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Evaluating Sustainable Urban Tourism in Corfu Island, Greece: An Indicator-Based Approach Using the DPSIR Framework Greece

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Abstract

In Greece the mass tourism has rapidly expanded since the 1970s, significantly affecting cities and island destinations, with Overtourism emerging as a critical challenge. This paper examines the urban areas of Corfu Island, Greece, a location heavily influenced by seasonal tourism. It applies sustainable tourism indicators to evaluate tourism's sociocultural, economic, and environmental impacts. Using the DPSIR (Drivers, Pressures, State, Impact, and Response) model and a set of 38 indicators, the study highlights the intensity of tourism development in Corfu compared to national averages. Results show that Corfu exhibits exceptionally high tourist arrivals per capita, accommodation capacity, and overnight stays per area, indicating significant saturation during peak seasons. Economically, the island benefits from longer average stays and higher tourist expenditure, though it faces challenges related to seasonality in employment and hotel occupancy. Environmental data point to elevated energy and water consumption levels, raising sustainability concerns, especially amid climate change and aging infrastructure. Despite these pressures, the study finds that Corfu does not yet fully exhibit Overtourism across the island, although local hotspots—such as cruise ship ports and historic urban centers—are at risk. The analysis underscores the importance of continuous monitoring through tailored indicators and the urgent need for sustainable tourism planning to mitigate long-term impacts and ensure a balanced coexistence between residents and tourism activities.

Keywords: Corfu, Greece, Sustainable Tourism, Tourism Indicators, Overtourism

1. Introduction

The rapid and massive tourism development following World War II has resulted in negative impacts on the environment, society, and economy in many tourist destinations. Since the 1970s, the relationship between tourism development and environmental protection has been a research focus. In search of alternatives to mass tourism, the term "Soft Tourism" was introduced in German-speaking countries in 1980. By the late 1980s and into the 1990s, discussions about "Sustainable Tourism" began to replace the concept of Soft Tourism (Baumgartner, 2008). The UN World Commission on Environment and Development adopted the idea of

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sustainability in the Brundtland Report in 1987, defining "sustainable development" as development that meets present needs without compromising the ability of future generations to meet their own needs (UN WCED, 1987). Butler (1999) noted that "the greatest research need is to develop measures of sustainability and apply these to existing and new forms of tourism development to help determine what affects sustainability and how it can be achieved." Monitoring tourism development through sustainable tourism indicators is a useful tool in this context. The World Tourism Organization has developed a list of sustainability indicators to measure tourism development effects, but their implementation at the city level remains limited. In cities, many studies focus on the impact of tourist flows on monuments and cultural sites, examining sustainability issues. Urban tourism, the fastest-growing form of tourism, is characterized by travel to places with high population density, shorter stays, and a substantial number of business and MICE (Meetings, Incentives, Conferencing, and Exhibitions) visitors (Earth Changers, 2021). Cities like Venice and Dubrovnik illustrate Overtourism phenomena, which negatively affect residents and visitors and burdens city infrastructure and the environment. The concept of sustainable urban tourism is relatively new (Razali & Ismail, 2014). Prior to the introduction of the World Tourism Organization's indicators for sustainable development, urban tourism largely overlooked sustainability issues. Most research on sustainable tourism has focused on rural or community-based tourism (Barke & Newton, 1995). In Greece, many regions are popular tourist destinations, with many small islands attracting significant tourist flows. Corfu, one of these islands, will be examined in this paper to assess the impact of tourism on sociocultural, economic, and environmental levels by calculating sustainable tourism indicators tailored to its characteristics.

2. Methods

The objective of sustainable tourism development is to implement all areas of sustainable development (ecology, economy, social and cultural issues) in tourism. Tourism policies that focus solely on environmental aspects cannot be considered fully sustainable. According to Müller (1994), sustainability in tourism can be depicted as a pentagon pyramid, where the top represents future generations' rights, while the base includes functioning environment, resource protection, intact culture, subjective well-being of locals and employees, guest satisfaction, and economic well-being. The study of tourism's impact on these sectors has led to the creation of indicators and indexes applied in various geographical areas. For instance, the Sustainable Tourism Index by the Economist Intelligence Unit assesses countries' commitments to sustainable tourism practices (The Economist Intelligence Unit Limited, 2017) and explores growth, environmental sustainability, socio-cultural sustainability, economic sustainability, and policy and regulatory environments.

Indicators are essential tools for measuring, analyzing, and comparing data on tourist destinations and evaluating sustainability issues. The World Tourism Organization published a guide in 1995 that has influenced recent indicators, updated in 2004 as a guidebook on indicators of sustainable development for tourism destinations (WTO, 2004). The optimal number of indicators for assessing tourism sustainability is unclear; however, the World Tourism Organization guide suggests 12 to 24 indicators (WTO, 2004). These indicators must be relevant, feasible, credible, clear, and comparable (Cernat & Gourdon, 2012).

In 2013, the European Commission launched ETIS, a management tool for monitoring and measuring sustainable tourism performance using a common approach based on 27 core indicators and 40 optional indicators across four categories: destination management, social and cultural impacts, economic value, and environmental impact (EC, 2016). The DPSIR model (Drivers, Pressures, State, Impact, and Response) from the European Environment Agency is based on the concept of causality, linking human activities to environmental pressures and changes in quality and quantity of natural resources. Society responds through appropriate policies to alleviate these pressures.

Various sets of indicators have been developed in tourism research. Indicators of sustainable tourism development can include public participation, water and energy consumption, waste management, accessibility, investments, ecotourism promotion, economic vitality, employment, security, satisfaction, and traffic (Torres-Delgado & Palomeque, 2014). Conflicts between tourist flows and cultural heritage necessitate understanding these dynamics and identifying their impacts (Garcia-Hernandez et al., 2017; ICOMOS, 2011). Methodologies

such as Heritage Impact Assessment (HIA) have been developed to minimize adverse impacts on cultural sites (Seyedashrafi et al., 2017). Lozano-Oyola et al (2012) presented indicators for evaluating sustainable tourism in cultural destinations across social, economic, and environmental fields.

Tanguay et al. (2012) explored 16 case studies, highlighting common indicators such as water and energy consumption, tourist volume, accommodation occupancy rates, tourist satisfaction levels, and local employment in tourism. Implementing sustainable tourism practices is challenging, requiring adaptability to various tourism types, seasons, and destination characteristics. A common set of indicators is necessary for comparability between tourist areas, such as water consumption in tourism regions, which can account for significant national water use (Gössling et al., 2012; Essex et al., 2004).

3. Results

3.1 Geography, Characteristics, and Tourism in Corfu Island

Corfu (Kerkyra in Greek) is Greece's westernmost island, situated in the Ionian Sea, near the mainland, covering an area of 585,3 km². The island belongs to the Region of Ionian Islands, which includes large islands, such as Kefalonia 786,6 km², Zakynthos 405,6 km², Lefkada 325 km² and Ithaca 96,3 km² but also some smaller islands. The area of the coast of Corfu is 217 km, forming many coves and capes. Its territory is predominantly mountainous, especially in the north, with the highest peaks being Pantokratoras (914 m) and Stravoskiadis (849 m). Corfu comprises three municipalities: North Corfu (with Acharavi as the capital and 17.187 inhabitants), Central Corfu (with Corfu Town as the capital and 68.608 inhabitants), and South Corfu (with Lefkimi as the capital and 15.681 inhabitants). The total population is approximately 100.259, excluding 1.217 inhabitants on smaller islands nearby. Corfu is one of Greece's most densely populated islands, with 173 inhabitants per km² (the national average is 81).

3.2 The History

Settlers from Eretria founded Corfu's first documented colony around 775-750 BC. Then followed the Roman Period, the Byzantine period and the Venetian period that lasted four centuries (1385 -1796). After the defeat of the Venetians and with the "Treaty of Campoformium", the Ionian Islands came under the sovereignty of the French. In 1815, the Treaty of Paris was signed, and the Ionian Islands were recognized as free under English protection. With the Treaty signed by the Great Powers in 1863 in London, the English protection in the Ionians was over and in May 1864, Corfu was finally united with Greece Corfu-kerkyra.eu. History of Corfu Island.

3.3 Main Attractions

Some notable attractions include the Achilleion museum, the palace of Princess Sissy (Empress Elizabeth of Austria), who built it between 1889 and 1891 to honor the Greek hero of the Iliad Achilles and became her favored holiday retreat. After her death, the palace was bought in 1907 by Kaiser of Germany Wilhelm II. The Palace of St. Michael and St. George, also called the Royal Palace, is located on the opposite side of Spianada to the Liston. It was built from 1814-1824 during the first days of British occupation. The old town, which we can see today, dates back to the 13th century and is the largest "living" medieval monument in Greece.

The church of Saint Spyridonas, the Old Castle that was originally constructed during the Byzantine era on an artificial island and later, in the 16th century, was rebuilt by the Venetians. The New Castle was built on the coast in the late 16th century in order to protect the city from possible Turkish invasion. Today, only part of the fortress is accessible to visitors. The Rue Liston is a miniature copy of the Rue de Rivoli in Paris. The lower floors of the houses here represent a continuous open arcade in the background of which there are cafes and expensive shops and many smaller cultural and historical attractions offering a wide variety of choices to the visitors (Garrison, n.d.). The primary attraction for tourists in Corfu is in any case the sea, the beaches, and the sun. Based on reports on TripAdvisor, the most famous beaches are those of Palaiokastritsa, Canal D' Amour,

Sidari beach, Sant George Beach, and others. It should be noted that nine beaches of Corfu have been awarded with a blue flag.

3.4 Tourism Infrastructure and Facilities

The island of Corfu is classified as the mature tourist area of Greece, and offers significant hotel infrastructure and attracts substantial tourist demand from abroad. 413 hotels are established on the island, offering a total capacity of 50.333 beds. About 58,4% of the capacity is classified in the category of 4 and 5 stars, about 19,7% in the middle class of 3-star category and 22% in the lower class of 2 and 1-star categories (Hellenic Chamber of Hotels, 2025). The growth of tourism in the post-covid period was rapid, showing an increase in bed capacity of 39,8% in just 5 years (2019-24).

4 stars 3 stars 2 stars Corfu 5 stars 1 star In total Hotels (2019) 25 102 177 56 51 411 413 Hotels (2024) 38 62 108 157 48 Rooms (2019) 5.459 6.460 6.107 5.800 1.037 24.863 Rooms (2024) 7.593 6.948 5.091 4.861 1.004 25.497 Beds (2019) 11.181 12.513 11.852 10.954 2.001 48.501 Beds (2024) 15.639 13.763 9.906 9.142 1.909 50.333 % of beds 2019 23,1% 25,8% 24,4% 22,6% 4,1% 100,0% % of beds 2024 31,1% 27,3% 19,7% 18,2% 3,8% 100,0%

Table 1: Hotels in Corfu by category in 2019 and 2024

In addition to hotels there are many supplementary accommodations, such as Airbnb, rooms for rent (classified in four key categories, furnished apartments and Villas. In 2019, the capacity of the rooms for rent was 21.636 beds, while 793 tourist furnished houses and villas were in operation, offering a capacity of 6.106 beds (INSETE, 2021a). In recent years, Airbnb-type accommodations have been growing rapidly, which in Corfu, according to AirDNA data, amounted to 12.200 listings. The total accommodation capacity in 2019 amounted to 76.243, including all accommodation facilities in Corfu and in 2024 are estimated to 90.275.

Corfu 4 keys 3 keys 2 keys 1 key In total 71 Establishments 276 636 642 1.625 8.233 Rooms 494 1.476 3.363 2.900 Bed capacity 1.333 4.058 8.709 7.536 21.636 % Of beds 6,2% 18,8% 40,3% 34,8% 100,0%

Table 2: Supplementary accommodations in Corfu by category in 2019

The main means for the arrival of foreign tourists in Corfu, is the airport of Corfu located 3km from the city center. Since December 2015, Corfu Airport has been managed by Fraport Greece. In 2019, the works for the renovations and modernization of the existing facilities were completed.

The new port of Corfu is built west of the old one and serves passenger ships and cruise ships, as well as cargo ships that moor on the island, while the old port is used by sailboats and yachts. In addition, Corfu has two organized marinas in Gouvia (1.068 berths) and Corfu (98 berths), as well as 5 anchorages of tourist boats. Since 1973 it has been a golf court that occupies an area of 668 acres and is 18 holes (Par 72) and the visitors can watch also cricket matches.

3.5 Tourist Demand

The international airport is the main gate for the international visitors every year, especially the summer period. The international air arrivals at Corfu airport in 2024 amounted to 1.971 million passengers. It is notable that

only in the last ten years (2014-2024) the international arrivals to the island have increased by 83,5% and the domestic flights by 72,09%.

Table 3: Arrivals and Visitors in Corfu in the period 2014 - 2024

Arrivals	2014	2019	2024
By international	1.074.289	1.457.420	1.971.766
flights			
By domestic flights	115.701	166.553	200.108
Port domestic	812.718	885.249	881.054
Port international	69.371	175.928	295.872
Cruises ships	395	420	507
Cruises passengers	672.368	767.673	815.667
Museum's visitors	49.835	66.836	148.161
Archeological site	208.971	206.772	357.158
visitors			
Overnight stays in	4.198.092	6.691.790	8.051.000(*)
hotel			
Hotel Occupancy	54.1%	61.0%	70,7% (*)

^(*) estimations based on Bank of Greece (2025b)

Sources: Bank of Greece; Hellenic Statistical Authority; INSETE; Corfu Port Authority; Fraport Greece

The main international passengers arrive from Britain (37,1%), Germany (17,4%), Poland (6,7%), Italy (9,3%) and France (5,4%). About 21,3% of the arrivals are recorded in July, 22,1% in August, 16,7% in June, 17,1% in September, 9,6% in Mai and 9,2% in October (Fraport – Greece, 2025). The main tourist season extends these 6 months, when 96% of air arrivals take place and highlighting the seasonal nature of tourism on the island. The same tourist seasonality is observed in the arrivals of domestic flights. The domestic arrivals by air, in 2024 were 200.108 of which 97.322 (48,6%) are tourists, excluding arrivals outside the peak tourist season (Fraport – Greece, 2024).

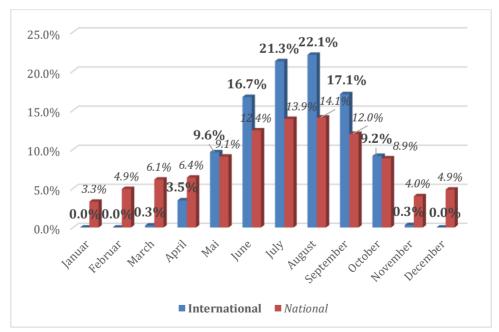


Figure 1: Arrivals at the Airport of Corfu in 2024 by month Source: Fraport Traffic Report by Country Jan-Dec 2024

Except the airport, other gateways to the islands are the ports with ships and ferry connections to mainland Greece, Albania and Italy. The domestic passenger ferry arrivals on the island in 2024 amounted 881.054. Of the

881.054 arrivals, based on the monthly distribution of arrivals, it is estimated that at least 45% are related to tourist arrivals, i.e. 396.474.

Significant growth is observed in the post-covid era in ferry arrivals from Albania, while arrivals from Italy are stable. In 2024 arrivals by ferry lines were 257.716 and arrivals from Italy were 38.156, increasing the total number of international arrivals to Corfu ports from abroad to 295.872. In addition, 815.667 passengers arrived by cruise ships. It is worth noting that the port of Corfu was a homeporting for 54 cruise ships and 196.057 passengers.

Based on these data the arrivals by air and sea (without counting the out of season passengers) in Corfu in 2024 amounted to 3.577 million travelers.

The tourist season in Corfu (as in the whole of Greece) starts at the Catholic Easter (in mid-April) and ends at the end of October with a tendency to expand in early November. Figure 1 shows the monthly distribution of arrivals, and that the tourist season lasts approx. 190 days. This duration of the tourist season will also be used for the calculation of tourism indicators in the next chapter. According to a study by the Research Institute for Tourism (2024) of the Hellenic Chamber of Hotels, the average duration of operation of seasonal hotels in Greece is 5,7 months, while in 4-star hotels the average duration of operation is 6,0 months and in 5-star hotels it is 6,3 months.

In 2019, the year before COVID, about 6691790 Hotel overnight stays were recorded in Corfu, while the total number of overnight stays in Hotels in Greece was 109.206.980. The total overnight stays (in all kinds of accommodation) in Greece are estimated at 232.464 million (INSETE, 2022) and in the Region of the Ionian Islands at 23.744 million, of which 12.346 million (i.e. 52%) in Corfu (Hellenic Chamber of Hotels, 2019; INSETE, 2021a). In 2024, the Bank of Greece (2025b) estimates the number of overnight stays in Greece at 231.037.634 and in the Region of the Ionian Islands at 24.680.800. Corfu is the most touristically developed island with the most transport connections abroad and it is estimated that at least 12.834 million overnight stays are made in 2024.

The Ionian Islands of Kerkyra, Kefallonia, Lefkada and Zakynthos seem to be in the middle of their evolution and located at the development (C-Consolidation) phase according to the TALC (Tourism Area Life Cycle) model by Butler (Butler, 2006). Kerkyra is more saturated in terms of overnight stays in comparison to the arriving tourists, thus indicating a preference for long-term vacation (Amoiradis, 2021). According to the results of survey the interregional distribution of the growth coefficient for the number of the stayings per tourist's capita r(t), but also the growth coefficient for the total number of overnight stayings $r_s(t)$ indicates, that Corfu and generally the Region of Ionian Islands belongs to the most touristically developed areas in Greece. In addition, they add that the Ionian Islands are more capable of receiving larger number of tourists, implying a direction where the tourism development should invest to (Polyzos et all, 2013).

4. Discussion

4.1 Sustainable Urban Indicators for Corfu Island

4,1,1 Methodology

As presented above, there are many methodological approaches and a very large number of indicators to demonstrate the impact of tourism in a tourism destination at ecological or socioeconomic level. In the case of Corfu, the applied methodology was based on the DPSIR model (Drivers, Pressures, State, Impact and Response model of intervention) of the European Environment Agency and considered some indicators at sustainability level for tourism in cultural destinations by Lozano-Oyola et al (2012), which are on the Table 4 marked with (*).

Making the required modifications the following table has been drawn up of 38 indicators, 13 of which concern the Sociocultural dimension, 13 the Economic dimension and 12 the Environmental dimension.

Table 4: Sustainable tourism indicators using DPSIR model for the island of Corfu

	1.Sociocultural	2. Economic Dimension (13)	3. Environmental Dimension
	Dimension (13)		(12)
A. Cause of Pressure (8)	A1.1 Tourist population A1.2 The origin of tourists A.1.3 Means of transportations	A2.1 Seasonality A2.2 Travel organization	A3.1 Energy consumption A3.2 Water Consumption A3.3 Volume of waste
B. Pressure Indicators (4)	B1.1 Image of the region (Brand name)	B2.1 Accommodation capacity B2.2 Overnights	B3.1 Potential human pressure on natural and urban spaces
C. State Indicators (10)	C1.1 Resident population C1.2 Tourism attractions (Museums, Archeological sites etc.). C1.3. Tourism Festivals and Events	C2.1 Transport access C2.2 Basic infrastructure and services C2.3 Tourist businesses C2.4 Local Properties	C3.1 Distribution of land uses C3.2 Distribution of Urban spaces use C3.3 Intensity of use (*)
D. Impact Indicators (8)	D1.1 Degree of satisfaction of tourist D1.2 Degree of satisfaction of residents D1.3 Sociocultural influence on local population (*) D1.4 Social carrying capacity of the site (*)	D2.1 Tourist expenditure D2.2 Employment in tourism D2.3 Prices of tourist services	D3.1 Tourist anthropisation factor (The transformation of the environment for tourism)
E. Response Indicators (8)	E1.1 Accessibility to tourist services E1.2 Cultural heritage conservation (*)	E2.1 Public investment in tourism E2.2 - Cultural investments (*)	E3.1 Waste management E3.2 Environmentally certified enterprises and premises E3.3 Integration of environmental criteria into tourism planning E3.4 Participation of local stakeholders in tourism planning

4.1.2 Sustainable Tourism indexes for Corfu Island

Sustainable tourism indicators are a very useful measurement tool, especially for comparison purposes. Comparisons can be timeless for a tourist destination, so they show over time the increase or decrease in tourism indicators and consequently the pressure that the region is under. The indicators can also make comparisons between different tourist destinations. A key parameter in the indicators is the size of the local population, but also the size of the area of the tourist destination. Consequently, if the population or the area is too small, the calculated indicators will be too large. So, it is sensible to make measurements for larger regions. For this reason, one of the largest islands of Greece, Corfu, with a population of 100 thousand inhabitants and an area of 585 km2, was selected for this study. Also, comparisons between tourist areas should be similar in terms of surface size or population. For example, an island of 1000 inhabitants cannot be compared with an island of 100 thousand inhabitants, because the indicators will not be comparable.

Based on the above indicators and the available data for Corfu are calculated some significant Tourism indexes showing the Growth and pressure caused by tourism. For comparison purposes, the corresponding data for the Tourism in Greece were also calculated. The resulting Tourism indexes demonstrate the size of the tourism development on the island of Corfu.

Table 5: Resulted Tourism indexes for Corfu Island compared to the average indexes in Greece.

Socio-cultural Tourism Indexes	Corfu	Greece
The Average duration of stay (in days)	7.2	5.9
The Tourist Arrivals Index (Arrivals / Population),	35.7	3.8
Defert Index (Beds / Population in %),	90.0%	17.8%
The Tourist intensity Index (Total overnight stays / Population)	123.5	21.6
The Tourism Saturation Index (Total overnight stays/Season in days/Population in %). Shows the overnight stays of tourists (per day) in relation to the population	65.0%	11.4%
The Tourism Arrival Saturation Index (Tourist arrivals /Season in days / Population in %) shows the Daily arrivals to the population	18.8%	2.0%
The Tourist Penetration Index (Overnight stays / Area in Km2)	21168	1750
The Accommodation Penetration Index (Available bed capacity / Area in Km2)	154.3	14.4
Museum's visitors / population in %	147.8%	62,3%
Archaeological sites visitors / population in %	356%	131%
General Satisfaction Index of hotel guests (GRI) – 2023 (Region)*	84.3%	86.6%
Economic tourism Indexes	Corfu	Greece
Seasonal Hotel Occupancy rate, (Overnight stays /Available capacity X operating days) X100)	72.2%	63.8%
Annual Hotel Occupancy rate, (Overnight stays / Available capacity) X100	37.8%	33.2%
The average per capita expenditure (excluding cruises)	577,8	523,2
Average expenditure per overnight stay (in €)	80,4	89,7
The Employment Index (Employees in tourism / Total employment (in the region)	28.1%	9.4%
The average nights spent per Employee (in the Region)	1159	576
The Seasonality of operation and employment in days	approx. 190	150-220
Environmental Indexes	Corfu	Greece
Energy consumption in hotels / m2*a	333.2 kWh/(m2*a)	273 kWh/(m2*a
Water Consumption for tourist	4.69 hm3	88.34 hm3

5. Conclusion

A limitation of the present research was the difficulty of finding or even the lack of focused data on local level in certain fields, especially on the environmental dimension. It should also be considered that the Island of Corfu is one of the largest islands in Greece, but also one of the most densely populated. This fact affects the dimensions of the indexes which are related to the population, but also to the area of the island. However, based on the indexes presented in Table 5, the Tourism in Corfu is developed on a large scale, since most of the indicators are multiples of the Average of Greece and confirm the results of Polyzos (2013) that Corfu is one of the most touristically developed areas in Greece.

Concerning the Socio-economic indicators, the Arrivals / Population index in Corfu is 37,5, while the average in Greece is 3,8, indicating that tourist arrivals exceed the island's population by a factor of 37,5. The total number of overnights stays in relation to the Population in Corfu is 123,5 which means that for every resident there are 123,5 nights, while the corresponding index for the average of Greece is 21,6. Based on the Tourism Saturation Index, the number of tourists overnight stays during the tourist season accounts for 65% of the population. The overnight stays in Corfu per Km2 are about 21.168 and the average in Greece is 1.750, this means that every square kilometer of the island corresponds to more than 21 thousand overnight stays. The average duration of

stay is 7,2 days and longer than the average stay in Greece (5,9). This is to be expected, due to the fact Corfu is mainly a holiday destination.

The visitor rates of museums and archaeological sites are also higher than the average in Greece. The only Index in Corfu that is below the average of Greece is the General Satisfaction Index of hotel guests (GRI by ReviewPro, INSETE, 2020).

In terms of Economic indicators, the average expenditure per tourist in 2024 in Greece was 523€, while in the Region of the Ionian Islands it was higher at 577,8€, due to the longer average duration of stay. On the contrary, the Average expenditure per overnight stay was 80,4€ and lower than the Greek average of 89,7€. The occupancy rate of hotels during the summer season is 72,2%, also higher than the Greek average (Research Institute for Tourism, 2025).

According to the labor force surveys of the Hellenic Statistical Authority (2024 and 2025) in the Hospitality sector, (Hotels, Accommodation, Food and Beverage) an average of 400.975 employees worked in 2024, representing 9,4% of the Greek workforce, with a variation from 8,3% to 10,4% depending on the quarter of the year. In the Ionian Islands region, the number of employees in the Hospitality sector in 2024 was 21294 and represented 28,1% of the workforce. In fact, according to a Research Tourism Institute survey (2023), there is a shortage of staff in hotels by 21,5% in the Ionian Region. However, seasonality in employment, as well as in the operation of hotels, is a weakness of tourism on the island, which is recorded in the occupancy index of hotels. Each employee in the region of the Ionian Islands corresponds to 1.159 overnight stays. This index is double the Greek average of 576.

Regarding the Environmental Indicators, the main problem lies in water consumption, which in relation to climate change may become more pronounced in the coming years. According to statements of the 2 mayors of Corfu, the problem of water sufficiency is intense because during the summer season the demand increases, while another important problem is the leaks due to the old water pipes (Pagkrati M. ERT News, 2021). Related studies regarding the water consumption in hotels in Greece showed a wide range of results between 0.240 m3 per guest night and 0.517m3 (Menegaki, Agiomirgianakis, 2018). Taking the average (0.380 m3), the water consumption in Corfu from tourism is estimated at 4,69 million m3.

For most hotels in Europe energy use falls in the range 200-400 kWh/m2/yr. (Hotel Energy Solutions, 2011). In Greece the energy use in the hotels is (approximately) 273 kWh/m2/yr (Santamouris et al, 1996), while in climate zone B, where Corfu belongs, studies have shown consumption of 333,18 kWh/m2/yr. (Kokkinis, 2011), that's 22% above average.

Finally, it should be noted that Corfu is a large island where tourism is concentrated locally and in places where many visitors are crowded, such as the arrival of cruise visitors in the center of Corfu Town. Therefore, we will agree "Overtourism impacts are not city-wide" (Koens Ko, 2018), as well that Overtourism are not island-wide, but becomes more intense in places of tourist interest. In general, we cannot claim that Corfu today presents phenomena of Overtourism, but if the great growth rates of tourism continue, it is very likely that this will be the case in the near future.

Concluding indicators can be a very useful tool to support the destinations stakeholders to take focused action in tourism planning for a sustainable tourism development, but the existence of reliable data is a basic requirement for the reliability of the indicators. On the other site, the availability of data is also a basic requirement for the Configuration of the indicators.

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Visualization: T. Poulios Supervision: E. Velissariou

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