay an extra $150 at an eco-hotel.
- 55% of American tourists are ready to book their stay in eco-friendly hotels.
- 75% of American tourists prefer to stay in a hotel whose employees have experience in environmental affairs.
- 64% of tourists prefer to stay in hotels that have common interests with the local population.

The value of the eco-tourist experience depends on the characteristics of the place and the nature of the site, with the integration and compatibility of the natural and surrounding elements for the need to deepen and understand the real ecosystem, in order to preserve its characteristics and nature and to achieve the needs of tourists in the natural area, the environmental hotel must be designed and be built with full awareness of the interrelationships between economic, social, cultural and natural resources in the surrounding environment, and determine the size of development within its absorptive capacity and the potential of the natural resources located in it.(Sharqi & Saadi, 2023, p. 477)

4.2. Benefits of Eco-hotels:

Eco-hotelshave the following general benefits:

- **Environmental sustainability:** It uses practices and technologies that reduce the consumption of natural resources such as water and energy, and reduces environmentally harmful emissions such as carbon dioxide emissions.
- **Waste Management**: Effectively separates and recycles waste and minimizes the use of plastic waste.
- **Use eco-friendly materials:** Uses eco-friendly building materials and furniture and encourages the use of organic and local products.
- **Sustainable transport**: Eco-friendly means of transport are available to guests, such as bicycles or electric cars.
- **Environmental Awareness**: Provides information to guests about sustainability and encourages sustainable travel practices.
- **Attention to locals**: It encourages the support of the local economy through the purchase of local products and the provision of services to the local community.
- **Preserving green spaces**: Maintains the surrounding green spaces and encourages outdoors access.(Teng, Lu, & Huang, 2018, p. 110)
- Paying attention to the hotel surrounding environment and respecting the local architectural style design.

- Recruiting and training workers from the surrounding community to work with them and involve them in the planning and operational stages.(Qaid & Hadeer, Activating green (environmental) tourism to keep pace with global environmental changes - Case Study of the Green Carbon Project in the UAE, 2017, p. 420)Besides, it educates both workers and tourists about the surrounding natural and cultural environment.

Europe is one of the largest continents in the number of hotels with 5.54 million hotel rooms, equivalent to half of the total hotel rooms in the world. In 2009, the first Yves Rocher eco-hotel was opened in the city of Cornon. It works to instruct the public about the sustainable environment and consists of 29 rooms and a vegetal spa with an area of 311 square meters, and aspires to respect the environment through services provided to customers.(Tahraoui & Sabea, 2012, p. 9)

Here are some examples of eco-hotels: Liurakata Center, Finan Eco-hotel, and Ibis, Algeria.

4.3 Uluru-Kata Tjuta National Park Interpretative Centre

The centre of Yellowa Kata is located in the Northern Province of Australia, where the hotel site was carefully selected in the shadow of the huge Ayers Rock, Biolora, which is the focus of the Australian cultural heritage. A desert climate and its flat sandy ground in which sand dunes are scattered characterize the site. In the background of the hotel, there are some scattered mountains. The site's natural resources also include sand dunes and rare vegetation such as Umbrella shrubs and wood blood trees, in addition to some oak trees and grasses. Human resources include Anunga tribes, which abound in elements of indigenous Australian culture. The centre gives lessons in understanding the nature of the place. Some of the materials used in construction are from the same site. The walls are made of bricks of the surrounding desert sand, as well as the floors, with the use of natural wood in construction. The building materials were chosen from environmentally friendly materials that help reduce the energy used in transportation and potential energy.

Natural ventilation methods have been used and the few rains that fall on the building are kept for drinking, in addition to relying on complete natural ventilation and not using mechanical air conditioners, and the use of diesel generators. The centre also relied on saving strategies water, the exploitation of drinking purposes rainwater, and the use of a clean drainage water system.

The Yellowa Kata Centre has a number of features, the most important of which are:
- The location of the centre was deliberately chosen to adjoin the local population to achieve participation and interaction with them.
- The use of local building materials and construction systems.
- The elements of the project included spaces for folk dancing and a collection of exhibitions of local products, for the active participation of the population.
- The use of all local climate methods and treatments used by the local population.
- The participation of the community was as supervising exhibitions of local products and presenting cultural performances to visitors.

4.4 Eco Lodge Finan

Feynan Eco Lodge is the first Eco Hotels project in Jordan, which manages and operates the Eco Lodge through a unique partnership between the private sector and a non-profit organizations owner, the Royal Society for the Conservation of Nature.

Located on the southeastern edge of the Dana Biosphere Reserve, Wadi Finan spans four vital geographic regions with diverse terrains and wildlife, and is at the same time one of the most threatened reserves in Jordan.

Finan Eco Lodge carries the style and design of the historical caravan boxes that were scattered along the Silk Road, which represented a stopover for commercial caravans during their long journeys through China, Central Asia and Europe, to provide supplies and rest before embarking on their next journey. These caravan cells were the first global land-based communications network. They are a witness to the cultural communication that has reached its zenith in the Islamic world. They were also considered a platform for travellers and pilgrims to tell their stories, discoveries and acquaintances.

Finan Inn has a number of features, the most important of which are:
- Feynan Inn is not connected to any electrical grid; it generates 100% of its electrical energy through solar energy.
- Featuring warm weather throughout the year, the inn requires only brief heating during the year and ranges from 60-90 days during winter nights, as the peat produced from the olive pressing process is used to burn it in stoves to provide warmth in the inn.
- The lodge draws water from a local spring near Wadi Dana, taking care to rationalize its consumption in the kitchen, while water-saving devices reduce the rush of water from the faucets in the rooms.
- The lodge has a composting facility for uncooked food waste in order to reduce waste and make better use of available resources.
- Employing local residents and investing in social and economic initiatives, as all the employees of Finan Inn are members of local communities residing in the areas surrounding the Dana Biosphere Reserve, which helps to give a unique atmosphere of authenticity to the place.

- Collaborate with the local community to provide additional services.(Sharqi & Saadi, 2023, pp. 479-482)

4.5 Ibis Hotel Algiers:

Ibis is committed to a programme under the name" PLANET 21" launched by the Accor Group related to several axes, including: health, nature, energy, creativity, local, employment and eventually dialogue. In 2014, the brand "Ibis" became the first global group to obtain the ISO 14001 standard,(Ben Daoud, 2020, p. 165)and through the table below we explain the principles that ibis adheres to:

Table 1. Principles of the PLANET21 programme at Ibis Hotel

• Bracket	21 Commitments	21 goals
Health	1. Interior Health	85% of hotels use eco-friendly products
	2. Promoting Responsible Nutrition	80% provide balanced meals
	3. Prevention from diseases	95% join prevention-training courses for the benefit of users.
Nature,	Reducing water use	15% - for water consumption between 2011 and 2015
	Waste Recycling Development	85% of hotels recycle their waste

	Conservation of Biodiversity	60% Hotels participated in the Reforestation plant for the planet programme.
Energy Sector	Energy reduction	10% - Energy use between 2011 and 2015
	CO_2 reduction	10% - CO_2 emission between 2011-2015
	Renewable Energy Development	10% Hotels use renewable energies
Creativity	Environmental design	40% of hotels incorporate at least three environmental elements into rooms
	Promoting Sustainable Buildings	21 new hotels with a standard for sustainable buildings
	Presentations of sustainable technology	20% Hotels Offer Green Seminars
Locally	Protecting children from abuse	70% of hotels are committed to child protection
	Development of Responsible Procurement Branches	70% Hotels buy and give importance to products coming from the country of origin.
	Ecosystem Conservation	100% Hotels are moving away from endangered marine products in their listings.
Recruitment	Encouraging our shareholders	70% of hotel managers have benefited from internal promotion.
	Making Excellence a Fortune	35% of hotel managers are women.
	Improving the Quality of Life (QOL)	100% of the developed countries in which are our hotels organize biannual opinion investigations for their associates.
Dialogue	Moving our business towards transparency	ACCOR is present with 6 globally known standards or indicators.
	Commitment of our hotels to franchise licenses and bye management contract	40% of hotels have an ISO 14001 or EarthCheck environmental standard, regardless of their management system.
	Sharing our actions with our suppliers	100% of our procurement contracts respect the group's procurement charter.

Source: (Ben Daoud, 2020, p. 166)

Through the above table, we can say that Ibis Hotel seeks to achieve ecotourism through environmental protection and sustainable development. It works on reducing water and energy use, developing and recycling waste, training new employees and urging them to preserve the environment, reducing carbon dioxide emissions, developing renewable energies, preserving the ecosystem, preferring environmental design and promoting sustainable buildings.

Three strategic objectives have been identified starting from 2016, and are as follows:
- **Hotel ecological construction preference**: 45% of hotels have at least three environmental elements in rooms.
- **Exploitation of sustainable buildings Expansion**: 21 new hotels receive international standards related to sustainable construction.

- **Sustainable technology Presentation**.

Social Responsibility: Ibis enjoys social responsibility, as it is concerned with ensuring the health and quality of life of its employees within the protection of domestic laws, human rights and freedom of meeting. The hotel management works under the guidance of the Group, as it achieves this through the opinion polls that it organizes periodically, and tries to establish a socially responsible management for the benefit of its customers from the owner partners. The responsibility of the Group towards its employees accounts for the following:

Dialogue: Without dialogue, there can be no engaged and motivated employees, with a focus on important foundations such as remuneration, responsibility, and listening, which is an approach policy for the employee, and aims to achieve job satisfaction for hotel users.

Excellence is a key factor for hotel employees in order to form teams, develop organizational loyalty, encourage creativity and interact with change agents. A hotel institution that is distinguished and respects its employees gives a distinct feeling and image in the hearts of employees.

With regard to Ibis responsibility towards society, the most important principles were represented in three main axes within the "PLANET 21" programme.

- **Internal Competencies**: Support economic development through internal competency assessment.
- **Training and assistance**: By working to help social groups in need of training and recycling.
- **Charity and humanitarianwork**: Assistance to disadvantaged classes by intervening in an emergency with material assistance.

4.6 Establishment of the Code of Business Ethics (RSE):

In 2014, an ethics committee was formed, whose tasks were as follows:

- Inform the Committee of all ethics-related questions in order to face common threats and dangers.
- Put forward some recommendations related to the evolution of human resources commitments, risk management and sustainable development.
- Follow up the implementation and performance in the hotel strategy.
- Discuss all topics related to the ethics of management, administration and business leadership, and various situations related to interest conflicts.
- Analyse continuously the causes of non-working activities, and additional observations when necessary.(Ben Daoud, 2020, pp. 167-169.)

We can say that green hotels are very significant in protecting the environment, as the US Green Building Council has confirmed the ability of green hotels to achieve a 30% -50% reduction in energy consumption, 35% reduction in carbon emissions, 40% reduction in water consumption, and 70% reduction in solid waste expenses. On the other hand, adopting sustainable practices increases customer satisfaction and improves employee spirits.(Fayad et al, 2013, p. 161)

5. CONCLUSION

The tourism activity growth acceleration and the high demand for tourism services led to a tremendous expansion of natural spaces, which caused damage to the environment that led to the disruption of its balance, which necessitated finding solutions to this through ecotourism with its various practices, including eco-airports and eco-hotels. To rationalize the consumption of water, energy, protection of the local community, all in order to protect and preserve the environment and create the so-called eco-tourist.

The Outcomes

- Ecotourism is very important, especially for developing countries, as it represents a source of income in addition to preserving the environment and achieving sustainable development.
- Ecotourism is one of the mechanisms for preserving and protecting the environment by reducing water and material consumption, as well as reducing waste and emissions, protecting organisms from extinction...
- Ecotourism educates tourists on the importance of preserving natural, cultural and social resources in tourist areas.

- Green airplanes and airports and green hotels play an important role in overcoming the problems of hotels, aircraft and traditional airports, in addition to being able to use their environmentally friendly image and reputation as a marketing tool that can attract many tourists as well as attract the interest of the local community.

The answer to the study hypothesis is as follows:

Ecotourism can contribute to environmental protection through: airports, green planes, eco-hotels.

Recommendations:

✓ All efforts must be combined for the success of ecotourism through the cooperation of all tourism-related sectors, the private and government sectors, official institutions and non-governmental bodies, in addition to the local population.

✓ Encouraging investors to develop their tourism products in line with environmental considerations, as well as encouraging users (tourists) to maintain quality of life, encourage contribution processes and preserve the local community.

✓ Exchanging ideas on the latest technologies, processes and policies in the field of ecotourism by focusing attention on environmental issues may enhance the ongoing efforts of hotels, aircraft and airports around the world to reduce greenhouse gas emissions and solid waste and ensure more sustainable operations.

✓ Working on the preparation of accurate studies by specialized bodies to ensure that tourists do not harm the balance and biodiversity, as well as integrating environmental considerations into all stages of the tourist journey from the airport to the hotel.

✓ Cooperating between green hotels by Introducing new ideas and mechanisms to greening its business and achieving customer satisfaction.

✓ Working on the enactment of environmental government legislation, especially with regard to green hotels and green airports to force hotel and airport builders to adhere to environmental standards such as reducing the consumption of energy used in lighting and air conditioners, and make them work automatically, and similarly for water use.

✓ Governments support to eco-hotel builders and encourage them financially and morally.

✓ Stakeholders must consider themselves part of the environment, as they must preserve natural resources such as water, energy and plants to ward off any risk of pollution and degradation problems.

✓ Determine the absorptive capacity of the tourist area or place to regulate the number of tourists coming to the tourist area so that this does not affect the natural and social environment on the one hand and tourists on the other.

✓ Work to improve the means of transportation to and from airports as well as airplanes and make them "green", as well as work to make them use clean fuel in order to reduce the rates of environmental pollution in its various forms.

✓ Instructing hotel or airport staffs to be aware of the various environmental aspects and oblige them to green hotel and airport businesses, and introducing consumers or tourists to the environmental benefits of the hotels or airports provided services.

✓ Raising environmental awareness and cultivation for tourists and local people by raising their awareness to modify their daily behaviours in line with environmental preservation, and draw their attention to the advantages enjoyed by green hotels and green airports.

7. BIBLIOGRAPHY LIST :

- Askr, H., Hssanien, A. E., & Darwish, A. (2023). Prediction of climate change impact based on air flight co2 emissions using machine learning: towards green air flights. *Studies in Big Data*, 27-37.

- Ayachi, A. (2016). Strategies for the Development of Ecotourism in Algeria from the Perspective of Sustainability Tassili Barn Bualia Elizi - Omnothja. *PhD Thesis in Economic Sciences, Specialization: Economic Analysis*. Ouargla, Faculty of Economic Sciences, Commercial Sciences and Management Sciences , Department of Economic Sciences, Algeria: University of Kasidi Merbah Ouargla.

- Ben Daoud, S. (2020). Green Practices in the Hotel Sector as a Pathway to Achieving Sustainable Tourism Development – Case Study: ibis Hotel Algiers Airport. *Journal of Business Administration and Economic Studies, Volume 06, Issue 01*.

- Bin Ghadban, F. (2015). *Sustainable Ecotourism between Theory and Practice.* Amman: Dar Safaa for Printing, Publishing and Distribution.

- Christianto, J., Amalia, A., & Furqan, A. (2023). Green Hotels development policy as a low carbon tourism development effort in Indonesia. *International Journal of Sustainable Competitiveness on Tourism, 2(01)*, 12-24.

- Fayad et al, S. (2013). A Study on Green Hotels in Egypt. *Journal of the Association of Arab Universities for Tourism and Hotels, Volume 10, Issue 1*.

- Giannecchini, J. (1993). Ecotourism: new partners, new relationships. *Conservation Biology, 7(2)*, 429-432.

- ICAO. (2017). *Symposium Drives Progress Towards Greener Airports.*

- Jackson, G., & Wood, M. E. (2022). Ecotourism. *Oxford Research Encyclopedia of Environmental Science.*

- Khan , A., & Zawi, S. (2010). Ecotourism and its Impact on Development in Rural Areas . *Journal of Economic and Administrative Research, 7th Issue.*

- Qaid, L. (2020). *Environmental Management System as a Tool for Airport Sustainability "Case Study of Houari Boumediene International Airport in Algeria.* Journal of Scientific Research in Environmental Legislation, Volume 07, Issue 01.

- Qaid, L. (2021). Developing green tourism to keep pace with global environmental changes in the tourism sector "Studying some global models with reference to the Emirate of Dubai". *a thesis submitted for a doctorate of science in management sciences, specialization: Environmental and Tourism Management*. Algiers, Faculty of Economic Sciences, Commercial Sciences and Management Sciences, Department of Management Sciences p. 182., Algeria: University of Algeria 3.

- Qaid, L., & Hadeer, A. (2017). Activating green (environmental) tourism to keep pace with global environmental changes - Case Study of the Green Carbon Project in the UAE. *Journal of Economic Visions, Martyr Hama University for Valley Vegetables*.

- Qiu, R., Hou, S., Chen, X., & Meng, Z. (2021). Green aviation industry sustainable development towards an integrated support system. *Business Strategy and the Environment, 30(5).*

- Selkani, I. (2018). Ecotourism… a new way to travel. *Journal of Tourism &Amp; Hospitality, 07(04).*

- Sharqi, J., & Saadi, M. (2023). Towards a More Sustainable Hospitality Industry: The Eco-Hotel Model. *Journal of Studies in Economics and Business Administration, Volume 6, Issue 01.*

- Ştefănică, M., & Vlavian-Gurmeza, M. (2010). Ecotourism – model of sustainable tourist development. *Studies and Scientific Research. Economics Edition, (15).*

- Tahraoui, D. A., & Sabea, A. (2012). Environmental Responsibility in the Tourism Sector: Green Hotels and Sustainable Tourism. *Economic and Administrative Research Magazine, Volume ,13 Number 01.*

- Teng, C., Lu, A. C., & Huang, T. (2018). Drivers of consumers' behavioral intention toward green hotels. *International Journal of Contemporary Hospitality Management, 30(2).*