

## Green Practices and Sustainable Tourism Development in Hurghada, Egypt: 5-Star Hotels as a Model

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### Abstract

*This study analyzed the green practices (GPs) adopted by 5-star hotels in Hurghada and their impact on sustainable tourism development (STD). A qualitative research approach was selected for this purpose. The respondents for the study were managers, owners, and heads of departments who were directly involved in the daily management of hotels. The data were collected via focus group discussions (FGDs) and semi-structured interviews (SSIs). The sample size was limited to 18 respondents collectively. The findings of the study showed that 5-star hotels in Hurghada have conducted different trainings associated with the practical importance and implications of GPs for their staff, displayed guiding sign boards, reduced the usage of electric equipment, shifted from traditional energy to solar systems, activated operating schedules for lighting and air-conditioning systems, installed motion sensors and are recycling used water. Moreover, Lush products, which are environmentally friendly items recommended by international agencies, are being used. In addition, the adoption of GPs has not only minimized operational costs for hotels but is also attracting many travelers/tourists from developed regions. To strengthen sustainable tourism (ST), there must be a national-level policy to implement GPs in hotels and other tourist places. Awareness is the most important factor for the successful implementation of GPs not only in hotels but also in general places in Hurghada, Egypt to promote STD.*

**Keywords:** Focus Group Discussions, Green Practices, Hurghada, Lush, & Semi-Structured Interviews.

### INTRODUCTION

Egypt has many beautiful islands on the Red Sea coast (Shalan, 2005), one of them being Hurghada, which is the most attractive tourist destination. The natural environment, weather, and community norms make Hurghada a charming and attractive place for local and international tourists (Robinson et al., 2020; Abou Amer et al., 2023). Hurghada began as a small fishing island. However, in the 1980s, it became the first tourist destination on the Egyptian Red Sea and the only other tourist destination, besides Eilat, Israel, in the territory at the time (Hawkins & Roberts, 1994). Hurghada's coast spans approximately 62 km along the Red Sea and its tourist attractions are primarily water-based sports and different entertainment activities (Frihy et al., 1996). Before the 1980s, the seaside was not easily available and was confined to a limited number of tourists. Today, Hurghada has also been transformed into one of the leading tourist destinations in Egypt and is also home to over 261,714 inhabitants. It sprawls over an area of approximately 60 km and has over 170 hotels and other tourist accommodations.

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Moreover, there are about 60 diving centers located in the city, which are also a source of attraction for tourists (Serour, 2004). Hurghada's clear blue waters and beautiful weather make it an ideal location for a host of tourism activities such as swimming, diving, scuba diving, snorkeling, exploring with glass-bottom ships and submarines, boating, submarine shooting, sport fishing, beach activities, and sunbathing. Over 100 major leisure resorts have been built in Hurghada in the last two decades. Due to its attractions for international tourists, economic activities have been increasing in the region of Hurghada.

Studies have shown that rapid economic development adversely affects the environmental vulnerability of the ecosystem (Azevedo et al., 2011; Gohar, 2017; Hassan et al., 2020; Baig et al., 2022; Abou Amer et al., 2023; Cheng & Yu, 2021; Verma & Chandra, 2016, 2018; Movano & Hughes, 2020; Abu-Elhassan & Elsayed, 2020). To overcome the issue of climate change and the environment, the government of Egypt has formulated some standard operating procedures (SOPs) for hotels and tourist-related businesses to ensure that green practices (GPs) or activities that minimize the effects on the environment and biodiversity are observed. In this regard, hotels, and tourist cottages in Hurghada have implemented and adopted some GPs related to energy and water, although both these natural resources are scarce in this city. These GPs not only enhance the productivity of the tourism sector but also attract international tourists in search of green hotels. Due to the awareness among people from developed countries regarding the importance of GPs, they are searching for more and more green hotels to stay in and to spend their vacation or leisure time with families (Green Hotels Association, 2014; Kim & Han, 2010).

Due to the emergence of information and communications technology (ICT), economic activities, including hotel businesses and tourism development, have increased. Juvan and Dolnicar (2017) and the World Travel and Tourism Council (WTTC; 2018) stated that around 10.4% of the overall global gross domestic product (GDP) is determined by tourism-related businesses, which involve around 7% of the world's exports and 10% of overall employment in tourism sectors. On the other hand, tourism activities emit almost 8% of greenhouse gases, which not only affect biodiversity but also harm human health (Lenzen et al., 2018). Due to the growing awareness and consciousness of global environmental problems, more and more hotels, resorts, vacation homes, and tourism-related industries have been developing, implementing, and adopting GPs to ensure the sustainability of tourism sectors without any adverse effects on biodiversity (Ibnou-Laaroussi et al., 2020). GPs and methods in everyday activities attract consumers and encourage the promotion of sustainable tourism development (STD; Moise et al., 2021; Movano & Hughes, 2020).

The purpose of adopting and implementing the Green Star criteria (GSC) is to ensure the commitment of hotels and tourism sectors to environmental preservation and tourism sustainability by taking pro-environmental steps to avoid harming the environment and biodiversity (Abou Amer et al., 2023; Cheng & Yu, 2021). The implementation of GPs in hotels involves installing energy-efficient appliances, reusing wastewater, recycling, and employing renewable energy programs in addition to reducing water consumption levels by installing water-efficient strategies and apparatus, and applying linen and towel recycling services (Abdou et al., 2020). Furthermore, hotels try to use water and energy resources efficiently to promote the industrial and hotel sectors along with saving huge amounts in the tourism sectors (Duric & Topler, 2021; Alhelal, 2015). Each day, excess water and energy resources are being wasted in hotels due to the inefficient and inappropriate usage of natural resources. There is also a shortage of water supply in many cities in Egypt, including in Hurghada.

Similarly, to promote environmentally friendly practices, Abou Amer et al. (2023) conducted a study of hotels in Hurghada and Mecca that use non-plastic and non-rubber packaged Lush products, paper napkins, paper towels, and disposable cups to promote STD. In addition to the above programs to save water, hotels in Hurghada also promote energy-saving strategies through the installation of energy savers, renewable energy

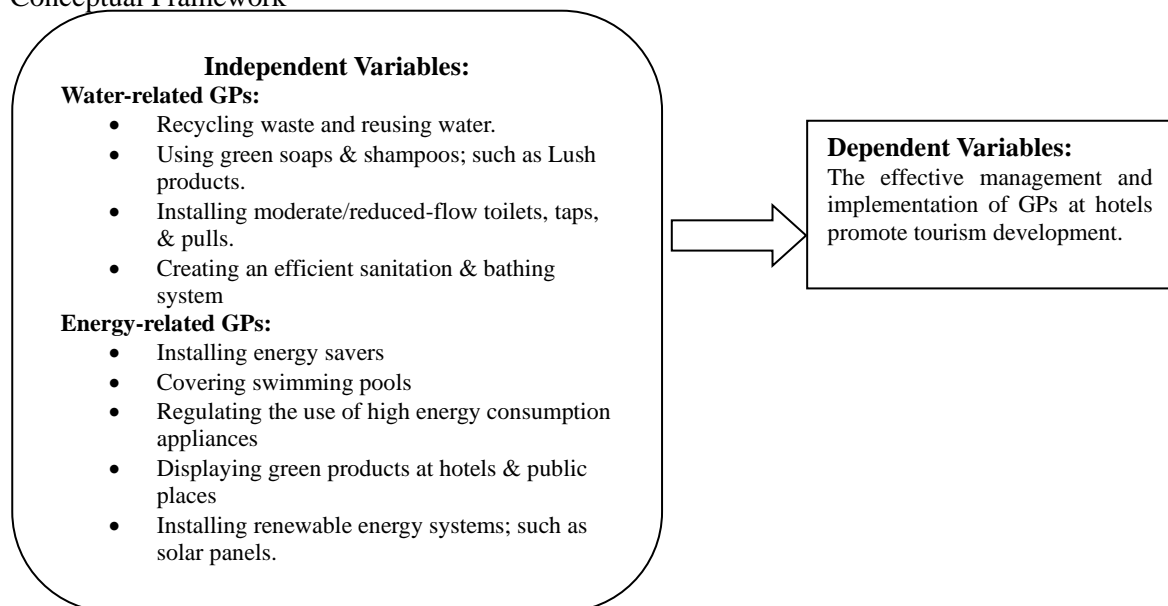
sources, solar plants, lights that switch off from midnight onwards, key-card control systems (KCS), regulators for every appliance in rooms, frequent changing of towels, the display of green products, and monitoring of heating, ventilation, and air-conditioning in lobbies. Furthermore, to conserve limited water resources, the hotels have implemented methods such as reasonable-flow toilets, reduced-flow sinks, tidy tabs that recycle greywater, using water-effective appliances, and observing good sanitation overall. The transfer from traditional energy reserves to solar energy also encourages a nature-friendly method for the sustainable promotion of tourism (Baig et al., 2022). Also, training sessions are conducted for hotel owners and tourism sector employees to create awareness regarding the importance of GPs, which in turn can promote STDs in Egypt and adjacent states (Abou Amer et al., 2023).

### Research Questions

This present study examined the following three research questions:

- 1) Which water- and energy-related GPs have 5-star hotels in Hurghada implemented?
- 2) What are the challenges that these 5-star hotels face when implementing these GPs in Hurghada's tourism sector?
- 3) How does the successful implementation of these GPs by these 5-star hotels benefit tourism development in Hurghada?

### Conceptual Framework



The independent variables were divided into GPs related to water and energy. The indicators were recycling and reusing water, using green soap and shampoos, moderate/reduced-flow toilet tabs, efficient sanitation and bathing, installing energy savers, and pool covers, controlling high energy consumption appliances, displaying green products at hotels and public places, and utilizing renewable energy (solar panels). On the other hand, the dependent variables were the effective management and implementation of GPs in 5-star hotels to promote STD in Hurghada, Egypt.

## RESEARCH METHODOLOGY

A qualitative research approach was designed based on the non-numeric data collected through semi-structured interviews (SSIs) and focus group discussions (FGDs). Responses were in the form of views, statements, stories, and arguments. The local study

was limited to Hurghada, Egypt. The respondents were managers in the hotel industry, higher-level management staff, administrative-related staff, and officers dealing with hotels and tourism-related activities. The respondents also included hotel owners and officers of the Department of Tourism. The hotels were selected for this research on a referral basis and the respondents were contacted. The purpose of the SSIs and FGDs was discussed before the interviews. Both semi-structured questionnaires and interview guides were used as the data collection tools. The views of 18-20 respondents were obtained during the data collection phase.

On the other hand, to further strengthen the FGD results, three in-depth face-to-face SSIs were conducted using semi-structured questionnaires. After these interviews, no new information was obtained and as a result, the sample size was reduced to five FGDs and three semi-structured questionnaires. Before starting the interviews, a sense of trust and confidence was established among the respondents. A thematic analysis was used to systematically analyze the collected data, as it was deemed to be more reliable.

## **A REVIEW OF EXTANT LITERATURE**

The World Tourism Organization (2016) found that global travel and tourism contributed to almost 10% of the global GDP and approximately 7% of the global trade. Despite this positive contribution to global GDP and trade, it has negatively affected the environment and climate change (Zhandildina et al., 2021; Abu-Elhassan et al., 2016). The growth of the travel industry has contributed to the release of greenhouse gases, an upsurge in the amount of environmental pollution due to the use of non-renewable energy, contaminated water, and waste production, all of which have damaged the local coastal and water biodiversity and posed a threat to the sustainability and living of the local people (Gohar, 2017). Similarly, the WTO (2012) found that the expansion of the travel industry caused a drastic increase in radiation due to the release of greenhouse gases and poisons in the water. In many advanced countries, wastewater is recycled and reused. These water-saving tools and techniques minimize water expenses, reduce the quantity of wastewater, overcome operational costs, and encourage the efficient recycling of used water. They also reduce management costs and decrease capital expenditures by lowering the overall number of pumps and water heaters in hotels (Wyngaard et al., 2018; Han et al., 2010).

Similarly, sustainable tourism (ST) aims to have a positive impact on the environment, society, economy, and overall development. In contrast, worldwide travel and the tourism industry have grown tremendously over the past two decades due to safe travel strategies and conveniences provided by diverse travel agencies. There is a growing number of different types of tourism such as adventure tourism, medical tourism, eco-tourism, environmental tourism, ST, etc. As people are more aware of ST, travelers nowadays prefer to visit tourist locations that do not have any adverse impact on the environment and people (Conrady & Buck, 2007). Movano and Hughes (2020) stated that in the past 15 years, tourism activities have increased significantly in countries where novel places are being discovered. For instance, the coastal areas of Kenya and Tanzania, both located in East Africa, have experienced unprecedented tourism growth. Although most developing countries perceive tourism activities as posing challenges to the sustainability of their tourism industry, the majority of countries are trying to build a positive narrative about green tourism through GPs and marketing (Sloan et al., 2013).

Green marketing originated from the idea that human requirements should have the least damaging impact on the environment (Aqaba, 2017). As society becomes more conscious of the impact businesses have on the environment, clients are keen and willing to buy goods or contribute to procedures that appear to help safeguard the environment. These include 'eco-friendly,' 'environmentally responsive,' and 'green' products. By buying and consuming such products, customers fulfill their societal and ecological responsibilities (Vermeer & Verbeke, 2006). Many companies have reported financial gains from going

green. For example, Westin in Seattle announced that by using energy-efficient appliances, it has reduced its energy consumption by 66%, saving \$400,000 per year (Pan et al., 2018). A similar system was introduced at the Hyatt Regency, New Zealand. The system cost \$16,000 to buy but in just 14 months after implementing the system, they saved \$14,000 (Zimon, 2020). The global tourism industry is facing many challenges due to the numerous environmental disparities and issues leading to competition at the international level (Ozgit & Zhandildina, 2021; Jones et al., 2014).

The Egyptian hospitality and tourism sectors are facing the same situation as other neighboring countries in the region. Following the events of the Egyptian Revolution on 25<sup>th</sup> January, the tourism sector in Egypt suffered serious repercussions, including a high staff turnover. Hotels and tourism businesses are in a constant struggle to survive with higher operational costs (Abu-Elhassan et al., 2016). Thus, Egyptian hotel managers launched operations to establish new ideas and ways to enhance the quality of essential services and products. In the past few years, however, the Egyptian government and corporations have become more and more concerned about environmental problems. Currently, both the tourism sector and consumers are grappling with issues due to a lack of informed awareness and effective management of environmental concerns, particularly in Hurghada (Chikodzi et al., 2020; Hassan et al., 2020).

The growth of Hurghada has mainly been tied to that of another city, Safaga, due to their closeness and because tourists to Safaga often arrive at Hurghada airport first. Hurghada, initially a small fishing village, gained prominence in the 1980s and became the first tourist route and destination along the Egyptian Red Sea to attract the attention of international tourists. Its coast along the Red Sea continues for around 62 km, and it is essentially frequented by tourists for water-based sports and activities such as swimming and boating (Raub & Blunschi, 2014). The tourism sector in Hurghada has improved its green efforts to educate hotel employees and guests about the importance of conserving water and energy as well as reducing waste to ensure a higher level of sustainability. One approach, which is supported by supervisors who encourage green education, is to merge green human resource management (GHRM) practices and accessibility to green training (Kim et al., 2019).

However, despite the impact of green training on the environmental performance of hotels in Hurghada, there is a still lack of evidence-based research that encourages green instructions for environmental performance (Kim et al., 2019; Abou Amer et al., 2023). While tourism brings numerous benefits to a country, there are damaging impacts related to it as well. Some of these comprise air, water, and noise pollution, harmful social factors, labor issues, and threats to mammal and vegetable life (Bohdanowicz et al., 2016). Environmental laws and a growing awareness among tourists have pushed them to choose eco-friendly hotels (Myra et al., 2015). Accordingly, some hotels are already beginning to implement various innovative methods to increase the green concept throughout their operations, for example, by saving on water and energy usage and reducing solid waste (Manaktola & Jauhar, 2007).

On the other hand, energy-saving has been identified as one of the most important aspects of environmental management in the hotel industry. Commonly, many hotels in Hurghada expend higher quantities of fossil fuel energy and electrical energy in different working areas or operational plants. Based on the existing literature and data, the hotel industry has witnessed higher rates of energy conservation since the advent of the tourism revolution. Some energy-saving approaches include the overall execution of renewable energy programs such as the use of solar and wind power, installation of energy-efficient applications and gear, installation of digital regulators to control room energy consumption levels, the use of energy star-capable products, the connection of motion devices that mechanically turn off lights in low-traffic areas, installation of triple-glazed openings, and the use of energy-efficient light bulbs (LED) in the daytime rather than simulated lights when cleaning unused dirty rooms (Abou Amer et al., 2023). GPs have

numerous benefits for tourism development, including more well-organized supply operations, lower operational costs, cost-effective electrical supplies, and minimal ecological impact (Jabbour et al., 2019).

GPs in tourism activities are essentially concentrated on energy maintenance and waste management plans (Silva-Alanson et al., 2011). Chan (2008) mentioned three major barriers to the employment of GPs: firstly, the lack of resources, learning, and competent human resources; secondly, knowledge among the public; and thirdly, the higher cost of execution and preservation (Tzschentke et al., 2004; Singal, 2013). Furthermore, there are uncertainties about the financial aspects and effects of the implementation of GPs in hotels. A study on tourism in Europe by Martinez, and Bosque (2013) demonstrated the economic effectiveness of GPs. The study showed that the implementation of such practices minimizes the operational costs of hotels. Meanwhile, Claver-Cortés et al. (2007) stated that many case studies have shown that the cost of green methodologies can be compensated by water and energy cost savings within a few years.

The tourism sector in Hurghada is facing numerous challenges and issues at a general level with the implementation of GPs. Some of the main challenges involve a lack of general awareness and education among workers and visitors regarding the negative aspects of climate change and the importance of GPs. Many tourism operators are not informed of the value of GPs and their effects on the environment. There is also a lack of knowledge and educational programs for tourism employees to learn about ST practices (Abou Amer et al., 2023). For example, the existing infrastructure in Mecca does not support or accommodate ST practices. There is also a lack of recovery services, energy-efficient buildings, and public transport systems (Rahman, 2012).

The tourism industry in Hurghada provides a considerable source of income for the city and country. Applying ST methods may involve substantial investments, which can be a point of contention for many tourism operators, particularly small and medium-sized businesses. In addition, there is a lack of government guidelines and policies that encourage ST practices in Mecca. Without a supervisory framework, several tourism operators may not see the benefits of implementing sustainable practices. In conclusion, the tourism sector in Hurghada has been encountering several challenges when it comes to the adoption of GPs. To overcome these challenges, it is important to increase the awareness of the significance of ST practices, participate in sustainable infrastructure, and develop guidelines and principles that encourage sustainability in the tourism sphere (Agyeiwaah et al., 2017; Abou Amer et al., 2023).

## **RESULTS AND DISCUSSION**

The introduction of GPs in hotels is an innovative approach that is environmentally and ecologically friendly. This means eliminating undesirable impacts on the environment by saving energy and water resources.

### **The Green Practices (GPs) Adopted by 5-star Hotels in Hurghada, Egypt**

The tourism sector plays an important role in the social and economic development of a country. Many countries across the world are heavily dependent on tourism, especially concerning economic sustainability. Although the tourism sector is profitable in terms of monetary output, tourism activities emit high levels of harmful greenhouse gases, which affect biodiversity and human health. Therefore, hotels and tourist spots have adopted GPs (water and energy). Sustainable GPs are being implemented and adopted these days in response to the environmental concerns of tourists, as reflected by their pro-environmental decisions when traveling, booking hotels, or selecting a place to stay. According to an FGD respondent:

“Most international tourists look for environmentally friendly hotels to spend their vacations with their families.”

During the FGDs, most of the respondents from higher levels of management said that they had implemented many green initiatives and energy-saving strategies to attract international tourists and ensure the adoption of positive climate practices due to the higher level of awareness among tourists from developed countries. One such example is the installation of water savers in each water tap inside the rooms and public areas outside the hotels. In the present context, people also realize the importance of saving water and energy and are especially aware of the benefits of reducing their consumption of both these resources. According to another FGD respondent:

“We always clean the swimming pools and rid the beaches of any type of pollution, such as plastic bottles, stones, etc. We've also installed press-to-dispense shampoo and soap containers in the guests' rooms to further protect the environment.”

Similarly, 5-star hotels have also installed energy and water-saving devices in rooms and public bathrooms as well. Moreover, comprehensive training and awareness programs have also been conducted in hotels to educate staff on the importance of water and energy-saving strategies. In this regard, all employees have been trained in nature conservation and the importance of saving power and resources efficiently. Another FGD respondent stated that:

“We conduct regular awareness sessions for our employees. We also hold sessions to design green tourism strategies as per the demands of our clients/tourists.”

A summary of the SSIs revealed some of the integrated methods used to adopt GPs. These include developing a sustainability plan that outlines specific goals and objectives related to water conservation to educate employees on the importance of water and energy as well as providing training on water-saving measures and waste-reduction practices. According to an SSI respondent:

“Involving guests in the GP implementation process encourages them to participate in the conservation efforts and ensure that the GPs are being implemented effectively.”

While another SSI respondent stated that:

“In Hurghada, some hotels install solar panels on their rooftops or on nearby land, which generates the electricity that powers the hotel's operations.”

This shows that hotels are ensuring the implementation of GPs and also that some hotels have their wind turbines to generate electricity and power.

The Water and Energy Resource Management Systems of 5-star Hotels in Hurghada, Egypt

The Government of Egypt is issuing green certificates to 5-star hotels that implement GPs. Besides environmental issues, 5-star hotels are facing many other challenges in the implementation of GPs. The major challenge is the lack of informed awareness and knowledge among the staff and tourists regarding the importance of GPs to avoid environmental degradation. Hotel managers have taken steps regarding the awareness and efficient usage of water and energy resources in hotels. Similarly, the Egyptian government plans to have solar energy and distillation plants in Hurghada to save on water and energy consumption as well as protect the environment from greenhouse gases. This project will be beneficial for the country as it will reduce the subsidies given to hotels and instead provide them with clean and cheap resources. According to an FGD respondent:

“The hotel has adopted integrated GPs. We've installed savers on all the water mixers in the rooms and public bathrooms. We also closely monitor our daily water and energy usage, especially in the kitchen.”

In addition to the above measures, 5-star hotels have set the temperatures for their air-conditioners, one practice that can save energy resources efficiently. The setting of temperatures for central air-conditioners, as well as guest rooms to not less than 24 degrees, is effective in saving electricity. Furthermore, there are electricity-saving units in the rooms that automatically disconnect the electricity in a room as soon as guests leave.

The majority of the respondents in the SSIs stated that 5-star hotels in Hurghada have also installed some integrated systems to save water and energy resources. Most of the respondents agreed that as members of the Green Star team, these hotels are responsible for preserving the pristine, white beach and implementing a system to reduce the consumption of water and energy, minimize harmful materials, as well as install motion sensors for lighting in all hotel corridors and public toilets. Furthermore, the eco-signs and instructions in all areas of the hotels can also raise awareness about the environment and diminish water and energy consumption. According to an SSI respondent:

“Five-star hotels, like the Marriott, have a linen reduction program and other GPs to foster environmental awareness amongst its guests and tourists.”

Another SSI respondent also stated that:

“We have water mixing valves installed in our mechanical rooms, which provide the required temperature in the rooms. We also use variable frequency drive (VFD) pumps to maintain sufficient pressure in the water pipes.”

#### The Challenges that 5-Star Hotels in Hurghada, Egypt Face When Implementing Green Practices (GPs)

Currently, the tourism infrastructure has significantly improved, and tourism is thriving again, especially in places like Hurghada. Tourism-related infrastructure has developed and advanced so much that most hotels have adopted ecologically friendly policies to avoid the negative impacts of tourism on the environment and biodiversity. However, there are still many improvements that can be made to enhance the tourism sector. Currently, 5-star hotels in Hurghada are facing numerous challenges. According to an FGD respondent:

“The biggest challenge is the high amount of energy that 5-star hotels require to execute their daily activities.”

The problem of high water consumption is also common in hotels, where there is no restriction on the usage of water by guests. Tourists who are less concerned with the importance of saving water are using more water than necessary. According to a respondent:

“Most of the water is used by guests’ amenities, landscaping, kitchen, and rooms for cooking and other purposes; such as bathing.”

During the FGDs, the majority of the respondents agreed that there were numerous challenges and hurdles in the implementation of water and energy conservation measures in 5-star hotels. Furthermore, other challenges discussed during the FGD were that guests have higher expectations of hotels in terms of facilities and cost benefits. In addition, the limited infrastructure is also a challenge, for example, limited space for outdoor activities. Staff training is another major challenge that was discussed earlier. Many hotels arrange various training agendas for their staff concerning the importance of GPs as well as how to educate and create awareness amongst guests about the importance of GPs.

According to a manager in the SSI group:

“The kitchen requires and consumes significant amounts of electricity, so, we must control it.”

Thus, Egyptian hoteliers have launched promotions to create new ideas to improve the quality of services and products. As a result, the past few years have seen significant



attention and interest from the government and organizations to environmental issues. Nowadays, the hospitality market and customers are compelling hospitality businesses to increase their awareness and experience in handling environmental issues, especially in Hurghada. Among all the challenges identified by the SSIs, the most significant one is raising awareness as many of the staff are often uninformed of GPs. The challenges lie in maintaining and continuing the implementation of what has been achieved, as there will always be a need to raise awareness about the environment and the benefits of reducing consumption. Due to the remote location of Hurghada from the nearest city and the limited availability of the main resources, all the hotels must implement such practices in their daily operations.

The challenges facing hotels are their limited resources, the lack of awareness of technologies and practices, cost constraints in the implementation of GPs, and the lack of awareness among guests and staff, who may be unaware of the importance of GPs. Moreover, in some cases, hotels may face regulatory challenges related to the implementation of GPs such as obtaining permits for solar installations or navigating complex disposal regulations, and seasonal fluctuations in demand for water and energy. This can make it challenging to maintain consistent energy and water usage levels throughout the year, thereby restricting the implementation of GPs.

The Benefits of Implementing Green Practices (GPs) at 5-Star Hotels in Hurghada, Egypt

During the FGDs, most of the respondents identified many benefits of the successful implementation of GPs in the tourism sector. The immediate benefits are the reduction of operational costs, the competitive advantage in the international market, environmental protection, and the preservation of natural resources for future generations. Similarly, green marketing is rising fast in the hospitality industry due to the growing number of guests interested in green hotels. Subsequently, previous studies examined the implementation of conservation-oriented administrative practices by hotel companies, which encompassed water preservation, energy-saving initiatives, perspectives from businesses and staff, as well as the views and behavior of customers regarding GPs in hotels.

Similarly, the respondents in the SSIs found that the successful implementation of GPs (water and energy) enhanced productivity and curtailed the operational cost of hotels. According to an SSI respondent:

“Many GPs have been designed to conserve resources. Hotels can earn further cost savings on their utility bills by installing low-flow showerheads and toilets as well as decreasing their water usage.”

Similarly, by using energy-efficient lighting and appliances, hotels can reduce their energy and save on their electricity bills. By implementing GPs, hotels can also enhance their brand image and reputation, which can increase business and revenue, long-term cost savings, and potential revenue benefits, which can make them a sound investment as hotels that are looking to reduce their environmental impact and improve their bottom line. According to another SSI respondent:

“Some hotels may offer guests sustainability education programmes that teach them about sustainable practices and initiatives. The management may also educate their employees to raise awareness about GPs and their benefits.”

The results showed that hotels can employ various approaches to effectively use limited resources and manage wastewater, such as by installing water-efficient fixtures to restrict the overflow of water, using greywater for irrigation, and implementing laundry efficiency measures. Hotels can also use efficient washing machines and implement laundry efficiency measures such as washing with full loads and reducing water and energy as well as using eco-friendly detergents.

### The Hotel Industry and Sustainable Tourism Development (STD) in Hurghada, Egypt

A large number of tourists across the world travel to Hurghada Beach with their families. The hotels in Hurghada provide the highest standard of services for guests. Many tourists found that the preservation of the environment was very important, and they were aware of the STD. According to an FGD respondent:

“Hotel owners and stakeholders as well as the community, government, and tourists must work together. Without this collaboration, STD will not be possible. After all, we are all responsible for promoting GPs.”

The infrastructure is in line with the social responsibility of the hotel management and the state authorities. According to another FGD respondent:

“Significant amounts of water and energy are required to execute the daily operations of any hotel. If water and energy can be saved while delivering the highest standards of service, then the GPs can be considered successfully implemented. It may also encourage international tourists to participate in healthy outdoor activities.”

During the FGD, the conclusion was drawn that guest satisfaction and cost minimization to protect the environment and increase revenue are the major targets of the hotels. Revenue is one of the most important goals of any company or hotel, and that is why there are differences between the ownership of hotels and brand hotels. The majority of the hotels have such action plans to save costs, protect the environment, train the employees about GPs, especially in the conservation of water and energy, and participate in all these regulations with the guests.

A respondent from the SSIs mentioned that he/she was aware of the importance of green tourism and sustainability in tourism development and that most clients were aware of it as well. According to an SSI respondent:

“Yes, tourism expansion involves considering the influence of tourism on geographical resources as well as its social and cultural effects on the local society. It must also strike a balance between the economy and safeguarding the environment.”

According to another SSI respondent:

“Yes, there is a correlation between water and energy GPs and STD in Hurghada.”

GPs are an important component of STDs as they help lessen the negative impact of tourism on the environment while promoting economic and social benefits among the local communities in the city of Hurghada. Overall, the adoption of GPs is the key component of STD and helps to create a more ST industry that benefits both the environment and local communities.

### Increasing Sustainable Tourism Development (STD) in Hurghada, Egypt by Implementing Green Practices (GPs): The Way Forward

Most of the respondents were optimistic about the current development of the tourism sector in Hurghada and the financial sustainability of the hotel business. They found that ways to enhance and increase STD include proper security systems in hotels, social and community-level development of small tourism-related businesses, cooperation between hotel companies and other stakeholders, community and government support, price minimization, and location of hotels. It is worth noting that the empowerment of women is one of the most important factors that should be highlighted. Furthermore, the implementation of GPs not only enhances the hotel business but also ensures that insurance facilities provided by hotels also promote tourism development.

Similarly, the connection between the government, hotel owners, stockholders, and GPs must be considered as an essential criterion for classification. According to a respondent:

“Although it will prove challenging, the wastewater from hotels and mosques can be reused in the gardens after they've been filtered.”

Additionally, hotels can use internationally recognized eco products such as Lush products and other eco-friendly items such as green soaps, shampoos, and lotions without plastic and rubber packaging. According to another respondent:

“Other GPs include installing moderate-flow toilets, reduced-flow sinks, and smart tabs; reusing greywater via water-efficient appliances; practicing good sanitation in hotels; and shifting energy sources to solar.”

Moreover, hotel owners and those in the tourism sector need to organize eco-awareness sessions and activities that promote awareness of GPs and STDs in Egypt.

Based on the SSIs, it was found that some of the ways through which the implementation of GPs can be ensured are:

- Using renewable energy sources such as solar energy.
- Installing motion sensor lights that switch on and off automatically when required, and using some natural lights that operate through sunlight and provide energy to the hotels.
- Planting trees and shrubs strategically and promoting the planting process in Hurghada, educating oneself and others regarding the importance of a green environment and the positive implications of adopting these measures.

In addition, using smart thermostats and energy-efficient appliances to save energy, installing a rainwater harvesting system at hotels and residential areas, fixing water leaks in washrooms, and using low-flow water fixtures are some of the most workable strategies to enhance the implementation of GPs in hotels in Hurghada, Egypt.

## CONCLUSION

Due to the negative implications of climate change, the UN and member countries have taken some revolutionary steps to curtail the negative impacts of climate change on the well-being of humans. Many sectors which responsible for effect the climate. Among these sectors, tourism is one of them. The issue of climate change is not only common in developing countries, but developed countries are also affected. The country, Egypt where tourism-related activities are high due to its location and beautiful beaches. Therefore, the government of Egypt has imposed some SOPs for hotels to ensure the implementation of green practices in hotels. Although some hotels in Hurghada implementing green practices (water & energy) at their level, they are insufficient due to a lack of general awareness among the tourists about the implementation of green practices. Due to this many hotels have displayed many signboards associated with green practices and green practices mechanisms to motivate tourists to adopt procedures even, though tourists from the developed regions are aware of the importance of green practices. In this regard, the hotels have initiated different programs to ensure the implementation of green practices in hotels. For example, trying to educate those guests/ tourists less aware of green practices and climate change. Furthermore, many other steps have been taken, such as the installation of energy savers, sensors in washrooms, moderating the room and swimming-pool temperate, etc. All these strategies promote the implementation of green practices in the tourism sector.

## RECOMMENDATIONS

The following recommendations have been put forward by the study to ensure the implementation of GPs in 5-star hotels in Hurghada:

- 1) Organize a national-level campaign regarding eco-tourism to enhance the level of awareness among stakeholders and sensitize tourists to the importance of GPs in their daily lives.
- 2) Penalise hotels or business owners if they violate the rules and regulations of the implementation of GPs.
- 3) Provide training to the staff and also display signboards promoting GPs.
- 4) Issue green certificates to hotels that promote green tourism and adopt GPs in their daily operations.

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