



Social and Environmental Carrying Capacity of the Island of Ibiza State of the Issues

INTRODUCTION

Ibiza, endowed with unique natural wealth, is a tourism destination that attracts thousands of visitors every year. Its Mediterranean climate, beautiful beaches and nightlife have made the island an important destination in Europe. However, the large increase in tourism over the past years has brought the limits to growth and/or carrying capacity of the island to the centre of local public debate. Tourism activity, which has undoubtedly become the mainstay of Ibiza's economy, has also resulted in the exploitation of the island's natural resources and landscape. Job insecurity and an ever-growing need for larger infrastructure and equipment must be provided for by local administrations and paid for by local society. These trends have ultimately resulted in environmental degradation and social unrest.

The current situation, where the new tourism boom has arrived at a time when the impacts of the recent economic crisis are still felt, has sparked widespread concern and a call into question the development model of the island. We are now at a critical juncture with a unique opportunity to open dialogue with different social, economic and institutional stakeholders to define a new social model for Ibiza. In the context of global change, monitoring the state and trends of Ibiza's carrying capacity by using a set of indicators is crucial to open a debate. This information will allow us to communicate and begin a process aimed at reaching consensus on a new territorial and economic model that warrants the conservation of Ibiza's natural wealth and well-being of local society.

This is the motivation behind the report, promoted and funded by the Ibiza Preservation Fund (IPF), via the Societat d'Història Natural de les Balears (SHNB), and produced by a team from the Department of Geography and Department of Biology from the University of the Balearic Islands (Universitat de les Illes Balears - UIB).

The report aims to establish state-of-the-art socio-environmental indicators for Ibiza to provide a starting point for debate. Aspects analysed and indicators produced have been selected on the basis of internationally established and consolidated theoretical frameworks, which also consider the availability of accurate and reliable data over time. The selected aspects surveyed and corresponding indicators are the result of the close and productive cooperation between the UIB research team - Laura del Valle, Ivan Murray and Guillem X. Pons - and IPF's technical team - Sandra Benbeniste, Juan Calvo and Arturo López.



EXECUTIVE SUMMARY

The strong tourist growth and saturation experienced by Ibiza have driven people and local decision makers to question the current development model of the island. This study aims to contribute to public debate by assessing a set of measurable sustainability indicators that provide up-dated, meaningful information on the most relevant issues. Our objectives are: firstly, to point out the need to assess, in a systematic way, a set of indicators that provide information on various socio-environmental issues which can be used as a tool to guide development towards sustainability; secondly, propose a public debate to reach consensus on measures that will ensure the preservation of Ibiza's natural wealth and well-being of its society now and in the future.

The study shows the number of visitors to the island has doubled in the past decade, reaching 4 million in 2016. The growing "touristization" of the island is evident in the tourist/resident ratio. Ibiza and Formentera have one of the highest values in the world, and the ratio increased by 11 points from 2009 to 2016 and has reached a 25,56 tourist/resident rate. This remarkable growth in tourism has come hand-in-hand with a 60,8% increase in the urbanization of coastal areas in the period 1990-2012.

In addition, the tourism accommodation capacity, which had remained relatively stable from 2000 to 2010, has been altered by the emergence of tourist and holiday housing. This contributes an additional 7,027 legal tourist beds and 18,000 illegal beds, marketed through online platforms (Airbnb and others). A sharp rise in rental prices has resulted in the need to devote 82% of average income to housing, while in the EU a household is considered to be "cost burdened" when the cost of housing exceeds 40% of total income.

A strong reliance on private vehicles, associated with urban sprawl, has led to growing congestion and saturation issues on main roads. The rate of motorization in Ibiza is 963.8 vehicles/1000 persons, double the rate of vehicle/person in the rest of Spain. This figure does not take into account the estimated 18,000 cars offered for rent in Ibiza, for the most part registered outside the island. Private vehicles are now the main source of CO2 emissions in Ibiza, accounting for 31% of total emissions.

Local decision makers have taken some measures in the past decade to reduce the impact of increased human pressure on Ibiza. This includes implementing the EU Natura 2000 network to protect certain areas and natural resources. Nine new marine protected sites have been created covering virtually the entire marine area surrounding the island. However, personnel and other means required to effectively safeguard these areas are still insufficient, with only one having a Management Plan (Area Marina de Cap Martinet). On the other hand, the area of protected land sites has suffered a significant reduction, falling by 57.42%, while regulations for existing protected areas (ANEI) have swayed erratically from strict protection of biodiversity to permissive tolerance of development.

In the past decade, urban solid waste in Ibiza has increased by 35%, reaching a per capita level that doubles average waste production in Spain and the EU. Although the collection of selected urban solid waste for recycling has doubled since 2005, it only accounts for 16,7% of total waste.



Also worth highlighting is the island's contribution to climate change due to carbon emissions. Emissions reached 6.26 kg CO₂ per capita in 2015, exceeding Spanish average emissions and doubling the world average. A switch to natural gas for electricity production in recent years has resulted in a 16% reduction in greenhouse gas emissions. However, emissions still need to be reduced by 6,9% to comply with the Europe 2020 Strategy on Energy and Climate Change 20/20/20. Worth noting also is the virtual non-existence of renewable energy on the island. Renewable energy production needs to be scaled-up 58 times to comply with targets set by EU strategy that requires 20% of energy use to come from renewable sources by 2020.

Lastly, the residential sector (including tourists and Ibiza residents) places a strong demand on water resources for urban supply – accounting for almost 90% of total water use on the island. This has resulted in a serious overexploitation and loss of quality of Ibiza aquifers, with 8 of its 16 reservoirs currently depleted and 12 suffering from salinization. The severe aquifer depletion problems have led to a growing dependence on desalination plants, although underground reservoirs are still the main source of supply (20 Hm³/year) providing twice the water supplied by desalination plants (9,8 Hm³/year).

The report describes in more detail this and other sustainability indicators and relevant data. On the basis of the scenarios resulting from our analysis and conclusions, we strongly recommend the adoption of an information system to monitor the course of Ibiza's development model and the need to give serious thought to the Ibiza we want future generations to inherit.