

Perspettivi

A Gozo Review

Issue 8



PUBLISHED BY

GOZO REGIONAL DEVELOPMENT AUTHORITY

75, Republic Street, Victoria - Gozo, Malta

Tel: +356 22156333

Publication date: May 2026

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Front page illustration - L-Għar ta' Karolina, Xlendi - Gozo.

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Elena Rapa

Islands in the European Union

Mario Borg

Abstract:

This paper discusses European islands' distinctive traits and difficulties, and how they were captured over the years the European Union legislative framework. The paper begins with definitional and classification challenges, noting the lack of a harmonised framework due to island size, population, and government variety. It uses Eurostat typologies to describe the size and distribution of EU islands, which number over 2,200 inhabited areas with over 20 million persons. The paper then examines how insularity and smallness shape island economies and explores how such structural constraints can potential cause market inefficiencies and vulnerability to external shocks. Against this background, the paper examines the evolution of island recognition in EU treaties and policy frameworks and makes an argument for more explicit acknowledgement of islands' reality in the European Union policies and strategies.

Keywords:

Gozo, Islands, Regional, Insularity.

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**Note: The opinions conveyed in this paper are those of the author and do not necessarily represent the official stance of the Ministry for Gozo and Planning.*

Islands in the European Union

In March 2026, the European Commission launched a four-week public call for evidence to help design a comprehensive new strategy for Islands in the European Union (EU). This strategy aims to strengthen resilience, boost competitiveness and address the specific socio-economic challenges faced by islands within the EU.

This initiative reflects increasing interest in Islands. Indeed, interest in the study of islands has increased over the years, reflecting the increase in politically independent small island states (Baldacchino, 1993). Across the globe, around one out of four independent states have a resident population of less than one million, while around 50 other islands have some form of self-government or autonomy (Baldacchino, 1993). Besides this, the European Union's interest in islands is long-standing, reflecting both the sheer number of islands within its territories and the economic and geopolitical opportunities that islands present (Eurisles, 2002) plus the fact that Cyprus and Malta are island member states, which elevated the challenges faced by these territories to another level (Deidda, 2016).

In contrast to other geographic topography such as mountains, islands have a clear delineation, and this made them easier as a subject of interest both for research as well as policy measures

(Kerr, 2005). Despite this clear delineation of islands and the interest around them, there is no harmonised list (Haase and Maier, 2021), partly reflecting the wide diversity of islands in terms of size and perhaps more importantly in terms of governance and administrative set-up (Baldacchino, 1993). This absence of a harmonised list also reflects the difficulties in the collection of statistical data, especially for very small islands, and the lack of clear delineation between islands as geographical units and islands as regional/administrative territorial units (Haase and Maier, 2021).

This paper will attempt to provide some context to the questions regarding definitions and classifications of islands. The paper will first present some statistics on EU islands and the parameters that define them. This will be followed by an analysis of the islands' characteristics, focusing on their small size and insularity. Such characteristics are key to understanding the challenges faced by islands, including loss of competitiveness, diseconomies of scale, higher transport costs, and the absence of certain services due to market failure, and how these relate to state aid rules and regulations. The last part of this paper presents an analysis of how and to what extent islands' features have been addressed in various EU treaties and official policies over the years.

Definitions and Classification of Islands in the EU

Traditionally, researchers tended to adopt thresholds based on area and population when studying islands. Article 121, Part VIII, of the United Nations Convention on the Law of the Sea (UNCLOS) defines an island as "a naturally formed area of land surrounded by water that is above water at high tide." In

Colombia v. Nicaragua ruling, the Court thoroughly discussed the determination of low-tide elevations versus islands and took into consideration several factors, including the geological composition and size. However, recently, there is now a growing trend towards the application of other metrics based on socio-economic and political parameters (Murphy, 2017; Baldacchino, 1993). Nonetheless, the overwhelming criteria still centres around the physical aspect. What is less clear are the thresholds of population and area over which an island territory can be considered as such for the purpose of research. For example, can rocky outposts be classified as islands? Can a low-tide elevation be considered an island? Can a small territory link with a tunnel to a larger territory still be considered an island? These are all important questions that need an answer, especially in comparative studies.

The Methodological manual on territorial typologies (2018 edition) which is used by Eurostat for its classification of European typography, defines islands as territories having at least one square kilometer of surface area, a resident population of more than 50 inhabitants, and being located a minimum of one kilometer from the mainland without any fixed link, such as a bridge or a tunnel. It is estimated that there are around 2,200 inhabited islands in the European Union grouped under the 58 island regions. These constitute a population of over 20.5 million, which represents 4.6% of the total European Union-27 population (Haase and Maier, 2021) and around 3.5% of the area (Eurisles, 2002). The Baltic Sea boasts the highest number of inhabited islands, with 1,589, followed by the Mediterranean Sea with 284 and the Atlantic Ocean with 269 inhabited islands. Three stand as fully sovereign states: Cyprus, Ireland, and Malta, with a further 206 islands possessing some form of local governance. However,

the overwhelming majority (1,920 islands) lack any formal autonomy, even at the basic municipal level (Baldacchino and Pleijel, 2015). In terms of geographical location, most lie within 12 nautical miles of the mainland coast (Baldacchino and Pleijel, 2015).

The Eurostat classification reflects the common classification of territorial units for statistics (NUTS), as stipulated in Regulation 2017/2391. Eurostat makes a distinction between islands as geographical units and islands as regional/administrative territorial units. For geographical units, statistical data is difficult, especially for very small territories. Classification as NUTS level 3 include island regions which might consist of more than one island thus, some islands are regarded as island units within the island region. This grouping implies that several islands are not classified as island regions. The typology of NUTS 3 has five categories for island regions. The categories include regions where the major island has fewer than 50,000 inhabitants, those with between 50,000 and 100,000 inhabitants, regions with between 100,000 and 250,000 inhabitants, regions corresponding to an island with between 250,000 and 1 million inhabitants, and those that are part of an island with at least 1 million inhabitants.

At NUTS 3 level, the European Union has 58 island regions. Three independent member states are also islands, namely Ireland (with 8 NUTS 3 regions), Cyprus (with 1 NUTS 3 region), and Malta (with 2 NUTS 3 regions – the island of Malta and the island of Gozo). The other 47 island regions (NUTS 3) mainly form part of Italy (having 14 NUTS 3 island regions), Greece (12 NUTS 3 island regions), Spain (10 NUTS 3 island regions), France (6 NUTS 3 island regions), Portugal (2 NUTS island regions), and Denmark, Finland, and Sweden (each having one NUTS 3 island region).

Apart from NUTS 3 island regions, there are several other islands in the European Union. For example, Denmark has 99 inhabited and uninhabited islands, but only one is classified under NUTS 3 (Haase and Maier, 2021). The table below, adopted from (Margaras, 2016), provides a general classification of European Union islands according to area and population.

Table 1: Categories of European Union Islands

Category	Population Size	Number of islands in the EU
Large islands	More than 50,000 permanent inhabitants	15 islands, of which 6 have more than 50,000 inhabitants (Sicily, Sardinia, Mallorca, Cyprus, Crete, and Malta)
Medium-sized islands	Between 5,000 and 50,000 permanent inhabitants	44 islands
Small islands	Between 50 and 5,000 permanent inhabitants	303 islands
Very small islands	Fewer than 50 permanent inhabitants	228 islands

Source: Adopted from Margaras, (2016).

It is to be noted that although NUTS 3 consists of relatively small regions, the European Union cohesion policy is based on NUTS 2 which consists of “larger” regions typically encompassing populations between 800,000 and 3 million. For the purpose of this research, islands do not have to be classified as island regions; however, they must be inhabited according to the Eurostat definition.

Insularity and Peripherality: Consequences for Islands in the EU

The majority of islands in the European Union are relatively small, and the area available for human activity is further restricted by

the terrain of the islands, for example, mountains in the case of volcanic islands and other protected areas (Eurisles, 2002). The shift over the last decades from traditional activities such as agriculture towards activities related to tourism has increased both urbanisation and population density (Eurisles, 2002). However, the small size of islands still limits the domestic market. Such a restricted internal market implies that islands do not enjoy the benefits of economies of scale; thus, the production of goods is generally higher than in bigger regions. Furthermore, smallness also has consequences on research and development activities, as these require a certain level of production that is absent on islands (Cordina, 2007).

The distance and the quality of links between the islands and the mainland determine their integration with the main territory, which is usually served by sea transport and sometimes by air transport. These connections are generally with the mainland of their state, but there are many instances where the nearest land falls under the jurisdiction of a different state. The majority of islands lie less than 22 nautical kilometres from their mainland coast (Baldacchino and Pleijel, 2015), but some islands are 'ultra-peripheral', which includes a grouping of territories that are often referred to as outermost regions. These include the French overseas territories. The physical disconnection with the main territory results in higher transport costs, rendering business in islands less cost-effective. However, there is an open debate in literature on the extent to which distance impacts the level of development of islands. For example, it has been suggested that globalisation and the use of information and communication technologies have mitigated some of the traditional challenges associated with distance (Cairncross, 2002). Such an observation has led to arguments suggesting that the physical barriers are no longer

valid (Cairncross, 2002), although such an assessment is often strongly challenged (Morgan, 2004).

Perhaps clearer is the relationship between distance and the political and social set-ups of the islands and their economic structure. There is evidence that suggests that the further the distance between the island and the mainland, the more likely the island is to enjoy some form of political autonomy in decision-making (Baldacchino, 2020). Some of the arguments rest on the assumption that domestic politics and governance in islands, especially those that are very small, are more informal and personalised (Prinsen, 2020). These characteristics can have positive effects, such as policies that more strongly reflect voters' preferences; however, this closeness to decision-makers can also lead to patronage and inefficient governance, including weak checks on rent-seeking activities (Prinsen, 2020).

According to Eurisles (2002), the per capita GDP of islands in the European Union is generally lower than the European Union average, although it is to be noted that this study was conducted when the European Union was made up of 15 member states and hence with many fewer islands in the sample. Wider literature frequently disputes the negative correlation between smallness and development, as measured by GDP. On one hand, there is some evidence that suggests islands, especially small islands, are negatively affected mainly because of unexploited potential and institutional inefficiency (Briguglio, 1995). This point is further highlighted by the fact that European islands are struggling to achieve fully the Lisbon Treaty's strategic goals in terms of employment, education, and research (EPSON, 2010). On the other hand, there is evidence that small economies do rather well compared to bigger ones (Easterly and Kraay, 2000). This positive performance was attributed to flexibility in decision-making and

economic openness (Armstrong and Read, 1995), both associated with long-term growth. There is overwhelming evidence that shows that island economies are generally very open (Kemp-Benedict et al., 2018) due to not being self-sufficient and hence need to engage in overseas trade. Kemp-Benedict et al. (2018) also argue that smallness tends to favour specialisation, or at least dependency, on a narrow range of products and services and thus makes islands export-oriented. Such export-orientated activities, including, to a certain extent, tourism, help explain the mixed evidence about the performance of islands in terms of economic prosperity. Furthermore, the use of GDP as the sole measure for success has also been heavily debated, as small economies are more vulnerable to external shocks even if they register high GDP levels per capita (Briguglio, 1995). This issue is also highlighted in a Centre for International Governance Innovation (CIGI) policy brief which argues that small islands “suffer from a host of inherent vulnerabilities” and are also “disproportionately exposed to economic and non-economic shocks” (Rustomjee, 2016).

Of less debate is the assessment that size and remoteness subject islands to some form of insularity and a degree of vulnerability. Insularity can be described as *“the connecting link and the common characteristic of all islands regardless of their size, population and development level”* (ESPON, 2013), and it is widely accepted that it impacts negatively on the economic attractiveness and market efficiency of islands (Armstrong and Read, 1995). Insularity in islands tends to result in a concentration of economic activities and a large public sector, at times around 25% of the economy (Eurisles, 2002). The large share of the public sector reflects the indivisibilities of costs (Briguglio, 1995; Cordina, 2007) and the need to provide essential services such as health services, education, transport and infrastructural services (Deidda, 2016), which are often absent if not provided by public

authorities given that the small market size of islands generally results in situations of missing markets (Cordina, 2007). Apart from providing public goods, a large share of public services also serve a distributional purpose, mainly through the provision of public sector employment (Jofre-Monseny et al., 2020). On the other hand, public employment is generally assumed to be less productive and competes directly with the private sector for human resources; hence, the end result is lower opportunity for the development of the private sector (Barigozzi et al., 2018). This phenomenon leads to a further issue of policy failure in small states, including islands where government interventions may be motivated by political motives that are not in line with long-term socio-economic objectives (Cordina, 2007). In conclusion, the net direct effect of the small size on the economic development of islands is debatable. What appears clearer is the effect of insularity on islands, which is considered to lead to market failure and vulnerability.

Islands in European Union Treaties: Recognition over the years

The large number of islands in the European Union, with diverse geographical locations and different political setups, represent various realities and challenges. Over the years, these realities and characteristics were increasingly recognised by the European Union treaties, with references to islands in European Union legislation – as published in the OJEC – increasing from practically nil in the 1970s to over 200 references in thirty years (Eurisles, 2002). Such recognition is important for several reasons. First, such acknowledgement makes the socio-economic realities of islands, including their insularity, explicit. Secondly, it provides legal certainty for European Union policies that are meant to address

the insular nature of islands and help them obtain financial support, including cohesion funds. Thirdly, the direct references to islands in European legislation help islands to participate in the formulation of the Union policies (Margaras, 2016). Despite the acknowledgement in EU legislation of islands' insularity and remoteness, including several references in European Union treaties and regulations, there is a coherent common policy within the European Union for islands (Margaras, 2016). This section will provide a historical legal perspective of how the references to islands in the European Union legislation developed over the years.

The 1973 establishment of the Conference of Peripheral Maritime Regions of Europe (CPMR) first formalised the interest in specific characteristics of European islands. The aim of the CPMR was to push for increased political recognition of islands and to find solutions to shared problems. The European Conference of Sustainable Island Development held in Minorca, Spain, in April 1997, expressed its commitments to *"recognise the significance of socio-economic development and human well-being for the people of our islands and shall give to these goals the highest priority"*. In the European Parliament, the specific characteristics of islands were the subject of several debates and motions. In 1985, the European Parliament Assembly adopted Recommendation 1002 on Island Farming and the Problems of Agriculture in Small Islands, while (Doc. 8348) highlighted the challenges to economic co-operation in the Mediterranean region, including its islands. In 2005, the Committee of Economic and Social Development of the European Parliament discussed a report by Hunault (2005) entitled "Development challenges in Europe's islands". The European Parliament adopted a resolution 2002/2119 in 2002 on disadvantaged regions, which included islands and regions with low population density. The resolution highlighted the principle of solidarity in overcoming

the inherent difficulties faced by such regions. In 2006, the European Parliament resolution 2006/2106 was passed that dealt with islands and their constraints. This resolution called for more adequate statistical indicators that better capture the reality that islands face and also called for increased flexibility with the implementation of certain policies, especially state aid.

The first important references to islands in the European Council date back to 1988, when the Council meeting in Rhodes referred to the special socio-economic constraints faced by island regions (Hunault, 2005). During that meeting, the Council, through Declaration 30 *“recognises that island regions suffer from structural handicaps linked to their islands status, the permanence of which impairs their economic and social development”*. The declaration adds that *“legislation must take into account these handicaps and that specific measures must be taken, where justified, in favour of these regions in order to integrate them better into the internal market on fair conditions”*. It was followed by the Maastricht Treaty in 1992 (Article 154) and the Amsterdam Treaty in 1997 (Articles 158 and 299), in which the need to *“link island, landlocked and peripheral regions with the central regions of the Community”* was explicitly mentioned. The Treaty of Amsterdam also acknowledged the issue of disparity in certain regions, including islands, through Article 130a, whereby it states that *‘The Community shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions or islands, including rural areas’*.

The adoption of Article 229(2) on the outermost regions was another step in recognition of the special status of islands. The Article refers to the *“structural social and economic situation of the French overseas department, the Azores, Madeira and*

the Canary islands which is compounded by their remoteness, insularity, small size, difficult topography and climate, economic dependence on a few products, the permanence and combination of which severely restrain their development". The conditions of these islands particularly highlight the issues of peripherality and insularity as well as economic vulnerability.

Further amendments were introduced in the European Union following the coming into force of the Lisbon Treaty. The amendments by means of Article 174 TFEU state that "In order to promote its overall harmonious development, the Union shall develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion. In particular, the Union shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions. Among the regions concerned, particular attention shall be paid to rural areas, areas affected by industrial transition, and regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, cross-border and mountain regions." Article 170 (Trans-European Networks) emphasises the crucial role of connectivity in the socio-economic developments of European regions. The Article mandates the European Union to take into account the particular characteristics of connectivity, whether by sea link or by other means, of islands when formulating its policies (Hunault, 2005).

Conclusion: An emerging legislative framework

This paper suggests that islands' potential for attracting and keeping economic activities is impaired, mainly because of insularity and vulnerability to external shocks. Indeed, it is

rather clear that there is a significant discrepancy between regions forming part of the mainland and islands in terms of achieving Lisbon's strategy goals. Furthermore, the combination of remoteness and small markets limits their opportunities for economies of scale and often leads to a situation of either market inefficiency or outright market failure, meaning that in the absence of intervention by public authorities, several services will not be provided. Thus, the recent initiative by the European Union to have a strategy for Islands assumes particular importance.

Therefore it is important to look at the legislative framework vis-à-vis islands in the EU. This paper assesses that the European Union legislative interest is a long-term journey with various important milestones. Over the last half a century, the European Union increasingly acknowledged the specificities of its islands in Treaties and policies. This legislative and policy development helped islands to advocate more strongly in favour of differential treatment to reflect their structural disadvantages. Among the first was the establishment in 1973 of the Conference of Peripheral Maritime Regions of Europe, which helped push for increased political recognition of islands. These amendments in legislation were very important, as they helped islands to access structural funds to strengthen territorial cohesion across the European Union. Furthermore, these amendments helped Islands argue in favour of flexibility regarding state aid rules. The legal provisions and the upcoming EU strategy for islands argue well for the strengthening and deployment of an approach more adaptable to islands aimed at alleviating some of the structural disadvantages of insular territories.

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Unlocking Gozo's Maritime Tourism Potential: A Public-Private Partnership Approach to an Ultra- Luxury Cruise Port Development

Joseph Dingli

Abstract:

Gozo's maritime potential remains underutilised. This work examines how the island can unlock maritime tourism value through a Public–Private Partnership (PPP) approach to a boutique cruise solution tailored to small, luxury and ultra-luxury vessels.

Motivated by Mġarr Harbour's limits, the island's environmental sensitivities and seasonality, the study tests what blend of governance, infrastructure and policy can deliver growth without compromising Gozo's distinctive natural and cultural assets.

A qualitative, interpretivist approach is adopted. Eighteen semi-structured interviews were conducted with high-profile and experienced stakeholders. Data is analysed using reflexive thematic analysis, with iterative coding and memoing, to generate themes and identify convergences and divergences in stakeholder perspectives.

Three findings stand out. First, there is market fit for niche maritime tourism. Gozo's heritage, compact scale and dedicated shore-excursion potential align with these luxury segments. Second, governance risk is a major issue in project implementation, undermining investor confidence. Third, environmental stewardship is a necessary precondition for social licence.

This study concludes that nature-sensitive infrastructure, anchored in a proposed Gozo Ports Authority, offers a feasible pathway. A distributed mooring system, a removable floating pier, and upgraded tender facilities and visitor amenities, can improve cruise-call reliability and visitor yield without heavy marine construction.

This study also recommends a Gozo-level tourism satellite account study and a carrying-capacity framework.

Keywords:

Gozo, Tourism, Cruise, Public-Private Partnership, Sustainability.

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Joseph Dingli is a Senior Manager at the Gozo Regional Development Authority. He holds a Bachelor's degree in Communications and a Master of Business Administration (MBA). He has developed a cross-sector professional profile through experience in both the private and public entities. His work has spanned a range of functions, including marketing and finance.

Unlocking Gozo's Maritime Tourism Potential: A Public-Private Partnership Approach to an Ultra-Luxury Cruise Port Development

1. Introduction

Gozo occupies a distinctive position within the Maltese archipelago: small in territory, limited in infrastructure capacity, yet rich in landscape, heritage and a strongly recognisable rural and cultural identity.

With a population of approximately 41,253 and an area of 67 km², the island's development choices are unusually consequential; incremental policy or infrastructure decisions can have outsized effects on mobility, environmental quality and residents lived experience (NSO, 2024).

Tourism is one of Gozo's principal economic pillars, yet the island's current tourism model is structurally imbalanced. The empirical picture presented in the paper is clear: the overwhelming majority of inbound visitors to Gozo are day trippers, a pattern that inflates overall tourism figures while limiting per capita economic returns and placing added pressure on public spaces, transport networks and sensitive sites. In the first half of 2025, 93 per cent of inbound visitors, amounting to 916,231 out of 988,087, were classified

as same-day visitors (NSO, 2025). This highlights the structural challenge of converting high visitor volumes into deeper, higher-value and more sustainable tourism outcomes for the island. This pattern has significant implications: day trippers tend to compress consumption into a short time window, concentrate movement into a few high-profile locations and often contribute relatively less to accommodation, evening economy activity and longer, higher-value experiences.

This paper frames this imbalance through the policy lens of “quality over quantity”, arguing that for Gozo to achieve sustainable tourism benefits, the island must move away from growth measured purely in visitor numbers and towards higher-value, better-distributed demand. The challenge is not unique to Gozo. Other Mediterranean destinations, especially islands, frequently contend with seasonality, crowding and economic vulnerability linked to concentrated visitor flows. Eurostat data show that approximately one-third of annual nights spent in tourist accommodation occur in July and August, with pronounced seasonality in destinations such as Croatia, Greece, Malta, and others (Eurostat, 2024). The paper draws on research highlighting how seasonal concentration encourages short-term, low-paid employment, discourages long-term investment and produces cyclical social vulnerabilities (Scheyvens and Momsen, 2008; Ruggieri and Platania, 2024).

In Gozo’s case, the seasonality effect intersects with the day-tripper dominance. The island bears much of the pressure associated with high flows but captures a smaller portion of the economic upside.

Against this backdrop, this work investigates whether Gozo can unlock maritime tourism value through a boutique cruise solution; one tailored specifically to small, luxury, and ultra-luxury cruise vessels, delivered through a Public-Private Partnership (PPP) framework.

This inquiry is motivated by three interacting factors. First, maritime infrastructure constraints at Mgarr Harbour restrict Gozo's ability to participate in high-yield cruise itineraries. Cruise vessels currently anchor offshore and tender passengers to shore because Gozo lacks berthing facilities.

Second, Gozo's environmental sensitivities, particularly the presence of protected *Posidonia oceanica* meadows in and around relevant coastal areas, mean that conventional, heavy marine infrastructure solutions carry significant ecological risks.

Third, public funding is constrained, and the Government's capacity to finance and operate specialised infrastructure is limited, making PPP models attractive in principle for mobilising capital and expertise while transferring specific risks to private partners.

The paper is therefore situated at the intersection of tourism strategy, maritime infrastructure planning, environmental governance and public-sector delivery capability. Its central concern is not merely whether a boutique cruise proposition is attractive, but what blend of governance, infrastructure and policy can deliver higher-value tourism outcomes without compromising Gozo's defining assets.

2. Research aim, objectives and conceptual focus

The core aim of this paper is to evaluate the strategic viability of developing a boutique cruise terminal (or functionally equivalent boutique cruise solution) in Gozo through a PPP framework. The study examines the level of interest among stakeholders, the potential for economic diversification, the possibility of extending the tourism season and the requirements for embedding sustainability within a Gozo-specific maritime tourism model.

The objectives are threefold:

1. **To analyse the local market and assess the feasibility** of a boutique cruise port in Gozo under a PPP model, with a focus on extending visitor stays.
2. **To evaluate the role of PPPs** in delivering maritime infrastructure in small island economies heavily dependent on tourism, using Gozo as the case study.
3. **To examine the success of homeporting in Malta** and assess whether a scaled version could be replicated in Gozo to strengthen luxury cruise tourism and contribute to broader sectoral goals.

A key conceptual distinction, used throughout this paper, is between (a) Gozo as a port of call, a short intermediate stop during an itinerary, and (b) Gozo as a potential homeport, where cruises start/end and where provisioning, waste management, and passenger turnaround occur.

The paper treats homeporting as a higher-impact (but higher-requirement) proposition, potentially associated with longer stays and greater local expenditure, but also requiring robust connectivity, logistics capability and suitable infrastructure.

3. Literature foundations

3.1 Cruise tourism: opportunity and risk

Cruise tourism is presented as a hybrid product combining maritime transport with resort-style hospitality and leisure services (Papathanassis and Beckmann, 2011). The sector's economic significance is well documented: the study cites

industry reporting indicating that cruise tourism generated US\$168.6 billion in global economic output in 2023, supported 1.6 million jobs worldwide, contributed US\$85.6 billion in GDP, and accounted for US\$56.9 billion in wages and salaries (CLIA, 2023). Yet the literature reviewed is not celebratory; it underscores the structural critiques of cruise tourism, including environmental externalities, overtourism pressures and economic leakage when passenger spending is captured primarily by cruise-controlled supply chains (MacNeill and Wozniak, 2018; Sun, 2019).

The EU context is particularly relevant for Gozo. European ports are major nodes in global cruise itineraries, and EU policy frameworks increasingly apply decarbonisation and sustainability constraints. The paper notes that initiatives such as “Fit for 55” aim to decarbonise maritime activity and tighten environmental standards, while simultaneously confronting port congestion and uneven distributional outcomes (Brida and Zapata-Aguirre, 2010; European Commission, 2025).

For small islands, the literature suggests both promise and vulnerability. Secondary ports can benefit from niche positioning and premium experiences, achieving higher per-passenger expenditure than major hubs when differentiation and management are effective (Pallis, 2015; Pallis and Papachristou, 2020). However, without the right port infrastructure, operational reliability, and governance coherence, secondary destinations remain marginal in itinerary planning.

3.2 Gozo’s positioning and the “quality tourism” agenda

This paper links Gozo’s boutique cruise proposition to national and regional strategic frameworks, including Malta’s National Transport Strategy, Malta’s broader economic vision, Malta Vision

2050, and the Gozo Regional Development Strategy (Transport Malta, 2016; Ministry for the Economy, 2021; GRDA, 2023; Ministry for the Economy, 2025). These strategies collectively emphasise diversification, sustainability and improved distribution of economic activity beyond the main hubs. Within this policy landscape, Gozo's proposition is framed as a corrective to structural over-reliance on day trips and seasonal peaks.

A central empirical justification is the disparity between Valletta and Gozo in cruise movements. Valletta Cruise Port recorded approximately 940,000 passenger movements onboard 357 cruise liners in 2024, whereas Gozo recorded 15,068 passengers on 24 cruise liners, with ships anchoring offshore due to the absence of berthing facilities (Valletta Cruise Port, 2025; NSO, 2025).

The paper treats this not as a simple “Gozo is missing out” narrative, but as a question of which segment Gozo should pursue. In particular, it identifies a shifting industry trend toward smaller boutique vessels (typically 100–600 passengers) that seek authenticity, sustainability and low-density experiences (PKF Hospitality Group, 2024). This trend supports the plausibility of a Gozo-aligned niche proposition.

3.3 PPPs as delivery models: promise and pitfalls

The PPP literature reviewed emphasises the risk-allocation logic: well-structured PPPs assign risks to the party best able to manage them (Yescombe, 2011). Key risk types include construction risk, demand risk, and operational risk, and PPPs can theoretically deliver lifecycle cost reductions and faster delivery through integrated design-build-finance-operate structures (Grimsey and Lewis, 2004; World Bank, 2017; OECD, 2018). Maritime sector examples, including concession models used in European ports, are used to illustrate

how private investment and operational expertise can improve passenger flow management, digitalisation and commercial revenue generation (Makovšek, 2019; MedCruise, 2025).

However, this paper strongly cautions against assuming that PPPs are inherently beneficial. Malta's PPP history includes controversial cases characterised by governance weaknesses, opaque procurement concerns, and contested risk transfer, all of which undermine investor confidence and public trust (NAO, 2020).

The paper contrasts these with a more positively evaluated concession-type example: the Queen Mary University of London campus in Gozo, estimated to have contributed €6.5 million per year in real terms to Gozo's economy since its launch (GRDA, 2025). The implication is that "PPP" is not a monolith; outcomes depend on institutional capacity, contract design, transparency, and performance monitoring.

On the other hand, Tarragona's cruise port concession is presented as an example of a modular, sustainability-oriented terminal delivered with defined scope and measurable outcomes, while Larnaca's port and marina concession is presented as a failure due to financial non-compliance, disputes over guarantees, and eventual termination (Ports Europe, 2022; Tarragona Cruise Port, 2024; Reuters, 2024; CyprusMail, 2024). For Gozo, the lesson is not that concessions are risky per se, but that overly complex packaging, weak guarantees and inadequate governance can produce catastrophic outcomes.

3.4 Environmental governance and land reclamation constraints

Environmental sustainability is treated as a binding constraint rather than a secondary consideration. Cruise vessels produce air emissions, waste, and underwater noise, and the literature

documents significant impacts on coastal ecosystems (Carić and Mackelworth, 2014; Plan Bleu, 2022).

Venice is used as an emblematic cautionary case of uncontrolled cruise tourism contributing to ecological damage and social displacement (González, 2018). For Gozo, the sensitivity is sharpened by the ecological role and legal protection status of *Posidonia oceanica* meadows, which are valuable for carbon storage, fisheries support and coastal protection (ERA, 2023; Pisani et al., 2024; Stamatiadou, Mazaris and Katsanevakis, 2025).

This work also looks at land reclamation as a contested option. It frames potential benefits, mainly creating space where land is scarce and enabling climate adaptation features but argues that in Gozo's context the reputational and ecological risks are high. Reclamation can damage habitats through sedimentation and altered currents, and climate change increases physical vulnerability of newly reclaimed land (van de Wal et al., 2024; Caparrós-Martínez, Martínez-Vázquez and De Pablo Valenciano, 2025).

EU obligations under the Marine Strategy Framework Directive to maintain “Good Environmental Status” are emphasised, alongside the need for integrated coastal zone management and meaningful consultation (ERA, 2023; Jiang et al., 2023; Zaucha et al., 2025). This paper's position is not that reclamation is impossible, but that it must be rare, strategic, and subject to rigorous thresholds; conditions that are difficult to satisfy in practice.

4. Methodology

A qualitative methodology was adopted to collect data, underpinned by an interpretivist lens to capture the socially constructed nature of policy feasibility and stakeholder

legitimacy. Under interpretivism, reality is understood as multiple and context dependent, shaped by stakeholder roles, values and institutional incentives (Schwartz-Shea and Yanow, 2012).

The study uses a single-case design with Gozo as the bounded case, justified on the grounds that Gozo is unusual (small island within an island state, heavily day-trip dominated), critical (strategically central to national regional development), and revelatory (PPP-based cruise proposals have not been systematically explored in Malta) (Yin, 2018).

4.1 Data collection and participants

Eighteen semi-structured interviews were conducted with high-profile stakeholders across politics, government authorities, business operators, tourism leadership, academia, EU representatives and environmental civil society. The sample was purposively designed for maximum variation to triangulate commercial, regulatory, EU policy, scientific and community perspectives (Patton, 2015).

Interviews were conducted through a blended approach, online and face-to-face, reflecting participant availability and the practicalities of high season scheduling. Interviews were audio-recorded with consent, supplemented by structured notes capturing context and reflexive observations.

Secondary sources and document analysis complemented the interviews, including policy frameworks, EU maritime strategies, NSO data and industry reports. This triangulation strengthened credibility and helped identify gaps between policy rhetoric and operational realities (Bowen, 2009).

4.2 Analysis approach

Reflexive thematic analysis was used following Braun and Clarke (2022), with iterative coding and memoing supported by MAXQDA. The analysis proceeded through familiarisation, coding, theme development and refinement, and narrative synthesis. Trustworthiness was strengthened through triangulation, an audit trail, and reflexive journalling to address positionality and interpretive influence (Berger, 2013; Saunders, Lewis and Thornhill, 2019).

5. Findings: thematic results and interpretation

Four themes structure the findings:

1. Strategic positioning and market readiness,
2. Infrastructure constraints and environmental trade-offs,
3. PPP governance and risk allocation, and
4. Community engagement and socio-cultural impacts.

The study repeatedly highlights a core tension: Gozo's aspiration to become a boutique destination is undermined by operational realities and governance uncertainty, creating a "credibility gap" that deters premium operators and fuels community scepticism.

5.1 Theme 1: Strategic positioning and market readiness

Stakeholders broadly agreed that Gozo possesses inherent appeal for boutique and ultra-luxury segments: compact scale, heritage density, a rural aesthetic and potential for curated excursions. One academic captured this in simple terms: "Gozo

has a uniqueness which maybe has not been exploited to the full.” Yet the consensus on potential coexisted with a sharp critique of readiness. A Chief Officer within a Government Authority articulated the operational deficit: “Either ultra-luxury or luxury... so far Gozo does not have the appropriate infrastructure... we get cruises which anchor off Mgarr and people come out with separate boats.” This is not merely a convenience issue; tendering signals operational risk, particularly under adverse weather conditions. A cruise liner agent emphasised the vulnerability: “If you’re at a tender point, you also have a bigger risk of the ship cancelling due to bad weather.” In competitive itinerary planning, reliability is part of the product.

Several interviewees stressed that berthing is typically preferred to anchorage. A participant with port-management governance experience stated: “Having your cruise ship tied up instead of at anchorage is always a plus point.” Yet the study reveals a strategic divide: whether Gozo should pursue berthing infrastructure (with its associated footprint and complexity) or focus on lower-impact solutions that still improve reliability and passenger experience.

The market readiness debate is also shaped by how stakeholders conceptualise value. Some policymakers questioned whether cruise passengers truly deliver meaningful local spend, given limited time onshore. A chief government policymaker noted: “My concerns... is normally the tourists tend to have a limited amount of time... I’m not sure about their real spend on the ground.” Tourism representatives in Gozo similarly warned that cruise visitors contribute minimally to accommodation and certain F&B segments compared to overnight tourists, reinforcing the study’s emphasis on the day-trip structural problem.

Conversely, cruise operators and some EU-level stakeholders argued that boutique cruise passengers represent a distinct,

higher-yield segment. An MEP offered a strategic positioning idea: “Positioning Gozo as a pilot site for sustainable maritime tourism... embedding local SMEs... could brand Gozo as a ‘living lab’ for eco-tourism.” This frames Gozo’s comparative advantage not as volume capture but as differentiation through sustainability and authenticity. The paper treats this as aligned with EU Blue Economy priorities and with the idea that secondary ports thrive through specialisation rather than competing head-to-head with major hubs (Notteboom, 2010).

A particularly resonant quote captures the differentiation logic: “Gozo should do what Valletta is not.” In other words, Gozo’s proposition should be defined by what mass-market hubs struggle to deliver: low-density experiences, curated cultural programming, and environmental integrity. The paper argues that such positioning requires more than maritime infrastructure; it demands improvements in service standards, public amenities, and destination management coherence.

5.2 Theme 2: Infrastructure constraints and environmental trade-offs

Infrastructure is the most contested domain because it concentrates the core trade-off: without improvements, Gozo remains operationally marginal; with heavy improvements, Gozo risks ecological damage and social backlash. Mġarr Harbour is often described as operating at saturation point, and any expansion raises intertwined issues of land scarcity, traffic congestion, and environmental constraints, including Posidonia meadows near the harbour area and the unresolved new road project intended to relieve bottlenecks (Newsbook, 2023; ERA, 2024; Times of Malta, 2025; University of Malta, 2025).

Stakeholder preferences, as synthesised in the paper, cluster around four options: (1) Mġarr expansion through reclamation, (2) alternative sites such as Marsalforn, (3) distributed floating buoys, and (4) no port development. Proponents and opponents align predictably with institutional roles: some political and authority stakeholders see expansion as economically necessary; environmental and academic stakeholders are strongly opposed due to irreversible ecological harm; many business and tourism stakeholders favour distributed buoys as a compromise; and civil society voices include outright opposition unless strict safeguards exist.

Distributed mooring infrastructure, mainly floating buoys across multiple sites (Mġarr, Marsalforn and Xlendi), emerged as the most widely supported compromise. Interviewees argued that “by having floating buoys, we can solve a lot of environmental issues and offer alternatives when the weather is poor.” While buoys do not replicate full berthing benefits, they can reduce anchoring damage, improve orderliness of operations, and offer flexibility. The paper presents this as a nature-sensitive pathway that avoids the “irreversibility” of reclamation and reduces seabed disturbance relative to fixed structures. It also links buoy systems to best practice in comparable island regions, notably the Balearics, where buoy networks support environmental protection and operational management (Gómez et al., 2023).

At the same time, the study avoids oversimplifying: buoys carry trade-offs, including weather vulnerability and potential operational inefficiencies. Some port-operations stakeholders preferred berthing, arguing that without it, Gozo will remain disadvantaged. The infrastructure theme therefore represents not a binary yes/no question but a choice among imperfect options under ecological and spatial constraints.

5.3 Theme 3: PPP governance and risk allocation

The PPP theme is shaped by Malta's mixed record. Stakeholders recognised the theoretical appeal of PPPs for mobilising investment, transferring construction and operational risks, and accelerating delivery. One policymaker captured the basic logic: "PPPs can work... government provides land, the private sector invests... they require return on investment." Yet the same participant immediately warned: "You require a lot of expertise... normally you can easily end up with a partnership which does not work or leaves you with a white elephant." This duality reflects the paper's position: PPPs are instruments, not solutions, and their outcomes depend on contract design, monitoring, and institutional capacity.

A more optimistic view invoked a local precedent: "The Queen Mary University model... could be replicated in the maritime sector." Here, the study uses the Gozo campus example as evidence that well-structured partnerships can generate sustained value when scope is clear and governance is credible (GRDA, 2025). But the counterweight is Malta's troubled concessions and the Vitals Global Healthcare case, which damaged trust in PPP procurement and oversight (NAO, 2020). International caution is provided through Larnaca: a concession that collapsed due to missed obligations and disputes, leaving government to terminate the contract (CyprusMail, 2024; Reuters, 2024). The study treats this as a warning on guarantees, step-in rights and auditability.

The PPP theme also intersects with strategic positioning. Business participants stressed that investor appetite depends on a clear roadmap for how Gozo will be marketed and managed. One operator argued that Malta and Gozo should be promoted

as a holistic experience, while another cautioned that Gozo must be promoted “as a distinctive destination, a destination on its own, attracting its desired clientele.” This is an important governance implication: infrastructure investment and destination positioning must be coherent; otherwise demand risk becomes unmanageable and contracts become vulnerable to renegotiation, as seen in other port concession experiences (Psaraftis and Pallis, 2012).

Homeporting emerged here as a contested strategic element. Policymakers and operators were sceptical due to connectivity limitations: “Homeporting is challenging... you need infrastructure, services, and the proposed airstrip will not make a difference.” A cruise agent was more direct: “Homeporting cannot be based in Gozo... you need connectivity, which to date we do not have... Gozo is to remain a port of call for the time being.” The paper interprets this as a pragmatic constraint: Gozo’s near-term feasibility lies in improved port-of-call operations, not full homeporting, unless wider transport and logistics transformations occur.

5.4 Theme 4: Community engagement and socio-cultural impacts

The fourth theme is the legitimacy test: even technically feasible projects can fail without social licence. Stakeholders repeatedly raised concerns that cruise development could become an “add-on” rather than a replacement for mass tourism pressures. An environmental activist warned: “We are afraid that by developing such facility, it will be an add-on, not a replacement to the other tourism models.” This speaks to the paper’s broader critique: without an explicit policy mechanism to shift the tourism mix (and manage total pressure), boutique cruise arrivals could simply increase cumulative impacts.

Concerns about consultation credibility were pronounced. One environmental voice argued: “One should consider this from a holistic approach... the local political landscape tends to decide without proper consultation. We have short-sighted politicians, and that is worrying!” Another fear was that projects may drift from original intentions as investors seek profit maximisation: “Our biggest concern is that such a project may have good intentions but ends up being different from what was originally proposed. The investors want to maximise profits.” These concerns align with over-tourism literature showing that infrastructure expansion often precedes genuine stakeholder buy-in and later generates resistance (Peeters et al., 2018; Tosun, 2000).

Cultural commodification and local economic capture were also debated. The Professor of Tourism warned: “If not managed properly, Gozo could lose what defines it.” The study recounts an example where cruise ships brought their own catering to Xlendi, bypassing local restaurants, illustrating the leakage risk and the need to embed local supply chains in excursion design and contractual requirements. Conversely, business and cruise stakeholders argued that boutique passengers seek authenticity: “Boutique cruise passengers are looking for real experiences... they want to consume and purchase local products... they want to hear stories.” A marine biology academic added that well-designed excursions, focusing on village restaurants, cultural events and learning experiences, could support heritage preservation and promotion rather than erode it.

Infrastructure capacity concerns remained central even at boutique scale. A business representative stated: “Gozo’s size and infrastructure cannot handle much more tourist... transport systems collide with school bus service.” Another participant stressed that, depending on intensity, cruise development

could become “a nuisance for the local population, stripping the residents from their basic rights.” These statements place resident wellbeing at the centre of feasibility. The study highlights that social licence is not a procedural step but a substantive condition: “Social licence is as important as technical and financial feasibility.”

Environmental stakeholders articulated minimum safeguards if any development proceeds: “First safeguard: if this is to happen, choose a suitable location that does not lead to speculation. There needs to be criteria for what type of ships can dock and the government should see that we do not use taxes to support this industry.” This points toward policy instruments: ship-type criteria, exclusion of mass vessels and public finance discipline.

6. Cross-cutting synthesis and discussion

The study synthesises several cross-cutting insights.

First, there is a policy-capacity gap. National and regional strategies articulate quality tourism and maritime diversification, but stakeholders perceive deficits in institutional architecture, regulatory consistency and implementation capacity. This echoes wider critiques of tourism planning where policy ambition is not matched by governance capability (Tosun, 2000). In Gozo, this gap is material: boutique positioning requires reliable basic public amenities, mobility management and consistent enforcement of environmental rules.

Second, stakeholders operate with competing rationalities. Government and business voices often frame cruise development in economic terms; jobs, revenue, competitiveness, while academics and civil society emphasise ecological integrity and social equity. The study argues that these rationalities are not

inherently irreconcilable, but they require governance frameworks that explicitly negotiate trade-offs rather than privileging one logic (Bramwell and Lane, 2011).

Third, PPPs are contingent tools. International evidence suggests PPPs can accelerate delivery and improve operations, but Malta's governance history means that procurement transparency, performance monitoring and robust contract terms are essential. The paper uses Larnaca's failure to illustrate what happens when financial guarantees and compliance mechanisms fail, and Tarragona's success to illustrate the value of clear scope and sustainability-oriented design.

Fourth, sustainability can be a value proposition, not only a constraint. Several participants argued that Gozo could differentiate itself by embedding sustainability at the core: shore-to-ship power, waste management protocols, low-impact excursions and alignment with EU Blue Economy priorities. This is presented as consistent with selective cruise management approaches such as Dubrovnik's, which caps arrivals to balance tourism revenue with heritage protection (Dubrovnik Port Authority, n.d.).

Finally, strategic coherence matters more than scale. The study concludes that Gozo's success depends less on building a large terminal and more on coherent, incremental, nature-sensitive interventions aligned with a strong governance model and community endorsement. This includes a clear market positioning ("Gozo should do what Valletta is not"), operational reliability improvements and a measurable sustainability framework.

7. Conclusion

The study concludes that Gozo has market fit potential within the expanding boutique and ultra-luxury cruise segment: the island's heritage, compact scale and shore-excursion potential align with the preferences of high-value travellers. However, Gozo's attractiveness is undermined by poor maritime infrastructure and the operational risks associated with tendering and weather exposure. Governance risk is a central barrier: stakeholder confidence is weakened by Malta's mixed record in PPPs and concessions, meaning that credibility, transparency, and performance assurance are prerequisites for investor appetite and public trust. Environmental stewardship is treated as a non-negotiable precondition for social licence, given the legal protection and ecological importance of marine habitats and the reputational risk of damaging the very assets that underpin Gozo's tourism identity.

Rather than advocating heavy marine construction or immediate terminalisation, the paper proposes that Gozo's feasible pathway lies in nature-sensitive infrastructure anchored in stronger Gozo-level maritime governance. Specifically, it argues for a distributed mooring system with no-anchor zones, a removable floating pier solution, and upgraded tender facilities and amenities to improve cruise call reliability and visitor yield without irreversible interventions. The broader policy message is that tourism mix transformation must be measured, managed and legitimised through evidence, particularly through a Gozo-level tourism satellite account and a multidimensional carrying capacity framework.

8. Recommendations

The study's recommendations are designed as an integrated pathway, moving from evidence base to governance capability to targeted infrastructure:

1. **Comprehensive impact assessment:** Commission a Gozo-specific study quantifying tourism's economic contribution and environmental impact, using input-output modelling and tourism satellite accounting. Disaggregate spend by visitor type (day trippers vs overnight tourists vs boutique cruise passengers) to support evidence-based investment and marketing decisions.
2. **Carrying capacity assessment:** Apply a multi-dimensional framework (including Limits of Acceptable Change principles) to establish quantitative thresholds for arrivals, cruise calls, daily loads at heritage sites and cumulative environmental impacts. Use this as an operational policy tool rather than an academic exercise.
3. **Establish a Gozo Ports Authority:** Create an autonomous governance structure to consolidate maritime infrastructure management, develop dedicated revenue streams (fees, concessions), and provide professional oversight for landing facilities and ancillary services. The paper frames this as a prerequisite for credible PPP negotiations.
4. **Feasibility study for distributed mooring buoys:** Undertake engineering, environmental and meteorological assessments for buoy networks at Mgarr, Marsalforn and Xlendi, with lifecycle cost analysis and revenue projections, drawing on best practice from comparable island systems.

- 5. Install floating pier infrastructure:** Consider modular floating pier solutions to reduce seabed disturbance, improve operational reliability and demonstrate a sustainability-first approach while avoiding land reclamation controversies.
- 6. Masterplans for Marsalforn and Xlendi:** Address persistent bottlenecks through integrated plans covering access, parking, green infrastructure, upgraded utilities and public realm improvements, recognising these as key nodes in any boutique cruise excursion system.

9. Implications for further research

The study identifies several future research needs: longitudinal studies on boutique cruise passenger expenditure and satisfaction; comparative studies of PPP governance frameworks in successful small-island cruise ports; and participatory social impact assessments to track resident perceptions and refine policy adaptively. The underlying argument is that Gozo's choices must be monitored as a dynamic system: legitimacy, ecological thresholds and market conditions evolve, and governance must be able to adapt.

10. Closing reflection

The study frames Gozo as being at a crossroads. Market trends may create opportunity, but outcomes will be determined largely by human and political factors: the willingness to prioritise long-term sustainability, the ability to build institutional capacity and the discipline to maintain structured stakeholder collaboration. A boutique cruise pathway is presented as plausible but

only if pursued as a carefully governed, evidence-based and environmentally constrained strategy that measurably improves quality outcomes for residents and visitors alike.

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The Malta-Gozo Air Service

Part III - The Furore over an Airfield

Joseph Bezzina

Abstract:

This is the *third* part of a study outlining the early endeavours for the provision of a permanent airlink between Malta and Gozo. The *first* part outlined the early attempts to provide this service; the *second* part proceeded with a review of the attempts to launch this airlink by helicopter. A trail service finally took off on 27 June 1990 and it was resumed the following year. Those cherishing the welfare of the Gozitans urged the hastening of the next step – an airfield for fixed-wing aircraft that would cut both costs and fares. For several weeks, the correspondence columns of local newspapers, overflowed with opinions about the project. Many were critical rather than supportive; the majority jumped to fallacious conclusions. The airlink was however upgraded with the extension of the landing area and the building of a proper helicopter terminal. The discussion in the meantime rages on.

Keywords:

Airlink Gozo-Malta, Inter-islands connectivity, Gozo Heliport, Gozo Airfield.

Author's Bio-Note:

JOSEPH BEZZINA, was born in Victoria, Gozo. He studied at the University of Malta and the Pontifical Gregorian University, Rome. He was ordained priest by Pope Saint Paul VI in 1975. He holds three history degrees, including a *summa cum laude*, a First-Class Honours Doctorate in Church History, and is also the recipient of the *Pope's Award*, his University's highest honour, after placing first in the 1982 finals. For seventeen years, he was Head of Department of Church History, Patristics, and Paleo-Christian Archaeology at the University of Malta (1994–1911). He also lectured at the Sacred Heart Seminary, Gozo, and at the Pontifical Seminary of Albania, Shkodër. In August 1989, at the request of the Ministry for Gozo, he founded from scratch the Gozo Section of the National Archives of Malta and he directed it as Assistant National Archivist until 2020. In his capacity as Church historian and professional archivist, he presented researched papers in conferences throughout Europe. He has written over eighty books in English and Maltese. A number have been translated into French, German, Italian, and Portuguese. He is a member of the Gozo Cathedral Chapter.

The Malta-Gozo Air Service

Part III - The Furore over an Airfield

The *first* part of this study outlined the early attempts to provide a permanent airlink between Malta and Gozo. The *second* part proceeded with a review of the endeavours to launch this airlink by helicopter, a service that finally took off on 27 June 1990. It was an airlink that started on a trial basis, but indicators for the future were encouraging. And a number of well-meaning people who cherished the welfare of the Gozitans urged the hastening of the next step – an airfield for fixed-wing aircraft that would cut both costs and fares.

1 • The resumption of the Helicopter Service

The trial service had come to an end on 2 September 1990, a full month more than originally programmed.

Malta Air Charter Company Limited, MAC, resumed the helicopter service on 28 June 1991 and during its second year of operation it was prolonged up to 20 October almost double the period of the first year – from sixty-eight days to one hundred and fifteen. During this second year of operations, a total of 5684 passengers used the service.¹

¹ MINISTERU GHAL GĦAWDEX, *Rapport ta' ħidma* (14 May 1991–22 Feb 1992).

The Nationalist Party was returned to Government in the General Election held on 22 February 1992 and Anton Tabone was reappointed Minister for Gozo for a second term. He was adamant that helicopter flights should resume as soon as possible. The service recommenced on 15 April 1992, four days before Easter Sunday, and it was scheduled to proceed until the end of October.

However, in fulfilment of the aspirations of the Ministry for Gozo and convinced by an increasing number of users, MAC decided to prolong the service up to the end of 1992. When the extended period was nearing its end, Minister Tabone announced that, after strenuous meetings with all stakeholders, it had been decided that the airlink would henceforth be offered throughout the whole year.² It was in fact provided without interruptions, excepting during severe storms, throughout 1993, 1994, and 1995. In 1996, the service was suspended between February and April as a safety precaution due to the works being carried out on the extension of the landing area and the construction of the passenger terminal.

Malta Air Charter was by that time marketing the Malta-Gozo flights under the brand name *Gozo Wings*. Since the third progressive summer, the service had been offered all year round and, it became known, that MAC broke even in its second period of its twelve-month-long operations.

As a result, at the beginning of June 1994, MAC decided to double the fleet to two Mil Mi-8 helicopters to cope with the rising number of Maltese and tourists using the service as a fast way to commute between the islands or simply for sightseeing.³ The second helicopter with an airframe of the *Balkan Bulgarian Airlines* as the first, was chartered from *SochiSpecAvia* • *СочуСпецАвиа*, a

² MINISTERU GHAL GĦAWDEX, *Rapport ta' ħidma* (Feb 1992–Feb 1993).

³ *Times of Malta* (30 Jun 1994) 56.

Russian contractor. It had an analogous attractive spacious cabin that could accommodate up to twenty-six passengers.⁴

In concomitance with this addition, MAC introduced a night service. It advertised a return 'night fare' for only Lm6 (€14) provided that the flight was taken between 9.00pm and 4.40am.⁵

On 8 June, Dr Alfred Sant, leader of the opposition, brought up the matter of the maintenance of these Russian-made helicopters in Parliament. It was clarified that, since these helicopters are registered in Russia, only Russian engineers are authorised to sign maintenance certification. Hence their airworthiness certificates were issued in Russia. As a technical audit was requested by the Department of Civil Aviation, MAC also sought verification from *Bureau Veritas*, a global leader in certification. It confirmed that the two helicopters were maintained to the proper standard.⁶

Within days of the expansion of the service, a number of residents close to the flight path of the helicopters started to complain vociferously that their roar had become a nuisance and that they were having sleepless nights. One even protested that his children were petrified by the noise. Michael Frendo, Transport Minister, promised a review to beat noise pollution.⁷

The following official statistics provide a good idea of the steadily increasing number of passengers from the introduction of the airlink until 1997 as well as the precise periods of operation.⁸

⁴ *The Malta Independent - Gozo* (14 Aug 1994) 20.

⁵ *Times of Malta* (30 Jun 1994) 56.

⁶ *L-Orizzont* (10 Jun 1994) 7.

⁷ *Times of Malta* (30 Jun 1994) 56.

⁸ Statistics kindly provided in 1997 by CHARLES SALIBA, PRO, *Malta Air Charter*.

Period	Schedule	Charter	Total
1990 • 27 Jun-02 Sep	2649	33	2682
1991 • 28 Jun-20 Oct	5032	652	5684
1992 • 15 Apr-31 Dec	13121	2511	15632
1993	37729	7058	44787
1994	55652	11925	67577
1995	54513	9813	64326
1996 • Feb to Apr suspended	43677	11059	54736
1997 • up to 31 Aug	31907	4933	36840

In early December 1994, the number of passengers on scheduled flights surpassed the 100,000 mark. The lucky passengers were Dr Norberth Breiter and Sabina Bischof who, after a fortnight holiday in Gozo, flew from the Heliport to the MIA, where they received a VIP welcome.⁹

2 • A proposal for a passenger terminal and an airfield

In the late 1950s, the Government had embarked on the mammoth task of the construction of a modern airport terminal located next to the former *RAF Luqa* together with a considerable extension of the runways.

Malta's Luqa airport was inaugurated as a civil air terminal on 31 March 1958 and granted the IATA airport code/location identifier MLA. Thirty years later, with steadily increasing air-travel, it could no longer cater for the tourism orientated economy of Malta. The foundation stone of a new passenger air terminal off Gudja was laid on 22 September 1989, on the morrow of the twenty-fifth anniversary of Malta's Independence. It was built in record time and

⁹ *Il-Ġens* (13 Jan 1995) 10.

inaugurated twenty-nine months later, on 7 February 1992. Malta International Airport - MIA, half way between the towns of Luqa and Gudja, became fully operational on 25 March 1992.

This successful mammoth enterprise spurred Minister Anton Tabone and his team behind the Gozo airlink to insist on the building of a proper passenger terminal at the Heliport. Simultaneously, this team also aired a desideratum for the extension of the Gozo Helipad and, at a later stage, the laying of an airfield.

The term *airfield*, used henceforth, includes a runway for the take-off and landing of aircraft and supporting minimal infrastructure. It could prove ideal for small operations, training, private aviation, and even military purposes. In other words, a full aviation area that supports aircraft operations. An *airstrip* is the simplest form of a landing area, sometimes unpaved, of dirt or grass, and with minimal or no facilities.

In simpler terms, an airstrip is just the strip or runway; an airfield is the whole setup. Both terms were used loosely in the ensuing debate, but the term airfield is more adequate to the project being conceived. The proposed airfield would make possible the substitution of helicopters, that are very costly to run and maintain, with the more economic light aircrafts.

An idea of the costs to maintain and fly a helicopter was, at that time, provided to this author by Colonnello Basilio Rampulla, *Commandante della Missione Militare Italiana a Malta* (1989-1992), whom I accompanied on a tour around Gozo. He informed me that, between maintenance and fuel consumption, the cost of their Italian Air Force helicopter Agusta-Bell 212AM amounts to around Lm500 (€1165) for every hour of flying time.

On 4 February 1992, *L-Iskwadra tal-Ajru tal-Forzi Armati ta' Malta*, the Air Wing of the FAM, Armed Forces of Malta, had acquired five fixed-wing *Cessna O-1E Bird Dogs* at a nominal price from the United States Government.¹⁰ The *Bird Dog* was a light, two-seat liaison and observation aircraft. It mated the wings and tail of one aircraft to a new fuselage with a large windowed 'glasshouse' cabin and a 213-horsepower engine. In the wake of this acquisition, Claude Gaffiero, FAM Commander, expressed his conviction that an airfield in Gozo would also benefit the multiform operations of the Armed Forces.

Minister Anton Tabone, encouraged by this belief, discussed the matter at length with Brigadier Gaffiero and held parallel meetings with Joseph Sultana, Director DCA–Department of Civil Aviation. From the beginning, Minister Tabone had two matters on his agenda: the possibility of an airfield and the necessity of a proper passenger terminal. He also brought up the subject in a number of meetings with Joseph N. Tabone, Air Malta Chairman, and Nick Degiorgio, Chairman MIA. News of these discussions were broken on 4 December 1994.¹¹

The Ministry for Gozo announced that, by the end of January 1995, *Air Malta and Malta International Airport Co* were to submit recommendations on a new air passenger terminal in Gozo and the possible extension of the helipad.¹² It also hinted at the Government plans to build an airfield for military purposes in Gozo following the FAM's acquisition of aircrafts to be used for the islands' security.¹³

¹⁰ *World Air Forces 1994* (1995) 48.

¹¹ *AFM airstrip to be built in Gozo*, in *The Sunday Times* (04 Dec 1994) 10.

¹² *Il-Ġens* (08 Dec 1995) 10; *Plans for Gozo air passenger terminal*, in *The Sunday Times* (18 Dec 1994) 1. 16. 32-33;

¹³ GEORGE E. KISSAUN, *My life in aviation. The Malta–Gozo Airlink*, Malta 2012, 40.

3 • A project accepted by the major political parties

Way back in April 1987, in the run-up to the general election, Dr Karmenu Mifsud-Bonnici, Prime Minister and leader of the Labour Party, had announced, as aforementioned, the approval of the outline plans for an airfield.¹⁴

Dr Mifsud-Bonnici did not change his mind when from May 1987 he became leader of the Opposition. As a matter of fact, on 5 December 1992, in the run-up to another general election, he reiterated his Party's pre-election promise at a meeting in Qala-Gozo: "A future Labour Government would ... build an airfield".¹⁵

In these pronouncements, he was simply reaffirming a pledge made in the Party's 1981 and 1987 electoral programme. In the 1987 version, under the heading *Turiżmu f'Għawdex*, the Party declared: "Bini ta' airstrip li diġa ngħata bidu għalih f'Ta' Lambert, Xewkija – Project already underway for the construction of an airstrip at Ta' Lambert, Xewkija".¹⁶ Following a second election defeat in February 1992, Dr Mifsud-Bonnici resigned his post. On 26 March 1992, he was succeeded by Dr Alfred Sant as leader of the Opposition and of the Labour Party.

Thus, in December 1994, when a Nationalist Government announced the projected passenger terminal and airfield, it seemed that *prima facie* both major political parties approved their construction and the issue, albeit an isolated one, was non-controversial.¹⁷ It was not to be. Before long, this conjectured accord was shattered.

¹⁴ VICTOR CALLEJA, *When grievous sinners are converted to saints*, in *Times of Malta* (02 Dec 2022) 24.

¹⁵ *The Times* (06 Dec 1992) 14.

¹⁶ *Programm elettorali tal-Partit Soċjalista*, Malta 1987, 57.

¹⁷ BERTA SULLIVAN, *Hot "Strip"*, in *The Times* (24 Mar 1992) 5.

On 29 January 1995, Dr Alfred Sant, during a visit to the proposed site between Ġhajnsielem and Xewkija, “came out strongly against the airfield... the project would seriously damage the Gozitan environment and would detract from the characteristics of the island”. He also reasoned that “the proposal would not improve communication between Malta and Gozo in bad weather unless the airport was the size of the one at Luqa, something which make no sense for Gozo”.¹⁸ This stand was repeated in a press release giving his Party’s ‘updated version’ on the matter.

Karmenu Borg, a Labour parliamentarian from Gozo, an architect by profession, who way back in 1986 was in the forefront of the project’s promotion, also had a change of heart. In February 1995, he commented to a local newspaper that “there is at present no need for an airfield, though its necessity might arise in the future”.¹⁹ A little leeway for a change of mind.

On 15 March 1995, Dr Sant brought up the matter in Parliament. In his opinion “the airfield was only a cover-up for commercial interests”. Acknowledging that it was a Labour Government that had proposed the project, he held that both the times and the criteria applied then had changed. He added that one should weigh whether the airfield would increase communications between the islands as well as the environmental impact. According to him, these two criteria were not satisfied by the project.²⁰

In emphasising these reasonable criteria, Dr Sant might have had at the back of his mind the significantly major project presented by his predecessor, with one runway four times longer than the 400-metre one being proposed and a second intersecting runway

¹⁸ *The Times* (30 Jan 1995) 1.

¹⁹ KARMENU BORG, *M’hemmx ħtieġa*, in *Il-Ġens* (17 Feb 1995) 2.

²⁰ *The Times* (17 Mar 1995) 52.

two and half times longer – an airport rather than an airfield. This would indeed have been detrimental to the environment and to the whole island of Gozo.

4 • The misguided outcry over an airfield

When the projected terminal and airfield were announced on 4 December 1994, all hell broke loose. For several weeks, the correspondence columns of local newspapers, overflowed with opinions about the project. Many were critical rather than supportive; the majority jumped to fallacious conclusions.

Alternattiva Demokratika, the Green party, was especially vociferous and rightly insisted on a study of the implications of such project. Anton Farrugia, the Party's environment spokesman, while appreciating the benefits of an airfield, stressed that Gozo's characteristics could be undermined and he hence emphasised the necessity of an EIA-*Environment Impact Assessment* report. He acknowledged that helicopters may be more expensive to run than fixed-wing aircrafts, but, he reasoned, they have a lesser impact on the environment.²¹ This reasoning, he affirmed, was in line with an *Air Malta* study that concluded that the helicopter was economically preferable to a fixed-wing service when all factors had been considered.²²

Din l-Art Ħelwa, the National Trust of Malta, was equally wary of the whole project. Victor Ellul, writing on its behalf, pointed out that "Ta' Lambert... being an agricultural area, has also visual and landscape conservation significance. This natural, healthy environment is

²¹ ANTON FARRUGIA, *Plans for Gozo air passenger terminal*, in *The Sunday Times* (18 Dec 1994) 1. 16.

²² This study could not be traced.

now seriously threatened by development”.²³ He was of the opinion that as regards the proposal, “one is hardly in any doubt that the people’s central preoccupation and serious concern is about the conservation of the countryside and the effects of pollution on the human, social, and rural environment.”²⁴ As Kissaun rightly pointed out, it does not seem to have crossed his mind that Ta’ Lambert would remain a green open space.²⁵

The *Malta Ecological Society* also objected strongly to the airfield, claiming that the plans were not justified and that improved helicopter services and, new, adequate helicopters would suffice; but it offered no estimate on such a change. It also insisted that the projected terminal will jeopardise Gozo’s landscape to such an extent that upmarket tourists would think twice before visiting.

Anne Zammit, a regular contributor to *The Sunday Times* on the environment, also expressed her aversion to the project, pooh-poohed the suggestion, and took to task both Minister Tabone and Brigadier Gaffiero for their audacity to suggest such a plan. With a firm tone, she concluded that: “the totally unnecessary destruction of the Gozitan landscape for a superfluous project simply because it is seen as prestigious will not go down well when viewed from a global aspect in the realms of the biosphere initiative to which Malta is party.”²⁶

On 21 January 1995, some one hundred members from seven different environmental groups – *Din l-Art Hejwa*, *Moviment għall-Ambjent*, Society for the Study and Conservation of Nature, Mos·Birdlife Malta, Arbor, and Eco·Malta Ecological

²³ *The Sunday Times* (18 Dec 1994) 16.

²⁴ *The Sunday Times* (30 Apr 1995) 38.

²⁵ KISSAUN, 40.

²⁶ ANNE ZAMMIT, *Gozo and the airstrip*, in *The Sunday Times* (18 Dec 1994) 32-33.

Society – staged a protest by walking from Floriana to Valletta carrying a seventy-metre long black strip of cloth representing the intended runway. The protest walk was punctured by sound effects creating a semblance of the din of landing aircraft. At Valletta, they stopped for a few minutes in front of Auberge de Castille, the Prime Minister's office, to explain their opposition to the project.²⁷

Eventually, these environmental groups jointly drew a position paper on the proposed airfield's impact on the environment. Early in May 1995, they presented it to Dr Francis Zammit-Dimech, Environment Minister.²⁸ Their reasoning is encapsulated by Victor Ellul, who writing on behalf of *Din l-Art Helwa*, pointed out that any project should not be evaluated only in economic terms; that a more sensible ordering of priorities should divert investment to build an all-weather harbour at Ċirkewwa; and that some people's knowledge, intuitive awareness, and common sense assumptions, often interpret Gozo's cultural context better than the authorities or foreign consultants.²⁹

These reactions follow a pattern to similar developments both locally and abroad. Rural development arouses intense suspicion from Green parties and conservationists.

Supportive comments were not wanting. Konrad Scicluna, an Air Malta First Officer and a Gozitan, affirmed that he got the impression after all that had been written that most people did not really understand what this project is all about. He highlighted three advantages of the proposed development: prices will definitely go down with a fixed-wing service; the potential of

²⁷ *The Sunday Times* (22 Jan 1995) 1.

²⁸ *The Sunday Times* (30 Apr 1995) 39.

²⁹ *The Sunday Times* (30 Apr 1995) 39.

a small airfield should not be underestimated; and the project would buttress the long-declared policies of both the Labour and the Nationalist Government in the tourism sector to promote quality, rather than quantity.³⁰

It was obvious, commented Berta Sullivan, a balanced analyst, that an EIA report was wanting. She emphasised that this was sorely needed to better evaluate the pros and cons of the project for “uninformed and premature speculation causes unnecessary alarm”. This, she proceeded, had led to sweeping statements such as: *The dinosaur that will kill Gozo – Gozo under the axe – Il-bidu tat-tmiem għal Għawdex – Għawdex bye-bye – Ta’ Lambert landscape under threat* and so on and so forth.³¹ Kissaun referred to such statements as “pathetic and hysterical to say the least.”³²

Il-Ġens, a newspaper published by the Church’s *Media Centre*, took an equally reasoned stand. Carmel Attard, its editor, provided a chronicle of the project from its inception and interviewed a number of those involved in the venture since the late 1960s.³³ He also carried out a minor survey on the matter and took comments from both the pros and cons fields. While delving into the suggestions being made, he pointed out that details were wanting and a clear verdict is thus premature.³⁴

The newspaper’s Gozo correspondent rightly queried how it was that critics of the project were understandingly lamenting the absence of an EIA but, nonetheless, reached apocalyptic conclusions. He added how “four years ago, when the helicopter service was first introduced, there were many who presaged a

³⁰ *The Sunday Times* (05 Mar 1995) 43.

³¹ BERTA SULLIVAN, Hot “Strip”, in *The Times* (24 Mar 1992) 5.

³² KISSAUN, 48.

³³ CARMEL ATTARD, [*Il-Mitjar*] *approvat sa mill-1987*, in *Il-Ġens* (10 Feb 1995) 1. 24.

³⁴ *Il-Ġens* (17 Feb 1995) 1-2.

total failure coupled with excruciating acoustic damage and an environmental disaster of unfathomable proportion. Four years later, many Gozitans exclaim: God forbid that the service be suppressed!”³⁵

Alexander L. Borg, an architect specializing in Rural and Regional Resources Planning, while squashing the idea of a small airport, pointed out that “sustainability is far from being a recipe for inaction or for freezing Gozo in a crib.” Upmarket tourism could benefit from the construction of an airfield and the extension of the helicopter service would help too.³⁶ Indeed, his suggestion was a recipe of some solid sense and compromise.

Nalizpelra, alias Maurice Tanti-Burlò, the regular cartoonist of *The Sunday Times*, did not fail to inject subtle perspectives into the ongoing debate. In a first cartoon, he depicted a *Gozo Airstrip!* that would necessarily have to be stretched over the ‘three hills’ of the island of Calypso to be accommodated.³⁷ In a second, with the teaser Gozo International Airport, he illustrated an airfield running through a tunnel excavated in the ‘three hills’.³⁸ In a third, Gozo and its Ċittadella surmounted by a *Gozo flag* were transformed into an aircraft carrier with a Britten-Norman Islander taking off.³⁹

George Kissaun, who was involved in the project from its inception, acknowledged that the widespread protests that followed the December announcement might have been a side effect of the over-enthusiasm of its promoters.⁴⁰ Neither those in favour, nor

³⁵ *Il-Ġens* (13 Jan 1995) 10.

³⁶ *The Sunday Times* (02 Apr 1995) 16.

³⁷ *The Sunday Times* (19 Feb 1995) 11.

³⁸ *The Sunday Times* (05 Mar 1995) 11.

³⁹ *The Sunday Times* (12 Mar 1995) 11.

⁴⁰ KISSAUN, 49.

those against could rely on clear and well-defined plans. The involvement of the FAM did in no way help to clarify matters.

5 • The airfield at the European Commission

Arnold Cassola, *Alternattiva* spokesperson of *Alternattiva Demokratika* on the EU and international affairs succeeded in raising the issue at the European Parliament.

Alexander Langer, co-chairperson of the 'Green Parliamentary Group,' and Heidi Hautala, the Finnish Euro-deputy, enquired whether the project had been discussed when Minister Anton Tabone met Alain Ruche, senior advisor on cultural matters at the EEAS-European External Action Service. This discussion took place during a meeting in May 1994 specifically to review transport between Malta and Gozo. The Euro MPs requested the Commission to ensure that no financial aid be given to the project should it result to be incompatible with Gozo's environment and the island's sustainable development.⁴¹

In his reply, Henri van den Broek, European Commissioner for External Relations and Enlargement (1992–1994), with the addition of the Neighbourhood Policy portfolio (1995–1999), said that the Commission did not receive any request for the financing of the airfield project and added that “naturally the Commission would take heed of the impact which a project of this kind would leave on the environment and sustainable development on small islands such as Gozo.”⁴²

⁴¹ *The Sunday Times* (05 Feb 1995) 10.

⁴² *The Times* (11 Apr 1995) 6.

At the behest of Minister Anton Tabone, the European Commission had financed a study on a development plan for Gozo that had actually looked into the possibility of building an airfield. Independent experts carrying out the study in the framework of the Second Financial Protocol with Malta, had in fact highlighted the need to take into consideration the environmental impact the airfield would have on the island.

6 • At the service of the *Forzi Armati*

Prime Minister Dr Eddie Fenech-Adami had by early 1995 become convinced of the expediency of an airfield for the FAM and, subsequently, for the Malta-Gozo airlink.

On 7 March 1995, in an answer to a parliamentary question, he pointed out that “an airfield in Gozo would be particularly useful in case of a disaster in Gozo and in a search and rescue operation to the north of the island... The FAM estimated it would save between 20 to 30 minutes in transit time if its aircrafts were refuelled in Gozo instead of at Luqa... It would give the FAM greater mobility and permit better use of its means of transport”. Concluding, he stressed that the airfield project would be subject to an EIA and all interested parties would be able to express their views.⁴³ At that time the FAM were awaiting the delivery of a twin-engine Pilatus Britten-Norman Islander aircraft.

This other justification for the building of an airfield, that is its use for SAR-search and rescue operations, did not make the project more palatable. “The military angle by any stretch of imagination and still less of the intellect, cannot reasonably be

⁴³ *The Times* (08 Mar 1995) 1; *Il-Ġens* (21 Apr 1995) 10.

put forward as a plausible factor in the decision-making process that is taking place; indeed, it should be seriously disregarded,” wrote one analyst. Malta was gripped by an unprecedented boom in construction and it was conceivable that the airfield “will grow from a little runway to a prestigious affair with all the frills of arrival and departure lounges, taxi ranks, car parks, and any other thing you can conjure up.”⁴⁴ This opinion entitled “a bit of airstrip-tease” was accompanied by a cartoon poking fun at the whole idea.⁴⁵

Another correspondent proved such justification fallacious from a technical point of view.⁴⁶ George Kissaun did not mince words in affirming that natural or other disasters are no excuse to build an airfield. The proof of the pudding is in the eating.⁴⁷ Truly enough, the real value of something can be judged only from practical experience or results and not from appearance or theory.

Meanwhile, Minister Anton Tabone confirmed his Government’s decision regarding a fixed-wing aircraft for the Malta-Gozo airlink to *Travel Weekly*, a very influential British magazine in the tourism sector. He was quoted to have stated that “the Government has decided that there will be a permanent air link – a fixed-wing aircraft that is cheaper to operate than the helicopter. It will help further to promote Gozo.”⁴⁸

Alternattiva Demokratika, that never mellowed its stand vis-à-vis the project, somehow jumped to the conclusion that Minister’s Tabone statement to *Travel Weekly* confirmed that “the airfield’s

⁴⁴ ROAMER in *The Sunday Times* (19 Mar 1995) 11.

⁴⁵ ISLANDERS in *The Sunday Times* (19 Mar 1995) 9.

⁴⁶ *The Times* (11 Apr 1995) 5.

⁴⁷ KISSAUN, 47.

⁴⁸ Quoted in *The Times* (24 Mar 1995) 6.

aim was commercial, contradicting what the Prime Minister had said in Parliament about its military aims.”⁴⁹

On Sunday, 26 March 1995, Prince Ranier III (1923–2005), ruler of the Principality of Monaco for almost 56 years (9 May 1949–6 April 2005), was to fly by helicopter to Gozo at the invitation of Minister Anton Tabone. He was in Malta to inaugurate the 34th Congress of the *International Commission for the Scientific Exploration of the Mediterranean* of which he was President.⁵⁰

Alternattiva, at the helm of the anti-airfield lobby, grasped the occasion to organise a protest in which a number of Xewkija residents led by their mayor Wistin Dingli lined the road outside the heliport holding posters against the airfield plans. It was clearly stated that “the protest was not aimed at the Prince’s visit, but to draw the attention of the international media to the fact that agricultural land is seriously under threat.”⁵¹

The Prince and his delegation arrived at the heliport at 10.15am. This author sitting in the front passenger’s seat of the official car, with Prince Ranier and Minister Tabone at the back, found himself in the midst of the scene. The protestors were kept back and at a distance by the police; however, the Prince did notice them for a split second, when a few attempted to obstruct the road. By then, I was already explaining to the Prince the programmed tour of Gozo.

Three days later, on 29 March 1995, a number of residents from both Xewkija and Għajnsielem gathered in a meeting chaired by lawyer Dr Carmelo Galea to discuss repercussions of the project on their respective villages and agricultural land.

⁴⁹ *The Times* (24 Mar 1995) 6.

⁵⁰ *The Times* (28 Mar 1995) 6.

⁵¹ *The Sunday Times* (2 Apr 1995) 10.

Wistin Dingli and Frans Cauchi, respectively mayors of Xewkija and Għajnsielem, and some councillors were also present. The participants included a number of farmers who were afraid that the airfield would gobble up their agricultural land causing them serious harm. An action committee led by Dr Galea against the airfield proposal was formed and it was decided that the farmers present would address a letter to the Planning Authority against the proposal.⁵²

On 23 March, in the midst of this debate, Minister Tabone announced that MAC will from 1 April offer a substantial reduction to students who book a helicopter flight presenting their ISIC·international student identity card. Addressing the conference of the International Student Travel Federation being held in Gozo, he added that he was confident that this measure will make such flights more attractive.⁵³

A few weeks afterwards, MAC announced that, at the beginning of summer 1995, it was bringing over a third helicopter with room for twenty-six passengers. It was also chartered from *SochiSpecAvia*. Henceforth, the number of both scheduled and panoramic flights were increased to eight return flights from Gozo to MIA and two daily panoramic flights – a total of eighteen flights a day. It also made it possible for MAC to take up more chartered flights, the latest being one for 150 German travel agents who were meeting in Malta.⁵⁴

⁵² PA 0155/95; see *The Sunday Times* (2 Apr 1995) 10.

⁵³ *The Times* (24 Mar 1995) 26.

⁵⁴ *In-Nazzjon* (01 Aug 1995) 4.

The discussion in the meantime raged on with pros and cons arguments in the correspondence columns of local English⁵⁵ and Maltese newspapers.⁵⁶

7 • The projected airfield stalled

“Gozo airstrip plans encounter a turbulence,” ran the headline of an article by Natalino Fenech on the front page of the *The Malta Independent* on 9 April 1995.⁵⁷

“The planned airstrip project may have been stalled, even grounded, mainly because of the over-enthusiasm of its promoters rather than as a result of widespread protests.” This correspondent prognosticated a miscarriage of the project and he was proved right.

The application put forward by the FAM went beyond the plan envisaged by Minister Tabone and his consultants and the subsequent brief that had been illustrated to the Cabinet and referred to by the Prime Minister in parliament in early March. Fenech asserts that his newspaper had learnt “that the Cabinet will not be pushing the FAM application for the Gozo airfield. It seems – he proceeded – that most of the ministers, including the Prime Minister himself, were not at all happy that the FAM application was not in conformity with the brief.”⁵⁸

It soon became obvious that the original idea to have a small airfield catering for a 20-seater aircraft, apparently got out of

⁵⁵ *The Times* (29 Mar 1995) 5; *The Sunday Times* (30 Apr 1995) 38-39; *The Times* (02 May 1995) 5.

⁵⁶ *Il-Ġens* (23 Aug 1995) 10; *Il-Ġens* (22 Sep 1995) 10.

⁵⁷ *The Malta Independent on Sunday* (09 Apr 1995) 1.

⁵⁸ *The Malta Independent on Sunday* (09 Apr 1995) 1; see also KISSAUN, 49.

hand. The plans submitted to the Planning Authority by the FAM showed the outline of an airfield with two very ambitious intersecting runways of 1,600 and 1,000 metres long respectively, in stark comparison with the 450-metres-long and 30-metres-wide airfield approved by the Cabinet.

The Malta Independent learned that the Prime Minister was “very angry” about this and that practically all the ministers had privately expressed preoccupation about a runway capable of handling airlines operating international flights. As a matter of fact, two the aircraft types then owned by *Air Malta* – the *Avroliner RJ70* and the larger *Boeing 737* – were able to take-off and land in a 1200-metre-long runway.

The situation was very preoccupying for the pro-airfield lobby. It must certainly have embarrassed the Prime Minister and his Cabinet, foremost amongst them Minister Anton Tabone. “It was also very irresponsible and unethical.”⁵⁹ It was the result of individuals, reasons Kissaun, who have no sense of proportion and are misled by others who have little knowledge of how situations like this evolve.⁶⁰

The FAM application was actually closer to the plans that Prime Minister Mifsud-Bonnici had envisioned eight years previously in the run up to the 1987 election. The idea behind the first Labour proposal was a civil airport. “The fact that the FAM plans indicate possible future expansion sowed scepticism as to what lay beyond the initial application and these plans are most likely to ground the whole project,” concluded Natalino Fenech. And they did.

⁵⁹ KISSAUN, 50.

⁶⁰ KISSAUN, 50.

The discussion on the airfield and the assumed environmental disaster went into hibernation, but only for some time. It was revived in early 1996 when the Government presented an application for the upgrading of the heliport.

The Action Committee against the Gozo airfield immediately sprang again into action and reiterated its objection to the Planning Authority. This Committee actually adopted a nimby attitude, “the reduced plan make it possible for the project to be relocated to another site where it would not be detrimental to agricultural land and where it would be of less inconvenience to nearby villages.”⁶¹

8 • The extension of the approach and take-off area

On 7 March 1996, the Planning Authority met to weigh the first phase of the Gozo heliport project – the extension of the approach and take-off area from 22 to 152 metres. The second phase that included the taxi-way and parking space for two helicopter would eventually be discussed for approval at a later date.

This extension had been recommended by *Bureau Veritas* as the helipad, it was pointed out, did not conform to the ICAO·International Civil Aviation Organization standards. As a result, on 1 February 1996, the DCA·Department of Civil Aviation had suspended the helicopter service between Malta and Gozo.

During the PA meeting, Saviour Fenech, DCA director, asserted that the suspension was necessary as the heliport did not meet the safety specifications of the ICAO and *Bureau Veritas* had

⁶¹ *The Sunday Times* (4 Feb 1996) 12.

strongly recommended a longer take-off area. The DCA, he further stated, would not permit the resumption of the service unless the project was approved. He also pointed out that MAC Class 2 helicopters needed the airstrip for take-off and landing. Besides, night flights could not be permitted unless there was adequate lighting.

Reuben Abela, from the Planning Directorate, affirmed that the first phase of the project would mainly affect a rocky area and one field. There were also some prehistoric cart-ruts in the area for which the Museum Department suggested protective netting. The second phase would affect an old quarry, a rural building, and other cart-ruts. From a preliminary EIA, he concluded, it would appear that there would be little impact of the ecology and landscape.

A short digression on these enigmatic cart-ruts, *kalati* in Maltese, is a must at this point. There are at least five areas with cart ruts in Gozo. The most easily accessible and the best preserved are the cart ruts at Dwejra. The more intensive concentration of cart-ruts is probably at Ta' Ċenċ; while at Qala, there is a single but very long stretch. In the limits of Xewkija, there are two rather short stretches at Ta' Blankas, and the just mentioned at Ta' Lambert that are even shorter.⁶²

The meeting was also addressed by Frank Psaila, Permanent Secretary at the Ministry for Gozo. He stressed the importance of the helicopter service for the island's economy and tourism. The service also had a social aspect and, in fact, there was little economic return for the operators.⁶³

⁶² ANTHONY BONANNO, *An illustrated guide to Prehistoric Gozo* (= Gaulitana 3), second revised edition, Rabat-Gozo 2002, 35. 37.

⁶³ *The Sunday Times* (4 Feb 1996) 12.

At the end of the hearings, the Planning Authority gave the green light to an extension at the Gozo Heliport despite protests that the application was being rushed through.⁶⁴ Ten Planning Authority members voted in favour, one voted against, and four abstained. George Vella, Deputy Leader of the Labour Party, abstained as he felt he could not decide in a responsible manner at such a short notice for a vote. He also protested at the piecemeal way the project was being approved. His concern was echoed by Professor Anthony Bonanno, who also abstained as did Perit Joseph Falzon and Dr Tania Sciberras-Camilleri. Board member Amodeo Mifsud voted against.⁶⁵

Works on the approved extension started immediately and at an accelerated pace. The approach and take-off area was extended to 152 metres and a width of 25 metres. Fencing was put up around the new helipad and the road leading from the Victoria-Mġarr thoroughfare to the heliport was tarmacked. By the end of March, it was announced that the helicopter service would recommence shortly and in fact the service was resumed on 1 May 1996.⁶⁶

9 • The Gozo Heliport

Anton Tabone, encouraged by the successful operation of the airlink and the milestone of the carriage of the 100,000th passenger in December 1994, convinced his cabinet colleagues of the need for a proper passenger terminal and the urgent modernization of the heliport. This long-awaited and essential upgrade had finally been realized.

⁶⁴ KISSAUN, 55.

⁶⁵ *The Sunday Times* (10 Mar 1996) 12.

⁶⁶ *The Sunday Times* (31 Mar 1996) 12.

The heliport upgrade to ICAO standards was financed jointly by the Department of Civil Aviation and the Malta International Airport. The Department invested €815,500 (Lm350,000) in the project, prolonging the approach and take-off area, constructing a second helicopter landing pad, and upgrading the heliport's overall safety features.

While this work was being carried out, the Airport Authority constructed the modern passenger terminal building which included check-in-desks, a sales office, car rental counters, banking facilities, and a self-service cafeteria. An ample car park was formed adjacent to the terminal for employees and patrons. The Authority pumped €466,000 (Lm200,000) into this project. The Ministry for Gozo provided most of the required manpower. The upgrade was carried out at a total investment of €1,281,500 (Lm550,000).⁶⁷

The improved Gozo heliport and the new terminal building were officially inaugurated by Prime Minister Fenech-Adami on Saturday, 25 May 1996.⁶⁸ The new heliport, affirmed the Prime Minister during the opening ceremony, is a tangible show of confidence not only in the airlink with Malta but also in Gozo itself. It is a sign that the island of Gozo is enjoying the same rate of development as Malta in practically all fields. It locates Gozo on the same level of economic and social development as its sister island.

Anton Tabone, Minister for Gozo and the mastermind behind the whole enterprise, asserted that the new heliport is a tangible show of trust in the great potentiality of the service and it is forging for futurity this new link in the system of transport

⁶⁷ *The Sunday Times* (26 May 1996) 1. 92.

⁶⁸ *The Sunday Times* (26 May 1996) 1.

between Malta and Gozo. The heliport offers improvements both in passenger comfort and in safety measures. The helicopter link, he emphasised, is important not just for tourists, but also for Gozitans who now had guaranteed passage to and from Malta even when the ferry service could not operate.

Nick De Giorgio, Chairman of MIA, vowed to run the Gozo heliport on the same successful lines as the airport. It was announced that since 1 May – when the service resumed after being halted for three months due to the ongoing works – a total of 4600 passengers had used the airlink. These patrons can now enjoy the latest in air terminal facilities at both ends of their trip.

Mingled in these patrons are foreign residents, go-it-alone holiday-makers, tour operator traffic, and local Gozo-Malta commuters moving from and to Gozo, who had found the service well worth the price, avoiding the inter-island crossing which could prove rather stressing at certain times of day and night. The flight between the Gozo Heliport and the Malta International Airport took just over ten minutes.

10 • The sightseeing trips

Soon after the inauguration, this author was invited by *Malta Air Charter* to join a panoramic flight for an eventual write-up in *Malta this month*, the in-flight magazine of *Air Malta*.⁶⁹

It was possible to take either a twenty or a forty-minute sightseeing flight. The first departed and returned to the Gozo Heliport; the second took off from the Malta International Airport. The chopper cruised at an altitude of around five

⁶⁹ JOSEPH BEZZINA, *A bird's eyevew*, in *Malta this month* (Sep 1996) 71-74.

hundred metres travelling at 230 kilometres per hour providing an unequalled bird's-eye view of the Maltese archipelago. My invitation was for the longer flight that thus necessitated a flight from Gozo to Malta.

As the helicopter rose slowly from the heliport, one immediately gets a taste of things to come. A gorgeous wilderness covered with garigue stretches up to the precipices of a deep valley terminating in the mini-fjord of Mgarr ix-Xini with a watch tower guarding its entrance. Taking a south easterly route, the flight soon traversed the six-kilometre expanse of blue Mediterranean that separates Gozo from Malta and provided passengers the opportunity to enjoy an unparalleled view of the towering cliffs of Malta's west coast. In about twelve minutes the helicopter landed at the airport.

Seeing Malta and Gozo from above meant more than a simple short aerial tour from Kalafrana, Malta's southernmost tip, to Cape San Dimitri, Gozo's and the Maltese archipelago's northernmost point. As the thousands who have taken the excursion attested, one is indeed regaled with an excellent view of the villages and the valleys, of the churches and the countryside on this small expanse of land.

The flight from the airport overflew Marsa, with its multitude of sporting facilities, and then headed towards Valletta, as a starting point. The perfect grid layout of the street, the palaces, and the fortifications jutting out between the Grand Harbour and Marsamxett Harbour illustrate vividly why it has been referred to as a city built by gentlemen for gentlemen. After further views of the inner harbour area with its drydocks and Three Cities, the flight turned towards Malta's low lying eastern coast with the tourist resorts of Sliema, San Ġiljan, Buġibba, and Mellieħa.

The sheer beauty of the crystal-clear waters of Bejn il-Kmiemen, the stretch of blue sea between the two small islands of Comino and Cominotto, immediately captured everyone's attention as the flight headed towards Gozo.

The flight approached Gozo from above Mgarr harbour, small but bustling with activity, then towards the island's largest villages of Nadur and Xagħra both built on two of the many hills that dot the island. The difference between the islands soon became obvious as the greener Gozitan countryside watered by natural springs seemed markedly less barren and less spoilt than Malta.

Ta' Kola windmill in Xagħra with its huge sails soon came into view followed in a few seconds by the twin Ġgantija Temples, holders of the Guinness record of the oldest free standing structure in the world. Just across the lush valley beyond the Temples, In-Nuffara hill seemed seemingly rising from the Gozo horse race-track. The site was a fortified settlement in prehistoric times and from above one appreciates better why the choice was made.

The flight proceeded towards the beckoning golden sand of Ir-Ramla Bay, where one can admire the natural beauty of the island's coastline before the onslaught of development in the last eighty years. The largely uncontrolled development soon became glaringly visible in Marsalforn, Gozo's main fishing village and the most popular summer resort. Moments later, a number of passengers experienced the sensation to stretch out their hands to touch the statue of Christ the Saviour crowning the small rocky hill of Il-Merżuq – so close was the path of the flight!

Thence along the coast with the hundreds of saltpans dating from Roman times, below the perched village of Żebbuġ, and

Ġurđan lighthouse that has guided navigation since the mid-nineteenth century. The flat-topped hill of Ta' Ġhammar dotted with the fourteen statues depicting The Way of the Cross with the National Shrine of Ta' Pinu at its foot soon sprang into view. The flight then hovered above Dwejra Bay with the islet of Ȧğret il-Ġeneral, il-Qawra or the Inland Sea, and the once famous It-Tieqa taż-Żerqa, the Azure Window, that is no more.

The treat of the trip came with lċ-Ġittadella, the crown of Gozo, with its baroque Cathedral and its splendid bell tower surmounting its massive defensive fortifications and surrounded by the town of Ir-Rabat with a number of churches springing from its midst. Thence the view of more churches, the most conspicuous being the mammoth Xewkija rotunda.

The flight then passed above Ta' Ġenċ and proceeded along the western coast of Malta, the golden beaches of Ġħajn Tuffieħa and Ġnejna, and the dramatic cliffs of Dingli. This was followed by the magnificent medieval city of Mdina with its baroque cathedral and Verdala Palace above an expanse with a large variety of trees known as Il-Buskett. The tour came to a befitting conclusion over Malta's Blue Grotto and the megalithic Temples of Ȧğar Qim and Mnajdra.

Simply an exhilarating experience for which all passengers got a *Skies Helicopter Flight Certificate* dated and duly signed by the pilot as an attestation of a sightseeing tour with surprises springing up every second putting passengers under a spell for forty full minutes.

"The sightseeing trips – commented an analyst – have done their own part in giving the *Gozo Wings* service added meaning. Besides becoming increasingly popular with foreign visitors, eager to get a different, bird's-eye view of the Maltese Islands,

they have also helped to give young and old alike their first-ever taste of helicopters or indeed of flight, enhanced the teaching and understanding of the Maltese geography to and by young school children. They have provided highly-prized and different presents for birthdays, Christmas, and New Year's activities, and incentive awards for good results for school or at work."

Indeed, concluded this analyst, "although *Gozo Wings* is a business venture, *Malta Air Charter* in its relatively short life-span has also stood out as a service to the community".⁷⁰

⁷⁰ *The Malta Independent - Gozo* (14 Aug 1994) 20.

An Evaluation of Willingness to Pay for Sustainable Accommodation in Gozo

Elena Rapa

Abstract:

This study uses a discrete choice experiment (DCE) to examine the factors shaping tourists' preferences for sustainable accommodation in Gozo. Six environmental attributes; eco-friendly toiletries, renewable energy use, water and energy conservation, towel and linen reuse, carbon offset schemes, and waste management were assessed through willingness-to-pay (WTP) estimates. Data were collected via a structured survey of 317 visitors and supported by stakeholder interviews. Empirical analysis applied conditional choice models, alongside linear probability and logit models to account for differences in tourist characteristics.

Results show that over three-quarters of respondents are willing to pay a premium for at least one sustainable feature, with WTP estimates clustered between €11.66 and €12.11 per night. This narrow range suggests that tourists value sustainability as a comprehensive offering rather than isolated measures, although it may also reflect survey design limitations affecting respondents' ability to differentiate between attributes.

Keywords:

Willingness-to-pay, discrete choice experiment, sustainable tourism, eco-certification, Gozo, environmental attributes, accommodation.

Author's Bio-Note:

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An Evaluation of Willingness to Pay for Sustainable Accommodation in Gozo

1. Introduction

1.1 Background

Tourism has endured a paradigm shift in both scale and diversification over the past few years. Its rapid expansion globally has embedded the sector as a priority economic pillar across both the developed and developing world (Cárdenas-García et al., 2024; Wijesekara et al., 2022; Goffi et al., 2019). However, the island faces vulnerabilities due to size constraints, limited infrastructure, and environmental pressures from mass tourism. While sustainable practices in hospitality have been introduced globally, adoption in Gozo remains minimal, with only a handful of eco-certified accommodations.

Whilst hotels globally are embracing eco-friendly practices, most remain hesitant due to lack of knowledge regarding their profitability (Kang et al., 2012). This reluctance is specifically evident in Gozo, where, according to the Malta Tourism Authority (2023), only a single accommodation business on the island currently possesses eco-certification under the national plan introduced in 2002. This low uptake highlights a gap between

policy objectives and market realities, raising serious questions about the demand-side factors that could drive broader adoption of sustainability measures.

Tourism is a significant backbone of Gozo's economy, as it creates employment and supports industry, including hospitality, retailing, transport and culture. However, the island's small size, double insularity and absence of infrastructure make it highly vulnerable to the pressure of mass tourism, which includes environmental degradation, resource depletion and strain on public services (Government et al., 2017). Without an integrated sustainability plan, Gozo risks undermining the natural and cultural assets that make it attractive. These vulnerabilities have been well recorded in small island contexts, where physical constraints, environmental vulnerability, and narrow economic foundations emphasize tourism's impact (Apostolopoulos & Gayle, 2002; Briguglio & Briguglio, 1996).

1.2 Research Objectives

This dissertation has the following objectives:

- Measure the willingness to pay for sustainable accommodation by tourists visiting Gozo;
- Identify which attributes of sustainability are most valued by tourists and quantify the price premium tourists are willing to pay for these sustainable attributes;
- Identify the key factors that influence tourists' willingness to pay (WTP) for sustainable accommodation.
- Provide insights for local stakeholders that can inform decisions about the provision of tourism services supporting sustainable growth in Gozo.

1.3 Expected Contribution

This study is crucial, as sustainability is a vital area of study across all industries, particularly in understanding consumer WTP for sustainable practices. The tourism industry is one of the most competitive sectors globally where many countries highly rely on tourism to fuel their economies. With increased focus on sustainability, the inclusion of sustainability in tourist operations could be a differentiator in a market that is overcrowded. This is especially applicable in Gozo, where rowing tourism has resulted in a multitude of environmental issues (Antunes et al., 2021).

2. Literature Review

2.1 Dimensions of sustainable development

Sustainable development has emerged as a central global response to escalating environmental degradation driven largely by human activities, particularly fossil fuel-based energy production, which has accelerated climate change, biodiversity loss, and widening inequalities between nations (Chichilnisky et al., 1997; Dirzo et al., 2014; Steffen et al., 2015). Its modern foundation was formalized at the 1992 United Nations Earth Summit in Rio de Janeiro, building on earlier frameworks such as the Bariloche Model and the Brundtland Commission's definition of development that meets present needs without compromising those of future generations, a principle later embedded in the UN 2030 Agenda and the Sustainable Development Goals (United Nations, 2015).

Sustainable development is commonly understood through three interdependent pillars: environmental, social, and economic

which together guide policy and practice (Purvis et al., 2019). In the tourism and hospitality sector, sustainability has been promoted as a pathway to balance economic growth with environmental protection and social well-being, yet outcomes remain mixed due to fragmented implementation and persistent resource-intensive practices (Bramwell & Lane, 2012; Melissen et al., 2016). Environmentally, hotels face challenges related to high energy, water, and material consumption, despite evidence that practices such as energy efficiency, water conservation, waste management, and sustainable technologies can reduce emissions, lower costs, and improve operational performance (Bohdanowicz, 2005; Duric & Potočník Topler, 2021).

Socially, sustainability emphasizes equity, participation, cohesion, and awareness, with growing research demonstrating that tourists' environmental knowledge and attitudes positively influence their willingness to pay for sustainable accommodation and support eco-friendly initiatives (Mazhenova et al., 2016; Demir et al., 2021; Garg, 2021). Economically, while sustainable practices require initial investment and may be perceived as profit-driven, evidence from major hospitality firms shows that such initiatives can yield long-term financial savings alongside environmental benefits, illustrating that economic viability and sustainability objectives are not mutually exclusive but can reinforce one another (Jurigová et al., 2016; Vaculčíková et al., 2016).

2.2 Green practices

Hotels adopt sustainability practices through certifications, resource conservation, and waste management strategies aimed at reducing environmental impacts while enhancing competitiveness. Eco-labels and sustainability certifications help

communicate environmental commitment and differentiate hotels, though their effectiveness depends on consumer trust and rigorous standards, with concerns that some function mainly as marketing tools. Energy conservation is a core focus, combining efficient technologies and renewable energy with behavioural strategies to achieve long-term reductions in consumption. Water conservation is equally important, as hotels are intensive water users and tourist behaviour often leads to higher consumption than local norms, creating significant pressure in water-scarce destinations. Waste reduction and recycling further support sustainability, with frameworks such as the Waste Management Hierarchy emphasizing prevention and reduction as priorities, although implementation remains uneven, particularly in addressing food waste.

2.3 Factors affecting willingness to pay

Understanding the determinants of consumers' WTP for sustainable accommodation is essential in tourism and hospitality research, as it informs both theoretical models and managerial decision-making. Existing studies identify socio-demographic, cultural, psychological, and economic factors as key predictors of WTP, commonly examined through quantitative methods such as PLS-SEM, logit, and OLS regression (Casado-Díaz et al., 2020; Filimonau et al., 2022; Yang et al., 2024).

Gender and age influence environmental attitudes, with women and both younger and civically engaged older individuals often displaying stronger pro-environmental tendencies, although findings are sometimes mixed. Cultural background, personal values, and prior experience with sustainable accommodation further shape attitudes and strengthen willingness to pay,

particularly among individuals with altruistic or biospheric orientations. Education generally enhances environmental awareness and pro-environmental intentions, though behavioural outcomes may be constrained by the intention–behaviour gap. Economic factors, including income, employment status, and price sensitivity, also play a critical role, as the ability to afford price premiums and perceptions of fair value significantly affect WTP, highlighting the complex interaction between financial considerations and perceived sustainability benefits.

3. Methodology

3.1 Methodological approach and DCE design

A mixed-methods design was used to examine tourists' WTP for sustainable accommodation, combining a quantitative online survey with a Discrete Choice Experiment (DCE) and a qualitative component. The survey, administered to visitors to Gozo during May–June using a cross-sectional design, measured preferences for sustainability attributes, trade-offs between features, and associated price premiums. Four pilot interviews with stakeholders, including guesthouse owners and hotel managers, informed the DCE by identifying context-relevant sustainability attributes and realistic attribute levels.

DCEs are widely applied in environmental valuation as they allow simultaneous testing of multiple attributes and estimation of WTP for specific features through choices between hypothetical alternatives (Mariel et al., 2021). The method is grounded in neoclassical consumer theory and draws on Lancaster's attribute-based value theory and McFadden's Random Utility Theory. Attribute selection was based on a comprehensive literature review

and refined through pilot interviews to ensure clarity, relevance, and realism, as inappropriate specification can bias results and misinform policy (Abihiro et al., 2014; Deal et al., 2013).

3.2 Experimental design

The DCE used a full profile paired comparison design. Respondents were presented with one of four choice sets, each containing two alternatives: sustainable accommodation (Option A) and standard accommodation (Option B), varying in sustainability attributes and price. To estimate WTP, the price of Option B was fixed at €100 per night, while Option A's price increased across choice sets, allowing assessment of trade-offs between sustainability features and cost. The pricing structure is shown in Figure 1.

Figure 1: DCE Options

DCE Version	Price of Sustainable Option (Option A)	Price of Standard Option (Option B)	Price Difference
Option Set 1	€105 per night	€100 per night	€5
Option Set 2	€110 per night	€100 per night	€10
Option Set 3	€115 per night	€100 per night	€15
Option Set 4	€120 per night	€100 per night	€20

The DCE was integrated into a six-part online survey as shown in Figure 2. It began with screening questions (QA–QC), followed by demographics (Q1–Q6), travel profile (Q7–Q8), and sustainability awareness and attitudes (Q9–Q13). The DCE then presented respondents with one of four randomized choice sets comparing sustainable and conventional accommodation with varying attributes and prices.

Figure 2: Survey Design

Section	Description	Question Number
Filtering Questions	These screening questions ensure only eligible respondents continue the survey.	QA - QC
Demographic Information	Gathers basic demographic details of the respondents including gender, age, nationality, and income.	Q1 - Q6
Travel Profile	Captures travel-specific data such as trip purpose and prior green stay.	Q7 - Q8
Sustainability Awareness & Behaviour	Assess awareness, and attitudes towards sustainability in travel and accommodation.	Q9 - Q13
Discrete Choice Experiment (DCE)	Presents a series of hypothetical accommodation scenarios varying in price and sustainability features to evaluate preferences.	Options 1a - 4f

3.3 Sampling approach and survey administration

Sampling targeted domestic and international tourists visiting Gozo for short-term stays, as they are the key decision-makers in accommodation choice. A target sample of approximately 300 respondents exceeded the minimum requirement of around 209 derived from Orme’s rule-of-thumb, ensuring sufficient power for discrete choice analysis and assessment of preference heterogeneity (de Bekker-Grob et al., 2015). Stratified sampling based on tourist type, accommodation, and timing was used to enhance representativeness, with convenience sampling within strata to maximize diversity (Johnston et al., 2017). Data was collected in person over three weeks during peak season using

electronic tablets, with surveys administered at varying times of day to reduce temporal bias. Fieldwork was supported by the Gozo Regional Development Authority, and all ethical standards, including informed consent and respondent anonymity, were observed.

3.4 Qualitative inputs and WTP estimation

The qualitative component consisted of four semi-structured pilot interviews with tourism accommodation operators, conducted to refine the survey and DCE design prior to main data collection. Pilot studies help identify issues of feasibility, clarity, and relevance in research instruments (Baker, 1994; Van Teijlingen & Hundley, 2001). The interviews explored sustainability practices, guest awareness, WTP for green accommodation, implementation challenges, and future plans, providing context-specific insights into which sustainability attributes tourists value most.

Tourists' WTP for sustainable accommodation was estimated using a two-step approach combining descriptive and econometric methods. Conditional choice probabilities and expectations were first used to examine differences in the likelihood and intensity of WTP across respondent subgroups. To account for confounding factors and jointly assess multiple determinants, regression models including the Linear Probability Model and Standard Logit Model were subsequently employed to estimate the probability of WTP as a function of price and individual characteristics. All analyses were conducted using Stata 18.5.

An initial descriptive analysis examined preference patterns using conditional choice probabilities and conditional choice expectations across respondent subgroups. Conditional

probabilities indicate the likelihood of choosing sustainable accommodation given specific characteristics, while conditional expectations measure average WTP among respondents with positive WTP ($WTP > 0$), capturing both the incidence and intensity of preferences. Conditional expectations are expressed as $E(WTP \mid X=x)$, where X represents respondent characteristics such as gender, income, or sustainability behaviour, with conditional probabilities illustrating how choice likelihood varies across these attributes.

3.5 Econometric modelling

3.5.1 Theoretical Framework: Random Utility Theory

The analysis of choices in this DCE is based on Random Utility Theory (RUT), which links deterministic utility models with probabilistic human behaviour (Hoyos Ramos, 2010). While individuals are assumed to make rational, utility-maximizing decisions (Lam, 2023), their observed choices reflect both systematic and random influences, captured as:

$$Unj = Vnj + \varepsilon nj$$

where Unj is the total utility that individual n derives from alternative j ; Vnj represents the overall utility component, and εnj denotes the random error term (Hanemann, 1984). In this study, respondents chose among accommodation options varying in attributes such as price and sustainability. These choices reveal underlying trade-offs, enabling estimation of willingness to pay for sustainable tourism options in Gozo.

3.5.2 Variable definition

The Linear Probability Model (LPM) and Standard Logit Model use the same dependent and explanatory variables but differ in their functional form. The dependent variable indicates whether a respondent chooses the sustainable accommodation option in the discrete choice experiment, while explanatory variables capture economic ability, socio-demographics, and sustainability-related attitudes or behaviours. These predictors, mostly self-reported, are coded as binary or continuous for regression analysis. Using identical variables across models allows direct comparison of results and assessment of how model choice affects estimated effects. Table 1 details all variables, including definitions, measurements, and coding schemes used in the econometric analysis.

Table 1: Variables Used in LPM and Logit Models

Variable	Description & Measurement	Coding/Values
Dependent Variable	Sustainable choice - Equals 1 if respondent selected the sustainable accommodation option (Option A) in the DCE scenario; 0 if the standard accommodation (Option B) was chosen.	Binary: 1 = Option A, 0 = Option B
Log (Income)	Natural log of respondent's reported gross annual household income. Midpoints of income brackets assigned prior to log transformation.	Continuous
Female	Respondent's gender.	1 = Female, 0 = Male
Age 30 - 49	Respondent aged between 30 and 49 years. Reference group: 18 - 29.	1 = Yes, 0 = Otherwise
Age 50+	Respondents aged 50 years or older. Reference group: 18 - 29.	1 = Yes, 0 = Otherwise
Education: Secondary	The highest completed education level is secondary school. Reference category: Primary education.	1 = Yes, 0 = Otherwise
Education: Tertiary	Highest completed education level is post-secondary, Bachelor's, Master's, or Doctorate. Reference category: Primary education.	1 = Yes, 0 = Otherwise

Variable	Description & Measurement	Coding/Values
Employment: Inactive	Respondent not in paid employment and classified as inactive or unemployed. Reference category: Employed.	1 = Yes, 0 = Otherwise
Employment: Student	Respondent is currently studying full-time/part-time. Reference category: Employed.	1 = Yes, 0 = Otherwise
Employment Retired/Other	Respondents are retired or in other non-working categories. Reference category: Employed.	1 = Yes, 0 = Otherwise
Trip Purpose: Leisure	The main purpose of a trip to Gozo is leisure. Reference category: Business.	1 = Leisure, 0 = Otherwise
Previous Green Stay	Respondent has previously stayed in sustainable accommodation.	1 = Yes, 0 = No
Eco-Certification Influenced	Eco-certifications influence respondent's accommodation choice.	1 = Yes, 0 = No
Influenced by Others	Respondent's choice influenced by recommendations or opinions from others.	1 = Yes, 0 = No
Awareness	Respondents self-reports high awareness of sustainable accommodation practices .	1 = High awareness, 0 = Otherwise
Country Fixed Effects	Dummy variables for respondent's country of residence to capture unobserved cultural/economic/environmental norms. One base category omitted to avoid collinearity (France).	Categorical dummies

3.6 Linear probability model

As an alternative to conditional choice probability analysis, the Linear Probability Model (LPM) was employed to identify factors influencing tourists' WTP for sustainable accommodation. The dependent variable is binary, taking the value 1 if $WTP > 0$ and 0 otherwise. Let $Y_n=1$ indicate WTP and $Y_n=0$ otherwise, with the choice modelled as a function of explanatory variables X_n , including price, sustainability attitudes, past behaviour, and demographic characteristics. The conditional probability of choosing sustainable accommodation is modelled linearly as $E(Y_n | X_n) = p(X_n)$, yielding the standard LPM specification.

Despite its simplicity, the LPM has well-documented limitations for binary outcomes, including heteroskedastic errors, non-normality,

and the possibility of predicted probabilities falling outside the $[0, 1]$ range (Maddala, 1983). It also imposes constant marginal effects across covariates, which may be unrealistic in behavioural contexts (Long, 1997). Consequently, generalized linear models such as logit or probit are often preferred, as they generate bounded probabilities and allow for nonlinear marginal effects (Chatla & Shmueli, 2016). Nonetheless, the LPM remains useful due to its transparency, computational efficiency, and straightforward interpretation, particularly when the focus is on inference rather than prediction (Angrist & Pischke, 2008). Moreover, in settings involving fixed effects or separation issues where nonlinear models may fail, the LPM provides a practical and estimable alternative (Hellevik, 2009; Chatla & Shmueli, 2016).

3.7 Standard logit model

To address the econometric limitations associated with the LPM, this study employs a binary logistic regression framework to estimate the probability that a tourist is WTP for sustainable accommodation. Given that the dependent variable is binary, taking the value of 1 if $WTP > 0$ and 0 otherwise, the standard logit model is particularly suitable, as it ensures that predicted probabilities lie within the $[0, 1]$ interval and accounts for the nonlinear nature of decision-making behaviour. The logistic functional form transforms the linear index of covariates to forecast probabilities in the range $[0, 1]$, using the logistic cumulative distribution function. Each estimated coefficient represents the marginal change in the log-odds of expressing WTP for sustainable accommodation in response to a one-unit increase in the corresponding explanatory variable, conditional on the assumption that all other covariates remain fixed (Hosmer Jr et al., 2013).

Relative to the LPM, the logit model offers several econometric advantages. It removes inherent heteroskedasticity inherent in binary outcome models and ensures that predicted probabilities are logically consistent by confining them to the unit interval. Moreover, the logit specification allows for non-linear and non-constant marginal effects - an important feature in behavioural analysis where the influence of covariates can differ across various probability levels of the outcome. Estimation is carried out using maximum likelihood methods, yielding consistent and asymptotically efficient parameter estimates under standard regularity conditions. Model outputs are usually interpreted through odds ratios and, more intuitively, through average marginal effects derived after estimation.

4. Results

4.1 Respondents profile and WTP for sustainable accommodation

The study analysed 317 complete responses, with Table 2 summarising the sample characteristics. The sample showed a near-even gender split, was largely aged 30–49, and was dominated by respondents from Malta, Germany, and the UK, alongside other nationalities. Most participants were highly educated, employed, travelled mainly for leisure, had varied income levels (with many earning over €50,000), and demonstrated strong engagement with sustainability through high awareness, use of green accommodation, and sensitivity to eco-certifications and recommendations.

All 317 respondents completed each of the six discrete choice scenarios, resulting in a uniform distribution of 317 observations

per scenario (16.67% each). Overall, this produced 1,902 balanced scenario-level observations, with all choice sets equally represented for analysis.

Table 2: Sample Characteristics - Categorical Variables

<i>Variable</i>	<i>Description</i>	<i>Number of Observations</i>	<i>% of total response (317)</i>
Gender: Female	= 1 if respondent is female	162	51.1%
Age: 18 - 29	= 1 if age is 18 - 20	95	29.97%
30 - 49	= 1 if age is 30 - 49	147	46.37%
Over 50	= 1 if age is over 50	75	23.66%
Country: France	= 1 if residing in France	30	9.46%
Germany	= 1 if residing in Germany	58	18.30%
Malta	= 1 if residing in Malta	78	24.61%
UK	= 1 if residing in UK	43	13.56%
Other countries	= 1 if residing in other countries	108	34.07%
Education: Primary	= 1 if highest attainment is primary education	8	2.52%
Secondary	= 1 if highest attainment is secondary	53	16.72%
Tertiary	= 1 if highest educational attainment is tertiary education	256	89.76%
Employment: Employed	= 1 if employed	194	61.20%
Inactive	= 1 if unemployed	12	3.79%
Student	= if a student	44	13.88%
Retired / Other	= 1 if retired / other	67	21.13%
Income: Low-Income	= 1 if household income is between €20,000 - €29,000	95	29.97%
Average Income	= 1 if household income is between €30,000 - €49,000	128	40.38%
High-Income	= 1 if household income is more than €50,000	94	29.65%

<i>Variable</i>	<i>Description</i>	<i>Number of Observations</i>	<i>% of total response (317)</i>
Trip Purpose: Business	= 1 if main trip purpose is business	19	5.99%
Leisure	= 1 if main trip purpose is leisure	297	93.69%
Previous Green Stay	= 1 if respondent has previously stayed in a green accommodation	153	48.26%
Eco-certification influenced	= 1 if respondents are influenced	209	65.93%
Influenced by others	= 1 if respondents are influenced by others	170	53.63%
Sustainability awareness	= 1 if respondents have high sustainability awareness	184	58.04%

The distribution of respondents' WTP for sustainable accommodation in Gozo reveals substantial heterogeneity in price sensitivity (Table 3). While 22.40% of visitors reported zero WTP and 16.09% were willing to pay only a small premium of up to €10 per night, a clear majority (61.52%) expressed a higher WTP, with the largest group (29.97%) willing to pay more than €30 per night. Overall, the findings suggest that a significant share of visitors places strong value on sustainability, highlighting scope for tiered pricing and differentiated sustainable offerings.

Table 3: Distribution of Willingness to Pay for Sustainable Accommodation among Visitors to Gozo.

<i>WTP Band</i>	<i>Observations</i>	<i>Percent</i>
WTP = €0	71	22.40%
€0 < WTP ≤ €10	51	16.09%
€10 < WTP ≤ €20	56	17.67%
€20 < WTP ≤ €30	44	13.88%
Above €30	95	29.97%
Total	317	100.00

Source: Author's calculations based on survey data.

The discrete choice experiments reveal that visitors to Gozo show strong and consistent support for sustainable accommodation features. Between 55% and 66% of respondents were willing to pay a premium for practices such as eco-friendly toiletries, renewable energy, water and energy conservation, towel and linen reuse, carbon offsetting, and waste reduction. Table 4 shows that the mean WTP among those willing to pay was remarkably uniform, ranging from €11.66 to €12.11 per night, with similarly consistent variability. These results indicate that visitors value sustainability broadly and evenly across different environmental initiatives, rather than favouring specific features.

Table 4: WTP Estimates for Sustainable Accommodation

	Case 1: Eco-Friendly Toiletries	Case 2: Renewable Energy-Powered	Case 3: Water and Energy Conservation	Case 4: Towel and Linen Reuse Program	Case 5: Carbon Offset Contribution	Case 6: Sustainable Waste Management
Mean WTP (€) (WTP > 0)	€12.06	€12.03	€11.94	€11.84	€11.66	€12.11
Standard Deviation	5.67	5.60	5.62	5.70	5.58	5.71
% Willing to Pay (WTP > 0)	63%	61%	66%	55%	59%	63%
Number of respondents selecting Option A	199	194	209	174	187	199

Source: Author's calculations based on survey data.

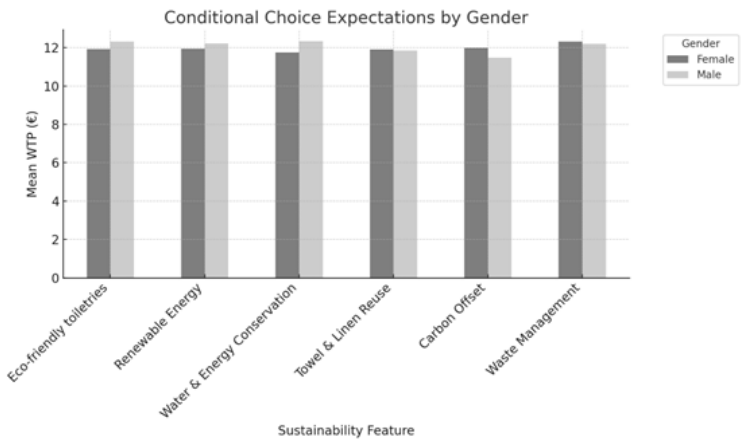
4.2 Conditional choice expectations

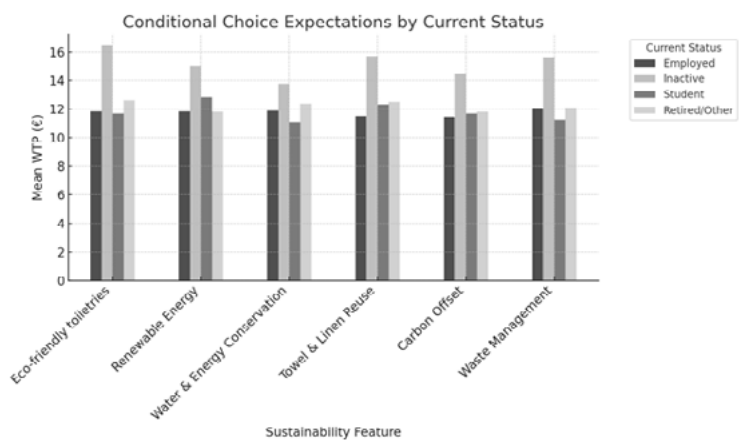
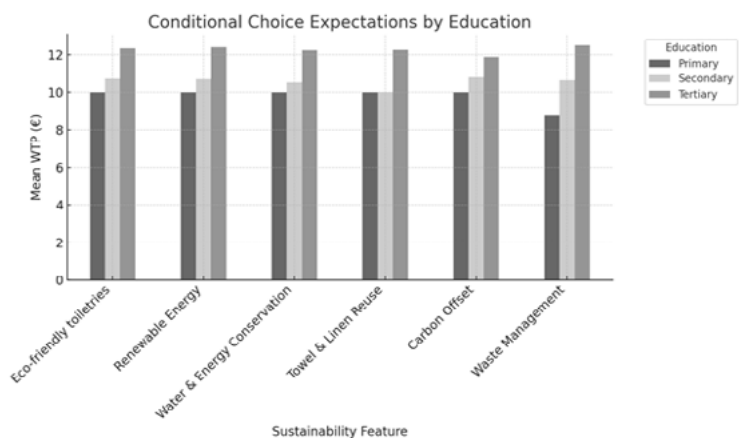
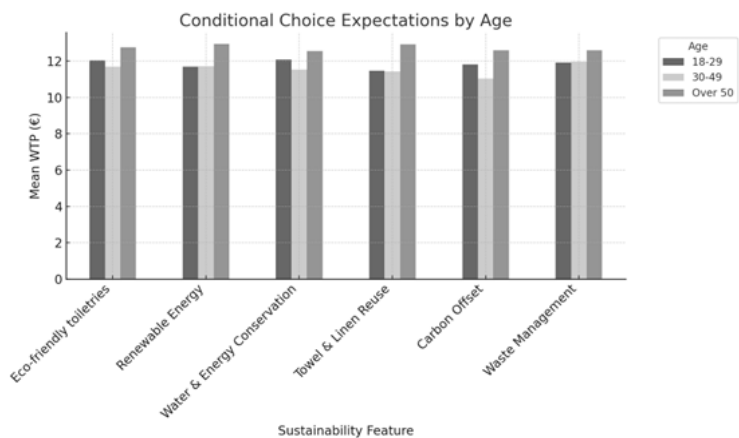
Conditional choice expectations allow analysis to focus on how much subgroups are willing to pay for sustainable accommodation features, given a positive valuation, separating the intensity of preferences from the initial decision to pay.

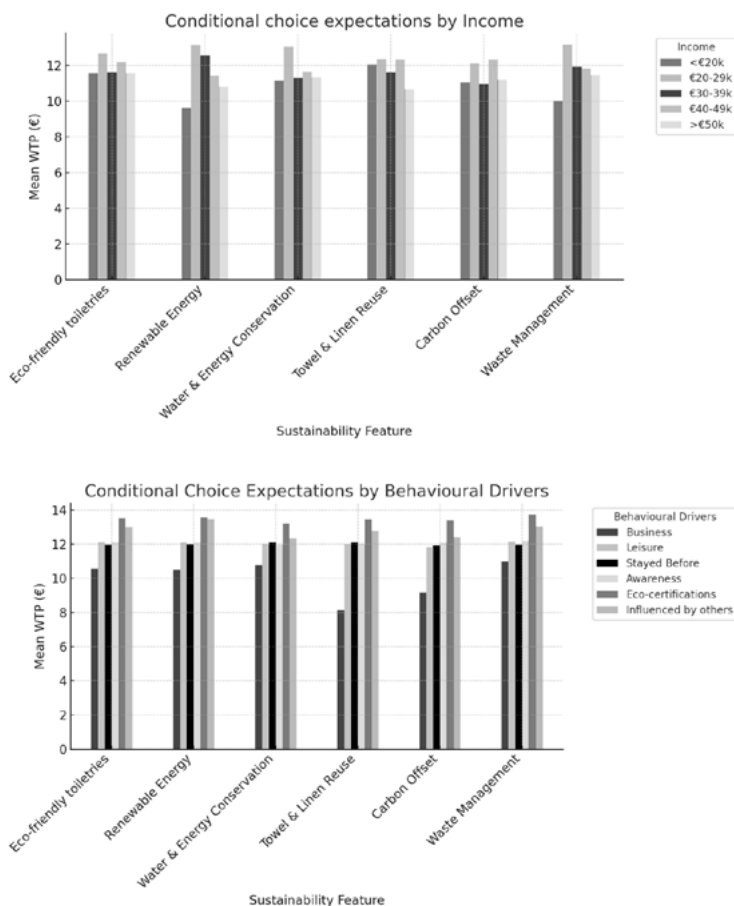
Figures 9-14 show conditional mean WTP across six attributes eco-friendly toiletries, renewable energy, water and energy conservation, towel and linen reuse, carbon offsets, and waste management by gender, age, education, employment, income, trip purpose, and sustainability engagement. Overall, WTP was broadly balanced between genders, higher among older and more educated respondents, and influenced by employment status, income, leisure travel, and prior exposure to sustainable practices or eco-certifications, highlighting the role of both demographic and behavioural factors.

However, these patterns are based on univariate comparisons and do not account for interrelated factors such as age, income, and education, which may confound results. To better identify the drivers of sustainable WTP, the next section applies regression-based analysis including conditional probability models and multivariate regressions allowing simultaneous control of multiple characteristics and providing more robust insights into the determinants of environmentally motivated tourist spending.

Figure 3: Conditional choice expectations







4.3 Conditional choice probabilities

Table 5 shows that willingness to choose the sustainable option is generally high at lower prices and declines as prices increase, with notable differences across demographics and scenarios. Older and tertiary-educated respondents consistently display higher acceptance, while gender differences are modest, with females often slightly more supportive at higher prices. Eco-friendly toiletries, renewable energy, and water and energy

conservation receive the strongest overall support, whereas towel and linen reuse and carbon offset contributions are more price-sensitive, particularly among younger, male, and less-educated respondents. Sustainable waste management stands out for relatively stable acceptance across groups, with older and highly educated individuals remaining supportive even at the highest price level.

Table 5: Conditional Choice Probability by Gender, Age & Education

	Price	Conditional Choice Probability:							
		Gender		Age			Education		
		Females	Males	18 - 29	30 - 49	Over 50	Primary	Secondary	Tertiary
Scenario 1: WTP for Eco-friendly toiletries									
Option A (Case 1)	105	66.67%	67.57%	64.00%	64.44%	70.59%	0%	54.55%	72.58%
Option A (Case 2)	110	67.50%	61.76%	57.69%	69.70%	68.75%	100%	75.00%	62.50%
Option A (Case 3)	115	60.00%	65.71%	68.75%	58.97%	65.00%	0%	44.44%	65.15%
Option A (Case 4)	120	62.16%	53.66%	50.00%	63.33%	59.09%	0%	42.86%	62.50%
	Price	Conditional Choice Probability:							
		Gender		Age			Education		
		Females	Males	18 - 29	30 - 49	Over 50	Primary	Secondary	Tertiary
Scenario 2: WTP for Renewable Energy-Powered									
Option A (Case 1)	105	66.67%	56.76%	56.00%	62.22%	70.59%	0%	72.73%	61.29%
Option A (Case 2)	110	70.00%	64.71%	65.38%	69.70%	68.75%	66.67%	87.50%	65.63%
Option A (Case 3)	115	57.50%	62.86%	43.75%	61.54%	70.00%	0%	77.78%	57.58%
Option A (Case 4)	120	64.86%	43.90%	42.85%	60.00%	63.63%	0%	50.00%	57.81%

	Price	Conditional Choice Probability:							
		Gender		Age			Education		
		Females	Males	18 - 29	30 - 49	Over 50	Primary	Secondary	Tertiary
Scenario 3: WTP for Water and Energy Conservation									
Option A (Case 1)	105	77.78%	62.16%	60.00%	71.11%	88.24%	0%	63.64%	77.42%
Option A (Case 2)	110	65.00%	64.71%	57.69%	72.72%	62.50%	100%	50.00%	65.63%
Option A (Case 3)	115	70.00%	71.43%	75.00%	69.23%	70.00%	0%	77.78%	69.70%
Option A (Case 4)	120	62.16%	48.78%	46.43%	60.00%	63.64%	0%	35.71%	62.50%

	Price	Conditional Choice Probability:							
		Gender		Age			Education		
		Females	Males	18 - 29	30 - 49	Over 50	Primary	Secondary	Tertiary
Scenario 4: WTP for Towel and Linen Reuse Program									
Option A (Case 1)	105	68.89%	54.05%	56.00%	64.44%	58.52%	0%	63.64%	62.90%
Option A (Case 2)	110	55.00%	58.82%	46.15%	60.61%	68.75%	100%	62.50%	54.68%
Option A (Case 3)	115	50.00%	54.29%	25.00%	56.41%	65.00%	0%	66.67%	50.00%
Option A (Case 4)	120	64.87%	34.14%	39.29%	53.33%	54.54%	0%	28.57%	54.69%

	Price	Conditional Choice Probability:							
		Gender		Age			Education		
		Females	Males	18 - 29	30 - 49	Over 50	Primary	Secondary	Tertiary
Scenario 5: WTP for Carbon Offset Contribution									
Option A (Case 1)	105	71.11%	59.46%	60.00%	66.67%	76.47%	0%	63.63%	70.97%
Option A (Case 2)	110	60.00%	61.76%	57.69%	66.67%	56.25%	100%	62.50%	59.38%
Option A (Case 3)	115	65.00%	57.14%	62.50%	56.41%	70.00%	0%	77.78%	59.09%
Option A (Case 4)	120	64.86%	29.27%	42.86%	43.33%	54.55%	0%	42.86%	48.34%

	Price	Conditional Choice Probability:							
		Gender		Age			Education		
		Females	Males	18 - 29	30 - 49	Over 50	Primary	Secondary	Tertiary
Scenario 6: WTP for Sustainable Waste Management									
Option A (Case 1)	105	64.44%	64.86%	60.00%	64.44%	76.47%	33.33%	63.64%	67.74%
Option A (Case 2)	110	70.00%	58.82%	61.54%	66.67%	68.75%	100%	75.00%	62.50%
Option A (Case 3)	115	65.00%	54.29%	43.75%	64.10%	65.00%	0%	66.67%	59.09%
Option A (Case 4)	120	72.97%	46.34%	50.00%	70.00%	59.09%	0%	42.86%	65.63%

Table 6 indicates that WTP for sustainable options varies systematically by employment status and income, with high-income respondents consistently showing the strongest support and low-income groups exhibiting greater price sensitivity. Employed respondents and students generally demonstrate higher acceptance than inactive participants, though uptake declines across all groups as prices rise. Scenarios 1–3 achieve the highest overall acceptance, particularly at lower price levels, but even these experience sharp drops at €120, highlighting clear price thresholds. In contrast, Scenario 4 is highly price-sensitive across all groups, while Scenarios 5 and 6 maintain relatively strong support at lower prices among high-income and employed respondents, with more volatile and delayed uptake among inactive and low-income participants.

Table 6: Conditional Choice Probability by Current Status & Income

		Price		Conditional Probability:				
		Current Status				Income		
		Employed	Inactive	Student	Retired / Other	Low-income	Average	High-Income
Scenario 1: WTP for Eco-friendly toiletries								
Option A (Case 1)	105	70.77%	0%	46.15%	71.43%	50%	64.10%	94.44%
Option A (Case 2)	110	63.79%	33.33%	77.78%	80%	54.55%	58.06%	86.36%
Option A (Case 3)	115	64.52%	100%	50%	33.33%	57.69%	66.67%	63.15%
Option A (Case 4)	120	65.96%	60%	44.44%	40%	47.06%	60.71%	60%
Scenario 2: WTP for Renewable Energy-Powered								
		Price		Conditional Probability:				
		Current Status				Income		
		Employed	Inactive	Student	Retired / Other	Low-income	Average	High-Income
Scenario 2: WTP for Renewable Energy-Powered								
Option A (Case 1)	105	64.62%	50%	53.85%	57.14%	40%	66.67%	88.89%
Option A (Case 2)	110	67.24%	33.33%	77.78%	80%	68.18%	54.84%	86.36%
Option A (Case 3)	115	61.29%	100%	25%	50%	50%	60%	73.68%
Option A (Case 4)	120	61.70%	60%	38.39%	50%	47.06%	42.86%	68.57%
Scenario 3: WTP for Water and Energy Conservation Initiatives Room								
		Price		Conditional Probability:				
		Current Status				Income		
		Employed	Inactive	Student	Retired / Other	Low-income	Average	High-Income
Scenario 3: WTP for Water and Energy Conservation Initiatives Room								
Option A (Case 1)	105	73.85%	50%	46.15%	100%	53.33%	76.92%	88.89%
Option A (Case 2)	110	62.07%	66.67%	77.78%	80%	59.09%	61.29%	77.27%
Option A (Case 3)	115	70.97%	100%	75.00%	50%	57.69%	80%	73.68%
Option A (Case 4)	120	68.09%	40%	38.89%	40%	41.17%	57.14%	41.18%

	Price	Conditional Probability:						
		Current Status					Income	
		Employed	Inactive	Student	Retired / Other	Low-income	Average	High-Income
Scenario 4: WTP for Towel and Linen Reuse Program								
Option A (Case 1)	105	67.69%	0%	38.46%	57.14%	46.67%	61.54%	83.33%
Option A (Case 2)	110	53.45%	66.67%	66.67%	80%	50%	51.61%	51.61%
Option A (Case 3)	115	54.84%	66.67%	0%	50%	46.15%	46.67%	46.67%
Option A (Case 4)	120	53.19%	60%	38.89%	40%	52.94%	53.57%	53.57%

	Price	Conditional Probability:						
		Current Status					Income	
		Employed	Inactive	Student	Retired / Other	Low-income	Average	High-Income
Scenario 5: WTP for Carbon Offset Contribution								
Option A (Case 1)	105	69.23%	50%	46.15%	85.71%	56.67%	64.10%	88.89%
Option A (Case 2)	110	55.17%	66.67%	88.89%	80%	59.09%	48.39%	81.82%
Option A (Case 3)	115	59.68%	100%	50%	66.67%	50%	70%	63.16%
Option A (Case 4)	120	51.06%	60%	33.33%	40%	41.18%	53.57%	42.86%

	Price		Conditional Probability:					
			Current Status				Income	
	Employed	Inactive	Student	Retired / Other	Low-income	Average	High-Income	
Scenario 6: WTP for Sustainable Waste Management								
Option A (Case 1)	105	67.69%	0%	53.84%	85.71%	53.33%	66.67%	83.33%
Option A (Case 2)	110	60.34%	66.67%	88.89%	80%	59.09%	54.84%	86.36%
Option A (Case 3)	115	62.90%	100%	25%	33.33%	53.85%	56.67%	73.68%
Option A (Case 4)	120	70.21%	60%	44.44%	40%	47.06%	60.71%	65.71%

Table 7 shows that green behavioural drivers are strong and consistent predictors of willingness to choose the sustainable option, whereas trip purpose plays a more variable role. Respondents with prior experience in green accommodation, high environmental awareness, or sensitivity to eco-certifications exhibit markedly higher acceptance across all scenarios and price points, often exceeding 80% and in some cases approaching universal uptake, highlighting the importance of credibility and experience in sustaining WTP. Social influence also has a positive, though less consistent, effect. By contrast, leisure travellers generally display higher acceptance at lower prices, while business travellers show greater price sensitivity, with willingness declining more sharply at higher price levels.

Table 7: Conditional Choice Probability by Trip Purpose & Behavioural Drivers

	Price	Conditional Probability:					
		Trip Purpose		Behavioural Drivers			
		Business	Leisure	Stayed in Green Accommodation	Awareness	Eco-Certification Influenced	Influenced by others
Scenario 1: WTP for Eco-friendly toiletries							
Option A (Case 1)	105	50%	66.67%	72.92%	73.81%	81.82%	69.39%
Option A (Case 2)	110	100%	63.38%	87.50%	78.05%	100%	80.56%
Option A (Case 3)	115	0%	68.12%	78.95%	70.59%	95.65%	73.47%
Option A (Case 4)	120	50%	57.89%	88.57%	70%	100%	88.89%

	Price	Conditional Probability:					
		Trip Purpose		Behavioural Drivers			
		Business	Leisure	Stayed in Green Accommodation	Awareness	Eco-Certification Influenced	Influenced by others
Scenario 2: WTP for Renewable Energy-Powered							
Option A (Case 1)	105	66.67%	61.73%	72.92%	71.43%	81.82%	67.35%
Option A (Case 2)	110	75%	67.61%	87.50%	85.37%	94.74%	83.33%
Option A (Case 3)	115	20%	62.32%	78.95%	76.47%	95.65%	73.47%
Option A (Case 4)	120	50%	55.26%	74.29%	76%	100%	75%

	Price	Conditional Probability:					
		Trip Purpose		Behavioural Drivers			
		Business	Leisure	Stayed in Green Accommodation	Awareness	Eco-Certification Influenced	Influenced by others
Scenario 3: WTP for Water and Energy Conservation							
Option A (Case 1)	105	85.33%	70.37%	81.25%	80.95%	90.91%	77.55%
Option A (Case 2)	110	75%	64.79%	75.00%	75.61%	94.74%	86.11%
Option A (Case 3)	115	60%	71.01%	81.58%	84.31%	91.30%	83.67%
Option A (Case 4)	120	50%	56.58%	85.71%	70%	88.24%	86.11%

	Price	Conditional Probability:					
		Trip Purpose		Behavioural Drivers			
		Business	Leisure	Stayed in Green Accommodation	Awareness	Eco-Certification Influenced	Influenced by others
Scenario 4: WTP for Towel and Linen Reuse Programme							
Option A (Case 1)	105	66.67%	60.49%	66.67%	73.81%	72.73%	69.39%
Option A (Case 2)	110	75%	56.34%	68.75%	65.85%	84.21%	69.44%
Option A (Case 3)	115	20%	53.62%	76.32%	68.63%	82.61%	67.35%
Option A (Case 4)	120	0%	51.31%	68.57%	64%	82.35%	75%

	Price	Conditional Probability:					
		Trip Purpose		Behavioural Drivers			
		Business	Leisure	Stayed in Green Accommodation	Awareness	Eco-Certification Influenced	Influenced by others
Scenario 5: WTP for Carbon Offset Contribution Initiatives Room							
Option A (Case 1)	105	83.33%	65.43%	70.83%	78.57%	81.82%	71.43%
Option A (Case 2)	110	100%	59.15%	83.38%	73.17%	94.74%	80.56%
Option A (Case 3)	115	60%	60.87%	73.68%	72.55%	82.61%	75.51%
Option A (Case 4)	120	0%	48.68%	71.34%	64%	94.12%	75%

	Price	Conditional Probability:					
		Trip Purpose		Behavioural Drivers			
				Stayed in Green Accommodation	Awareness	Eco-Certification Influenced	Influenced by others
Scenario 6: WTP for Sustainable Waste Management							
Option A (Case 1)	105	50%	66.67%	77.08%	78.57%	72.73%	73.47%
Option A (Case 2)	110	100%	63.38%	81.25%	78.05%	89.47%	80.56%
Option A (Case 3)	115	20%	62.32%	78.95%	78.43%	91.30%	75.51%
Option A (Case 4)	120	50%	60.53%	77.14%	78%	100%	80.56%

4.4 Linear probability model

This section advances the analysis by applying a Linear Probability Model (LPM) to estimate the likelihood of choosing a sustainable accommodation option based on socio-demographic factors, trip characteristics, and sustainability perceptions. The binary dependent variable allows the LPM to deliver easily interpretable marginal effects, though the model has known limitations, including heteroskedasticity and the possibility of predicted probabilities outside the [0,1] range. To ensure valid inference, all models are

estimated with robust standard errors, and results are interpreted based on the sign, size, and statistical significance of coefficients rather than model fit.

Table 8: LPM1, LPM2 and LPM3 regression output

	(1)	(2)	(3)
<i>Variables</i>	<i>LPM1</i>	<i>LMP2</i>	<i>LPM3</i>
Log (Income)	0.162*** (0.029)	0.107*** (0.031)	0.054* (0.029)
Females		0.081*** (0.023)	-0.007 (0.020)
Age: 30 - 49		0.048 (0.033)	-0.018 (0.029)
Age: Over 50		0.116*** (0.038)	0.057 (0.035)
Education: Secondary		0.073 (0.085)	-0.074 (0.067)
Education: Tertiary		0.108 (0.081)	-0.069 (0.063)
Employment: Inactive		0.020 (0.063)	-0.031 (0.052)
Employment: Student		-0.078* (0.041)	-0.054 (0.034)
Status: Retired / other		-0.122** (0.048)	-0.084* (0.048)
Trip Purpose: Leisure			0.109** (0.048)
Previous Green Stay			0.130*** (0.025)
Eco-certification influenced			0.206*** (0.027)

Influenced by others			0.128***
			(0.027)
Awareness			0.169***
			(0.026)
Constant	-1.093***	-0.688**	-0.346
	(0.310)	(0.337)	(0.301)
Observations	1848	1,848	1,848
R-squared	0.043	0.065	0.235

Robust standard errors in parentheses: *** p<0.01, ** p<0.05, *p<0.1

Reference group: Male, Age 18 - 29, Primary Education, Employed, Business

Three Linear Probability Models are estimated sequentially to examine determinants of WTP for sustainable accommodation. LPM1 includes only log household income and country fixed effects, showing income as a strong and positive predictor of WTP: a one-unit increase in log income raises the probability of choosing a green option by 16.2 percentage points. This effect remains statistically significant in LPM2 and LPM3, though its magnitude declines as demographic and attitudinal variables are added, suggesting partial mediation. In LPM2, females and older respondents (50+) are more likely to express WTP, while students and retired/other individuals are less likely than employed respondents. However, the female effect becomes insignificant in LPM3, indicating that gender differences are largely explained by sustainability-related attitudes and behaviours. Education shows a positive association in LPM2 but turns negative once attitudinal factors are included.

LPM3 highlights the central role of behavioural and attitudinal drivers in shaping WTP. Prior experience with green accommodation, sensitivity to eco-certifications, influence by others' opinions, and higher environmental awareness all

significantly increase the probability of choosing sustainable accommodation, with eco-certifications showing the strongest effect. Leisure travellers are also more likely to express WTP than business travellers. Diagnostic tests confirm the robustness of the estimates: VIF values indicate no multicollinearity concerns, and country fixed effects in all models control for unobserved national characteristics, ensuring that results reflect within-country variation rather than cross-country differences.

4.5 Standard logit model

Three nested logit models were estimated to identify the determinants of WTP for sustainable accommodation. LOGIT1 includes only log-transformed income to capture the effect of economic capacity, while LOGIT2 extends the model by adding demographic controls such as gender, age, education, and employment status. LOGIT3 presents the full specification, incorporating behavioural and attitudinal variables including trip purpose, prior experience with green accommodation, the influence of eco-certifications and peers, and overall environmental awareness. All models include country fixed effects to account for unobserved cross-country heterogeneity, and robust standard errors are used throughout to ensure valid inference.

Tables 9 and 10 report the results of three logistic regression models and their associated average marginal effects (AMEs) for the likelihood of choosing the sustainable option (Option A). Income emerges as a strong and robust determinant across all specifications: a one-unit increase in log income raises the probability of choosing Option A by 15.8 percentage points in Model 1, with the effect remaining statistically significant but

attenuated in Models 2 (10.2pp) and 3 (5.4pp) after additional controls are introduced. In Model 2, several socio-demographic factors are relevant: females and respondents aged 50 and above are more likely to choose the sustainable option, while students and retired/other respondents show significantly lower probabilities. However, the gender effect becomes insignificant in Model 3, suggesting that it is largely explained by behavioural and attitudinal factors.

Model 3 highlights the dominant role of sustainability-related behaviours and perceptions. Prior experience with green accommodation, higher environmental awareness, and influence from eco-certifications or others substantially increase the probability of selecting Option A, with marginal effects ranging from about 12 to 18 percentage points. These findings underline the importance of experience, information, and social cues in driving sustainable choices. Country fixed effects control for unobserved cross-country heterogeneity, with results indicating that respondents from most non-reference countries are less likely to choose the sustainable option compared to those from France.

Table 9: LOGIT1, LOGIT2 and LOGIT3 logistic regression

	(1)	(2)	(3)
<i>Variables</i>	<i>LOGIT1</i>	<i>LOGIT2</i>	<i>LOGIT3</i>
Log (Income)	0.693***	0.460***	0.298*
	(0.126)	(0.136)	(0.153)
Females		0.354***	-0.059
		(0.103)	(0.114)
Age: 30 - 49		0.209	-0.097
		(0.140)	(0.157)
Age: Over 50		0.537***	0.287
		(0.175)	(0.194)

Education: Secondary		0.301	-0.442
		(0.386)	(0.345)
Education: Tertiary		0.459	-0.423
		(0.370)	(0.324)
Employment: Inactive		0.091	-0.142
		(0.288)	(0.281)
Employment: Student		-0.341*	-0.281
		(0.175)	(0.195)
Status: Retired / other		-0.581**	-0.464*
		(0.222)	(0.277)
Trip Purpose: Leisure			0.578**
			(0.261)
Previous Green Stay			0.690***
			(0.122)
Eco-certification influenced			0.990***
			(0.126)
Influenced by others			0.648***
			(0.126)
Awareness			0.811***
			(0.126)
Constant	-6.320***	-4.474**	-4.205***
	(1.333)	(1.481)	(1.602)
Observations	1848	1,848	1,848

Robust standard errors in parentheses: *** p<0.01, ** p<0.05, *p<0.1

Reference group: Male, Age 18 - 29, Primary Education, Employed, Business

Table 10: Average Marginal Effect for LOGIT1, LOGIT2 and LOGIT3

	(1)	(2)	(3)
<i>Variables</i>	<i>LOGIT1</i>	<i>LOGIT2</i>	<i>LOGIT3</i>
Log (Income)	0.158***	0.102***	0.054*
	(0.028)	(0.030)	(0.028)

Females		0.079***	-0.011
		(0.023)	(0.021)
Age: 30 - 49		0.048	-0.018
		(0.032)	(0.029)
Age: Over 50		0.119***	0.051
		(0.038)	(0.035)
Education: Secondary		0.070	-0.078
		(0.090)	(0.058)
Education: Tertiary		0.105	-0.074
		(0.087)	(0.054)
Employment: Inactive		0.020	-0.026
		(0.062)	(0.052)
Employment: Student		-0.077*	-0.052
		(0.040)	(0.036)
Status: Retired / other		-0.133***	-0.086*
		(0.051)	(0.052)
Trip Purpose: Leisure			0.108**
			(0.049)
Previous Green Stay			0.125***
			(0.21)
Eco-certification influenced			0.180***
			(0.022)
Influenced by others			0.118***
			(0.023)
Awareness			0.147***
			(0.022)
Constant	-6.320***	-4.474**	-4.205***
	(1.333)	(1.481)	(1.602)
Observations	1848	1,848	1,848

Robust standard errors in parentheses: *** p<0.01, ** p<0.05, *p<0.1

Reference group: Male, Age 18 - 29, Primary Education, Employed, Business

5. Discussion & Conclusion

5.1 Discussion

The study reveals that visitors to Gozo perceive sustainability in lodging as a bundled quality signal rather than a set of discrete measures. Guests show moderate WTP for sustainable features (€11.66–€12.11 per night) and favour visible, convenient practices like renewable energy and resource conservation over behavioural nudges or extensive incentives. This aligns with literature suggesting price premiums serve as quality cues when perceived as fair and value-adding.

Income positively predicts selecting sustainable options, but its effect diminishes when accounting for attitudes and experience, highlighting the mediating role of prior exposure, sustainability awareness, and trip purpose. Eco-certification strongly influences choice, as does prior experience with green accommodation, leisure travel, and social influence. Demographic factors, including age, gender, and employment, play secondary roles once attitudes are controlled for.

For Gozo, these insights suggest combining short-term demand-side measures, such as awareness campaigns and clear “green premium” messaging, with long-term supply-side incentives like grants, streamlined certification, and tiered licensing. A packaging strategy bundling pro-environmental practices under a single premium with transparent impact reporting is recommended to convert sustainability goodwill into bookings.

5.2 Limitations

Findings are context-specific to Gozo's small-island, seasonal market and may not generalize to urban or resort-heavy destinations. Sampling may overrepresent English-speaking, sustainability-interested tourists, and stated WTP may overestimate actual purchase behaviour due to social-desirability and hypothetical biases. The discrete-choice experiment simplified complex booking decisions, and WTP estimates are sensitive to price ranges and survey framing. The study captures only a single period and lacks provider cost data, limiting the translation of WTP into actionable pricing strategies.

5.3 Recommendations for Further Research

Future studies should adopt longitudinal, multi-site designs to assess the Green Key certification's impact over time and across seasons. Triangulating stated preferences with OTA booking data can validate WTP and detect causal effects. Field experiments with accommodation providers can test green premium framing, badge visibility, and impact messaging. Expanding choice attributes to include social, biodiversity, and accessibility outcomes, and modelling heterogeneity by market segment, trip purpose, and season, will provide richer insights into sustainable lodging behaviour.

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