Assessing the Ecotourism Potential of Central Mediterranean Islands with a Case Study on Marine Ecotourism.

Karl Agius

A dissertation presented to the Institute for Tourism, Travel and Culture in fulfilment of the requirements for the Degree of Doctor of Philosophy at the University of Malta.

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I dedicate this thesis to my family and Michela who make my life special every day and to those who seek to safeguard the natural environment in the area of study.

“This is an impressive and commendable research work, and for two main reasons. The first, because of the considerable amount of data that the candidate has gathered, of both a qualitative and quantitative nature, and involving not one but three trips to various central Mediterranean islands. The second, because of the innovative proposition that frames this thesis: that of ‘central Mediterranean islands’, all members of what I refer to in my own work as the ‘Sicilian archipelago’, so close to each other geographically, but definitely not conceptually or logistically. With these two complementary strengths, Karl Agius has come up with a solid piece of work that has considerable potential for crafting ecotourism policy in the Central Mediterranean.”

Prof. Godfrey Baldacchino

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ABSTRACT

This study investigates the ecotourism potential of central Mediterranean Islands, several of which are highly sought after for Sand Sun and Sea (3S) tourism purposes and which are characterised by a rich biodiversity. The focus of this study is to investigate coastal and marine settings, proposing a sustainable alternative to 3S tourism. The possibility of having a number of close-by islands serving as a hub for marine ecotourism is studied.

The area of study consists of three archipelagos; the Pelagian Islands, the Aegadian Islands and the Maltese Islands, along with the island of Pantelleria. Four study visits (one on each archipelago/island) were organised to observe and familiarise oneself with the area of study. Eventually, four ecotours were organised (one on each archipelago/island). These involved the organisation of a specific itinerary for 66 ecotourists who voluntarily accepted to participate in the trips, at their own expense. 43 ecotourists participated in one ecotour, 23 ecotourists participated in two ecotours, whereas 5 ecotourists participated in three of the ecotours organised generating a total of 94 ecotourism experiences. Surveys were conducted before and after the ecotours while three focus groups and a group interview were also held with specific participants who revisited the ecodestinations on their own initiative or who participated in more than one ecotour. 174 interviews were held with stakeholders across the entire area of study in order to obtain their views on various aspects related to ecotourism. In total 240 people participated in the study through the ecotours, surveys, focus groups and interviews.

Results show that various levels of rivalry exist between islands and their inhabitants. Connectivity is a major challenge that can also impact ecotourism on islands. In terms of ecotourism venues, smaller islands were found to be more pristine whereas larger islands suffer from habitat fragmentation. Various ecotourism activities can be practiced including those targeting endemic species yet such activities need to be developed further. Ecotourism services are available but are often rather limited especially in the case of interpretation. The marketing of such destinations is mostly focused on 3S tourism which explains why such destinations are not likely to be associated with ecotourism. Several positive and negative environment and socio-economic impacts have also been identified across the area of study. In terms of ecotourism policy this is either sparse or lacks implementation. With respect to the ecotourists attracted, these mostly reflected the characteristic attributes of ecotourists as articulated in literature. Tourists attracted to the Maltese islands and who expressed lower levels of satisfaction with the ecotours are likely to have been hard ecotourists.

Smaller islands in archipelagos have been found to be better suited as ecotourism destinations due to their pristine state. Attracting the “true specialists” also known as the hard ecotourists can be a challenge especially on the larger islands such as Malta due to extensive anthropic pressures, mostly overdevelopment. Archipelagos with their numerous islands, each characterised by different attributes, make such ecodestinations sought after due to the possibility of island-hopping. However, solitary islands can overcome such a challenge if well connected to smaller islands in the region. The concept of island-hopping and the creation of an ecotourism hub is also seen as a means to tackle various socio-economic impacts experienced by the local communities of the smaller islands under Italian jurisdiction. On the smaller islands, ecotourism can help to attract tourism all year round and tackle seasonality whereas on larger more established tourism destinations ecotourism can serve to make tourism in general more sustainable. The success of ecotourism in the area of study, especially on the smaller islands where the protection of habitats can impact the livelihood or lifestyle of the local community, depends on the acceptance and understanding of the local community. Ecotourism on smaller islands is also seen as an opportunity to tackle the various inequalities that exist between islands of the same archipelago. The study also contributes to knowledge in the field by describing ecotourism in a Mediterranean context.

Keywords: Ecotourism, Central Mediterranean, Islands, Biodiversity.

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LIST OF ABBREVIATIONS

3S	Sand, Sea and Sun tourism
CCTV	Closed-circuit television
ECOLNET	European Ecotourism Knowledge Network
EEA	European Environment Agency
EEN	European Ecotourism Network
EESC	European Economic and Social Committee
EETLS	European Ecotourism Labelling Standard
EMAS	EU Eco-Management and Audit Scheme
ENAC	Ente Nazionale per l'Aviazione Civile = Italian Civil Aviation Authority
EPRS	European Parliament Research Service
ERA	Environment and Resources Authority
ESTC	Ecotourism and Sustainable Tourism Conference
EU	European Union
FCMZ	Fisheries Conservation and Management Zone
GDP	Gross Domestic Product
GSTC	Global Sustainable Tourism Council
GTA	Gozo Tourism Association
IBA	Important Bird Area
ICZM	Integrated Coastal Zone Management
ISTAT	Istituto Nazionale di Statistica = Italian National Institute for Statistics
IYE	International Year for Ecotourism
MEET	Mediterranean Experience of EcoTourism
MEPA	Malta Environment and Planning Authority
MPAs	Marine Protected Areas
MSP	Maritime Spatial Planning
MTA	Malta Tourism Authority
NGOs	Non-Governmental Organisations
NSO	National Statistics Office
ODZ	Outside Development Zones
SAC	Special Areas of Conservation
SCIs	Sites of Community Importance
SIBIT	Sustainable Inter-Regional Bike Tourism
SIS	Small Island State

SPAs	Special Protection Areas
SPSS	Statistical Package for the Social Sciences
SWOT	Strengths, Weaknesses, Opportunities and Threats
TAR	Tribunale Amministrativo Regionale = Regional Administrative Tribunal
TIES	The International Ecotourism Society
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UREC	University Research Ethics Committee
VCC	Visitor Carrying Capacity
VIP	Very Important Person
WOM	Word Of Mouth

Chapter 1:

Introduction

Plate 1.1*: The Maltese wall lizard subspecies (Podarcis filfolensis* ssp. laurentiimuelleri*) found on Linosa and Lampione (Pelagian Islands). Photo: Italo Venzaghi.*

Chapter 1: Introduction

1.1 Introduction

This thesis is about ecotourism. This is a form of tourism which: takes place in natural settings; is educational / interpretative in disposition; and embraces sustainability (Weaver and Lawton, 2007). This thesis emphasises one of ecotourism's subcategories: marine ecotourism (Cater, 2003) which is practised in marine and coastal settings (Sakellariadou, 2014). This thesis investigates the potential of such a form of tourism in small central Mediterranean islands including the Maltese Islands, the Pelagian Islands, the Aegadian Islands and the island of Pantelleria. Such islands are shown in Figure 1.1. It seeks to understand how the various islands, each with its own attributes, can complement one another in making the central Mediterranean region a hub for marine ecotourism.

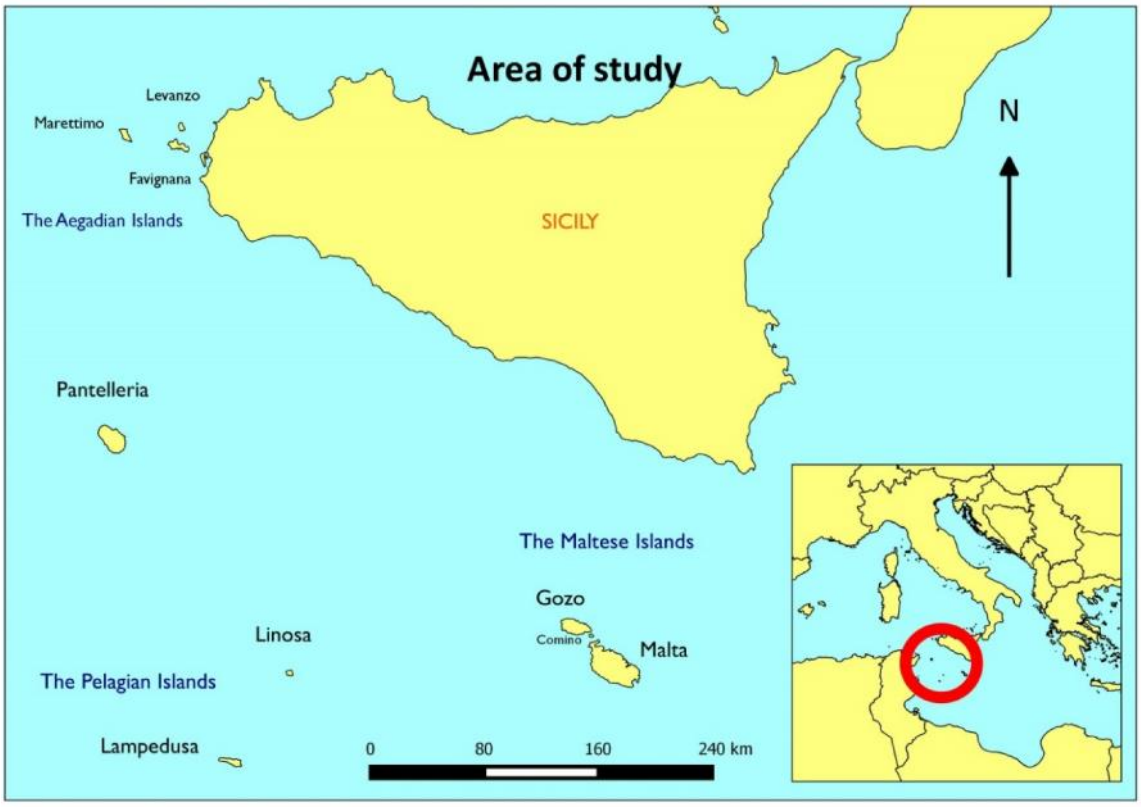

***Figure 1.1**: Central Mediterranean islands representing the area of study. Source: QGIS, 2016. Designed by Andrea Pace.*

Tourism on such islands is not lacking. Due to their nature, such islands experience a number of challenges, some of which have been augmented by the current dominant tourism product – mass tourism. Ecotourism is hereby presented as a 'new' element in an established tourism product or as the ideal tourism product in cases where tourism is still being developed.

This chapter sets the scene for the research by outlining the relationship between tourism and the environment and the ecological credentials of the Mediterranean region and its islands in the context of ecotourism and, in particular, marine ecotourism. It explains how a number of factors have led to the desire to shift from conventional forms of tourism to more sustainable ones that make use of natural resources in a more sustainable manner, case in point ecotourism. An overview of the situation in the Mediterranean region with respect to ecotourism research and the lack of attention suffered by the central Mediterranean is raised. An explanation of the motive of the choice of topic and the significance of the research are also presented. The aims of the research and the research questions are presented before providing an overview of the content of the chapters that follow in this thesis.

1.2 Setting the Scene

Islands are among the most visited tourist destinations in the world (Fotiou, Buhalis and Vereczi, 2002) and as is the case in other island destinations (Zubair, Bowen and Elwin, 2010), demand for tourism on islands in the Mediterranean region is on the rise (Ruggieri, 2011). This reflects the trend whereby tourism in this region has multiplied in the past decades (Bourse, 2012). As a result, the Mediterranean has become the world's leading tourism destination (UNWTO, 2012). The natural environment plays an important role in tourism development and in attracting tourists to a destination, including islands (Butler, 1998; Cooper, Fletcher, Fyall, Gilbert and Wanhill, 2008). Yet, whereas islands have for centuries been considered as tourism destinations with unique natural settings (Carlsen and Butler, 2011), and even if nature-based activities such as snorkelling and diving are already practised and used to promote marine tourism (Gerovassileiou, Koutsoubas, Sini and Paikou, 2009), when one speaks of islands, the image of holidays and sunshine comes to mind. In reality, in many islands, the classical tourism activity practised is indeed sun-beach tourism (Rigas, 2012). This is even much more so with regards to tourism in the Mediterranean region (which predominantly takes place in coastal areas) as it mostly caters for Sand, Sea and Sun (3S) tourism (Cannas and Giudici, 2015).

Here, it is apt to point out that the Mediterranean basin is a biodiversity hotspot with high levels of endemism within terrestrial ecosystems (Myers, Mittermeier, Mittermeier, da Fonseca and Kent, 2000). The Mediterranean flora includes 25,000 species and land vertebrates account for 1,050 species (Hughes, 2005). The marine environment is also of considerable importance in terms of biodiversity. Although the Mediterranean Sea only represents 0.82% of the world ocean area and 0.3% of its volume, the richness of its species nonetheless corresponds to 4–18% of all marine species, depending on the phylum taken into consideration (Lejeusne, Chevaldonné, Pergent-Martini, Boudouresque and Pérez, 2010). A total of 12,000 marine species have been recorded (Gržetic, Lukovic and Božic, 2013). Such richness in terms of biodiversity is also reflected on Mediterranean islands which are individually particular and are considered to be hotspots of biodiversity on a global scale as they host a large number of biota (Davis, Heywood, Herrera-MacBryde, Villa-Lobos and Hamilton, 1997; Médail and Quézel, 1999; Myers *et al*., 2000; Vogiatzakis, Mannion and Pungetti, 2008). This makes Mediterranean islands potentially ideal locations for ecotourism and underlines the vast potential of the marine environment for ecotourism (Cater and Cater, 2007; Fotiou *et al*., 2002). In fact, it has been argued that the association of islands with 3S tourism does not reflect the whole picture (Rigas, 2012) and islands do have potential for ecotourism since

> "*most islands host unique terrestrial flora and fauna with high number of endemic species, exotic coral reefs and marine ecosystems, plus special geological features and attractive landscapes. In many islands, communities preserve traditions and living cultures that are also of great interest for sensitive and educated visitors*" (Fotiou *et al*., 2002:79)

On the other hand, there have been minor cases whereby the environmental appeal of islands in the central Mediterranean region has been contraindicated so that it has been argued that Lampedusa has "*comparatively uninteresting landscapes*" and that "*Malta is not and cannot be an ecodestination*" (Lockhart, 2002:210).

In any case, such a niche should not be excluded as despite projections showing that growth in international tourist arrivals in the Mediterranean will continue (UNWTO, 2011), the development and growth of tourism in the region has been questioned due to climate change making such destinations less attractive and less competitive during the peak tourism season (Amelung and Viner, 2006). Furthermore, as time goes by, the sand-sea complex, which currently dominates the scene, is becoming insufficient for the expectations of tourists (Vogiatzakis *et al*., 2008) as

their demands grow for more authentic, fulfilling holidays. Many tourists now expect considerations of sustainability to be included in their holidays and thus such considerations have to be taken seriously for a destination to remain competitive in the market (Bermann, 2009). Moreover, while mass tourism in the Mediterranean region and on islands in the region has naturally had a positive impact, it has also led to various negative environmental, economic and sociocultural consequences (Baldacchino, 2008; 2015a). As a result, over the years there has been an attempt to diversify the tourism product and to push forward alternative, more sustainable forms of tourism, which are small scale and which draw on the distinctive features of the destination (Bramwell, 2004). In this regard, ecotourism has been touted as an alternative tourism product to mass tourism in Mediterranean islands (Cidalia Tojeiro, 2011).

The once obscure niche of ecotourism has developed into a prominent research field within tourism studies (Weaver and Lawton, 2007), and the sector has developed so much that new sub-categories such as marine ecotourism have developed (Cater, 2003; Weaver, 2011). Even if ecotourism remains a relatively small product (Buckley, 2009), it has experienced an increase in demand over the years (Sangpikul, 2010) and is one of the fastest growing sectors of the international tourism industry (Fredman and Tyrväinen, 2010; Holladay and Ormsby, 2011; UNWTO, 2012) with positive projections being made as far up to 2024 (Starmer-Smith, 2004; TIES, 2006). With respect to marine ecotourism in particular, the economic potential is becoming increasingly recognised (Wilson and Garrod, 2003) to the extent that it is being considered as a profitable market within the tourism industry (Sakellariadou, 2014). The growth of ecotourism and marine ecotourism has been attributed to a number of reasons which include the fact that the environment serves as a pull factor for tourists, a greater interest in ecology, sustainability concerns among consumers (Buckley, 2009; Weeden, 2011), increasing dissatisfaction with mass tourism and crowding in tourist destinations (Kusler, 1991; Perkins and Grace, 2009; Blamey, 2001) as well as far greater interest in older cultures and ways of life (Buckley, 2009). Marine ecotourism per se has experienced a considerable growth as a result of the growing interest in oceans, in particularly the demand to access marine environments so as to observe and interact with marine wildlife (Cater and Cater, 2007; Higham and Lück, 2007).

Nevertheless, little attention has been given to the Mediterranean region and its islands. Central Mediterranean islands in particular have been almost completely overlooked. In a rare study on ecotourism in the Mediterranean region, Diamantis (2000) states that ecotourism in the region is still in its “infancy stage”. The lack of literature gives the impression that little development has taken place since then.

While studying the ecotourism potential of an area one encounters two main challenges. The first is that it is not easy to develop and apply models of ecotourism that are applicable to many areas (Pipinos and Fokiali, 2009). This is due to the fact that ecotourism is described differently depending on the geographical context (Cater, 2006; Conway and Cawley, 2016; Fennell, 2001) since different continents have different '*regional signatures*' for their own specific styles of ecotourism development (Buckley, 2003). Furthermore, Pipinos and Fokiali (2009:671) argue that "*in contrast to mass tourism that is based usually on a region's general characteristics, supply of ecotourism relies heavily on the area's distinct features and these are hardly repeated elsewhere*". The second is that ecotourism is not a homogeneous phenomenon but instead, it has become accepted as a complex and synergistic collection of social, ecological and economic dimensions that reflect a common core idea (Björk, 2000; Weaver, 2005). Supporting the argument Pipinos and Fokiali (2009:671) argue that "*as opposed to ventures that are evaluated by means of their economic outcome, ecotourism should be assessed by means of its effect on preservation of natural, cultural and social resources as well as on promotion of the area's welfare*".

1.3 Motives for Choice of Field of Study and its Significance to the Research

The scientific background in the field of natural sciences and coastal settings, a personal interest in islands and alternative forms of tourism, experience gained during previous research in the field of social sciences as a means to safeguard the environment without hindering socio-economic activities, and a passion for teaching triggered the researcher to delve further in the field of ecotourism in coastal and marine settings pertaining to islands. Following further discussions with academics, the choice of the research topic was further developed into "*The ecotourism potential of central Mediterranean islands with a case study on marine ecotourism*".

Personal interest, background and experiences were not the only motivations that steered the researcher to the selection of this research topic. Islands are mostly considered to be peripheral areas (Chaperon and Theuma, 2015) and as a result face several challenges including lack of infrastructure and basic services (including those related to water and energy) (Buhalis and Diamantis, 2001). Furthermore, islands have limited area, limited resources, fragile ecosystems (Aretano, Petrosillo, Zaccarelli, Semeraro and Zurlini, 2013; Baldacchino, 2008; Ruggieri 2011) and limited accessibility due to their insularity (Hall and Page, 2006). The arrival of tourism on Mediterranean islands has broadened such challenges and at times threatened the islands' sustainability (Briasoullis, 2003). Furthermore, issues synonymous with the Mediterranean region

including waste management issues, increased pressure on coastal ecosystems and land degradation are amplified on Mediterranean islands (Vogiatzakis *et al.*, 2008). Moreover, most of such islands also face considerable disparities in tourism influx, as existing tourism mostly caters for 3S tourism (Ruggieri, 2011) as explained above. There is thus the necessity to investigate how to attract other forms of tourism and tourists with different interests to such destinations, especially in the shoulder period, that would broaden the tourism period and to understand the views of stakeholders including the local community in this regard. It has been argued that if managed in a sustainable manner, ecotourism may improve the socio-economic situation of an ecodestination and its community whilst also supporting conservation of the pristine natural environment by generating revenue that could be further invested for social and environmental demands while reducing pressure on the destination during peak seasons (Buckley, 2009). The researcher was thus interested in investigating if ecotourism through the sustainability approach associated with it can be a means to alleviate a number of issues faced by islands and their communities.

Since for island and coastal communities, the marine tourism industry often forms the most important economic activity (Miller 1990; Hoyt and Hvenegaard 2002), it is crucial to give due attention to its sustainable counterpart - marine ecotourism, which as remarked earlier has become a substantial economic sector, so as to also determine if the islands in question have such potential to benefit from such economic returns.

The rising interest shown in literature by researchers and policy makers with respect to ecotourism (Weaver and Lawton, 2007) and the economic growth of the niche also played a vital role in motivating the researcher to delve into the field. Despite a growing interest and progress in ecotourism, little attention has been given to the central Mediterranean islands in this regard. Whilst this confirmed that the topic was of great relevance in the tourism industry, one also had to investigate whether there was any interest to practise ecotourism in the region as well as to identify possible challenges being faced by this sector in the Mediterranean region.

Furthermore, as outlined earlier, ecotourism has different features depending on the geographical environment (Higham and Carr, 2003). Since little attention has been given to marine ecotourism in the central Mediterranean area, the researcher wanted to contribute in investigating the potential of central Mediterranean islands to serve as ecotourism destinations and outline characteristics of marine ecotourism in this region.

Another factor that also triggered further research was the fact that some of the destinations under study experience a lack of popularity in both domestic and international markets and at times their ecotourism potential (if existent) is overlooked. Characteristics such as peripherality and remoteness, which were once considered to be limitations are now being considered as a marketing opportunity to portray the distinctiveness of the region in the light of new trends in tourism. In fact, demand for such characteristics are on the rise due to increased interest in the environment and in tranquil, less developed areas such as coastal settings which are still pristine for tourism purposes (Chaperon and Theuma, 2015; Opačić, Favro and Perišić, 2010; Scheyvens and Momsen, 2008). Thus it is necessary for one to look at gaps in marketing and if different approaches can be used for marketing central Mediterranean islands.

In the case of islands and archipelagos, inter-regional cooperation and partnership between nearby islands have been promoted on various grounds. One such argument is the fact that in the scenario of growing international competition within the tourism industry, an integrated product that could result in inter-regional tourism can guarantee that destinations involved remain competitive (Ruggieri, 2011). This has been further supported by the argument that whereas all islands are similar and share various characteristics, they are all unique and have different attractions to offer (Briguglio and Kisanga, 2004; Vogiatzakis *et al*., 2008). However, while being diverse they can also complement each other (Baldacchino, 2015a). Thus a product based on more than one island can make the experience more appealing to tourists and make the destination more competitive. This had led to the promotion of island-hopping (Baldacchino and Ferreira, 2013). Cannas and Giudici (2015) promote a similar policy in order to effectively tackle the negative impact of mass tourism in the coastal areas of the tourism-dense islands in the Mediterranean. They argue that to achieve such goals current policies and strategies in the field of sustainable tourism development must shift to a scenario whereby a group of close-by islands complement each other. In this regard, the researcher was interested to investigate if such a concept could also be applicable in the field of marine ecotourism in central Mediterranean islands and how tourism policies and strategies reflecting such principles could have a positive impact on the islands and their communities.

1.4 Aims of this Study

The overarching objective of this research is to study if the central Mediterranean region, through its islands and archipelagos and their respective coastal and marine natural resources, can become a hub for ecotourism bringing environmental and socio-economic benefits to local

communities and the islands and archipelagos in question and alleviating existing challenges resulting from the tourism sector, a major economic sector, if not the strongest one, of such islands. The aims of the study are the following:

- to study the ***ecotourism potential*** of central Mediterranean islands with special reference to marine ecotourism;
- to investigate how different islands in the centre of the Mediterranean can be used to promote the area as a ***hub of ecotourism*** destinations and how different islands and archipelagos through their various attributes can sustain each other in such an activity;
- to understand how ecotourism in such destinations can be undertaken in a sustainable way to alleviate adverse socio-cultural, economic and environmental challenges faced by local communities living on the respective islands.

1.5 Research Questions

Taking into account the aims of the study, the following research questions were developed:

- What are the opportunities and challenges for ecotourism to flourish in coastal and marine environments in central Mediterranean islands?
- What socio-economic and environmental impacts can ecotourism activity have on the islands and respective communities and what are the views of the stakeholders?
- How can the central Mediterranean islands collectively serve as a hub to promote coastal and marine ecotourism in the region?
- How can ecotourism serve as a means to tackle the seasonality issue faced by most islands in the region?
- What policy actions are required for ecotourism to become a recognisable sustainable tourism activity in the central Mediterranean islands?

1.6 Thesis Overview

Chapter 2 comprises a review of literature published in the field. The various challenges faced by islands is discussed. It looks into the various aspects of research conducted in the field of ecotourism with special attention given to islands/archipelagos and marine/coastal environments in the Mediterranean region. Due attention is also given to ecotourism venues including Marine

Protected Areas (MPAs), ecotourism activities, ecotourists, ecotourism services, promotion, impacts (environmental, social and cultural) arising from ecotourism and those that can be alleviated via ecotourism activity, ecotourism policy along with ethical and quality control mechanisms.

Chapter 3 provides a detailed account on various aspects related to the area of study including the economic activity, status of the tourism activity in such destinations and challenges faced by the islands in question thus presenting them in the context of the research questions and explaining the reasoning behind their choice.

Chapter 4 gives an overview of the methodology adopted throughout the research and the correlated research instruments used for the research including survey questionnaires, focus groups, interviews and observations. An explanation on the techniques and statistical inferences used to analyse the data is given. The chapter concludes by outlining the ethical considerations taken into account throughout the research, reliability and validity of the results and the limitations of the study.

Chapter 5 opens with a presentation of various island issues encountered throughout the study including rivalry, connectivity and governance. It follows with an overview of aspects related to the ecodestinations including ecotourism venues, activities and services. The chapter also provides the findings related to marketing, ecotourism impacts (ecological, social and economic) and concludes with ecotourism related policy.

Chapter 6 presents an extensive overview of the profile of the ecotourist attracted to the area of study and the profile of the potential ecotourist using data collected through observation, interviews, focus groups and surveys. Reference is made to various aspects such as demographic characteristics, knowledge on ecotourism, level of environmental awareness, participation in previous ecotours, motivations and expectations, spending patterns and preferences in terms of organisational aspects. Statistical inferences are also presented to substantiate the findings.

Chapter 7 discusses the results presented in the previous two chapters in comparison with research conducted on other islands and in other ecotourism destinations and in line with the research questions set by the researcher. When possible, findings are also compared with research conducted in the area of study. The chapter concludes with an analysis of the strengths,

weaknesses, opportunities and threats (SWOT) with respect to developing and practicing ecotourism in the area of study.

Chapter 8 encompasses a series of conclusions with specific reference to the research questions. Major challenges and opportunities are outlined. A series of recommendations for the consideration of those involved in the field and policy makers are also presented in this chapter. The chapter concludes with an evaluation of what contribution to knowledge was made in the field of ecotourism through this research while identifying lacunae in the field that call for further research.

Chapter 2:

Literature Review

***Plate 2.1**: The red deer (Cervus elaphus), one of the introduced mammals on the island of Marettimo. Photo: Archivio Associazione CSRT "Marettimo"*.

Chapter 2: Literature Review

2.1 Introduction

The aim of any research is to enhance the current body of knowledge in a specific field (Veal, 2006). To add to such knowledge it is thus important to obtain information on research already completed or undergoing in the field to be in a position to compare the ongoing research project and identify gaps in the field of research. The major research themes relevant to this study, with specific reference to the research questions are thus presented in this chapter.

Due to the nature of the study, the chapter gives an overview of various issues faced by islands and archipelagos, which somehow leave an impact on tourism and the local communities. Reference is made to the pertinent problem of defining ecotourism and the principles on which it is based. The overlap of ecotourism with other tourism niches is discussed and an overview of various forms of ecotourism, including marine ecotourism, is presented. The major aspects needed to practice ecotourism which include the venues, services and activities together with the characteristics of ecotourists are discussed. Marketing practices and challenges are also presented. An account on the various impacts related to ecotourism is provided followed by an account on policy related aspects. Considering the nature of ecotourism, standards and ethical aspects are given due importance. The chapter concludes with an overview of ecotourism research and initiatives undertaken in the area of study while identifying gaps in research which deserve attention in order to augment knowledge to the field of ecotourism.

Research was conducted via electronic libraries at the University of Malta, the University of Liverpool, the University of Catania and the European Parliament Research Service (EPRS). Other publications were obtained via Research Gate or directly from the authors. Consultation on possible publications in the field of research was also conducted via email with established academics in the field of ecotourism. Leading English language academic journals were used. Due attention was given to papers and field notes published in the Journal of Ecotourism. The latter include insights into how ecotourism operations are actually conducted and how they can be improved (Newsome, 2013). These proved useful in order to formulate ideas which were then adopted to conduct this research.

Other reports, information about projects, and relevant publications were obtained through research over the internet and through search engines such as google scholar. The researcher also registered as a paid member of The International Ecotourism Society (TIES) and thus had the facility to make use of various publications made available by the organisation. Electronic databases are said to be incomplete missing material published in non-mainstream journals and presented during conferences and workshops (Veal, 2011). Therefore literature review was also supported through the use of bibliographies such as that published by TIES (Eagles and Nilsen, 2001). Research was also carried out in libraries located in offices of MPAs management authorities and Non-Governmental Organisation (NGOs) and in public libraries found on several of the islands under study.

Whereas a major effort was made to access these publications at the beginning of the research, the literature review was updated throughout the entire research and augmented with new publications and other research material encountered through reference lists. Whereas one was open to new ideas, the research questions were kept at the centre of the review so as not to side-track into areas which move away from such questions.

2.2 Archipelago and Island Issues

Considering the nature of the study whereby ecotourism is being studied within a setting involving islands, it is necessary to understand issues faced by archipelagos and islands especially those related to tourism.

2.2.1 Archipelago and Island characteristics

The Mediterranean region is characterised by over 5000 islands and islets (Apostolopoulos and Gayle, 2002). As is the case of most islands in the world, several of these Mediterranean islands are organised in archipelagos. Archipelagos are defined as either a group of islands, or a sea containing a number of scattered islands. Archipelagos can be nation states or islands affiliated with a mainland nation (Bardolet and Sheldon, 2008).

In the case of archipelagos, physical separation of islands does not only separate them from the mainland but also from each other and thus they are also characterised by the interactions between themselves (Baldacchino, 2015a). As a result, tourism on archipelagos has its own particularities. Baldacchino (2015a:8) identified five characteristics of archipelagos specific to

tourism. The first is **visibility** whereby the smaller the island and the resident population the less visibility it has. As a result, at times, the smallest islands within an archipelago are camouflaged and attributed to the biggest island. The second is **tweaked representation** which involves the physical rendering of island/s that is not in conformity to geo-physical size, location, proximity or proportionality. This leads to a situation whereby an island appears in such a way that does not reflect one or more of its physical features but may influence the traveller as to which island/s to visit. The third characteristic identified by Baldacchino is **domination/subordination** whereby one of the islands in the archipelago tends to have, even if subtly, more power than the other islands (Baldacchino and Ferreria, 2013). As a result, one of the islands can grow at the expense of the others. Another characteristic is **liminality or layering** and refers to a scenario where an island could be the mainland of another island, which could itself be the mainland of yet another island. This can also be the case for transport where transport from one island to the main island may include a route passing via a number of islands. The last characteristic of archipelagos with respect to tourism is the **nature and expression of differentiation between islands** which refers to the fact that marketing is carried out in such a way that visiting the whole archipelago is a must to enjoy the full experience of the archipelago by depicting these islands as diverse, attractive and complimentary destinations. This promotes island-hopping.

When it comes to sustainable tourism, islands face ten challenges in particular. These are limited physical and natural resources, minimal infrastructure, lack of planning, foreign ownership, lack of sustainability awareness, absence of measurement of carrying capacity, multiplicity of stakeholder and often, conflicting interests, lack of monetary and human capital, corruption and bureaucracy and the more general issue of climate change (Graci and Dodds, 2010). Whereas these also apply to archipelagos, planning and development of sustainable tourism on archipelagos tend to be more intricate (Volo, 2017) as they face issues that may differ from those faced by single islands (Bardolet and Sheldon, 2008). These include five issues in particular.

Firstly, governance in archipelagos is often shared on many levels with **hierarchical governmental structures**. Secondly, different cultural and community interests on each island make **stakeholder involvement a challenging process** in any tourism management planning initiative (Sheehan and Ritchie, 2005). Furthermore, in an archipelago or region, **different islands might be at different stages of tourism maturity**. Some might have reached a stage of maturity whereas others would still be at inception level. Thus, distinct product and marketing strategies might be required (Baldacchino, 2006; Ruggieri, 2011). **Travel between the islands** in an archipelago is critical to their tourism development and linking the islands is an important

part of the archipelago's tourism policy (Bardolet and Sheldon, 2008). Yet transportation is considered to be the most problematic of challenges faced by islands (Buhalis and Diamantis, 2001) as it is normally "complicated, expensive, time consuming, irregular and unreliable" or a combination of all (Butler, 1996:16). Last but not least, **standardisation of tourism data may be difficult to collect** due to the different levels of government involved and this may make planning and policy making more difficult (Bardolet and Sheldon, 2008; European Commission, 2014).

In the case of Mediterranean islands, mass tourism has dominated most tourism activity (Cannas and Giudici, 2015; Ruggieri, 2011). Whereas this has brought about a number of benefits to local communities, including employment (Bramwell, 2004; Ruggieri, 2011), mass tourism on most of the Mediterranean islands has led to intense environmental and socio-economic pressures (Vogiatzakis *et al.*, 2008). In the case of archipelagos, mass tourism also often poses unique sustainability issues with additional complexity from those of individual islands owing to the factors mentioned above (Bardolet and Sheldon, 2008).

From an economic perspective, mass tourism in small island destinations has an impact as a result of competition for resources such as labour (not enough workers are attracted to work in local trades as most labourers are absorbed by tourism) or space (coastal areas generally used by fishermen are taken over for tourism purposes while agricultural areas can also be taken over by tourism, profoundly affecting landscapes) with other local economic sectors (Aretano *et al.*, 2013; Baldacchino, 2008; Mowforth and Munt, 2008). As a result, mass tourism displaces traditional economic activities of the past (Carlsen and Butler, 2011). Such challenges are perhaps more pronounced on archipelagos and islands due to limited resources and markets, and undiversified economies mostly dependent on the mainland and the tourism industry (Baldacchino, 2006; Butler, 1993; McElroy and de Albuquerque, 2002). At times, the latter is viewed as the only activity capable of reviving local economies (Kousis, 2001) and has thus been described as a new form of 'monocrop' (Macleod, 2004) especially in small islands where it is seen as a rapid wealth generator (Vogiatzakis *et al*., 2008). Such dependence also implies that policies and practices of a specific service provider such as airlines, hoteliers and tour operators can heavily impact the tourism sector and the economy of the island/archipelago (Baldacchino, 2006; Butler, 1993; McElroy and de Albuquerque, 2002).

From a social and cultural perspective, mass tourism also has an impact on communities of islands contributing to domestic inflation, cultural commodification and degradation of local culture. This often leads to unequal distribution of financial benefits causing or strengthening

inequalities (Baldacchino, 2008; Mowforth and Munt, 2008). Mass tourism also affects the environment as once tourism starts to expand at a destination, it has a detrimental impact on the limited and fragile terrestrial, marine and coastal environments including those on islands, either through the tourism activity itself or due to interventions made to accommodate masses of tourists (Carlsen and Butler, 2011; Lockhart, 2002; Pipinos and Fokiali, 2009). This impacts and threatens the resource which attracts tourists to the destination in the first place (Butler, 1998; Psarikidou, 2008) to the extent that it can also lead to the abandonment of the respective areas by tourists (Graci and Dodds, 2010).

Due to the strong reliance on mass tourism around coastal areas (Cannas and Giudici, 2015), tourism activity in the Mediterranean region predominantly takes place during the summer period (Ruggieri, 2015). Therefore, tourism in the region is characterised by seasonality of tourism influx (the strong spatio-temporal concentration of tourists in a destination). This implies that there is lack of adequate demand all year round and considerable disparities in terms of occupancy rates between summer and winter (Amelung and Viner, 2006; Cannas, 2012) with demand being heaviest between May and October (Ruggieri, 2011). Although Malta is an exception, most islands in the Mediterranean share this same feature and have low occupancy rates as they are unable to fill more than half of the available beds throughout the year (OTIE, 2008). Seasonality in some small central Mediterranean islands is at times even more pronounced with some islands experiencing a reasonable influx of tourists between mid-July and Mid-September. However, sometimes the tourism season can last just one month (Ruggieri, 2015).

Seasonality also has an impact on working patterns and opportunities (Ruggieri, 2011; Vogiatzakis *et al*., 2008). In fact, islands also face the challenge of displacement of permanent residents, at least throughout a period of the year, due to work. Such displacement is also due to second home demand which outcompetes local demand as well as other life events related to family and education (Marjavaara, 2008).

2.2.2 Peripherality and Dependency Theory

Peripherality is considered as "*the relative geographical distance, time and cost to travel between the core and the periphery of a given land area, and therefore concerns accessibility*" (Garrod and Wilson, 2004:99). However, implications go beyond space and geographical distance. In fact peripheral areas are considered to be marginalised in terms of economy and decision making. As a result, peripheral areas suffer from various challenges including limited market opportunities,

lack of resources and low rate of economic growth. Furthermore, traditional economies in such areas such as farming and fisheries are on the decline leading to high levels of unemployment. In addition, peripheral areas rely on imports and thus experience economic leakage. Societies are close-knit with limited education and are ageing populations due to constant out-migration of young people to core areas. These areas also have connectivity problems and deficiencies in infrastructure. Most enterprises are SMEs and tend to lack know how, investment powers and entrepreneurial spirits (Wanhill, 1997; Garrod and Gilson, 2004). Several of these challenges have been associated with the dependency of the periphery on the core. "*Dependency concerns relations of reliance of the periphery on the core... with the periphery being subordinate as it depends on the core for various kinds of support and for development assistance*". (Chaperon and Bramwell, 2013:134). According to dependency theory, peripheries can be dominated or exploited by developed centres (Jordan, 2004).

Meanwhile several features of peripheral areas which serve as a disadvantage for the economic development of peripheral areas are also considered to be an opportunity (Brown and Hall, 2000). In fact, peripherality can bring not only challenges but also opportunities to coastal locations (Garrod and Wilson, 2004). One such opportunity is that such features are attractive for tourism which itself is seen as an opportunity to tackle several challenges faced by peripheral areas (Wanhill, 1997). For example, by its very own nature, ecotourism mostly takes places in peripheral areas and this is no coincidence. Indeed such areas boast of higher abundance of ecotourism venues and species richness (including charismatic mega fauna) which are both important targets sought after by ecotourists. These persist in such areas due to the remoteness that has spared species, habitats, landscapes and seascapes from unstainable development and negative environmental impacts from anthropogenic sources (Garrod and Wilson, 2004). Therefore, whereas it might be inconvenient to reach peripheral places, tourists may consider them as worth visiting due to their pristine and unspoilt state (Müller and Jansson, 2007). Due to their pristine state, peripheral areas have been considered by developed areas as tourism destinations (Crick, 1989) to the extent that such areas have been termed as the "pleasure periphery" (Turner and Ash, 1975). In this regard, one should note that due to dependence of tourism on domestic markets, peripheral areas suffer from seasonality (Garrod and Wilson, 2004).

Whereas 3S tourism has been a prevailing economic activity in coastal areas, there has at times also been a decline in such activity leading to socio-economic impacts on the local community. Furthermore, such activity has also caused several negative environmental impacts on marine and coastal environments on which tourism depends. However, if truly embracing the principles

of sustainability, marine ecotourism offers peripheral coastal a more sustainable development alternative. In fact, marine ecotourism has been preferred over conventional forms of tourism as a solution for peripheral coastal areas in the EU's Atlantic periphery (Garrod and Wilson, 2004). Furthermore, alternative forms of tourism, such as ecotourism are being promoted to combat inequalities between the core and the periphery and to remedy some of the challenges associated with dependency (Brohman, 1996; Khan, 1997; Walpole and Goodwin, 2000).

However, it is also argued that tourism is not a fix all solution for such areas (Garrod and Wilson, 2004) as it can increase dependency of the periphery on developed areas and reinforces the inequalities between the periphery and the core (Bianchi, 2002; Britton, 1981; Weaver, 1998). In fact, core-periphery relations have been reported from islands practicing ecotourism with local communities being marginalised in terms of benefits (Walpole and Goodwin, 2000).

Whereas the majority of marine ecotourism activities are practiced in areas which are considered to be peripheral (see section 2.4.3.1) the relationship between marine ecotourism and peripherality has received little attention to date. There is little knowledge on the appropriateness of marine ecotourism as a strategy for tourism development in peripheral areas. According to Garrod and Wilson (2004:95) "*marine ecotourism can potentially form part – but, realistically, only a part of an appropriate strategy for addressing the problems faced by coastal peripheral areas*".

2.2.3 Islands and Core-Periphery Theory

Islands share several characteristics of peripheral regions and the inevitable tourism development mirrors that of peripheral regions (Chaperon, 2009). Small islands face restricted consumer markets, limited economies of scale (in terms of production consumption and provision of services) and limited resources. Islands are also difficult / inconvenient and more expensive to reach (Chaperon and Bramwell, 2013; Royle and Scott, 1996).

Small peripheral islands usually exhibit dependency on larger nearby islands considered as cores, which function as local service and economic centres (Cross and Nutley, 1999; Karampela, Kizos and Papatheodorou, 2015). This also applies in terms of tourism development on islands which is highly dependent on the core (Chaperon, 2009). As a result, small peripheral islands are influenced by various socio-economic disadvantages affecting their development (Timothy, 2001).

The phenomenon whereby a peripheral area is controlled, managed, and at times exploited by the core has been referred to as the 'core-periphery' conflict (Keller 1987). Dependency has been closely linked with the core-periphery theory whereby the periphery relies on the core and with the periphery being subordinate as it depends on the core for its development (Chaperon, 2009). In the case of islands, it has been used to demonstrate interactions between subordinate island(s) considered as the periphery and a dominant island which itself can be a periphery to mainland in a series of nested core-periphery relationships. In such cases the mainland is considered as the outer core whereas the dominant island is considered as the inner core with the other subordinate islands being the periphery for both the mainland (outer core) and the dominant island (inner core) (Weaver, 1998).

Meanwhile, as in the case of peripheral areas whereby associated features were used to the advantage of tourism development, a number of characteristics of islands such as proximity to coastal ecosystems (Weaver, 2008) have been used to challenge the conventional thinking linking limitations with core-periphery relationships exhibited by small islands (Weaver, 2017). Several tourists seek coastal areas and small peripheral islands have high ratios of coast to land areas apart from easy access between the coast and interior. Moreover, the remoteness of such islands gives a special feeling which is sought by tourists (Butler 1993). Furthermore, tourists are seeking small scale and alternative tourism products based on pristine environments (Bramwell, 2004).

2.2.4 Tourism Policy and Governance in Peripheral Areas and Islands

Owing to their small size, closely networked society and lower levels of governance structures, tourism development on islands can be coordinated easier (Campling, 2006). However as outlined earlier in the case of archipelagos, governance is shared between many levels (mainland, archipelago, island) and involves various hierarchical government structures (Baldacchino, 2015a). Therefore, tourism development policies may involve many negotiations and must pass through complexities possibly leading to conflicts and political difficulties which are not necessarily encountered by single islands (Trousdale, 1999). This is more prominent in the Mediterranean region where, unlike other regions, most islands are not autonomous but belong to sovereign states (Apostolopoulos and Gayle, 2002).

This is already evident in the case of twin-islands. Core-periphery relations have fostered specific institutional structures when it comes to tourism development and management on twin islands.

In such cases the interaction between central/higher levels of governance and the peripheral local government has been marred with problems. Furthermore, this led to conflicts, tensions and weak structures with an unclear distribution of power when it comes to tourism policy development, centralisation of tourism policy, poor communication between relevant tourism bodies, limited collaboration between organisations, lack of a coherent vision for tourism development and inability to develop and manage a sustainable tourism product (Jordan, 2004).

While it is crucial for policy makers and those actively involved in the tourism sector to understand how core-periphery relationships influence institutional structures responsible for shaping tourism policy few studies have been conducted mostly focusing on small island states (Chaperon, 2009; Jordan, 2004).

In a study on peripheral coastal areas, Kennell and Chaperon (2010) remark that lack of influence in policy decisions experienced by peripheral areas must be addressed through governance structures that take into consideration the challenges of peripheral areas if the potential of such sites as tourist destination is to be harnessed. Existing governance structures tend to reflect past patterns that do little to reverse core-periphery relationships that exist. In fact, several peripheral areas are said to be governed by 'remote control' and to be dependent on cores for investment and budget allocations (Chaperon, 2009; Kennell and Chaperon, 2010).

Such a challenge has also been reported from islands whereby local communities feel that politicians and government institutions based on the main island (core) do not give adequate attention to the smaller islands (periphery). In a study conducted by Chaperon (2009) on the relationship between Malta (core) and Gozo (periphery) in terms of tourism development and governance, Malta is considered to be dealing with the small island of Gozo by 'remote control'. Political decisions affecting tourism on Gozo are made externally with tourism and other relevant authorities situated off the island. The latter has no or one outnumbered representative from Gozo. The local government has limited political influence on shaping tourism policy through token involvement and thus the future of tourism on Gozo is being dictated by Malta. As a result, Gozo lacks 'political clout' in decision-making including in tourism policy leading to "unbalanced power between the two islands". In addition, isolation between the two islands also made it difficult for the people of Gozo to establish ties with national politicians that shape tourism related policy (Chaperon and Bramwell, 2013).

Politicians and institutions give little attention to tourism needs of Gozo with the national strategy focusing on policy requirements of the main island. On the other hand, Gozo is considered as a "by-product". This has been linked to the fact that frequently government located at the core have different priories and policies from those of periphery (Chaperon and Bramwell, 2013). The lack of attention given to Gozo is also confirmed through limited promotional efforts with brochures having a disproportionate focus on Malta (Chaperon and Bramwell, 2013). On a related note, the communities on the peripheral island recommended promotion of the islands as a separate destination. This has also come as a reaction to the inactivity of the central government in terms of promotion and the limited number of tourist. In this regard, it has been argued that the involvement of the local community is also crucial in terms of marketing (Chaperon and Bramwell, 2011).

Views on tourism development may vary between community and tourism actors at the periphery and those at the core (Chaperon and Bramwell, 2011). According to Gozitans, Maltese authorities purposely oppose any big tourism schemes with the excuse of conservation. Concerns have also been raised by authorities in Malta on the drive among Gozitans to emulate Malta which is considered to be damaging for their tourism product (Chaperon and Bramwell, 2013). In such circumstances a sense of envy resulting from tourism development and benefits at the core have been noted between the periphery and the core (Chaperon and Bramwell, 2011). Considering the opposing views of the core and the periphery in terms of tourism development, balancing the opinion of both island's community by involving and hearing stakeholders from both is a necessity for long term success (Bardolet and Sheldon, 2008). However, this is easier said than done considering that islands have different interests making stakeholder involvement in tourism planning challenging (Sheehan and Ritchie, 2005). Meanwhile research conducted in peripheral areas has earmarked the comparative advantage of developing niches such as diving, cycling and trekking which are not always possible at the core (Chaperon and Bramwell, 2011; Nash and Martin, 2003).

The study of Chaperon and Bramwell (2011; 2013) demonstrates dissatisfaction in terms of tourism policy at the periphery. This has also been reported in other literature. Due to the fact that the core often exerts power over the periphery, dissatisfaction develops within small islands (Paddison, 1983). This has been associated with inadequate budget allocations, neglect, exploitation and domination including in tourism policy leading to resentment by the smaller islands towards the core (Jordan, 2004; Weaver, 1998).

According to the study conducted by Chaperon (2009) tourism policy of the periphery was found to be influenced by political powers at the core as indicated in core-periphery theory reported by Weaver (1998). Meanwhile, whereas emphasis is normally made on the fragility of the periphery in terms of governance, in other instances, the common portrayal of peripheral islands being totally dependent on the core of the subordinate island was challenged. In fact (Chaperon and Bramwell, 2013) speak of the danger that dependence in the core-periphery relations is applied in a manner portraying the core as inevitably determining. The same study found that whereas Gozo exhibited dependency on Malta with respect to tourism development, actors on the peripheral island of Gozo still managed to exert influence on the tourism industry and possessed "agency" despite experiencing substantial structural constraints in terms of governance.

2.3 Ecotourism: Definitions and Components

There has been confusion on the etymology of the term 'ecotourism' (Fennell, 2014). What is definite is that since its inception, several definitions have been put forward to the extent that over eighty-five variations have been identified (Fennell, 2001) with the number being still on the rise (Goeldner and Brent Ritchie, 2009). The development of ecotourism definitions over the years was accompanied by an evolution in the way the term is defined. Emphasis has varied over time (Fennell, 2001) and in fact there is a substantial difference in modern definitional focus (Donohoe and Needham, 2006). Whereas early definitions were descriptive in nature and focused on aspects related to nature and learning in the natural environment (Beaumont, 2011), discussion in literature on definitions has expanded to include ethics, sustainability, educational aspects, conservation along with impacts and local benefits (Björk, 2000; Fennell, 2001).

Such proliferation of definitions can be explained by the fact that ecotourism has been described differently depending on the stakeholder involved, (Conway and Cawley, 2016; Donohoe and Needham, 2006) the cultural context (Buckley, 2013) and the geographical context (Cater, 2006; Conway and Cawley, 2016; Fennell, 2001; Okech, 2012). In the case of the latter, Okech (2012) and Weaver (2001a) differentiated between ecotourism taking place in different geographical contexts and described ecotourism taking place in western Europe as one which finds its roots in rural tourism and which is also seen as a form of sustainable and local impact tourism. However, there seems to be no attempt in literature to define ecotourism from a Mediterranean or central Mediterranean perspective.

To complicate the situation further, due to a lack of understanding, a number of terms have unintentionally been misused to refer to the term ecotourism. Such terms include geotourism, low-impact tourism, soft tourism, responsible tourism (Goeldner and Brent Ritchie, 2009), nature-oriented tourism, nature tourism, environment friendly travel, green tourism, dive tourism (Valentine, 1991; Miller, 1993) sustainable tourism, alternative tourism, adventure tourism and other terms which include elements of environmental education (Ceballos-Lascurain, 1987; Cooper *et al*., 2008).

Whereas there is no agreement on a standard or precise definition for ecotourism (Black and Crabtree, 2007; Weaver, 2008), analysis of the various definitions such as those conducted by Fennell (2001), Higham and Lück (2002) and Donohoe and Needham (2006) reveal that the various definitions refer to common diagnostic features also referred to as components (Donohoe and Needham, 2006). As the basic principles of ecotourism definitions are almost the same (Björk, 2000), there is near consensus among stakeholders that genuine ecotourism should effectively fulfil three main core principles: it must be nature based, oriented towards sustainable development and educational/interpretative (Beaumont, 1998; Blamey, 1995; Blamey, 2001; Garrod and Wilson, 2004; Weaver, 2008). Weaver and Lawton (2007:1170) describe these three principles as follows:

> *"(1) ecotourism activities and attractions should be predominately nature-based,*
> *(2) interaction of visitors with the attractions should include adequate interpretation and should be focused on learning or education, and*
> *(3) principles and practices of ecological, socio-cultural and economic sustainability should be adhered to throughout the experience and product management*."

As in the case of definitions, the three main principles of ecotourism have been remodelled and applied to different regions. One example has to do with attractions which normally tend to focus on rather pristine ecosystems and wild endemic or native charismatic megafauna that inhabit such ecosystems. In some cases, depending on the site, charismatic megaflora (such as trees) and megaliths (such as volcanoes, cliffs) are also included as attractions. Yet in some regions where such mega attractions are lacking, other micro attractions have been identified to serve as flagship species confirming that nature-based attraction parameters should not necessarily focus on megafauna (Lee, Lawton and Weaver, 2013). These include bats (Weaver and Lawton, 2007) butterflies and dragonflies (Harvey Lemelin, 2007), reptiles and amphibians (Wollenberg *et al*.,

2011) birds (Glowinski, 2008) and relatively small plants such as orchids (Pickering and Ballantyne, 2013).

This new approach whereby ecotourism principles rather than a definition are adopted does not resolve all the problems and discussions on the matter. In fact, there is a lack of consensus on the significance, priority and application of such principles (Buckley, 2013). Because of the various interpretations presented, managers and planners in the field of ecotourism face difficulties (Donohoe and Needham, 2005). The absence of definite standards and criteria also has negative implications on quality control within the sector (Donohoe and Needham, 2006). The variation in the level of adherence to the criteria related to ecotourism gives rise to distinctive types of ecotourism (Weaver, 2008). One of the main approaches is the hard-soft approach (Laarman and Durst, 1987; Weaver and Lawton, 2002) based on broad sector outcomes (Weaver, 2006). Hard ecotourism involves small groups of ecotourists who take relatively long specialised trips into relatively undisturbed settings where opportunities for physical and mentally challenging experiences are available. The hard ecotourists generally do not rely on facilitating sectors such as travel agencies and tour operators or services at the destination. Hard ecotourists generally give due importance to ethical considerations and desire to improve the current situation of the destination. On the other hand, soft ecotourists are associated with a more conventional tourist market that engages in mentally and physically unchallenging ecotourism experiences as a short duration component of a multi-purpose trip. They generally prefer a high level of comfort and facilitation during the experience (Weaver, 2006). See Table 2.1 for an overview on the difference between soft and hard ecotourism.

Table 2.1: Characteristics of hard and soft ecotourism as ideal types

Hard (active, deep) ⟵ the ecotourism spectrum ⟶ Soft (passive, shallow)	
Strong environmental commitment	Superficial environmental commitment
Specialised visits	Multi-purpose visits
Long trips	Short trips
Small groups	Larger groups
Physical challenge	Physical comfort
No/few services expected	Services expected
Deep interaction with nature	Shallow interaction with nature
Emphasis on personal experience	Emphasis on interpretation/mediation
Make own travel arrangements	Rely on travel agents and tour operators

Source: Weaver, 2002; Weaver 2008.

2.4 Ecotourism Overlaps with Other Tourism Products and Subtypes

Ecotourism is said to overlap with a number of other tourism products. On the other hand, ecotourism has also developed to an extent that a number of sub-types have been developed. This section gives an account on such aspects.

2.4.1 Ecotourism, Mass Tourism and Mass Ecotourism

Due to new market and lifestyle trends such as going green, natural settings which tend to also be ideal sites for ecotourism have become popular tourist destinations (Cooper *et al.,* 2008). Yet ecotourism does not thrive in destinations which become so popular that they end up destroying the very environment that should be protected on the basis of its principles (Goeldner and Brent Ritchie, 2009). Whereas ecotourism is normally considered to be a low-scale activity that keeps preservation of the natural environment at its core and a form of tourism that serves as an agent to prevent or inhibit uncontrolled development, as with all tourism activity it can also lead to the development of mass tourism. In situations whereby all ecotourism aspects are incorporated into a single tourism product, the latter will not be attractive for mass tourists who seek 3S vacations (Cooper *et al*., 2008). Yet, the possibility of ecotourism to occur in the form of mass ecotourism whereby ecotourism activity can be practised on a large scale while allegedly respecting the core criteria of ecotourism has been acknowledged (Weaver, 2005; Weaver, 2006; Kontogeorgopoulos, 2004). Soft ecotourism in particular has been widely regarded as the "surreptitious or impending form" of conventional mass tourism (Weaver, 2005) and soft ecotourists have been associated with conventional mass tourists (Weaver, 2006).

The overlap between ecotourism and 3S tourism has been supported by the argument that there are ecotourism activities that play a role as a form of mass tourism (Johnson, 2006; Weaver, 2008). A case in point are ecotourism excursions practised in marine settings and considered to be important components of mass tourism. For instance marine activities such as SCUBA diving, snorkelling and submarine tours are related to 3S tourism but provided that they are carried out in a sustainable manner, one cannot find any reason not to consider them as ecotourism activities as they involve learning about the marine environment and are carried out in a natural setting (Johnson, 2006).

However the boundary, overlap or conjunction between (soft) ecotourism and conventional mass tourism is ambiguous (Sharpley, 2006; Weaver and Lawton, 2007) and controversial (Weaver, 2008) and hence there has been increased discussion and speculation on the relationship between the two sectors (Sharpley, 2006). In fact, the concept of mass ecotourism has also been rejected by a number of researchers such as Orams (2002) who views ecotourism as a distinct form of tourism to mass tourism and others who oppose such a concept on the premise that ecotourism is in actual fact a sub-set of alternative tourism (Boyd, 2000; Fennell, 2003).

2.4.2 Ecotourism in the Context of Other Tourism Types

Whereas when one takes into consideration the principles of ecotourism, clear differences between ecotourism and other forms of tourism emerge, one can still find a relationship/overlap between ecotourism and other forms of tourism. Ecotourism is considered to be a subset of sustainable tourism since as implied by one of its core principles, any ecotourism activity must also encompass sustainable practices (Anderson, 2009). Ecotourism is also considered to be a subset of alternative tourism (Orams, 2002) as it overlaps with alternative tourism forms such as cultural, agritourism/rural, adventure, nature, educational and scientific tourism (Anderson, 2009; Mieczkowski, 1995) as shown in Figure 2.1.

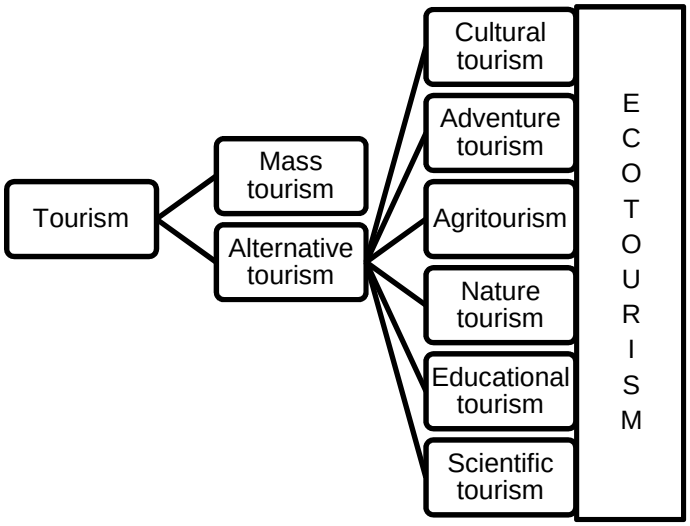

Figure 2.1*: Overlap of Ecotourism with other tourism forms. Source: Anderson, 2009; Mieczkowski, 1995.*

As outlined earlier, several discussions have ensued on whether the term ecotourism should apply to nature tourism in general or to a more specific type of nature tourism (Fennel and Eagles

1990, Ceballos Lascuráin, 1993). Whereas overlaps do exist, there are major differences between ecotourism and such alternative forms of tourism. Therefore differentiating ecotourism from other types of nature related tourism such as wildlife tourism is necessary in order to avoid confusion (Beeler, 2000). Figure 2.2 shows the relationship between nature-based tourism, ecotourism and wildlife tourism whereas Table 2.2 outlines major differences and similarities between them.

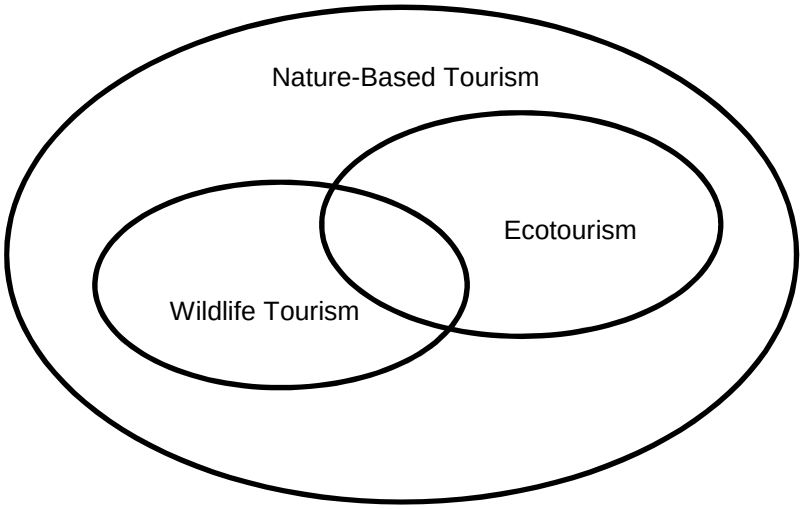

Figure 2.2*: The relationship between nature-based tourism, ecotourism and wildlife tourism. Source: Burns, 2010.*

Table 2.2: Differences and similarities between ecotourism and nature/wildlife tourism.

Ecotourism	**Nature tourism**
Uses the resources and seeks to contribute to it.	Uses natural resources.
Requisites include being nature based, sustainable and educational.	Requisite is limited to being nature based.
Ecotourism	**Wildlife tourism**
Composed of non-consumptive activities only (watching wildlife).	Composed of consumptive (fishing and hunting) and non-consumptive activities.
Excludes unnatural areas which endorse captivity practices.	Based on nature but can take place in unnatural settings such as zoos.

Source: Blamey, 1995; Burns, MacBeth and Moore, 2011; Curtin, 2005; Fennell, 1999; Fennell, 2014; Goodwin, 1996; Lovelock, 2008; Newsome, Dowling and Moore, 2005; Wallace and Pierce, 1996; Weaver, 2008.

2.4.3 Subtypes of Ecotourism

The evolution of ecotourism can be confirmed by the fact that literature in the field has experienced 'speciation'. This implies that the once relatively homogenous product of ecotourism experienced segmentation leading to the development of new sub-fields along with related issues and research themes which include management, planning and marketing (Weaver and Lawton, 2007; Weaver, 2011).

2.4.3.1 Marine Ecotourism

One example is the development of the extensive sub-segment of marine ecotourism (Cater and Cater, 2007; Garrod and Wilson, 2003). Marine ecotourism refers to ecotourism that takes place in marine and coastal environments, mostly in areas considered to be 'peripheral' in spatial, temporal and economic terms (Garrod and Wilson, 2004). More recently, Sakellariadou (2014) defines marine ecotourism as a form of responsible travel to coastal and/or marine settings for environmental conservation, improvement of natural resources and to support the well-being of local communities. This segment of ecotourism saw the emergence of more specific activities including SCUBA diving and cetacean watching. In turn, the latter is now known as a major subsector in its own right with increasing differentiation made between vessel-based and land-based activity and between interactions involving whales and dolphins (Weaver and Lawton, 2007; Weaver, 2008).

Marine ecotourism cannot be regarded as an isolated alternative to conventional tourism but should be seen in the context of other economic activities, as its success depends on how such economic activities influence it. Thus, it is important that marine ecotourism is viewed in the context of marine nature-based tourism as unethical nature-based operations may impact genuine marine ecotourism. Marine ecotourism should also be seen in the context of other tourism segments that depend on the marine environment and which thus have an impact on it. One should not overlook the impact of other economic activities including agriculture, fisheries, aquaculture, oil and gas extraction, water pollution, construction, shipping and the presence of protected areas and their management on marine ecotourism. Furthermore, the global scenario, including global warming, should not be excluded as this has an impact on wildlife (Cater, 2003; Cater and Cater, 2007; Garrod, Wilson and Bruce, 2001).

Marine ecotourism has been touted by Garrod and Wilson (2004) as a means to address the economic and social challenges of peripheral areas. This is due to a number of reasons including the fact that marine ecotourism can offer a more sustainable development alternative in response to the decline of other economies such as commercial fishing. Moreover, it can be practised in peripheral areas due to the pristine natural resources (including marine related) that are highly sought after by marine ecotourists. Additionally, ecotourism can offer the opportunity to redeploy unemployed or under-employed resources and also help address the seasonality problems faced in peripheral areas. Furthermore, ecotourism can serve as a product diversification measure with only modest levels of investment. Last but not least, ecotourism can address challenges in such areas since it is characterised by low expenditure leakage as those engaging in marine ecotourism tend to consume local products and make use of local services.

It has also been pointed out that whereas marine ecotourism can be seen as a panacea, it cannot address all environmental, social and economic challenges of peripheral areas on its own. This is due to a number of pitfalls including the fact that marine ecotourism is over dependant on the global tourism industry. These include airlines in terms of accessibility and international tour operators for marketing. As a result, incidents and changes in the priorities of investors are a risk. Planning and regulation in marine ecotourism is also challenging due to **transboundary issues** as marine negative impacts are highly mobile and not contained within an area leading to a scenario whereby irresponsible behaviour in one area, tourism related or otherwise, marine or terrestrial, might have an impact in another area where marine ecotourism is practised (Cater and Cater, 2007). In addition, there is lack of knowledge on the biology of target species and the impact marine ecotourism may have on such species. One other reason why ecotourism cannot address all challenges of such areas is the fact that the involvement and participation of the entire local community is difficult in peripheral areas. Finally, there is stiff competition in the ecotourism market and it is challenging to attract repeat visitors (Garrod and Wilson, 2004).

Peripheral areas are at times already over dependant on tourism. Ecotourism is another form of tourism and reliance on marine ecotourism could lead to increased reliance on tourism with all the associated risks. In this regard, it has been concluded that marine ecotourism can only realistically address the challenges of peripheral areas if forming part of a wider sustainable development strategy (Garrod and Wilson, 2004). This echoes claims made by others that ecotourism can serve to diversify the tourism product and instil within mainstream tourism the principles and practices of ecotourism (Honey, 1999; Weaver, 2008).

Owing to its relevance to the study, the sub-segment of marine ecotourism will be further discussed in respective sections below in terms of venues, activities, impacts (especially those on peripheral areas and communities) as well as vis-à-vis policy and planning.

2.4.3.2 Other Subfields

Several other subfields that fall under the umbrella of ecotourism have been identified in literature. One in particular which is on the rise (as confirmed by the increase in the number of volunteer tourism organisations and activities worldwide) is volunteer tourism (also known as voluntourism or volunteer ecotourism) (Brown and Morrison, 2003). This involves travelling for leisure but also to contribute personal time and income to conservation/restoration projects or for the benefit of the environment or to alleviate poverty or conduct research on the society / environment (Brown and Morrison, 2003; Dowling, 2013; Rattan, Eagles and Mair, 2012; Weaver, 2008). This generally takes place under the auspices of conservation or development organisations (Bakker and Lamoureux, 2008). Volunteer activity in ecotourism includes maintenance of pathways, litter collection, and assistance with research (Hovardas and Poirazidis, 2006). Doubts have been raised on the motivations of such a form of ecotourism as regardless of the altruist behaviour of participants, ecotourists might have certain expectations in return for their contributions (Nolan and Rotherham, 2012).

Weaver (2011) pushes forward the recognition of 'celestial ecotourism' as a distinct and significant subsector of ecotourism. 'Celestial ecotourism' has been defined by Weaver (2008) as ecotourism where the interest of visitors revolves around the observation and appreciation of naturally occurring celestial phenomena. Appealing *megacaela* (i.e. 'megaskies') capable of attracting specific 'celestial ecotourists' and other audiences can be classified by time of day and include nocturnal (such as stars and the moon), diurnal (clouds and rainbows) and crepuscular (sunrises and sunsets) settings (Weaver, 2011). Birdwatching tourism also known as avitourism is considered to be one of the fastest growing segments of ecotourism (Biggs, 2013). It is best practised in sites with a high abundance of bird species, where adequate infrastructure (such as hides and watchtowers) and information is in place and where ecosystems are well protected (Kronenberg, 2016). A major obstacle to practice this form of ecotourism is access to terrain due to land tenure rights (Harwood and Noske, 2014). Wildflower tourism (flower gazing) is also considered as a main sub-field of ecotourism (Weaver, 2008). It has been defined as travelling to a natural attraction or destination with floral splendour as the main motivation or reason (Laurens, 2009). Another sub-field includes bat-based ecotourism (Weaver and Lawton, 2007).

2.5 Ecotourism Venues, Activities and Services

2.5.1 Ecotourism Venues

The ecotourism venue plays an important role for the ecotourism experience to be successful (Newsome, 2013) and consequently due attention has been given to this topic in ecotourism literature. Whereas it has been controversially argued that ecotourism can also be practised in urban settings provided it respects ecotourism principles (Sarlat, García and Wood, 2013), most ecotourism activity takes place in natural environments (Buckley, 2002a) such as public protected areas (Weaver and Lawton, 2007). The latter are increasingly becoming important sites for ecotourism worldwide (Mkiramweni, DeLacy, Jiang and Chiwanga, 2016) and are considered to be the most important setting for ecotourism by far (Buckley, 2009). These tend to have important ecotourism related characteristics including outstanding natural attractions, legislative frameworks that ensure the preservation of the attractions and interpretation facilities that facilitate sustainable interactions between visitors and the natural environment (Weaver, 2006). Whereas such areas are generally public, private protected areas do exist and practicing ecotourism in such sites is also possible (Weaver and Lawton, 2007). On the other hand, ecotourism cannot be practised in all protected areas as some are managed through rigorous protection measures and the only permitted activity within them is research (Weaver, 2008).

Among the most popular of protected areas one finds the various Natura 2000 sites, an EU-wide network of nature protection areas (European Commission, 2014). Like other protected areas, the Natura 2000 network is not limited to strict protection and conservation measures excluding any possible human activity (European Commission, 2017a). In fact, most of the Natura 2000 sites found across Europe have been earmarked as sites were tourism activity can take place in a managed way (Weaver, 2008). Furthermore, Natura 2000 sites have been identified by various stakeholders, including the general public (Dimitrakopoulos *et al*., 2010) and academics, as ideal ecotourism destinations with great potential to practice ecotourism activities (Cruz, Benedicto and Gil, 2011; Dimopoulos, Bergmeier and Fischer, 2006). Benefits of the use of protected areas for specific forms of tourism, such as ecotourism, have been identified (Dimitrakopoulos *et al*., 2010). These will be discussed in detail in section 2.8.

MPAs have also been identified as ideal sites for marine tourism and ecotourism (Agardy, 1993; Gerovassileiou *et al*., 2009). Most of such MPAs in the Mediterranean are located around or adjacent to islands (Francour, Harmelin, Pollard and Sartoretto, 2001). Various benefits have

been associated with the institution of MPAs especially those arising from ecotourism. MPAs are said to have the potential to raise the environmental and socioeconomic profile of a coastal or insular region and promote sustainable tourism (López Ornat, 2006; Dalias, Lenfant, Licari and Bardelletti, 2007). These benefits will be discussed in detail in section 2.8.

Current challenges for tourism development in protected areas remain the identification of management opportunities that maintain wildlife resources while minimising restriction of human actions (Ferrarini, Rossi, Parolo and Ferloni, 2008). In fact, a balance between nature conservation and tourism development within protected areas is becoming an increasingly complex problem (Parolo, Rossi, Ferrarini, Pedrini and Folatti, 2009). On a European level the EUROPARC Federation, an environmental NGO representing a network of European protected areas, has attempted to tackle this challenge by developing the *European Charter for Sustainable Tourism in Protected Areas*, a practical planning and management tool that enables protected areas to enhance sustainable tourism in protected areas (EUROPARC Federation, 2015). Meanwhile, to date, there have been 131 protected areas from 16 countries registered but none fall in the area of study (EUROPARC Federation, 2015).

With respect to coastal and marine protected areas, management challenges also revolve around finding a balance between the protection of habitats and allowing for the development of marine ecotourism opportunities, which already occur at a modest level (Hoyt, 2005). One way of achieving this has been through the delineation of zones to encourage tourism and minimize conflicts with other uses (Salm, Clark and Siirila, 2000). In the case of island associated MPAs, optimum zoning maximizes protection, while minimizing space restrictions for anthropogenic use such as small-scale commercial fishing and ecotourism activities such as turtle-watching (Schofield *et al*., 2013). Whereas management issues are given due attention in literature, several protected areas face a common problem: underfunding (Dlamini and Masuku, 2013). As a result, several of these areas lack the infrastructure and resources needed for efficient management and end up being just ‘paper parks’ (Dharmaratne, Yee Sang, and Walling, 2000; Wilkie and Carpenter, 1999).

Whereas most ecotourism takes place in protected areas, it is not restricted to such areas (Garrod and Wilson, 2004) as areas which lack designation might still have ecotourism potential (Blamey, 1997). Another issue which concerns ecotourism venues is the size of the sites themselves. Little attention has been given to this aspect in literature. Yet Weaver (2001a) points out that the western European ecotourism sector is characterised by densely populated areas which have

been extensively modified by human activity and thus ecotourism activities tend to take place in relatively small natural areas.

With respect to marine ecotourism destinations, islands have been widely regarded as ideal venues (Halpenny, 2001; Sakellariadou, 2014). Small islands in particular have been considered to be special places for modern ecotourists (Bevan and Conolly, 2013). A major attraction of islands as ecotourism destinations is attributed to their remoteness and insularity which generally ensures not only the conservation of traditions but also pristine ecosystems (Hall and Page, 2006) considered to be the core element of ecotourism (Weaver, 2008; Zeppel, 2006). Furthermore, remoteness can make an island more attractive and exotic especially in the case of small islands (Gössling, 2003; Scheyvens and Momsen, 2008). In fact, the aptly termed 'Robinson tourism' in which tourists search isolation and peace in an intact environment is becoming very popular (Opačić, Favro and Perišić, 2010).

Furthermore, the physical separation of islands from the mainland gives rise to a number of special insular aspects that influence the development of ecotourism. One such factor is the presence of distinguished ecosystems due to endemism. The latter may occur when an area is isolated from other areas for a long period of time and involves the evolution of species which are found only in that particular place (Weaver, 2008; Quammen, 1996). In the ecotourism context this means that an ecotourist will have to visit that particular place in order to see that particular species. This monopoly is however only significant if there is a market demand for the observation of a specific plant or animal. Meanwhile this also raises issues of the necessity to avoid inappropriate and unsustainable tourism since other elements of the environment found on islands can be found nowhere else. Furthermore, the geographical and ecological distinctiveness of islands both contribute to a strong sense of place so that increasingly ecotourism is advocated as an activity that promotes the understanding of an island's very identity. Other aspects that influence the development of ecotourism on islands include proximity to coastal ecosystems and related opportunities and the existence of other forms of tourism (Weaver, 2008).

2.5.2 Ecotourism Activities

Several ecotourism activities have developed over the years (Weaver, 2008). Such activities vary and can be expressed in various ways such as staying in an ecolodge within or adjacent to a natural area, a bus tour through a park, guided walks and independent visits to view natural attractions (Newsome, 2013).

Ecotourism activities include wildlife watching (Newsome and Rodger, 2013) such as bird watching (Weaver and Lawton, 2007), feeding of wildlife (Newsome and Rodger, 2013), wild flower gazing (Newsome, 2013), nature photography, outdoor research, outdoor environmental education, guided walks, celestial ecotourism (sky gazing, star gazing), trekking (hiking), camping, (Weaver, 2008; Weaver, 2008) mountaineering, cycling/mountain biking, horse trekking/riding, scenic tours, cultural/historical tours/visits, viewing landscapes and particular landforms, geological/volcanic tours (Newsome, 2013), caving and farm tours (Higham and Dickey, 2007; Newsome, Milewski, Phillips and Annear, 2002).

Marine ecotourism activities can be practised in both coastal and marine environments (Sakellariadou, 2014) and involves a number of modes of participation and may involve multiple targets as shown ion Figure 2.3. Such activities include interacting with wildlife such as feeding wildlife and swimming with marine mammals such as dolphins. Further marine ecotourism activities include underwater photography, canoeing, sea kayaking, sailing and watching wildlife (including whales, dolphins, turtles, seals and birds) through various means such as on-shore via fixed viewing platforms and hides or on-board vessels. Trails (underwater, coastal hiking and boating), visits to marine museums and interpretation centres along with disputable catch and release fishing have also been considered as marine ecotourism activities. Two major marine ecotourism events are snorkelling and SCUBA diving (Halpenny, 2001; Higham and Dickey, 2007; Newsome and Rodger, 2013; Rodger, Smith, Newsome and Moore, 2011; Weaver, 2008; Weaver, 2008). Whereas the latter has been a strong tourism attraction of other regions it is now rapidly becoming more popular along Mediterranean coasts (Milazzo, Chemello, Badalamenti and Riggio, 2002). Marine ecotourism also involves visiting heritage sites of coastal communities including submerged archaeological sites, artefacts and shipwrecks (Sakellariadou, 2014). Thalassotherapy, the medical and therapeutic use of seawater, sea products and shore climate (Charlier and Chaineux, 2009), in the form of showers of warmed seawater, application of marine mud and inhalation of sea fog are also included in the vast list of marine ecotourism activities (Sakellariadou, 2014).

As one can note from the activities outlined above, most ecotours include a myriad of activities and integrate with ecotourism other activities which overlap with other forms of tourism such as culture and adventure (Higgins, 2001; Weaver 2001a). Sometimes some ecotours include experiences which are less associated with ecotourism such as wine tours, astrology and volunteering (Higham and Dickey, 2007) in order to attract a bigger market in an attempt to make the business more viable, to increase profits and to mitigate seasonality patterns experienced by

the sector (Warren and Taylor, 1994). A growing number of ecotourists also see local traditions and lifestyle as a core component of their ecotourism experience (Weaver and Lawton, 2007).

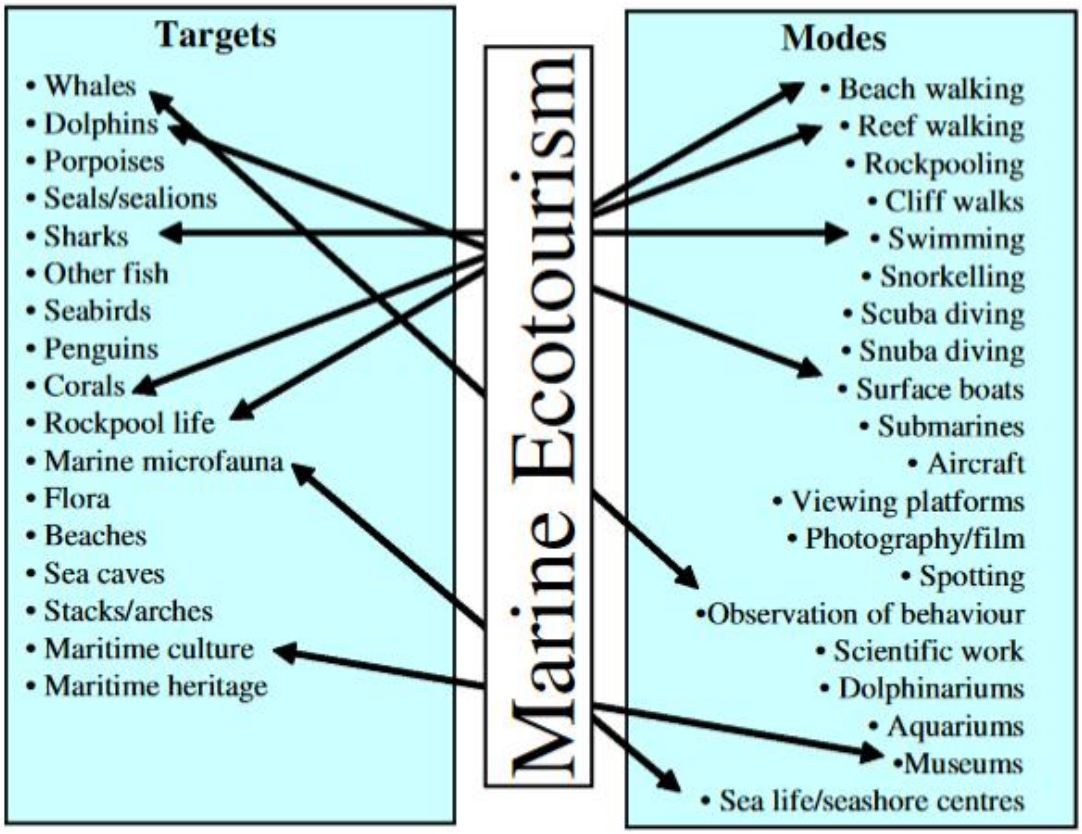

***Figure 2.3**: Targets and modes of marine ecotourism. Source: Garrod and Wilson, 2004.*

Some operators tend to offer general tours whereby the focus is the general natural environment and scenic views. Others organise more specialised activities possibly revolving around one activity such as bird watching (Higham and Dickey, 2007), bat-based ecotourism (Pennisi, Holland, and Stein, 2004), volunteering (Dowling, 2013), wildflower tourism (flower gazing) (Weaver, 2008) and urban ethno-ecology (guided tours that showcase medicinal and edible plants in urban areas) (Sarlat *et al*., 2013).

Studies have shown that tourists with a high zoological interest are willing to pay higher prices for specialised biodiversity high-quality tours (Wollenberg *et al.*, 2011). Tours to observe specific species have been given due attention in ecotourism literature. One example is the organisation of specific tours to observe orchids (a highly diverse, rare and charismatic group of plants) in protected areas (Pickering and Ballantyne, 2013). In yet another specific example Harvey Lemelin

(2007) says that charismatic microfauna such as butterflies and dragonflies can play a flagship role in ecotourism and attract visitors to protected areas as they serve as an excellent subject for nature interpretation programmes (Cannings, 2001). Even if such a potential is underexploited, amphibians and reptiles, known collectively as herpetofauna, hold ecotourism potential and play an important role as a pull factor for the sector, attracting ecotourists interested in herpetofauna-related activities, increasing the enjoyment of ecotourists visiting protected areas and the time spent by tourists in protected areas (Wollenberg *et al.*, 2011). Observing target species during excursions is not always successful, yet, this does not necessarily translate into visitor disappointment. Cases have been reported whereby even if target species were not observed during the excursion, ecotourists were still enticed by the species and related conservation projects to the extent that they also contributed financially to support the protection of the species (Deemer, 2014).

Due to the rising demand for ecotourism experiences, some have proposed the need to widen the scope of ecotourism (Higham and Lück, 2002) beyond its founding principles by challenging the 'consumptive/captive exclusion' principle implied in most (if not all) ecotourism definitions (Weaver and Lawton, 2007). Such attempts included efforts to include recreational angling (Weaver, 2008) and hunting (Gunnarsdotter, 2006). Visits to semi-natural and captive animal settings and the feeding of captive animals (Newsome and Rodger, 2013) such as petting zoos, aquaria, animal theme parks and specialised collections of reptiles, mammals, birds, insects or fish (Burns *et al*., 2011; Fennel, 2012) have also been controversially considered by some as ecotourism activity. Yet such ideas have been challenged on the grounds of ethical considerations (Fennell, 2013) and since ecotourism principles are not respected in such cases (Burns *et al.*, 2011; Fennell, 2014). For instance in the case of marine settings, whereas education is a major component of marine mammal tours in the wild (Lück, 2003), entertainment is the main motivation of marine park visitors (Wright and Kelsey, 1990).

2.5.3 Ecotourism Services

Ecotourism businesses range from specialised enterprises, such as those providing accommodation services in ecolodges (Fennell and Markwell, 2015) to other non-specialised companies such as conventional hotels and travel agencies that from time to time serve ecotourists and/or provide ecotourism products (Weaver and Lawton, 2007). This further strengthens the argument of the role ecotourism can play in making tourism in general more

sustainable as the desire by general tourism operators to cater for ecotourists would require such enterprises to embrace ecotourism principles of sustainability.

Whereas operations in the field of ecotourism can be run by a range of companies from small business to corporations (Weaver and Lawton, 2007), typically ecotourism businesses are small scale, family/owner run, undercapitalised and highly seasonal (Warren and Taylor, 1994). Unfortunately, literature identifies a high rate of failure in the case of small businesses working in the field of ecotourism (Weaver and Lawton, 2007). Yet, a number of cases in literature also refer to situations whereby small informal initiatives developed into professional commercially viable operators such as those in the field of ecotourism guided walks (Cheung, Cheung and Tao, 2013; Sarlat *et al*., 2013). According to Higgins (2001), there has been a growing role of non-profit organisations and university travel groups offering outbound ecotours. Whereas some operators tend to offer services within the destination from where they operate most of their services, others also offer additional ecotours to other destinations (Higham and Dickey, 2007).

A challenge related to the theme of ecotourism businesses is the lack of availability of services all year round (Warren and Taylor, 1994). This is possibly related to the lack of consistent demand as although ecotourism practices are established on some Mediterranean islands, tourists' requests for ecotourism related services and products, as a primary product, has not been in high demand. In fact, visits by most ecotourists to Mediterranean islands tend to be of an occasional nature and in most cases requests for services and products come from tourists also engaged in other forms of tourism throughout their visit (Anderson, 2009; Diamantis, 2000). This also has an impact on the local community as tourism also influences employment. In the case of islands, some prefer intensive work for two thirds of the year rather than all year round employment in response to tourism seasonality (Vogiatzakis *et al*., 2008).

Ecotourism operators play an important role in ecotourism as they act as mentors and guardians of ecotourism (Fennell and Weaver, 2005). In an account about a successful and award winning ecotourism operator, Green (2013) says that ecotourism operators should reflect the ideals of ecotourism in product design and delivery. Thus they should be nature-based, provide adequate interpretation and fulfil sustainability including being environmentally friendly while contributing to the local community. Steps taken may include measures to minimise and recycle waste, use recyclable material, use local products to reduce carbon footprint and increase interest of ecotourists in the food provided, use alternative energy, collaborate with other local operators along with purchasing and hiring through local markets (Bustam *et al.*, 2012; Green, 2013).

As outlined above, accommodation in ecolodges is an important component of the industry. In fact, a relatively large number of operators include accommodation in their ecotourism product, either as a core element of the main attraction or as an add-on (Higham and Dickey, 2007). With the development and rise of ecotourism, the ecolodge emerged as an important component of the specialised ecotourism industry (Gardner, 2001) and thus this business is expected to grow further (Kwan, Eagles and Gebhardt, 2010). The ecolodge is a "*nature-dependent tourist lodge that meets the philosophy and principles of ecotourism"* (Russell, Bottrill and Meredith, 1995:147) including the wider perspective of sustainability and the provision of interpretation (Mehta, Beaz and O'Loughlin, 2002). The ecolodge is associated with a number of features including its small size, location within or close to the protected area and key attractions designed to blend in with the natural and cultural environment, utilisation of green buildings and energy technologies comprehensively (and is therefore an environmentally sustainable operation) (Gardner, 2001), unique in style, offers basic comfort, is privately-owned (rather than being part of a chain) and provides educational programmes (Fennell, 2007; Kwan *et al*., 2010). Since most ecolodges are owned and operated by local communities or small entrepreneurs, using an ecolodge as part of the ecotourism activity has its benefits (Weaver, 2008) as through their use one directly sustains the local community by providing local employment and assisting the local economy. Ecolodges are also often important in preserving and promoting natural and cultural heritage (Kwan *et al*., 2010). Even though this is typical accommodation for ecotourists (Nee and Beckmann, 2011) and a high profile symbol of ecotourism, Weaver (2008) observes that the majority of ecotourists usually stay in conventional hotels which are situated close to protected areas.

Another important ecotourism related service which is itself a key component of ecotourism is interpretation (Fennell, 2001; Weiring and Niel, 2009). Its importance is underlined by the fact that it is one of the defining characteristics of ecotourism (Armstrong and Weiler, 2002) as outlined in numerous ecotourism definitions (Botha, Saayman and Kruger, 2016). It has been defined as an educational activity that seeks to develop intellectual and emotional connections between the visitor and the natural and cultural environment (Armstrong and Weiler, 2002).

Good interpretation during an ecotourism experience has been associated with several benefits that parks and protected areas aim for. These include making ecotourists more sensitive towards the environment thus positively affecting visitor behaviour both off site and on site (Moghimehfar, Halpenny and Ziaee, 2014; Weaver and Lawton, 2007), enhancing ecotourists' appreciation of the area (Wearing and Neil, 2009) and increasing the support and contribution for conservation and protection of endangered species (Zeppel and Muloin, 2008). Interpretation also enhances

the experience of ecotourists facilitating customer satisfaction (Ballantyne, Packer and Sutherland, 2011; Moscardo, 1998; Saayman, 2009; Sarlat *et al.*, 2013; Weaver and Lawton, 2007). It also extends the time spent at the destination by an ecotourist and encourages positive testimonials of the experience through word of mouth, which naturally leads to increase in sales and revenue (De Rojas and Camarero, 2008; Hwang, Lee and Chen, 2005; Lee, 2009; Zeppel and Muloin, 2008).

When it comes to interpretation, various definitions and types of classifications have been presented (see Botha *et al*., 2016). Interpretation can be provided both on site and off site. Whereas pre-experience interpretation has not been given due attention in literature, it has an impact on the ecotourists and host site (Bustam *et al*., 2012). Interpretation material most commonly used to communicate the main features of the ecotourism experience include self-guided resources such as fliers, audio devices, e-books (Green, 2013), guidebooks, the internet, word of mouth, the use of visitors' centres and signage (Bustam *et al*., 2012; Zeppel, 2008). The latter provide an important tool for enhancing the visitors' knowledge and understanding during a natural area experience (Hughes and Morrison-Saunders, 2002). Inaccurate and misleading information through signage denies visitors a quality and beneficial learning experience (Twidale and Bourne, 2003). Other commonly used means of interpretation is the use of guides during tours (Bustam *et al*., 2012; Zeppel, 2008). Due to their knowledge, local guides play an important role in providing information to locate wildlife yet drones may also start to support ecotourists in such ventures. Drones can also be used to provide guiding and interpretation through downloadable applications and headphones (King, 2014).

Knowledge about ecotourism among ecotourists is not something that should be taken for granted. There were cases when ecotourists lacked such knowledge (Wurzinger and Johansson, 2006). This further sustains the importance of interpretation during ecotours. Cases whereby operators promoted an excursion such as bird watching on which they had little expertise have also been the case in ecotourism. Such incidents confirm that whereas not always considered to be essential, high quality guides and experts are necessary for the survival of ecotourism and operators working in the sector (Goodfellow, 2013) and that the role of a guide in the overall success of an ecotourism venture should not be underestimated (Fennell, 2003). Others have also remarked that a safe, high quality experience and rewarding participation in an ecotour depends on a good guide (Fennell, 2003; Sarlat *et al*., 2013).

The ecotour guide has been described as someone employed on a paid or voluntary basis who conducts paying or non-paying tourists around natural (and possibly cultural) attractions areas or sites utilising ecotourism and interpretation principles (Black, Ham and Weiler, 2000; Black and Weiler, 2013). The guide should also play the role of an organiser, group leader, environmental interpreter, motivator, teacher and entertainer (Weiler and Davis, 1993). Guides also need to have safety skills (Priest, 1990). As ecotourists may at times be quite well informed on environmental issues, the guide should have a wide knowledge of natural history and other environmental related issues (Mitchell, 1992). According to Sarlat *et al.* (2013), other good qualities that an ecotourism guide should have include a strong affinity for nature, experience, intimate knowledge of the territory, a multi-disciplinary approach, a pioneering outlook, meditation ethos, the ability to engage the tourist throughout the excursion and professionalism. The training and education of guides is considered to be an important precursor for ecotourism development (Periera, 2005). In this regard, availability of ecotourism guiding training is important. Such courses should seek to enhance the guide's knowledge on ecotourism, biodiversity, relevant local regulations for protected areas and guiding (Cheung and Fok, 2014).

2.6 The Ecotourist

Ecotourists as a segment of tourists do exist and have fundamentally different travel motivations from the conventional traveller (Eagles, 1992). It is thus relevant to understand this type of tourist as for any ecotourism venture to be sustainable, ensuring demand is a must and consequently it is reasonable to study the profile of ecotourists, their motivations, and their attitudes towards ecotourism (Anderson, 2009).

Following the emphasis on seeking to define and identify the principles of ecotourism (Weinberg, Bellows and Ekster, 2002), the focus in ecotourism research started to shift to the profile of ecotourists, their travel preferences and motivations (Thurau, Carver, Mangun, Basman and Bauer, 2007). Yet attempts to define ecotourists, instead of ecotourism, turned out to be neither an easier feat (Buckley, 2010a) nor a straightforward process (Page and Dowling, 2002). This is due to a number of reasons including the fact that the various definitions proposed for ecotourism have made it difficult to segregate ecotourists into a distinct segment of consumers (Page and Dowling, 2002; Weaver and Lawton, 2007). The different motivations and socio-economic characteristics among ecotourists do not help either (Buckley, 2013). To make matters more challenging, the motivations of ecotourists tend to overlap with that of other types of tourists (Wight, 1996).

2.6.1 Profile of the Ecotourist

There have been several attempts to profile the characteristic features of ecotourists (Burn *et al*., 2011). Characteristics used to create such profiles include sociodemographic characteristics, travel characteristics, expectations (Kerstetter, Hou and Lin, 2004), setting, group dynamics (Kusler, 1991), dedication and time (Lindberg, 1991) and trip activities (Mehmetoglu, 2007). For example according to Lemelin, Fennell and Smale (2008), anyone participating in an ecotourism activity is considered to be an ecotourist. Studies have described the ecotourist as wealthy (Fennell, 2014) with a high income (Mowforth and Munt, 2008; Page and Dowling, 2002), high spending (Fennell, 1999; Wilson and Garrod, 2003) and well educated with higher levels of education (Fennell, 2014; Page and Dowling, 2002; Wight, 2001). As expected, ecotourists were also found to be more environmentally aware and active than other consumers (Rawles and Parsons, 2004; Weaver and Lawton, 2002). They tend to be motivated by a specific interest for nature and wildlife (Weaver, 2008; Weaver and Lawton, 2007). Wight (2001) claims that ecotourists predominantly originate from more developed countries. Studies based on geographical segmentation point towards a concentration of the market in Anglo-America, western and northern Europe, and Australia/New Zealand (Eagles and Higgins, 1998). Ecotourists also tend to be serious travellers (they pre-plan their trip and know what they are looking for) with more leisure time in hand thus tending to be long staying (Fennell, 2014; Page and Dowling, 2002). Ecotourists also tend to be frequent travellers, are drawn to tours offering personalised services and prefer to travel in couples or small groups (Wilson and Garrod, 2003). Such characteristics are summarised in Table 2.3.

Table 2.3: Characteristics of the ecotourist.

The ecotourist		
Education and interests	**Economic aspect**	**Travel aspects**
Environmentally aware and active	Originates from developed countries	Prefer to travel in small groups / couples
High level of education	High spending	Pre-plan trip rigorously
Specific interest into nature	High income	Long staying / flexible with timing
	Wealthy	Frequent traveller
		Seek personalised services

Literature also refers to attributes of ecotourists that have been contested. Whereas Diamantis (1999), Page and Dowling (2002), Reingold (1993) and Weaver (2002) argue that ecotourists tend to be predominantly female along with others who also claim a growing dominance of females in ecotourism (Wight, 2001); Fennell and Smale (1992) and Fennell (2007) say that ecotourists tend to be predominantly male. According to Mackay and McIlraith (1997), Page and Dowling (2002), Weaver (2001a) and Weaver and Lawton (2007) ecotourists tend to be older. It has been argued by Kruger, Viljoen and Saayman (2013) that this is due to an increased appreciation of natural events with age. Nevertheless this has also been questioned. In fact a longitudinal study conducted by Fennell (2002) found comparable behaviour and motivation but significant differences in the age and gender of ecotourists. Blamey and Hatch (1998) argue that this variation with respect to gender and age is due to the dependence on the type of ecotourism activity being considered. When it comes to accommodation, Wilson and Garrod (2003) argue that most ecotourists are more likely to use adventure like accommodation, while Weaver (2008) observes that the majority of ecotourists usually stay in conventional hotels.

While one can make assumptions on who the ecotourist is, there are no universal models or guidelines to define the ecotourist. Furthermore, different destinations attract ecotourists with different profiles. Therefore, an ecotourist cannot be defined but can be associated with a set of broad characteristics within which the ecotourist may fit (Page and Dowling, 2002).

2.6.2 Satisfaction and Disappointment

If a tourism experience fails to meet the expectation of the consumer and the expected value for money, ‘repurchase or recommendation’ will be quite unlikely (Murphy, Pritchard and Smith, 2000). On the contrary, if visitor satisfaction is high, the opposite tends to take place (Higham and Lück, 2007). Ecotourists normally exhibit very high satisfaction with their ecotourism experiences as expressed in a number of studies conducted within protected areas (Buckley, 2009; Lawton, 2012). In fact, there has been a tendency whereby visitors express their intention to repeat a visit or to make positive word-of-mouth (WOM or eWOM) referrals potentially encouraging others to visit the site (Higham and Lück, 2007; Crotts, Mason and Davis, 2009; Lawton, 2012; Moscardo, 2004; Ozturk and Hancer, 2008). Satisfaction with the trip experience is said to also affect the willingness of ecotourists to make donations (Ardoin, Wheaton, Hunt, Schuh and Durham, 2016). This general high level of satisfaction has been attributed to the quality of the venues and attractions, the experiences these provide (Fletcher and Fletcher, 2003) and to the general excellent service provided (Tian-Cole, Crompton and Willson, 2002). Furthermore, several

investigations have unsurprisingly identified a correlation between satisfaction and interaction with wildlife (Lawton, 2012).

Disappointing or least satisfying aspects during ecotourism experiences have been related to the lack of wildlife sightings, the management of the facilities such as the boardwalk and visitor centre, lack of time, disruptive behaviour by other visitors (e.g. noise), external land users and weather conditions (Lawton, 2012; Muloin, 1998). As outlined above, there have also been cases whereby lack of wildlife sightings did not influence the satisfaction of the overall experience. Deemer (2014) says that whereas ecotourists did not manage to see the target species during the excursion, they were still enticed by the species and the conservation project to the extent that they also contributed financially to support the protection of the species. This is not a one off case. When reporting on a whale watching excursion Orams (1999a) states that whereas an encounter with wildlife was outlined as a factor that would have enhanced the quality of the experience, high levels of satisfaction were also recorded by participants even if whales were not sighted.

2.6.3 Motivations and Expectations

Whereas the motivations of ecotourists need to be constantly investigated as these are not absolute and change over time (Kwan *et al*., 2010; Talsma and Molenbroek; 2012), knowing the motivations for visitors to travel to a destination is useful for marketers and researchers in order to identify the various needs of visitors and thus adapt marketing strategies accordingly (Kruger, 2010) in order to obtain a competitive advantage over competing products and destinations (Kwan, Eagles and Gebhardt, 2010; Talsma and Molenbroek; 2012). 'Motivation' has been defined as '*a state of need, a condition that exerts a push on the individual towards certain types of action that are seen as likely to bring satisfaction*' (Decrop, 2006:9).

Ecotourists are considered to have fundamentally different travel, attraction and social motivations from the conventional traveller (Eagles, 1992). Ecotourists have different motivations to visit ecotourism venues and awareness on the diversity in the characteristics of visitors can assist planners and managers in offering adequate facilities and choosing the appropriate management and marketing strategies (Smith, Tuffin, Taplin, Moore and Tonge, 2014). Whereas the need to escape from daily routine has been cited as one of the major reasons for visiting parks (Kruger, 2010), motivational factors vary between parks and between destinations (Scholtz, Kruger and Saayman, 2015).

The expectations and motivations of ecotourists clearly overlap in literature. Ecotourist market segmentation research has identified ecotourists, especially those described as 'comprehensive', 'hard' or 'deep' ecotourists, as tourists that tend to travel so as to seek, experience and observe nature and wildlife with a motivation to learn more about them (Beaumont, 2001; Burns *et* al., 2011; Eagles and Cascagnette, 1995; Perkins and Grace, 2009). Sound interpretation and the educational element have been identified as an important expectation of those participating in ecotourism activities (Balantine and Eagles, 1994).

Such characteristics have led to the assumption that sustainability of the ecotourism product or destination also plays a key role in the choice of the ecotourism experience as ecotourists were concerned about such matters (Perkins and Grace, 2009). However there has been little practical research to prove this (Beaumont, 2011) and some have argued that ecotourists are not necessarily more environmentally conscious and do not actually exhibit more concern about sustainability or environmental related aspects of the ecotourism product used in comparison to mainstream tourists (Eagles, 1992; Wheeller, 2005; Sharpley 2006). In this regard, a study conducted by Blamey and Braithwaite (1997) showed that a predominant share of potential ecotourists failed to embrace strong green values. On a similar note, results obtained by Beaumont (2011) showed that there are no significant differences in pro-environmental attitudes between those identified as ecotourists and those considered to be non-ecotourists. In contrast, Zografos and Allcroft (2007) recorded that nearly 80% of their potential ecotourists held ecocentric views while Fennell (2008) argues that ecocentric values are a distinguishing feature of ecotourists. Luo and Deng (2008) found a positive correlation between ecotourism motivations and environmental attitudes. Others have argued that ecotourists possess an environmental ethic (Balantine and Eagles, 1994), place as a top priority the rights of wildlife (Fennel, 2006) and are eager to see and learn about nature (Perkins and Grace, 2009). Others remarked that most likely ecotourists behave more responsibly with respect to the environment and aim to support it along with wildlife by participating in conservation initiatives (Balantine and Eagles, 1994; Thompson and Barton, 1994).

2.6.4 Length of Stay

As discussed above, there are specific features which motivate visitors to visit a park and encourage a longer stay (Scholtz *et al*., 2015). Length of stay (duration of an ecotour or of a visit to an ecotourism related site) per se can serve as an indicator in order to profile visitors visiting a destination and the budget they are willing to spend while on holiday (Gokovali, Bahar and Kozak,

2007). It is beneficial for marketers to be aware of all such features to market parks accordingly, (Scholtz *et al*., 2015) in order to attract more tourists and to maximise their stay. This is becoming more important for a number of reasons including the fact that several parks are facing a decline in government funding and thus funding for conservation purposes are heavily dependent on revenue originating from tourism. Furthermore, an increase in length of stay can result in positive benefits to the surrounding tourism area (Barros and Machado, 2010). This is especially the case in off-peak seasons as it helps to attract visitors to less known areas creating a diverse range of impacts (Richards, 2002).

The length of stay depends on several parameters including socio-demographic ones, the profile of tourists, behavioural aspects, motivations, destination image, distance to travel, services available, and climate/season (see Machado, 2010; Scholtz *et al*., 2015). Other factors include how sites are run and the nature of the venue. Some ecotourism venues are managed in such a manner so as to encourage shorter visits whereas other sites have the necessary facilities and services that allow for longer overnight stays (McGuiness, Rodger, Pearce, Newsome and Eagles, 2017).

In the case of island destinations, the difference in stays between different islands depends on the level of attractiveness of the island and the type of tourism offered by that particular destination. There also seems to be a relationship between island size and average length of stay (Ruggieri, 2011). The necessity of creating a network of the various opportunities provided by islands is a must to encourage visitors to stay longer, thus spending more money in the region (Halpenny, 2001). Coastal and marine parks have also been identified as possible tools to extend length of stay by visitors to a destination thereby increasing tourist spending (Scholtz *et al*., 2015).

2.7 Marketing Ecotourism

Marketing plays a crucial role in every ecotourism business (King, 2014). Nevertheless, research on marketing in the field of ecotourism has received little attention (Weaver and Lawton, 2007). Two important aspects for ecotourism marketing include attractions (biodiversity, cultural history and distinctive geography of areas, amongst others) as well as the infrastructure available to support the development of ecotourism activity. Thus any strategy aiming to be successful in attracting ecotourists should give due importance to these two aspects (Ryel and Grass, 1991).

When it comes to promotion, relatively few ecotourism products count on traditional tourism distribution systems such as travel agents and tradeshows as this involves high expenses due to commissions and relies on high volume tours. Mainstream travel agents also tend to avoid handling products by small ecotourism operators as this would increase their running costs, mainly due to training of their staff (Buckley, 2009). Instead, a range of cost-effective marketing mechanisms (such as distribution of material in public or private places or showcasing content on local/community media), that are better adapted to low-volume and specialised products and niches have been adopted by small ecotourism operators (Buckley, 2009). A variety of media including radio, television programmes and commercials, video clips, books, leaflets, magazines, newspapers and WOM referrals have all been used to market ecotourism (Buckley, 2009; Kusler, 1991).

A number of ecotourism operators have reported difficulties in promoting their services (Torres, King and Torres, 2013). Marketing efforts of ecotourism operators are normally limited due to the small size of the ventures and lack of funds. As a result, regular and consistent exposure in advertising media is lacking or limited in the case of small operators (Page and Dowling, 2002). Furthermore, few ecotourism enterprises have access to high-end marketing strategies run through specialised agencies unless they are subsidiaries of bigger tourism companies that have sufficient funds (Buckley, 2009). A solution to such a challenge is joint marketing strategies whereby two or more small ecotourism operators (not necessarily in the same region) offering similar products, market their products jointly (Buckley, 2009). Joint marketing strategies are said to be more cost-effective and enable operators to communicate more effectively with potential customers and reach a wider target audience (Page and Dowling, 2002; Wearing and Neil, 2009). This is particularly effective in vertical joint marketing where ecotourism operators offering different services such as accommodation and excursions join forces (Wearing and Neil, 2009). However, this is not always the solution when it comes to promotion of ecotourism on small islands due to the relatively small entrepreneurial pool which makes it difficult for operators to conduct promotion of the sector on their own (d'Hautesserre, 2016).

Challenges for ecotourism marketing also include the heterogeneity (diverse), perishability (a tour cannot be stored and sold at another time) and intangibility of ecotourism services. Furthermore, the operator at times has little influence on the ecotourism activity (Page and Dowling, 2002). Other challenges of marketing an ecotourism product include identifying the diverse unique natural attractions of a region that can be experienced in a sustainable manner and identifying the motivations and needs of potential visitors (Middleton and Hawkins, 1998).

An effective way to market ecotourism is to target groups with an almost assured interest in the field. The proliferation of special interest groups such as NGOs in the field of environment, adventure seekers, educational institutions and scientific groups provides an opportunity for direct marketing (Wearing and Neil, 2009). Such a marketing approach which involves advertising in the media accessed by these groups is very cost effective for most ecotourism operators as it avoids the extra costs incurred if travel agents (who also target uninterested customers) are employed (Buckley, 2009; Wearing and Neil, 2009). Yet it is not a good idea for ecotourism businesses to focus only on groups which are likely to be interested in ecotourism. A study conducted by Thurau *et al*., (2007) showed that even if one expected otherwise, cruise ship tourists showed a preference for ecotourism opportunities over other excursions which hints at the need for marketing and services to be designed to target all relevant opportunities.

2.7.1 Role of the Internet

Tourism marketing has undergone major changes in recent years with a notable shift from printed material to online promotion (such as the use of emails). Ecotourism is said to have played a prominent role in this as in the early days, small operators in the field were too small and specialised to use costly conventional marketing methods (Buckley, 2009). The introduction of the internet was thus used as an opportunity to reach potential clientele from all over the world at a very low cost (Buckley, 2009; Page and Dowling, 2002). In recent years, most small-scale ecotourism operators have relied principally on electronic tools to target potential customers and influence their choices by providing relevant information on ecotourism and sustainability principles (Buckley, 2009; Donohoe and Needham, 2008; Lai and Shafer, 2005). Proof of the potential electronic tools have in marketing was confirmed by Cheung *et al*., (2013) who reported how a hiking sharing website developed into a relatively big business offering inbound and outbound ecotourism services in different languages. Furthermore, the internet gave ecotourists the opportunity to have a far wider variety of choice of tour products (Buckley, 2009). Apart from websites, social media platforms have also started to play a role in ecotourism marketing in the past few years (Dowling, 2013). *Facebook*, *Twitter* (Torres *et al*., 2013) and *YouTube* where outstanding footages of wildlife including those captured through drones are shared online (King, 2014) play a major role. In this context, the use of the internet for ecotourism marketing is not a panacea and needs to be well conducted to be effective (Page and Dowling, 2002) as the competition found online makes it rather difficult for customers to come across services offered by a specific operator (McKercher, 1998).

2.7.2 Market Segmentation

Whereas there is agreement on the demand for ecotourism products, Sharpley (2006) argues that there is little evidence that the ecotourist is actually a distinct market. In contrast, Page and Dowling (2002) argue that awareness of the fact that ecotourists are a distinct market is growing and reaching out to them is becoming a complex process for operators considering that ecotourism has expanded considerably. Furthermore ecotourists are not a uniform group and can be grouped into different cohorts (Fennell, 2014; Smith *et al*., 2014).

The marketing of ecotourism needs to reach the right crowd. Market segmentation techniques offer one the opportunity to better understand the ecotourism market and its needs (Page and Dowling, 2002) thus facilitating matching of supply and demand and ensure product viability (Weaver, 2002). Furthermore, knowledge gained from such a practice gives operators the possibility to devise effective marketing strategies to target the appropriate market (Beaumont, 2011).

Research in the field of ecotourism market segmentation is relatively obscure (Weaver, 2002) and limited (Smith *et al.*, 2014). The identification of factors used to classify ecotourists into segments has been derived both before (*a priori*) and after (*a posteriori*) employing research instruments. In both cases, the factors most commonly used to derive such segments on the basis of which consumers may be targeted include geographic, demographic (age and gender), psychographic (lifestyle, values and behaviour including activities undertaken, purpose and motivation of visit, benefits sought and costs avoided) and attributes (Fennell, 2014; Smith *et al*., 2014). Dichotomies between different segments of ecotourists are quite common in literature (Burn *et al*., 2011). One of the mostly cited classification systems is that which distinguishes between hard and soft ecotourists along a continuum (See Laarman and Durst, 1987; Weaver and Lawton, 2002) as described in section 2.3. Whereas such classification systems are useful, they also have their limitations, including the possibility of portraying false homogeneity, as intragroup differences may exist (Fennell, 2014). Moreover, such labels can lead to the creation of false categories and may also exclude other tourists who are more ‘casual’ participants in nature based experiences (Burns *et al.*, 2011).

2.8 Impacts of Ecotourism

Whereas ecotourism has been assumed to have only positive impacts (Epler Wood, 2007; Okello, 2004), negative impacts from ecotourism do arise even when it is well-planned. In most cases these are unintentional (Hill and Gale, 2009). Therefore one can say that ecotourism is characterised by both positive and negative impacts (Holladay and Ormsby, 2011). Such impacts, especially those on marine environments and their communities, are too compelling to be ignored (Miller, 1993). The main impacts include ecological, sociocultural and environmental impacts and are all closely inter-related (Weaver, 2008).

2.8.1 Environmental Issues

Research on the environmental impact of ecotourism is crude (Buckley, 2004) as limited quantitative data is available on its impact on wildlife (Buckley, 2009). One should also note that the effect of human observation on wildlife, including marine species such as dolphins, has been given tremendous attention in research. This research has been mostly undertaken by scientists (see La Manna, Manghi, Pavan, Lo Mascolo and Sarà, 2013) rather than tourism specialists and is mostly published in journals related to environmental science. This may be a limitation as the two have varying views and objectives vis-à-vis the purpose behind the research. As one may expect, the distance between the viewer and the attraction has been identified as the most influential factor causing wildlife stress (Weaver and Lawton, 2007). Yet, it is not straightforward to assess the negative consequences of such interactions as knowledge regarding the biology, ecology and behavioural responses of wildlife is lacking (Bejder *et al*., 2006). Apart from stress caused by close contact with visitors, environmental concerns raised due to wildlife-human interaction include pollution, habitat alteration, induced changes in natural behaviour and overfeeding (Newsome *et al*., 2005). Feeding practices during ecotourism activities have particularly negatively impacted various fish species (Brookhouse, Bucher, Rose, Kerr and Gudge, 2013). Furthermore, interaction with and interference of humans has also led to the decline in the variety of species in many geographical areas (Laliberte and Ripple, 2004). The installation of infrastructure due to ecotourism such as footpaths to access wildlife (Weaver, 2006) along with activities such as trekking, horse riding and cycling are all said to have an impact due to trampling and erosion apart from the aforementioned wildlife disturbance (Buckley, 2009; Weaver, 2006).

An impact that does not result from ecotourism but which indirectly may negatively impact the sector is the introduction of invasive alien species, something which has raised alarms as it leads to a decline of biodiversity (Tu, 2009) – a natural feature on which ecotourism activity heavily depends. Thus, this can pose a major threat to ecotourism (Buckley, 2009) and jeopardise the sustainability of the sector (Koichi, Cottrell, Sangha and Gordon, 2012) because it may eventually be difficult to control (Weaver, 2008). In fact, in the Caribbean region, tournaments involving divers and fishermen have at times been organised in an attempt to control the invasive Indo-Pacific lionfish (*Pterois volitans/miles*) (Malpica-Cruz, Chaves and Côté, 2016). This has also led the European Union (EU) to legislate in this regard. EU Regulation 1143/2014 on invasive alien species has set three measures to tackle such a challenge. These are prevention, early detection and rapid eradication along with management (European Commission, 2018).

Other environmental impacts include the valuation of nature with some species being seen as more important than others in the ecosystem putting charismatic megafauna high on the agenda and pushing down the conservation ladder other small fauna which might be less interesting to ecotourists leading to the poor conservation of such species (Weaver, 2008, Weaver, 2002). Climate change is also increasingly recognised as one of the serious threats for ecotourism practised in protected areas (Hannah, 2008) as ecotourism heavily depends on important resources such as wildlife, landscapes and infrastructures that are sensitive to climate change (Becken and Job, 2014). Light and air pollution can also be a threat to ecotourism activities such as celestial ecotourism (Weaver, 2011).

Travelling to an ecodestination is another major impact of ecotourism (Weaver, 2008). This may involve a considerable footprint, especially if involving long-distance air travel (considering that the origin of ecotourists being targeted see section 2.6.1) and polluting sea ferries (especially if these are rather old). In addition, the presence of ecotourists at a venue can bring about negative impacts on the environment which reduces the natural beauty that attracted tourists to the site (Buckley, 2004). This concern has been raised by ecotourists themselves (Prideaux, McNamara and Thompson, 2012). Furthermore, overcrowding is another environmental related issued in ecotourism (Hvenegaard, 1994; McLaren, 1998). Once an ecodestination gains popularity it may become overvisited (Goeldner and Brent Ritchie, 2009) exceeding the threshold that the area and infrastructure permits (McLaren, 1998). For example in the case of remote areas, these tend to lack the necessary infrastructure to treat waste generated by tourism and this may pose several threats including ground water contamination and fires that impact ecosystems (Buckley, 2009;

Weaver, 2008). Thus, carrying capacities need to be determined in advance and enforced (Goeldner and Brent Ritchie, 2009).

There are several positive environmental impacts related to ecotourism. Ecotourism is commonly perceived as an instrument that safeguards biodiversity (Lindsey, Alexander, Du Toit and Mills, 2005). For instance, the establishment and management of protected areas including MPAs to serve as ecotourism venues is an important tool for conservation (Kruger, 2005). The designation of a natural area as a protected area gives such sites a special status and ensures that their remarkable natural qualities remain unaffected (Winter, 2005; Newsome, Moore and Dowling, 2013) while ensuring the protection of their biodiversity (Badalamenti *et al*., 2000; López Ornat, 2006).

Another major environmental benefit of ecotourism is the role it plays to incentivise protection and conservation of the environment by portraying it as an ecotourism resource (Weaver, 2008) which generates economic benefits and incentives. This has a direct impact on the residents' pro-environmental behaviour (Liu *et al*., 2014) especially on those who have a vested interest such as local ecotourism stakeholders that gain from the use of such a resource (Fennell and Weaver, 2005; Honey, 2008) leading to a change in their attitude towards protected areas in their vicinity. This includes supporting the protection of protected areas (Dimitrakopoulos *et al*., 2010), augmenting the sense of pride of residents living in the limits of a particular ecotourism spot (Das and Hussain, 2016), influencing the local community to act as guardians for such sites thus protecting both their natural and cultural heritage (Bansal, 2011; Goeldner and Brent Ritchie, 2009; Shoo and Songorwa, 2013) while reducing consumptive land uses (Kruger, 2005). In addition, ecotourism can encourage the rehabilitation of modified environments in an attempt to make this land more attractive for ecotourists and in return attract more ecotourists and boost the economy (Weaver, 2008). At times protection and development of ecotourism in specific areas was introduced to shield terrain from speculation or development (Sawchuk, 2016).

Ecotourists themselves can also act as guardians of the environment and intervene in various ways (Fennell and Weaver, 2005; Weaver, 2008). This is because due to its educational element, ecotourism increases awareness among ecotourists promoting environmentalism. It also generates more interest in their participation to rehabilitate and maintain natural sites (Goeldner and Brent Ritchie, 2009; Weaver, 2008) also through volunteering (Fennell and Weaver, 2005; Galley and Clifton, 2004).

Ecotourism also plays an important role in generating funding which is instrumental to facilitate management, conservation, expansion and enhancement of protected areas serving as ecotourism venues making such sites more attractive for ecotourists (Goeldner and Brent Ritchie, 2009; Weaver, 2006). This is done through donations (Goodwin, 2011; Honey and Gilpin, 2009), entrance fees (Koichi *et al*., 2012; Wallace and Pierce, 1996; Wearing and Neil, 2009) and ecotourism activities making protected areas self-sufficient (Pipinos and Fokiali, 2009). Such income is instrumental at a time when public sector funding for such purposes is inconsistent or on the decline (Baral, Stern and Bhattarai, 2008). In the case of MPAs, the development of ecotourism along with market related revenues such as short courses, entrance and diving fees as well as the renting of diving equipment, often serve to fund the management, surveillance and monitoring costs of the MPA (Alban, Appéré and Boncoeur, 2006; López Ornat, 2006).

2.8.2 Socio-cultural Issues

Ecotourism has been advocated as an instrument which can be beneficial for local communities (Weaver and Lawton, 2007) and is also widely viewed as the main opportunity for promoting social growth (Lindsey *et al*., 2005). Ecotourism can serve to preserve traditional lifestyles and the livelihood of local communities found in remote areas with limited income opportunities and poor infrastructural conditions by providing them with new income opportunities through sources other than mainstream tourism (Buerkert *et al*., 2010). This also limits the migration of youth to urban areas (Neleman and de Castro, 2016). In fact, ecotourism has gained tremendous importance in recent times as an effective instrument not only for biodiversity conservation as outlined earlier but also to enhance the well-being of people living near protected areas (Mirsanjari, Molla, Zarekare and Ghorbani, 2013).

Yet, ecotourism can also lead to internal conflict and amplify discrepancies between different social groups creating disputes regarding the involvement of communities in the management of protected areas (Weaver and Lawton, 2007). This is because the successful implementation of ecotourism heavily depends on public perception, attitudes and acceptance by local communities and their willingness to cooperate in environmental protection and management (Pipinos and Fokiali, 2009). Meanwhile, full and real participation of local communities is at times limited to consultations and participation as beneficiaries. As a result local communities end up spectators rather than playing an active role in developing the initiative (Azevedo, Lopes and Gonçalves, 2014; Martins, 2002 as cited by Neleman and de Castro, 2016). Thus, the interests of local

communities are sometimes disregarded leading to a lack of acceptance and appreciation of ecotourism initiatives and a lack agreement regarding the relevant goals (McCool, 2009).

Environmental impacts including those resulting from ecotourism can also lead to social impacts on ecotourists. For instance, in marine ecotourism, crowdedness and the reduction in time spent interacting with marine wildlife can lead to a decline in visitor satisfaction (Mau and Wilson, 2005).

2.8.3 Economic Issues

Ecotourism is an agent with the potential to generate remarkable economic benefits (Wall, 1994) through various manners (Hvenegaard and Dearden, 1998). Ecotourism can serve to stimulate economic development in peripheral regions (Weaver, 2008) or as a replacement for economic activities which have started to decline (Page and Dowling, 2002). Ecotourism can also serve to diversify the economy of small islands and provide revenue for local families who decide to remain on the islands (d'Hautesserre, 2006). Ecotourism also brings direct economic benefits for local communities (Ziffer, 1989) through generation of employment (Buyinza an Acobo, 2009; Goeldner and Brent Ritchie, 2009) such as guides (Weiler and Ham, 2001). In the case of marine ecotourism, activities such as snorkelling and SCUBA diving are also said to generate employment in related services (Dalias *et al*., 2007). Even if tourism employment in protected areas can be seasonal (Eagles, McCool and Haynes, 2002), any generation of employment however low, has a remarkable positive impact in remote areas (Page and Dowling, 2002). Other indirect benefits include visitor expenditure (Weaver, 2008) through sale of services and goods (Buyinza and Acobo, 2009), something which is augmented in the case of marine ecotourism as ecotourists tend to buy local goods (Sakellariadou, 2014).

Ecotourism such as wildlife viewing is more effective than consumptive forms of tourism, such as hunting, in generating economic income for local communities. A study conducted by Honey *et al*., (2016) provides strong evidence that wildlife viewing generates more economic benefits than resident and non-resident hunting combined. This has been confirmed through various studies on whales (Hoyt, 2001) and sharks (Vianna, Meekan, Pannell, Marsh and Meeuwig, 2012). On the other hand it has been claimed that hunting threatens the ecotourism economy (Honey *et al*., 2016) as the obliteration of species responsible for attracting ecotourists influences economic sustainability and the advancement of the industry (Newsome *et al*., 2005; Rodger *et al*., 2011).

Furthermore, income generated from ecotourism activities-based livelihood opportunities tend to be more reliable and higher than that made through traditional livelihood activities such as agriculture, hunting, fishing and animal husbandry leading to socio-economic improvements that may change the attitude of local people towards biodiversity conservation. As a result unsustainable practices like fishing become less popular (Das and Hussain, 2016; Nyaupane and Poudel, 2011; Salafsky and Wollenberg, 2000; Wunder, 2000).

Gantioler *et al.*, (2010) also argue that individual Natura 2000 sites may have various benefits including revenue generation through ecotourism and recreation activities. In fact the European Commission estimates that the Natura 2000 network delivers benefits worth between €200 and €300 billion per year, set against annual management costs estimated at €5.8 billion (EPRS, 2015). With respect to costs, the upkeep and maintenance of ecotourism sites is considered as a negative financial impact of ecotourism (Weaver, 2008). In fact, ecotourism is also linked to several negative financial issues.

The creation of protected areas for ecotourism purposes can limit or prohibit the local community from using/accessing resources on which they may have been dependent for their livelihood (Brugère, Holvoet and Allison, 2008; Mishra, Wemmer, Smith and Wegge, 1992; Salafsky and Wollenberg, 2000; Sims, 2010). For example, the creation of protected areas can have an impact on communities living in coastal areas that make a living from small-scale fishing (Glaser, Krause, Oliveira and Fontalvo-Herazo, 2010).

However, if properly planned, ecotourism can integrate the conservation of biodiversity with the livelihood of local communities (Shoo and Songorwa, 2013) to compensate people for the loss caused by the prohibition on use of natural resources for conservation purposes (Saayman, Rossouw and Saayman, 2012; Sebele, 2010). Neleman and de Castro (2016) argue that ecotourism in protected areas can boost the local economy and serve as an opportunity to overcome restrictions imposed by protected areas. One example has to do with the institution of MPAs whose benefits go beyond those related to the environment. Local communities tend to benefit too mainly due to the increase in economic revenue through the development of marine tourism (Badalamenti *et al*., 2000; López Ornat, 2006). MPAs have considerable economic importance to the tourism industry (Yacob, Radam and Shuib, 2009) to the extent that the latter is among the first sectors to benefit from the presence of MPAs (López Ornat, 2006) as they attract several visitors not only in the MPAs but also in nearby areas (Badalamenti *et al*., 2000; López Ornat, 2006). For those more interested in more general fisheries management, and for

the fishers themselves, the MPAs offer an increase in the fish stock outside the MPA through the spillover effect (Fabinyi, 2008). In fact local fishing communities are said to also benefit also economically when MPAs are established through the replenishment of fish stocks (Badalamenti *et al*., 2000; López Ornat, 2006; Yacob *et al*., 2009).

Another negative economic impact is the fact that in most cases a large proportion of money is spent at the place of origin in travel expenses and relatively little is spent at the ecodestination (Wall, 1994). Additionally, whereas marine ecotourism has been associated with limited revenue leakage (Garrod and Wilson, 2004), Lindberg (1998) argues that ecotourism is characterised by revenue leakage whereby a substantial amount of revenue made does not stay in the ecodestination. Other indirect impacts include revenue uncertainties which are related to political stability and the economic situation in the origin of ecotourists (Weaver, 2006).

Summing up on the impacts related to ecotourism, one should note that various attempts to define ecotourism refer to its vital role in the conservation of biological diversity and in offering economic benefits to local communities (Fennell, 2001). Furthermore, numerous works in the field discuss the theoretical benefits of ecotourism for local communities and conservation projects (Brightsmith, Stronza and Holle, 2008). Meanwhile, the practical implementation of theoretical assertions has been questioned (Ross and Wall, 1999) and in some cases the contribution of ecotourism to reach such objectives has been considered to be limited at best (Kiss, 2004).

2.9 Ethics and Quality Control in Ecotourism

2.9.1 Ethics in Ecotourism

Whereas according to Buckley (2005) studies on ethical issues in ecotourism are prevalent, others claim that there have been relatively few studies on such matters (Fennell, 2003; Weaver and Lawton, 2007). A literature review by Fennell and Nowaczek (2010) supports the fact that moral depth, especially in the area of animal ethics, continues to be overlooked in ecotourism. This is quite an anomaly as ecotourism's purpose and the result it seeks to achieve puts ethics at its very core (McGahey, 2012). In fact there has been a debate on the inclusion of ethics as a defining principle of ecotourism (Donohoe and Needham, 2006) to serve as a trait distinguishing ecotourism from other forms of nature based tourism (Fennell, 2014). Whereas defining ecotourism on the basis of ethics is not realistic as it is not straightforward to test the application

of ethics in ecotourism operations, by omitting any reference to ethical criteria when defining ecotourism one may still expect ecotourists to behave in an ethical manner (Buckley, 2005).

Ethical issues in ecotourism vary and are not only related to human-animal interaction during ecotourism excursions (Lee, 2013). As discussed earlier they also extend to what activities can be considered to be ecotourism practices. In this regard, consumptive activities such as hunting and angling (Fennell, 2014), and activities involving wildlife in captivity such as zoos are considered to be morally unacceptable settings for ecotourism (Fennell, 2013).

In recognition of some of the negative impacts arising from ecotourism as outlined in section 2.8, and as a response to such problems (Stark, 2002) in an attempt to ensure a moral use of environmental and cultural resources (Wight, 1993), codes of ethics have been developed (Stark, 2002; Wight, 1993). Whereas such codes related to ecotourism have been developed by several bodies including governments, nature organisations and operators for various stakeholders (Stark, 2002; Wight, 1993), in several cases they target a specific stakeholder such as operators and occasionally local communities (Mock and O'Neil, 2012). Such codes also target tourists (Wight 1993) and recognise that these have certain responsibilities and obligations to fulfil (Fennel and Malloy, 2007). Meanwhile it has been argued that such codes should target all stakeholders involved in the tourism sector including NGOs (Mock and O'Neil, 2012; Wight, 1993).

Codes of ethics play an important role as they serve as a set of guidelines that set standards which must be met while ensuring effective adherence to ecotourism principles (McGahey, 2012). They also ensure sustainability of the resources and that the industry integrates environmental and socio-economic objectives (Wight, 1993). Failing to stick to the ecotourism codes of ethics might put the ecotourism destination in jeopardy and local communities are among the first to be negatively affected due to the consequent loss of jobs and income (McGahey, 2012).

For the new ecotourists, codes serve as guidelines to play an active role in protecting the physical environment and respecting local communities (Mock and O'Neil, 2012). In addition, since most ecotourists seek authentic experiences within strong natural and cultural settings and value such resources, they feel a sense of responsibility and want to know what is and what is not permitted to help in their protection. Thus, most ecotourists are willing to abide by ethical considerations and are eager to respect them (McGahey, 2012). Nevertheless, questions on whether ecotourists are more ethical than other types of tourists have been raised (Fennell, 2003).

With respect to operators, ethical behaviour is also a necessity and they need to demonstrate to ecotourists and lead by example on how to observe species without causing disturbance (Green, 2013). A study by Fennell and Malloy (1999) found that ecotour operators were moderately more ethical than other types of operators and were thus more likely to proclaim adherence to ethical behaviour than operators from other fields of tourism. Yet, a study by Fennell and Markwell (2015) found that few ecotourism operators in the food and beverage sector promote ethical and sustainability aspects. Meanwhile, adoption and implementation of codes of ethics is said to be beneficial for ecotourism operators as this boosts support from the general public, increases credibility and increases demand for the products offered.

2.9.2 Quality Control Mechanisms

It remains a challenge to live up to the promises and expectations set up in the various definitions of ecotourism but failing to do so will result in making ecotourism a paradox. Taking tourists to environmentally sensitive areas leads to degradation rather than to preservation (Goeldner and Brent Ritchie, 2009). Quality control mechanisms that ensure that such standards are respected are thus a necessity.

Quality control mechanisms serve as a means to ensure that operators offer products and services that comply with stipulated levels of excellence (Fairweather *et al*., 2005). The ecotourism industry plays a prominent role in the introduction of quality control mechanisms and standards in tourism. In the case of ecotourism, usually such standards involve ethical considerations and are associated with the principles and practices of sustainability. This is no surprise considering that sustainability plays an important role in ecotourism (Weaver and Lawton, 2007) and that the ecotourism industry places an emphasis on achieving sustainability related outcomes (Weaver, 2006).

Quality control mechanisms include ecolabels and ecocertification (Fairweather, Maslin and Simmons, 2005). "*Ecolabels are voluntary identifiers on goods and services that represent ecological or ethical criteria*" (Howard and Allen, 2010:245). They describe the environmental connotations of a product (Buckley, 2002b). On the other hand, "*ecocertification is a formal process under which a nominally independent body certifies to other interested parties, such as tourists, marketing agencies and regulators that a tourism provider complies with an environmental standard*" (Buckley, 2002b:197).

Quality control mechanisms also play an important role to make tourism more sustainable by facilitating tourists' choice in selecting genuine sustainably run businesses and destinations (Fairweather *et al*., 2005). Whereas concerns have been raised on the lack of tourist response to ecolables (Font and EplerWood, 2007) it has been argued that this depends on the tourists (Swarbrooke and Horner, 2007) as for instance they might be more useful for hard ecotourists. Others have argued that this may be due to a lack of awareness. A study conducted by Puhakka and Siikamäki (2012) found that whereas tourists visiting parks had low awareness of ecolabels and certifications, they expressed positive attitudes towards them and requested more information about them and appealed for an increase in their visibility.

Nevertheless, ecolabels and certifications have been criticised due to a lack of well-developed accreditation criteria, effective assessment and audit procedures making some vague and confusing rather than reliable and meaningful for the ecotourists (Buckley, 2001).

On the other hand, ecotourism enterprises have used ecolabels, ecocertifications and awards as a marketing instrument to gain competitive advantage in the marketplace (Fairweather *et al*., 2005; Font, 2001; Weaver and Lawton, 2007). As marketing tools, they attract more clients or clients that are willing to pay more for a certified product (Buckley, 2009). Surprisingly, there have been cases where operators who have obtained some form of ecocertification failed to show their ethical and sustainability credentials to the public thus failing to enjoy any marketing advantage (Fennell and Markwell, 2015; Weaver, 2008).

2.9.3 Quality Control Mechanisms as Marketing Tools and Green Washing

Due to the fact that it costs no more for companies to make use of an ecolabel, the lack of audit procedures, and since it may be difficult for ecotourists to distinguish between certified and noncertified products, there were companies that decided to adopt an ecolabel in parallel with other marketing schemes without any concern for potential conflicts (Cooper *et al*., 2008). As a result many tourism operators claim environmental credentials but most of these disappear on inspection (Buckley, 2010b). Furthermore, the absence of a clear indication of the meaning has resulted in the intentional misuse of the term ecotourism as a marketing buzzword (Weaver, 2008). This has been done with the aim of obtaining an apparent green edge on the competition and attract a greater portion of the smaller market sector and higher paying customers (Cooper *et al*., 2008; Goodwin, 1995; Ross and Wall, 1999; Weaver, 2008) thus bringing to destinations,

including islands, new masses of tourists (Lee, 2013). It is in the context of these two issues that emphasis has been placed on the need for operators, and those involved in marketing, to make good use of ecolabels to communicate with consumers and not to use the term ecotourism as a catch-all term when marketing a destination. Ensuring the integrity of the product is vital for the product to become competitive and enhance its demand (Page and Dowling, 2002).

Such practices are referred to as 'green washing', a major problem that undermines the credibility of ecotourism leading to watering down and misrepresenting the market, raising ethical issues (Fennell, 2014). In fact, the need to fulfil the sustainability dimension of ecotourism is not the only factor that led to the introduction of quality control mechanisms in ecotourism. With the marketing shift from conventional methods to online systems and the use of ecolabels for marketing purposes, purchasers have become more concerned about the mechanisms for quality assurance for products purchased. This played an important factor to trigger the introduction and rise of quality control, ecocertification schemes and other effective quality control mechanisms as these provide a reliable seal of quality for anyone dealing with an ecotourism operator or product online (Buckley, 2009). Furthermore, such mechanisms are crucial to tackle the problem of 'green washing' and for the sector to gain trust among consumers (Weaver and Lawton, 2007).

2.9.4 Ecolabels and Schemes

Numerous ecolabels and certification programmes have been developed by various entities including companies, voluntary organisations and governmental agencies (Buckley, 2001). Yet such schemes are to date voluntary and optional (Buckley, 2009). Furthermore, most of such instruments are general and applicable to various forms of tourism or practices. Whereas some focus on a wide range of aspects, others are very specific (Buckley, 2001). Proof of this is the fact that most of the current ecolabels and certification schemes have been developed solely for accommodation services (Honey, 2007).

On the other hand, only a few are specialised in ecotourism (Weaver and Lawton, 2007) and only a few focus on ecotourism attractions and destinations (Bustam *et al*., 2012; Spenceley, 2008). In fact ecocertification schemes in the field of ecotourism are still in their infancy (Buckley, 2009). This may be due to the lack of standards (Honey and Stewart, 2002) and difficulties encountered to identify criteria and indicators as a result of the various interpretations (Buckley, Zhong, Cater and Chen, 2008). Furthermore, criteria and indicators for destinations used are not considered to be equally important by different stakeholders (Deng, Bender and Selin, 2011). Ecotourism

products are expected to be in conformity with the three major criteria of ecotourism and thus those seeking to obtain ecocertification must fulfil rigorous requirements concerning these criteria (Beaumont, 2011). The criteria assessed may include a focus on experiences within nature that leads to understanding and appreciation, a positive contribution to the local community and conservation, accurate marketing and meeting ecotourists' expectations (Weaver, 2006).

Schemes tend to cover different geographic areas with some being regional and others being national or international (Buckley, 2009). Among the most reputable international ecotourism certification systems one finds Green Globe (Bustam *et al*., 2012). Another ecolabel that has been successful includes the Blue Flag label for beaches, marinas and ecotourism boats (Puhakka and Siikamäki, 2012). As of recently, the White Flag beach certification has also become a reputable certification. It ensures that beaches enjoy clean underwater through hands-on and practical clean ups focusing on the bottom of the sea (White Flag, 2017). At European level two voluntary instruments recognised throughout Europe deserve due attention. The first is the EU Ecolabel scheme, that helps one identify products and services (including tourists' accommodation) that have a reduced environmental impact and demonstrate a commitment to environmental sustainability (European Commission, 2017b). Another quality instrument is the EU Eco-Management and Audit Scheme (EMAS), developed by the European Commission for companies and other organisations from all economic and service sectors that focuses on their environmental performance (European Commission, 2017c). This has also been used extensively by the tourism sector. To date over 300 accommodation facilities (including hotels and camping grounds) and nature reserves in Europe are using EMAS to improve their environmental performance (Penderock and Hoeve, 2013). Its potential in sustainable coastal tourism has also been outlined (Boragno, Bruzzi, Tarantini and Verità, 2004).

With respect to national schemes two are of interest in the area of study. The first is the ecolabel developed by the Italian eNGO Legambiente ("*Consigliato per l'impegno in difesa dell'ambiente"* also known as "*Turismo Bellezza Natura*") which aims to improve environmental management in tourist services including various accommodation structures (hotels, hostels, camping sites, B&Bs and private houses/apartments) and restaurants found in various zones including within parks and coastal areas (Legambiente, 2016; 2017). The second is the Maltese national ecocertification scheme (see Figure 2.4), launched on the occasion of the International Year of Ecotourism (IYE) by the Ministry for Tourism and which is nowadays administered by the Malta Tourism Authority (MTA). It focuses on the sustainability of accommodation structures including hotels and farmhouses in the Maltese Islands (Magri, 2015).

Figure 2.4: *Malta's national ecocertification. Source: Magri, 2015.*

2.10 Ecotourism Policy, Planning and Regulation

Ecotourism policy provides coherent objectives and strategies for the advancement of ecotourism within a particular area (Weaver, 2008). In many countries ecotourism policy is either at consideration or initiation stage (Fennell, 2003) but it has gradually grown in importance as ecotourism grew in scale (Buckley, 2009). According to Weaver (2001a) an ecotourism policy is meaningful if it is related to and informed by broader national tourism policy. Furthermore, policies will fail to be implemented if they do not fit the plans of the government (Sofield and Li, 2003). There has, in fact, been a high rate of failure with respect to policy as agencies entrusted to do the job lack the legal mandate or funding to implement the policy (Buckley, 2009). Other policies are overshadowed by main tourism policies that rarely incorporate ecotourism principles not even those prepared by the same agency (Buckley, 2004). In some cases agencies responsible for upholding policies work in isolation from one another ending up being counterproductive (Jenkins and Wearing, 2003). The main issues involved in ecotourism plans include land-use planning, conservation of protected areas, protection for wildlife, marketing of natural and cultural heritage, environmental management to minimise impacts, audits and certification issues for stakeholders, financial aspects in related to land-use and visitation and educational aspects (Buckley, 2009).

Planners and developers are realising that the various stakeholders that are affected in some way or another through ecotourism development should be involved in preparing the policy (Fennell, 2003). Therefore when coordinated by the government, policies are in most cases developed after extensive consultation with various stakeholders (Weaver, 2008). Ecotourism stakeholders should include the tourism industry (including tour-operators), local communities, consumers (ecotourists), protected area personnel, local government and NGOs (Ceballos-Lascuráin, 1996; Liu and Bao, 2004). Whereas stakeholder involvement and inclusion is an important aspect of policy (Fennell, 2003), there have been cases when developers of ecotourism ignored the role of host communities and failed to consult with the full range of stakeholders as it was not necessary to do so within legislative frameworks (Okech, 2012). Even when stakeholders can work together

towards a common goal (Wearing and Neil, 2009), achieving a compromise between so many stakeholders can be problematic (Fennell, Buckley and Weaver, 2001).

When one considers that the coastal and marine environments are subject to various interests that may give rise to conflicts, it is even more crucial to involve all stakeholders when dealing with marine ecotourism. These should include those with non-economic interests in policy development and planning to ensure a holistic approach and a fairer outcome with a more equitable distribution of benefits and costs (Cater, 2003). In this regard it has been argued that Integrated Coastal Zone Management (ICZM) and Maritime Spatial Planning (MSP) measures to manage the multiple use of coastal zones and marine space in a sustainable manner, especially in areas where conflicts among users are evident, can be an effective way to integrate all sectors and interests and should therefore be embraced by marine ecotourism. Furthermore, the development of marine ecotourism should be strongly related to the EU's Blue Growth strategy - a strategy supporting sustainable growth in the marine sector through the integration of activities in oceans, seas and coasts (Sakellariadou, 2014). The latter is based on 14 key actions which include the promotion of ecotourism, improving island connectivity, encouraging diversification and integration of coastal and inland attractions and promoting strategies on waste management to support sustainable coastal and maritime tourism (European Commission, 2014).

Ecotourism policy faces a number of challenges. Firstly, imposition of regulatory measures on ecotourism operators can be perceived as loss of control in the delivery of services and decision making, and that those involved in the field cannot manage the affairs in question well. However if left unchecked, tourism will lead to a range of social and ecological problems (Fennell, 2003). The importance of planning in conjunction with regulation has been highly promoted by Buckley and Pannell (1990) who wrote that the environmental impact, of ecotourism might be reduced through an appropriate combination of planning and regulation. On the other hand excessive regulation can be damaging as bureaucracy is said to have a negative impact on ecotourism operators, especially small ones (Green, 2013).

Ecotourism policy related decisions can also be controversial. For example, the introduction of an ecotax, considered to be an ecotourism instrument, can at times end up embroiled in a political debate and became politicised to the extent that the initiative is abandoned, thus impacting the sustainability of the sector. Explicitly, if any destination wants to promote ecotourism as its alternative product, there is a need for an independent office that is responsible for ecotourism actions, including designing, development, and marketing. Another major challenge faced by

ecotourism is conflicting policies. In some cases archipelagos have faced similar problems with policies promoting ecotourism on one end and other policies promoting mass tourism (which involves the installation of substantial relevant infrastructure) on the other (Anderson, 2009). Another challenge faced with respect to ecotourism planning is the over optimistic forecasts of policy makers who believe that ecotourism can resolve any tourism dysfunctions within a region. Ecotourism might be practised in a region and attract ecotourists but one should be realistic about the success of ecotourism initiatives as the size and extent of the sector is dependent on demand in a highly competitive global ecotourism market (Fennell 2014).

When it comes to ecotourism policy, in some islands ecotourism dominates national tourism strategy. In other cases, islands that form part of larger states have intentionally or incidentally become associated with ecotourism (Weaver, 2008). Ecotourism on islands has grown rapidly over the past years and in some cases, it is being promoted as an alternative to mass tourism. In the case of Small Island States (SISs) the situation is slightly different as these have economies that are very much dependent on tourism and there has been major development of the 3S tourism sector. For SISs already dominated by mass tourism, ecotourism is being pursued as a complementary add-on and supported concurrently with mass tourism (Halpenny, 2001; Parlato Trigona, 2014; Weaver, 2008). In the case of some archipelagos, ecotourism is encouraged in the outer islands, which tend to be naturally and culturally richer (Halpenny, 2001). In such cases, peripheral islands have been targeted as the ecotourism complement of an island's dominant mass tourism industry leading to soft ecotourism experiences (Weaver, 2008).

2.11 Ecotourism Organisations and Networks

Ecotourism organisations have an important role to play in the field due to their various aims including conducting and supporting research, setting standards and developing codes of practice and accreditation, engaging in lobbying, advocacy and education, bringing stakeholders together, contributing to policy planning and implementation along with assisting in generating funds for conservation and management (Weaver, 2008).

Ecotourism organisations can be international, national, regional or local depending on the geographic constituency being represented (Weaver, 2008). Whereas numerous organisations have been identified worldwide (Buckley, 2010a; Halpenny, 2001) few organisations are based in Europe. Among all organisations it is worth mentioning TIES established in 1990 with members from over 90 countries representing various professional fields including operators, ecotourists

and academics (TIES, 2017a). TIES organises events such as annual conferences. In 2018, TIES will team with the Italian Ministry of the Environment and The Italian National Tourist Board to hold its annual conference, the Ecotourism and Sustainable Tourism Conference (ESTC) (TIES, 2017b). Other eNGOs tend to focus on ecotourism too. In the case of the Maltese Islands the organisation Nature Trust promotes ecotourism to increase the appreciation of natural resources (NTM, 2017). In Italy the eNGO Legambiente not only promotes ecotourism in the entire area of study which is under Italian jurisdiction but also presents ecotourism awards on an annual basis to recognise best practices in accommodation and related services (Fagioli, 2017; Legambiente, 2016).

Apart from ecotourism organisations one also finds ecotourism networks. Ecotourism networks on islands can play an important role to solve environmental problems brought by tourism through the involvement of various actors including public administration, NGOs/organisations/associations, local community, academics and tourism enterprises. Such networks also have the potential to promote ecotourism, spread ecotourism operations across islands and archipelagos and contribute to the ecotourism experience. Whereas development of such networks requires time and other resources, the destination invariably becomes more attractive for ecotourists (Anderson, 2009; Björk, 1997).

Ecotourism networks have already been formed in Mediterranean islands such as the Balearic Islands (Anderson, 2009). In 2010 the European Ecotourism Network (EEN) comprising operators, NGOs, academics, experts and tourism authorities was established to ensure conservation and sustainability, to bring together ecotourism stakeholders to share good practices, to develop a European ecocertficiation scheme so as to tackle green washing and to disseminate information to improve ecotourism quality in Europe (EEN, 2015a; EEN, 2015b). Another important network in the context of this study is the Mediterranean Experience of EcoTourism (MEET) Network. The latter was formed to exchange good practices and to help bodies managing protected areas to develop and promote ecotourism products that are feasible (MEET Network, 2014). The problem of such networks tends to be that their development depends on EU funded projects but once such projects are completed no further funding is available to support the running of such networks.

2.12 Ecotourism Research and Initiatives in the Central Mediterranean Region

2.12.1 Ecotourism Research in the Central Mediterranean Region

When it comes to island studies, archipelagos (including those in the Mediterranean) are one component that have been well studied and given extensive attention in academia especially from the perspective of the natural sciences. However the same cannot be said with respect to the studies of archipelagos vis-à-vis the field of tourism in general (Baldacchino, 2015a; Vogiatzakis *et al*., 2008). This is also relevant to ecotourism as archipelagos have rarely been studied on the grounds of ecotourism save for few cases such as studies related to the Balearic Islands (Spain) (Anderson, 2009). Furthermore, whereas ecotourism on islands and island states have received much attention in various regions such as in the Indian Ocean (Rowat and Engelhardt, 2007), Pacific Ocean (Cusick, McClure and Cox, 2010) and the Atlantic Ocean (Hoyt, 2005), few of the islands found in the Mediterranean have been studied on the grounds of ecotourism, save for a handful of islands including Vis (Croatia) and a number of islands in Greece such as *Crete* (Diamantis 2000), Karpathos (Pipinos, and Fokiali 2009), Andros (Sakellariadou, 2014), Paros (Sakellariadou and Kostopoulou, 2015), Paxoi and Antipaxoi (Kafyri, Hovardas and Poirazidis, 2012). The central Mediterranean region and its small archipelagos and islands, specifically the Sicilian archipelagos/islands and the Maltese Islands have received even less attention in this regard. A thorough research in literature reveals that very few academic studies in the field of ecotourism have taken place save for a handful of undergraduate and postgraduate dissertations and other indirect studies related to sustainable tourism. The limited attention given to central Mediterranean islands is not a surprise when one considers that ecotourism practices on Mediterranean islands were still considered to be at their "*infancy stage*" until a couple of years ago, even if awareness on such practices is said to have increased over the years through agreements and declarations (Diamantis, 2000).

With respect to the Maltese Islands, Parlato Trigona (2002) explored the potential of adopting ecotourism philosophies, principles and practices in the Maltese islands by means of a case study. He argues that due to existing tourism practices and magnitude, the archipelago is "*an atypical destination with regards to ecotourism*". Cardona (2004) in her dissertation '*Far from the maddening crowd: the potential of ecotourism development at Wied Babu, Żurrieq*' outlines how a valley in the south of Malta can be an important ecotourism venue. In the study '*Assessment Of*

Two Country Walks In Gozo: Considerations For Eco Tourism', Ronsisvalle (2006) studied two countryside walks in Gozo as part of an ecotourism project and found that the tracks exhibited a high degree of biodiversity yet were threatened by several human activities. Muscat (2007) in her study '*Unveiling Comino's Eco-Tourism potential: what are the likely impacts of this endeavour?*' looked at the potential of Comino being developed into an ecotourism destination. Salerno (2009) in his study '*Enhancing the ecotourism potential of the Ħaġar Qim and Imnajdra archaeological park*' focuses on the overlap of ecotourism and cultural/heritage related tourism and devises a plan on how the area in between the two heritage sites can be developed into an ecotourism venue through increased accessibility, interpretation and awareness. Agius (2011) conducted research on '*The economic potential of ecotourism in EU small island states: An assessment of Malta's challenges and opportunities*' outlining the lack of ecotourism policy. Mallia (2013) in his study '*Malta's relationship with its biodiversity: an attraction or a deterrent to the eco-tourist*' outlines the lack of ecotourism policy in the Maltese islands. He outlines how birdwatching, rambling and SCUBA diving were the most common ecotourism activities practised by ecotourists who visited the Maltese Islands. Other dissertations which are indirectly related to ecotourism include that of Vella (2005) '*Malta's south west coast: the potential of Malta's south west coast for special interest travel*', the study of Zahra (2005) '*The role of Tourism and recreation in marine protected areas*' and that of Vernon (2009) on '*Animals in the tourism industry in Malta*'.

Few other academic works have dealt with or referred to ecotourism vis-à-vis the Maltese Islands. Furthermore, at times there has not only been limited studies but also conflicting views on the potential of ecotourism. Lockhart (2002:213) argues that "*Malta is not and cannot become an ecotourism destination*". Goodwin (1995) outlines the importance the environment plays in tourism and how ecotourism is promoted as superior to mass forms of tourism. Yet he remarks that the rapid increase of tourism in Malta may have a negative environmental impact. Sciberras (2008) states the Maltese Islands have a rich biodiversity (with over 10,000 terrestrial species) and several endemic species (over 85 species), thus increasing the ecotourism potential of the archipelago. To further support his arguments, Sciberras also highlights the history, related artefacts, and gastronomy based on natural local products that the Maltese Islands have to offer. The latter has also been emphasised by Cidalia Tojeiro (2011) who argues that Malta has a "high potential" to offer ecotourism as ecotourists also have a great interest in historical, cultural and gastronomic aspects of which Malta has a lot to offer.

In the case of the Italian Islands under study, research in the field of tourism and ecotourism is scarce and mostly found in reports which are not strictly related to tourism or ecotourism, as claimed by (Baldacchino, 2015a). Reference to tourism or ecotourism related aspects are reported in studies focusing on natural sciences such as the impact of tourism activity on dolphins in waters around the Pelagian Islands (See Papale, Azzolin and Giacoma, 2012) and on socio-economic related aspects such as the impact of immigration on tourism in Lampedusa (see Orsini, 2015; van't Klooster, 2012). In the case of the Aegadian Islands, most studies have focused on the institution of the MPA, their tourism potential and impact on local communities (See Donati, 2015; Himes, 2003; 2007a; 2007b), whereas studies on Pantelleria mostly focus on tourism related to rural tourism and viticulture (See Tudisca, Sgroi and Testa, 2011).

A number of research projects have also been conducted in the area of study. One such project was 'Mediterranean Ecotourism' which targeted, among other destinations, the Pelagian Islands, the Aegadian Islands and the island of Pantelleria. One of the main goals of the project was to spread ecotourism knowledge across the territory and increase competitiveness on an international level. The project brought together international experts, operators and administrators to discuss the quality of ecotourism and certification in order to attract tourists to the territory. The internal network of stakeholders (operators and local administrators) was consolidated and a discussion on the international market was facilitated. Training was also provided to strengthen knowledge on ecocertification and ecotourism destinations best practices. Study visits to successful ecotourism destinations were held to further understand the ecotourism concept and to develop new ties. A number of visits were organised including one to the island of La Palma in the Canary Islands (Spain). An International "Mediterranean Ecotourism" Conference organised as part of the project brought together stakeholders to discuss their experiences, and the opportunities ecotourism can offer to the territory. The Gibilmann Declaration focusing on ecotourism aspects in the context of destinations, products, accommodation and network was also adopted (Ecoturismo Mediterraneo, 2008).

One other relevant project is the European Ecotourism Knowledge Network (ECOLNET) project which led to the creation of the EEN, bringing together various stakeholders. It developed new evaluation tools and learning products for sharing knowledge among the network and facilitated quality certification through the establishment of the European Ecotourism Labelling Standard (EETLS). A database of over seventy ecotourism case studies was developed to share best practices on sustainable practices reflecting the EETLS criteria (EEN, 2015a).

Another relevant project is the MEET project which aimed to improve the sustainability and the rationalisation in distribution of the tourism sector in the Mediterranean region and to foster the diversification of tourism offered. The main goal of the project was to develop an ecotourism model for Mediterranean protected areas based on the 'European Charter for Sustainable Tourism' to promote better seasonal distribution of tourism flows. The project involved ten Mediterranean countries, including Italy and Malta. It led to the development of guidelines for ecotourism planning in the Mediterranean region, the establishment of a network of protected areas across the Mediterranean region to cooperate in the field of ecotourism and the publication of an ecotourism catalogue with ecotourism packages from Mediterranean protected areas targeting selected international markets (MEET, 2016).

2.12.1 Key Ecotourism Initiatives in the Central Mediterranean Region

Various direct or indirect ecotourism initiatives have been taken in the area of study. This section will only report initiatives that have been documented whereas those that have been reported by stakeholders will be outlined in the following chapters. In the case of the Maltese Islands, most activity kicked off in 2002 a year declared by the United Nations (UN) as the IYE (UNEP/WTO, 2002). The Government of Malta decided to participate wholeheartedly in the initiative. Ahead of the IYE a co-ordinating committee was set up by the Ministry for Tourism in Malta to decide on the activities to be undertaken throughout the year. Following this, an inter-ministerial committee was set up to implement a programme of activities (DOI, 2001; UNWTO, 2017) with the aim of making the Maltese countryside more attractive, conserving and maintaining cultural assets, strengthening law enforcement and raising more environmental awareness. Activities and initiatives undertaken included the clearing of debris from the seabed, the removal of metal drums and abandoned vehicles from fields, the removal of weeds from the bastions, school visits to historical places, distribution of informative material to school children on the World Day for the Environment, the featuring of a monthly article on ecotourism venues in Malta on Air Malta's Inflight magazine and tree planting activities with the involvement of families (Times of Malta, 2002a). Malta also participated in the World Ecotourism Summit (DOI, 2002; Times of Malta, 2002b). Furthermore, the MTA launched a national ecolabel focusing on sustainability of accommodation structures (Magri, 2015). The countryside walks project was also launched in 2002 through an initiative of the Ministry for Tourism, the Ministry for Gozo, the MTA and the Gozo Tourism Association (GTA). Eight countryside walks were developed, four in Malta and four in Gozo several of which encompassed both coastal and inland areas.

A series of publications serving as guidebooks for such countryside walks were published by governmental entities as shown in Figure 2.5 (MTA, 2005). MTA also supported other complimentary initiatives taken by eNGOs such as the publication of ecological guidebooks (Camilleri, Falzon and Deidun, 2003).

There have been elements of continuity in terms of ecotourism initiatives. The ecolabel managed by the Malta Tourism Authority (MTA) introduced in 2002 has since been further developed through reviews conducted in 2008 and 2012 to focus on sustainability criteria and is operational to date. The series of articles on ecotourism published in the inflight magazine of the national airline, AirMalta in 2002 were discontinued but one still finds regular articles on ecotourism related excursions and ideal venues to practice such excursions in this magazine thus promoting the green aspect of the archipelago to inbound tourists. The countryside walks developed were unfortunately not maintained over the years and abandoned. Yet the concept was overhauled recently through the *Malta Goes Rural* project. The walks were modified, relevant infrastructure including directional signage, information signage and resting areas were installed. The relevant guidebooks were also updated and published in various languages such as English, Italian, French and German. The Ministry for Gozo has also revamped the walks in Gozo and published new guidebooks (Agius, Theuma and Deidun, 2017). There has also been recent policy initiatives such as conferences debating the way forward for ecotourism both in Malta and Gozo (Brincat, 2015; MGOZ, 2015).

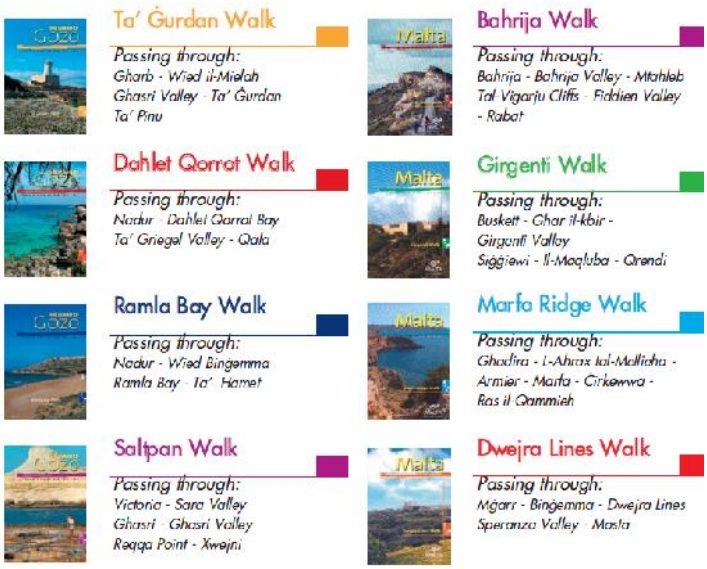

Figure 2.5: *Guidebooks on countryside walks in Malta and Gozo published as part of the project launched on the occasion of the IYE. Source: MTA, 2005.*

Other international academic conferences which focused on ecotourism have also been organised in the Maltese Islands (Micallef, Vassallo and Cassar, 2006). Another initiative which has been considered as an ecotourism good practice is the introduction of an underwater trail for SCUBA divers and snorkelers within the Maltese MPA between Rdum Majjiesa and Ras ir-Raħeb in Malta. Such activities are purposely held within resilient sites that offer an interesting activity whilst easing the pressure on more sensitive areas in order to minimise the impact on sensitive benthic habitats. Such an initiative has the potential to increase visitors to the MPA as a well as attract tourists to Malta (Mauro, Santarossa and Pigliacelli, 2015).

Environmental educational centres dedicated to marine biodiversity have been introduced in Dwejra (Gozo) and Lampedusa through the project 'PANACEA, Promotion of Marine Protected Areas through Environmental Education Centres.' These centres have a dual role of education and leisure and offer the visitors a didactic experience through a kaleidoscopic overview of the marine life and habitats found in the sites. The centres explain marine scientific issues adopting the so called "layman's system", so that even visitors and students with little or no scientific background can understand the complexity of marine environments, their links with terrestrial ecosystems and the role of protected areas. As part of the project which also featured the site at Rdum Majjiesa, educational information, including publications and audio-visual material, have been developed supporting interpretation (Deidun, 2013).

In the case of Lampedusa and Linosa, ecovolunteering camps are organised in summer to assist in the management of protected areas serving as turtle nesting sites and in turtle rescue centres (Solinas, Clò and Nicosia, 2008). In the case of the Aegadian Islands, a number of initiatives have also been taken. These include efforts to rely less on fossil fuels (EESC, 2017), the introduction of an ecolabel, treatment of organic waste, reduction in use of plastics (ENEA, 2015) and the restoration of *Posidonia oceanica* meadows (Cappucci *et al*., 2015). Furthermore, two guide books providing information on twenty eight underwater itineraries for divers and snorkelers were published and a website featuring underwater videos outlining actions promoting sustainable tourism was developed (Cocito *et al*., 2015). Kayaking and trekking have been widely promoted. Cycling itineraries have also been developed along the coast of Favignana (Guerra, 2015). Local NGOs have taken initiative to clean-up and manage coastal areas including setting up plans to end vehicular access (Agius, Thuema and Deidun, 2016).

2.13 Conclusion: Gaps in Literature

The chapter has presented the extensive research conducted in the field of ecotourism. Yet it has also outlined various gaps in literature. Firstly, it has identified the lack of content and knowledge on all ecotourism related aspects when it comes to ecotourism on islands/archipelagos in the centre of the Mediterranean Sea. In this regard, research is primarily required to shed light on its potential and to what extent marine ecotourism can be practised here.

Whereas extensive efforts have been made to define ecotourism, including by taking into account the specific region in question, the Mediterranean region has been mostly overlooked. Considering that ecotourism, the level of adherence to its principles and its various aspects are considered to be strongly influenced by the area in which it is practised, questions exist on the nature of the characteristics of ecotourism in the region, and to what extent it overlaps with other tourism products already in existence. This also exposes the need for more knowledge on how all ecotourism related aspects including ecotourism venues, activities and services and their standards, which have been extensively reported in literature can be integrated to provide a holistic ecotourism product in this region and how such a product compares with established ecodestinations in order to take the necessary policy measures.

The literature review has also exposed several challenges being faced by islands and archipelagos, some of which were recently earmarked as an opportunity. However little is known if these have an impact on ecotourism. Thus one also needs to take into account the challenges and opportunities faced by archipelagos and islands when it comes to development of ecotourism practices.

Whereas islands within archipelagos have been regularly portrayed as being all diverse and complementary to each other in order to promote island hopping, little is known about how this aspect relates in terms of ecotourism and if such a concept can be extended to a combination of islands and archipelagos in a region to create an ecotourism hub.

This chapter has also raised various contrasting remarks on marine ecotourism and seasonality. It is not clear if ecotourism can truly serve as a means to tackle such a challenge currently faced by several islands in the Mediterranean or if such a form of tourism is also characterised by seasonality and is only being perceived and/or portrayed as a fix all solution by policy makers through over-optimistic forecasts.

Whereas several theoretical arguments on the positive impacts of ecotourism have been made, questions have been raised on the practical implementation. Furthermore focus has been made on the impacts arising out of ecotourism policy and little attention has been given to other impacts arising from activity other than ecotourism that leaves an impact on the sector.

With respect to the nature of the ecotourist, this is an area which has been heavily researched yet uncertainties persist if the ecotourist as a segment truly exists. In this regard it is crucial to know who the ideal ecotourist is and what type of ecotourist is attracted to such areas as this also has implications on marketing. With respect to marketing little is known on measures being utilised in the area especially when it comes to new digital opportunities that have risen in recent years. Such lacunae in literature call for a thorough understanding of the area of study and the application of a research methodology which facilitates the collection of comprehensive data on the current situation in such areas.

Chapter 3:
Area of Study

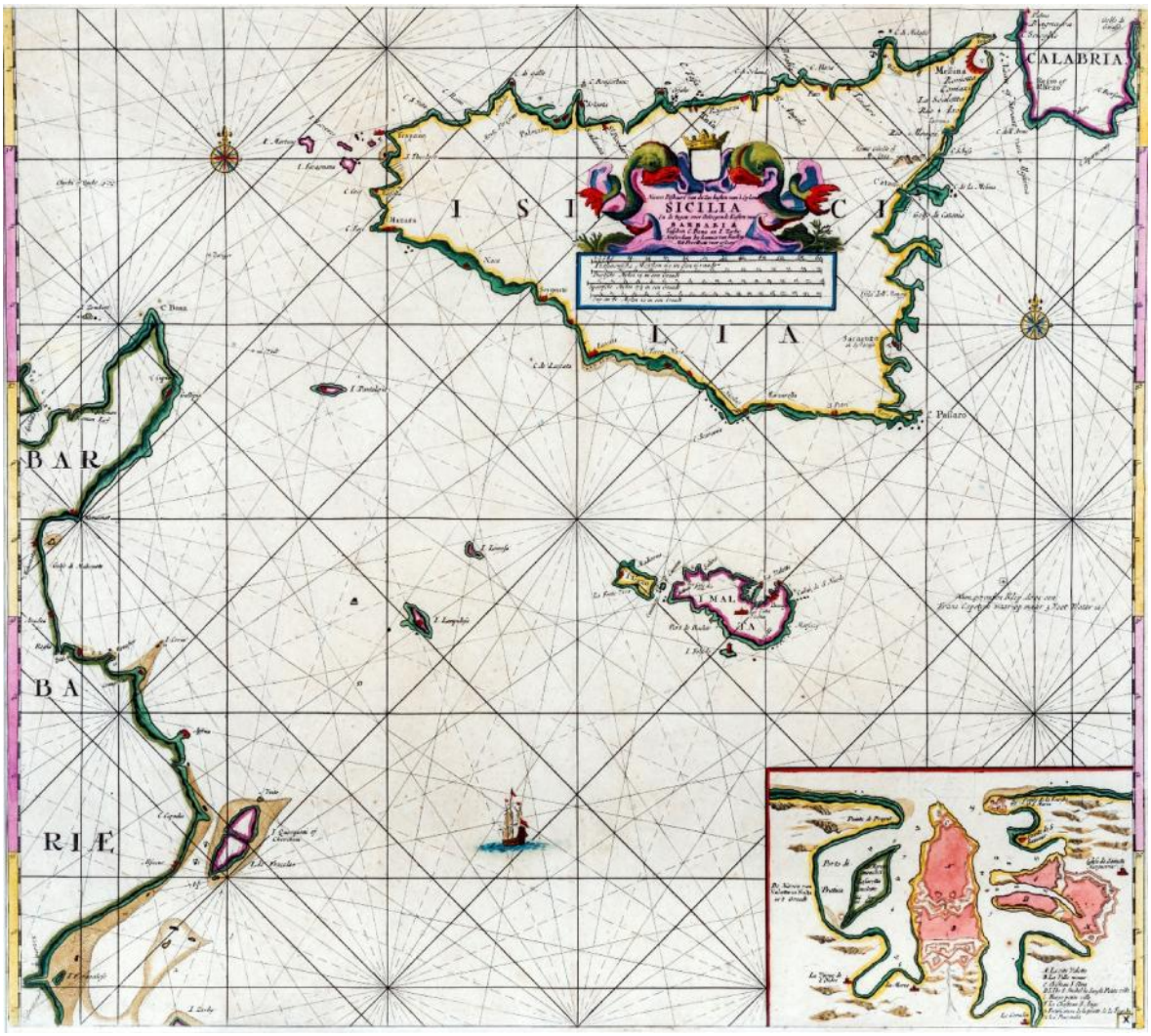

***Plate 3.1**: Nautical map showing the Maltese Islands, the Pelagian Islands, the Aegadian Islands and the island of Pantelleria. Source: Gauci, 2016. Photograph: Daniel Cilia from a private collection.*

Chapter 3: Area of Study

3.1 Introduction

This chapter gives a detailed account on the area of study outlining geophysical, climatic, demographics, governance structure and economic related information along with connectivity services. The various levels of designation ensuring environmental protection is also provided for each archipelago/island. Whereas certain elements presented below might at first seem to be superfluous to the study, an extensive understanding of the area is important for the reader to be in a better position to understand the challenges faced by the islands and the complex relationships that exist between islands, archipelagos and their inhabitants and to throw light on the interpretation of the results obtained through this research.

3.2 Area of Study and Motives Behind Islands Chosen

As shown in Figure 1.1 and Table 3.1, the area of study chosen consists of nine islands (3 archipelagos and an island) in the centre of the Mediterranean Sea. These are the:

1. Maltese Islands comprising Malta, Gozo and Comino;
2. Aegadian Islands comprising Favignana, Marettimo and Levanzo;
3. Pelagian islands comprising Lampedusa and Linosa;
4. Island of Pantelleria.

The islands were chosen due to their location in the centre of the Mediterranean Sea and their proximity to each other. This enabled the researcher to study the overarching objective of the research on different islands which share similar geographic positions (the centre of the Mediterranean region) yet are characterised by different attributes.

Almost all of the islands enjoy marine and terrestrial protected areas. The coastal water surrounding the Aegadian islands forms part of one of the biggest MPAs in the Mediterranean. Other islands such as Gozo only have specific zones designated as a MPA. The coastal waters of Pantelleria are still under consideration to be granted protection status. In Pantelleria a large portion of the island, including coastal areas, has been designated a National Park. This allowed for the researcher to further consider what impact this may have on the islands in question for the development of their ecotourism activity including coastal and marine areas.

Two of the islands under study, Linosa and Pantelleria are of volcanic origin whereas the other islands are of sedimentary origin. Therefore whereas all islands share similar characteristics, opportunities and challenges due to their location, such variations may offer different scenarios in terms of ecotourism activity that can be conducted on the respective islands. The islands in question also have different ecological and cultural attractions and thus one could investigate which targets and activities (be it terrestrial, coastal and marine) are most likely to serve as an attraction for ecotourists and what different impact such activities could have on the islands and their communities. Three groups of islands consist of archipelagos whereas Pantelleria is a single island. This also permitted the researcher to consider how island members of an archipelago could sustain each other in ecotourism ventures and what further challenges could be faced by other solitary islands in this regard, if any.

Some of the islands in question (Malta, Lampedusa and Pantelleria) serve as the gateway island through direct access via an airport whereas the other islands are solely connected by sea. Islands are also located at different distances from the mainland or bigger islands. The different challenges being faced by islands and their double insularity also served as an important factor to compare and contrast as to whether this factor may hinder ecotourism development. Last but not least the islands are exposed to various structural levels in terms of governance. The Maltese archipelago is a SIS but the island of Gozo has a government Ministry dedicated to its governance (excluding health services and education). Other islands belonging to the Republic of Italy are exposed to national, regional, provincial (in the process of dissolution) and municipal governance. Whereas the bigger islands on archipelagos under Italian jurisdiction have their own municipalities, others are governed through municipalities based on sister islands. As a result their dependence on other islands is further amplified. This may have repercussions with respect to policy and management as well as on the level of attention the various challenges being faced by such islands receive. This situation allows for comparison between the islands from an institutional perspective with respect to ecotourism potential.

Table 3.1: Characteristics of the islands under study.

Islands	**Maltese Islands**			**Aegadian Islands**			**Pelagian Islands**		
Factor	**Malta**	**Gozo**	**Comino**	**Favignana**	**Levanzo**	**Marettimo**	**Lampedusa**	**Linosa**	**Pantelleria**
Crowd factor people p/km²	1,671	485	102	233	51	74	357	169	103
Density habitants/km²	1,562	454	NA	157	39	48	261	81	93
Permanent population	397,752	31,588	4	4500	220	820	5,703	438	7,736
Visitor capacity	42,951	6,801	282	1,484	69	181	1,616	485	1,481
Area (km²)	245	67	2.9	19.8	5.8	12	20.2	5.4	84
Coastline (km)	136	42	10	33	15	18	33.3	11	51.5
Highest point (m)	253 (Dingli Cliffs)	201 (Dbiegi)	75 (Comino Hill)	314 (Santa Caterina)	278 (Monaco)	686m (Monte Falcone)	133 (Albero Sole)	195 (Monte Vulcano)	836 (Montagna Grande)

Sources: Arnold, 2008; ISTAT, 2011 as cited by Gallia, 2012; Bonanno, 2013; Fattorini and Daporto, 2014; MTA, 2016; NSO, 2012; 2016; Peronaci and Luciana, 2015; Schembri, 1993; SISPlan/IGEAM, 2012; Tudisca *et al*., 2011.

Table 3.1 presents major characteristics of each island under study as per various sources including the main source, Arnold (2008). Although one may consider this data to be outdated, it is to date one of the few analyses that have been conducted across the entire area of study, especially in the Islands under Italian jurisdiction where data is lacking[1]. In this regard the data has been, where available, updated from other new sources. It includes a crowd factor - the theoretical number of people that would be encountered on average per square kilometre, calculated by adding the number of permanent residents and visitor beds and then dividing by the area of the island. It is therefore a reliable indicator of the crowdedness of an island. The visitor capacity takes into consideration the number of available beds, including hotels and campsites. Density is also presented through data from the Italian National Institute for Statistics (ISTAT) and the National Statistics Office (NSO) in Malta. The data in Table 3.1 shows that the islands in the area of study vary considerably and thus give one the possibility to investigate the ecotourism potential in the context of various demographic and geomorphological factors. It also raises questions if such factors, including island size and crowd factor, have an impact on the islands' ecotourism potential. The area of study will be presented in further detail in the sections below in order of the dimension of the respective archipelago/island.

3.3 The Maltese Islands

The Maltese archipelago consists of a group of small islands located in the central Mediterranean region within the Strait of Sicily approximately 96 km south of Sicily and 290 km north of North Africa (see Figure 3.1). The archipelago includes three inhabited islands: Malta, Gozo and Comino together with a number of small, uninhabited islets including Cominotto, Filfla, St. Paul's Islands and General's Rock. Collectively, the Islands have a total land area of 315.6 km^2 mainly distributed between three main islands (Malta: 245.7 km^2, Gozo: 67.1 km^2, Comino: 2.98 km^2). Almost all uninhabited islands have a dimension of less than 10 ha (Cominotto: 9.9 ha, Filfla: 2.0 ha, St. Paul's Islands: 10.1 ha and General's Rock: 0.7 ha) (Lanfranco *et al*., 2013). Jointly the islands have a coastline of around 190 km. The Maltese archipelago extends for 45 kilometres in a NW-SE direction; Malta being 27 km long, Gozo 14.5 km long and Comino 2.5 km (Cassar, Conrad and Schembri, 2008; Magri, Mantovani, Pasuto and Soldati, 2008; Micallef *et al.*, 2013). The Maltese island group is composed almost entirely of marine sedimentary rocks and are calcareous in nature (Cassar *et al*., 2008). Weathering, erosion and tectonic activity have led to a variety of

[1] Other important information such as the Gross Domestic Product (GDP) is not available for all islands. In fact one of the 14 key actions of the Blue Growth Strategy includes collection of information on islands which is mostly lacking (European Commission, 2014).

geomorphological features (Lanfranco *et al*., 2013). The west of the Maltese archipelago is characterised by sheer cliffs whereas the east is characterised by gently sloping rock at mean sea water level (Schembri, 1993). The archipelago is rather low with Malta's highest point above sea level measuring 253 meters, whereas that of Gozo is 201 meters (Arnaud, 2008).

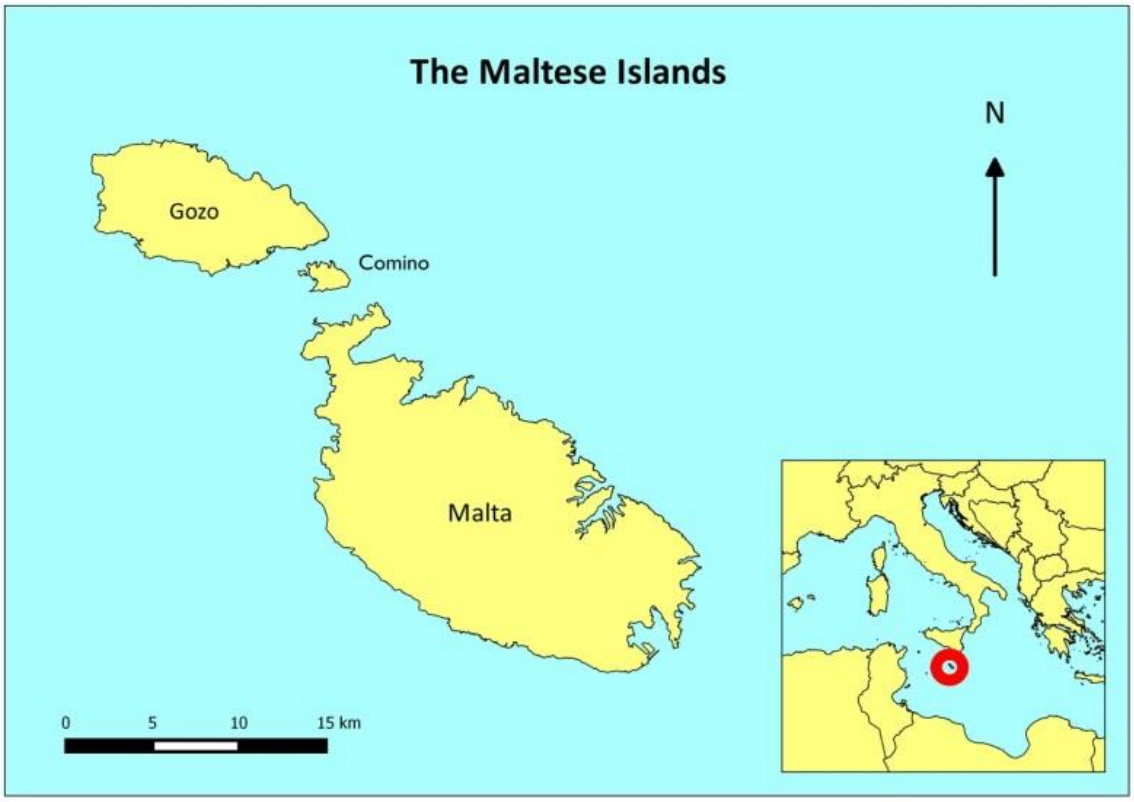

Figure 3.1: *The Maltese Islands. Source: QGIS, 2016. Designed by Andrea Pace.*

The Maltese climate is strongly bi-seasonal, with characteristic hot and dry summers and mild wet winters, a characteristic pattern of the southern and central Mediterranean region. Average annual rainfall is 553.12 mm, of which some 86% falls during the wet season (October to March). December is the wettest month whereas July is the driest month. In terms of precipitation, there are variations from year to year with some years being extremely wet and others being markedly dry. On the contrary, temperatures are generally stable. The mean monthly temperature range is 12.4–26.3 °C. August is the hottest month whereas February is the coldest month. The archipelago is also characterised by constant winds. In fact wind speeds of 1.8 km hr^{-1} are recorded on 92.3% of days throughout the year (Chetcuti, Buhagiar, Schembri and Ventura, 1992; Galdies, 2011).

From an administrative perspective, the Maltese Islands are a SIS (Briguglio, 2003). Its form of government is one legislative house elected for a term of five years (NSO, 2014). The government includes a number of Ministries including the Ministry for the Environment, Sustainable Development, and Climate change which is politically responsible for the Environment and Resources Authority (ERA) and the Ministry for Tourism which is politically responsible for MTA. The island of Gozo has its own Ministry responsible for any affair related to Gozo (excluding health services and education). Across the archipelago one finds 68 Local Councils – 54 in Malta and 14 in Gozo which serve as local government for specific localities (Government of Malta, 2015). According to the Local Councils Act, the functions of Local Councils include protecting the natural environment of the locality and taking all necessary steps to ensure a more efficient use of energy and good waste management. Local councils are also responsible to assist citizens by providing, where applicable in conjunction with any competent authority, information on tourist facilities. The main economic activities on the archipelago are notably financial services, manufacturing and tourism with the latter responsible for some 25% of direct and indirect economic activity (NSO, 2014; Grech, 2016).

With respect to connectivity, Malta is the main access point to the archipelago as the only international airport and cruise liner terminal are both found here. The two main inhabited islands, Malta and Gozo are well connected via regular ferry boats. Ferry boats between Malta (Port of Ċirkewwa) and Gozo (Port of Mġarr) operate on a daily basis throughout the day. Although at times waiting times to board the ferry can be relatively long, these trips normally take less than thirty minutes and are run by the state owned company Gozo Channel (Chaperon and Theuma, 2015). For a long time, the service has been considered to be inefficient and unable to meet the needs of those residing in Gozo (Theuma and Theuma, 2006). Malta and Gozo are also connected to Comino mainly during the summer period. Various private operators carry people between Malta and Comino and Gozo and Comino using small boats (Chaperon and Theuma, 2015).

The total population in the Maltese Islands was estimated 429,344 as at the end of 2014 and the number of residents in Gozo and Comino stood at 31,592 residents (NSO, 2016). Tourist arrivals reached almost 2 million by the end of 2016 (NSO, 2017). Noting the figures of population size, tourist arrivals and the surface area of the islands, the Maltese archipelago with a population density of more than 1500 persons km^{-2} is one of the most densely populated areas in the world (Lanfranco *et al.*, 2013). The high population density and the Islands' economic dependence on tourism has led to an increase in the urban footprint at the expense of the natural environment (Cassar *et al.*, 2008) especially along the foreshore where most touristic development has taken place (Boissevain,

2004). In fact, 51% of the land surface is used for agricultural purposes, 22% accounts for the urbanised area whereas only 18% of the total islands area is considered to be natural (MEPA, 2010).

Whereas one finds no mountains on any of the Maltese Islands and therefore biotic phenomena associated with such landforms are lacking, the islands are still interesting from a biodiversity perspective. Over 2,000 species of terrestrial plants and over 3,000 species of terrestrial animals have been recorded to date (Schembri, 2003). Furthermore, the archipelago also supports a number of strictly endemic species (including 23 plant species) and other species (including some 20 species) which are sub-endemic to the Maltese and *circum*-Sicilian islands (Cassar *et al*., 2008; Lanfranco *et al*., 2013).

Several terrestrial and marine sites across the archipelago are protected through one designation or another, sometimes through more than one, such as national and European designations. In fact the database of protected areas - Protected Planet (2018) - lists 286 various designations for sites found in the Maltese Islands. In terms of terrestrial terrains, across the Maltese Islands, 30.29% (98 km^2) of the total land area (325 km^2) is protected whereas out of the total Fisheries Conservation and Management Zone (FCMZ) which extends to 25 nm (approximately 11,480 km^2), 35% (4,138 km^2) is protected (European Commission, 2011; European MSP Platform, 2018; MESDC, 2018; Protected Planet, 2018). Figure 3.2 shows the various sites in the Maltese islands protected through one designation or another. See page 367 for an overview of MPAs across the Maltese Islands.

According to data presented by ERA to the European Environment Agency (EEA), Malta has 266 terrestrial and marine sites protected under various forms of national designations including tree protection areas, bird sanctuaries, nature reserves, islets and protected beaches among other sites (EEA, 2017). Taking into account the EU (European Union) Natura 2000 network, Malta has 48 protected areas. These include 34 terrestrial sites and 14 marine sites. The 34 terrestrial sites listed in Annex 1 (see Table A1.1) cover a total area of 42 km^2, which is approximately 13.5% of the Maltese land area. These sites contain a range of protected habitats listed in Annex I of the Habitats Directive and include coastal clay slopes, coastal lagoons and riparian forests with the latter being a very rare habitat in Malta. Scheduled sites which also form part of the EU Natura 2000 network of protected areas also include the islets, coastal cliffs, saline marshlands, sandy beaches and dunes, areas of garigue and maquis, woodland areas, and caves and other geological features (ERA, 2016; ERA, 2017b; ERA, 2018).

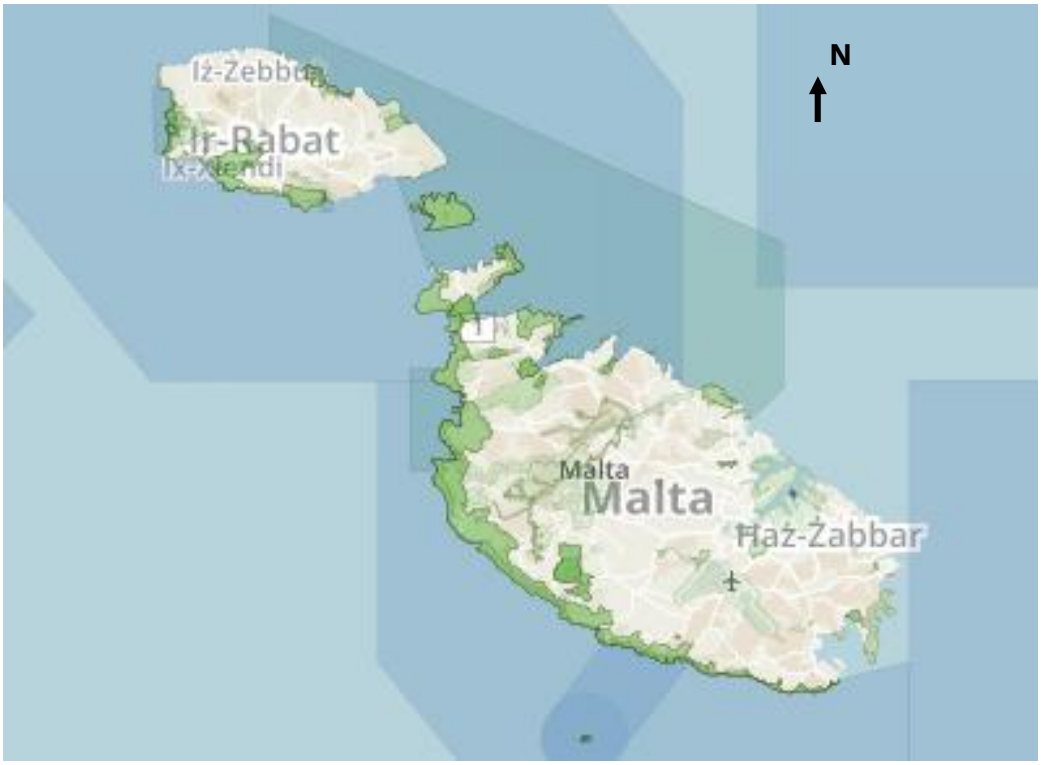

Figure 3.2: *MPAs (shaded in blue) and terrestrial protected areas (shaded in green) across the Maltese Islands. Source: Protected Planet, 2018.*

With respect to MPAs, their establishment in Malta was given a push during the IYE. In fact in 2002, projects earmarked by the MTA to commemorate the year included the setting up of a 'Marine Conservation Area' (MTA, 2001). Between the years 2000 and 2003, a survey was carried out to map and to determine the extent and status of the marine habitat type dominated by *Posidonia oceanica* meadows (Government of Malta, 2004). A few years later, in 2005, the first MPA was declared under the Environment Protection Act consisting of the area between Rdum Majjiesa and Ras ir-Raħeb. The area with a total marine surface of 8.5 km^2 lies on the northwest coast of mainland Malta was designated as a Natura 2000 site in 2008. Four other sites were designated as MPAs in 2010 through national legislation. These included a stretch of coast alongside the North East of the Islands, including three smaller islands, Mġarr ix-Xini, Dwejra and an area between Għar Lapsi and Filfla (Caruana Dingli and Galea, 2016; European Commission, 2011; MEPA, 2010). These sites became Natura 2000 sites in 2012 (EUR-Lex, 2015). Following studies conducted through the projects LIFE+ MIGRATE and the LIFE+ Malta Seabird Project, as of April 2016 Malta has nine additional MPAs. Their designation was also approved by the European Commission thus becoming Special Protection Areas (SPAs) and forming part of the EU-wide Natura 2000 network (BridLife Malta, 2016). A commitment to designate further MPAs to protect caves and reefs was

made during the Our Ocean conference (Muscat, 2017). In fact, on these grounds, as of May 2018, Malta has eight additional MPAs following studies conducted through the LIFE+ BAHAR project (ERA, 2018; MESDC, 2018). For a full list of MPAs in the Maltese Islands forming part of the Natura 2000 network see Annex 1 (Table A1.2). As a result Malta has increased the total protected marine sites forming part of the EU Natura 2000 Network from 3,487.02 km^2 equivalent to 29.88 % of the FCMZ (ERA, 2017a) to 4,138 km^2 (an area larger than the country itself) reaching over 35% of the Maltese waters (MESDC, 2018).

Whereas the first five existing marine sites were designated as Special Areas of Conservation (SACs) primarily on the basis of the presence of *Posidonia* seagrass meadows, the following 13 established MPAs were designated on other priority marine habitats including the protection of seabird species, loggerhead turtle, as well as turtles and dolphins (The Malta Independent, 2016). The latest additional sites have been granted protection owing to the presence of important seabed habitats, specifically reefs and caves, in both coastal and deep waters (MESDC, 2018).

3.4 The Aegadian Islands

The Aegadian archipelago consists of three main islands (Favignana, Marettimo and Levanzo) and a few small islets (Galeotta, Galera, Preveto, Formica and Maraone) (Mannino, Parasporo, Crocetta and Balistreri, 2016). The archipelago is located directly west of the city of Trapani on the western-most point of Sicily (Himes, 2007a) between seven and nine km from Sicily (Italy, Tyrrhenian Sea) (Mannino *et al.*, 2016). Marettimo is the furthest from Sicily (24 km) whereas the closest are Favignana (16 km) and Levanzo (13 km) (Peronaci and Luciani, 2015). See Figure 3.3.

Geologically the Aegadian Islands are calcareous and dolomitic (Bonanno, 2013). Favignana is the biggest island of the archipelago with a surface area of 19.8 km^2 (Peronaci and Luciani, 2015) and a perimeter of 33 km. Marettimo has a surface area of 12 km^2 and a perimeter of 18 km (Fattorini and Dapporto, 2014) whereas Levanzo has a surface area of 5.82 km^2 and a coastal perimeter of 12 km (Romano and Gianguzzi, 2006). Of the three islands, Marettimo is the most mountainous island (Iapichino, Curatolo, Bertolino and Sciortino, 2009) with a maximum elevation of 686 m followed by Favignana (maximum elevation of 302 m) and Levanzo (maximum elevation of 278 m) (Fattorini and Dapporto, 2014).

With respect to climate, the average annual temperature in the archipelago is 18.8 ^{o}C with maximum temperatures in August reaching over 25 ^{o}C and minimum temperatures in January reaching between 10-12 ^{o}C. Annual rainfall is in the region of 495 mm. Prevalent winds are south, north-west and north east. The climate is typical arid Mediterranean (Duro, Piccione, Scalia and Zampino, 1996).

The entire archipelago is governed through the municipality of Favignana in the province of Trapani, situated within the Region of Sicily (Co.Ge.P.A. di Trapani 2010; Antonelli *et al*., 2016). Whereas in the past, the economy of the islands was based on activities related to the sea (such as fishing and fish processing) and to the use of land (such as for agricultural purposes) to be self-sufficient, development of transport has radically transformed the islands. Tourism has developed and increased considerably along with related activities such as construction and maintenance of accommodation structures (Peronaci and Luciani, 2015).

Figure 3.3: *The Aegadian Islands. Source: QGIS, 2016. Designed by Andrea Pace*.

The Aegadian Islands are all connected to the main land and to the other islands within the same archipelago through a ferry and a fast hydrofoil service. All craft originally depart from the harbour of Trapani which is connected by air (Birgi airport), rail and bus. Whereas multiple runs of hydrofoil are

available all year round, the service is more frequent in the summer period. Storm conditions and rough sea, especially in mid-winter, occasionally causes the temporary suspension of services (Price, 2015). In the summer season connections to other destinations are organised from time to time (Ravazza, 2007).

As of 2001, the population in the Aegadian Islands started to increase slowly after three decades of depopulation yet it is considered as an aging population. Aging and depopulation have been partly linked to emigration of residents resulting from lack of job opportunities all year round due to the seasonal nature of tourism, the rising cost of living as a result of tourism and the disappearance of traditional economic activities such as the tuna industry, quarrying and agriculture (Peronaci and Luciani, 2015). Levanzo has a population of 220 people and Marettimo a population of 820 people (Bonanno, 2013). Favignana is the most populated island within the archipelago with its 4500 residents making up 75% of the entire population of the archipelago. Furthermore, the island of Favignana receives most tourists. Tourist arrivals in the archipelago have increased constantly in the past decade and exceeded 800,000 arrivals as shown in Figure 3.4. Yet, tourism remains seasonal in nature with most tourists visiting the archipelago in the summer period as shown in Figure 3.5 (Peronaci and Luciani, 2015).

In August, some 60,000 visit the island of Favignana on a daily basis. This has led to extensive pressure on the environment due to a number of reasons including waste and sewage water generation, water consumption and traffic. Transport to the islands via sea is also considered to have an impact on the sea. The latter is considered to be an important natural resource (Peronaci and Luciani, 2015).

Tourism has also led to development. Whereas on the islands of Levanzo and Marettimo this has exclusively taken place in the historic centre, in the case of Favignana this has extended beyond the urban centre and moved to areas formerly used for mining and agricultural purposes (Peronaci and Luciani, 2015). Such practices, along with abusive building, has led to a negative impact on the natural environment and to concerns due to the value of the natural resource (Trotta, 2006). The sea surrounding the Aegadian Islands is one of the most transparent and species-rich in the Mediterranean (Co.Ge.P.A. di Trapani, 2010). A number of endemic and sub-endemic species can also be found in the archipelago including the lizard *Podarcis wagleriana*, endemic to Sicily, the Aegadian Islands and Stagnone Islands (Capula, Luiselli, Bologna and Ceccarelli, 2002). Some nine endemic plant species can also be found in the archipelago (Pasta and La Mantia, 2013). The endangered monk seal (*Monachus monachus*) has also been sited within the archipelago. Apart

from the marine flora and fauna, the sea surrounding the archipelago is also interesting in terms of marine avifauna due to the presence of a colony of the rare storm petrel (*Hydrobates pelagicus*) (Donati, 2015).

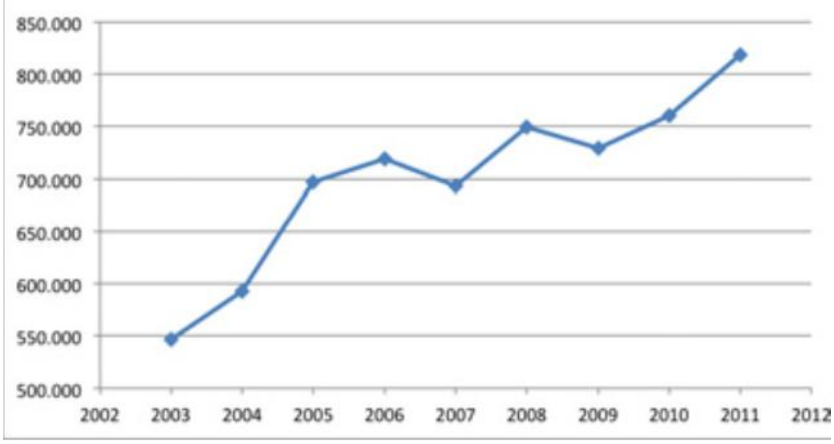

***Figure 3.4**: Tourist presence in the Aegadian Islands between 2003 and 2011. Source: Peronaci and Luciani, 2015.*

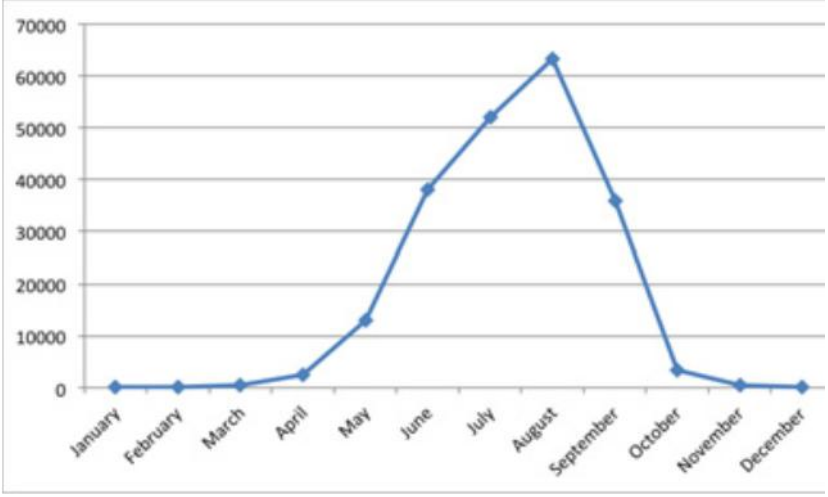

***Figure 3.5**: Tourist arrivals in 2013. Source: Peronaci and Luciani, 2015.*

As a consequence of its natural importance, the archipelago has over the years earned a number of designations both at national level as well as at EU level. The terrestrial part of the Aegadian Islands had been earmarked to be incorporated in the List of Parks and Reserves of Sicily (through L.R. 98/81 and 14/198). Three natural reserves had been forecast for the Islands within the Aegadian archipelago but these were annulled by the Regional Administrative Court (Tribunale Amministrativo Regionale - TAR) due to a lack of scientific support and the fact that authorities had

failed to give due attention do the interests of the local community (Giambrone, 2003; Romano, Tobia and Gianguzzi, 2006). In 2007, the Ministry for the Environment proposed the institution of a National Park. The Park was also forecasted through the Budget of 2008 (Co.Ge.P.A. di Trapani, 2010) but this was met with great opposition from local stakeholders and has not yet been implemented. Whereas national designation is missing, the terrestrial part of the archipelago is protected through a number a designations at EU Level. These include the SACs ITA010002 “Isola di Marettimo”, ITA010003 “Isola di Levanzo” and ITA010004 “Isola di Favignana” (EUR-Lex, 2015). Furthermore, due to the fact that the entire archipelago falls within the Important Bird Area (IBA) 157 Isole Egadi (Regione Siciliana, 2017), the entire archipelago and surrounding sea area has been designated as a SPA (ITA010027 “Arcipelago delle Egadi - area marina e terrestre”) (EUR-Lex, 2015).

In 1991, the largest MPA in Italy was instituted in the sea surrounding the archipelago (Mannino *et al.*, 2016) and was ineffectively managed by the Italian Coast Guard between 1991 and 2000 following which period, its management was entrusted to the municipality of Favignana. The MPA is managed by a director (appointed by the mayor of the municipality) and an advisory board. The MPA stretches westward off the coast of Trapani encompassing three main islands and other islets within the archipelago. It covers approximately 540 km^2, and 22 km of protected coastline. It is the largest MPA established in Italy to date and the second largest MPA in the Mediterranean. It is divided into four zones (Zones A, B, C and D) with various levels of protection and restrictions (Himes, 2007a). The MPA includes the largest and best preserved meadow of *Posidonia oceanica* in the Mediterranean Sea serving as a vital nursery for hundreds of species. The institutional mission of the MPA includes the protection and enhancement of the marine environment, environmental education and the promotion of sustainable development, with particular reference to the ecocompatibility of tourism (Donati, 2015). The area covered by the MPA is also part of the Natura 2000 network and has been designated as a SAC (ITA010024 “Fondali dell’Arcipelago delle Isole Egadi”) (EUR-Lex, 2015). A full list of Natura 2000 designations for the Aegadian Islands can be found in Annex 1 (see Table A1.3).

3.5 The Pelagian Islands

The Pelagian Islands consist of the islands of Lampedusa and Linosa and the islet of Lampione (see Figure 3.6). The islands are geologically heterogeneous (Bonanno, 2013). Whereas Lampedusa and Lampione are both calcareous islands, Linosa differs as it is volcanic (Serio,

Alongi, Catra, Cormaci and Furnari, 2006). Positioned in the Strait of Sicily, the Pelagian Islands are closer to Africa than to Sicily itself (O'Healy, 2016).

Lampedusa is located at about 130 km from the Tunisian coast and, 250 km from the Sicilian coast (La Manna, Manghi, and Sara, 2014). Lampedusa with a surface area of 20.2 km^2 (Ferlito *et al*., 2013) has a roughly triangular shape with a length of 10 km and maximum width of about 4 km. It is characterised by steep cliffs to the north (with a height ranging from 50 m to 133 m) and gentle slopes to the south and south-east (Ferrari, 2006) which are interrupted by a number of valleys (La Mantia, Carimi, Di Lorenzo and Pasta, 2011). The coastal perimeter of 33.3 km is also characterised by inlets, beaches and numerous caves hence further increasing its touristic value (SISPlan/IGEAM, 2012).

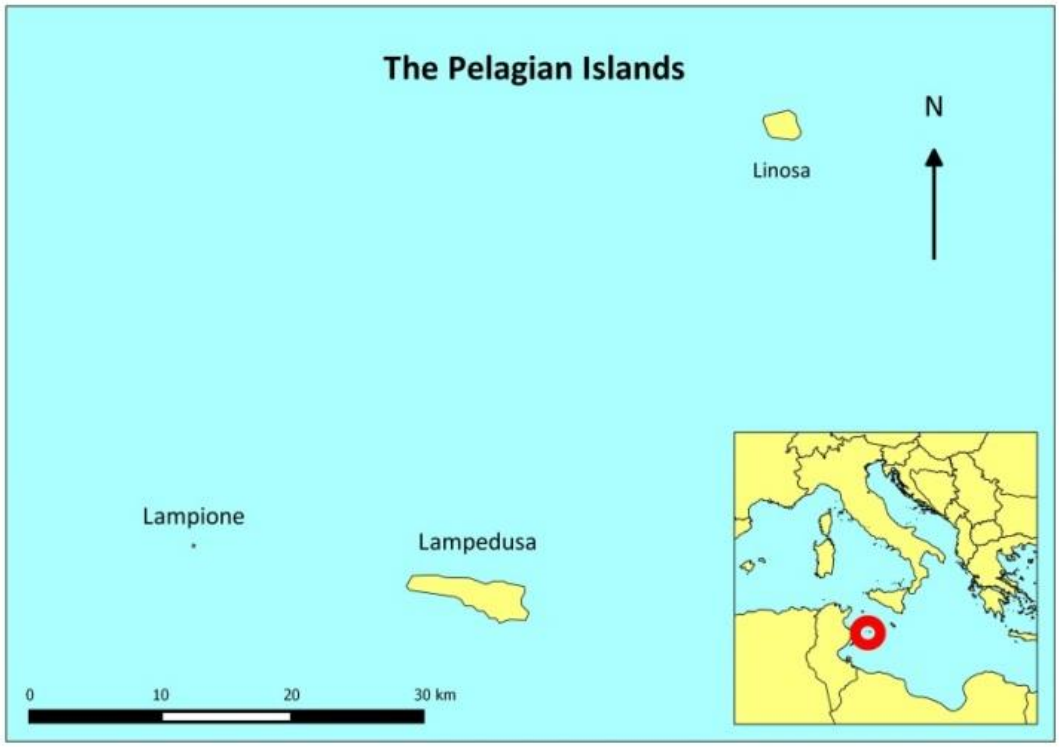

Figure 3.6: *The Pelagian Islands. Source: QGIS, 2016. Designed by Andrea Pace.*

The circular shaped island of Linosa with an area of 5.4 km^2 and a coastline of 11 km is located about 165 km off the northern coast of Africa and 167 km off the south-western coast of Sicily (Serio *et al*., 2006). Due to its volcanic origin, major inactive volcanic cones still exist and these include Monte Nero (106 meters), Monte Vulcano (195 meters) and Monte Rosso (186 meters) (Giardina, 2012).

The uninhabited islet of Lampione is located 17 km away from Lampedusa, 60 km east of Linosa and 118 km from Ras Kaboudja (Tunisia) (Nicolini, Dimarca, Casamento and Livreri Console, 2008). It has a surface area of 0.03 km^2 and a perimeter of 1.8 km. The highest point is 40 meters above sea level (Fattorini and Dapporto, 2014). The islet of Lampione is visited quite often by tourists and natural scientists throughout their stay on Lampedusa, especially during the summer period (Domina, Soldano, Scafidi and Danin, 2012).

Lampedusa is subject to a climate ranging from the semi-arid Mediterranean of Southern Sicily to the arid of North Africa and according to the classification of Rivas-Martínez (2004) it is referred to as the infra-Mediterranean type (Sferlazzo, 2009). Precipitation is irregular and low (less than 320 mm/yr and average monthly values rarely exceeding 60 mm) and are mostly concentrated between October and March. Average yearly temperature is about 19 °C. Temperature range tends to be quite wide, the coldest month is February (9−14 °C, never under 2 °C), while the hottest one is August (24- 30 °C, sometimes nearly 35°C) (La Mantia *et al.*, 2011; La Mantia, Veca, Marchetti and Barbera, 2013). Furthermore, the island is characterised by constant wind which is present at around 80% of the entire year (Chamard *et al*., 1998).

Lampedusa and Linosa are administered by the municipality of Lampedusa which forms part of the province of Agrigento in Sicily (Ferlito *et al*., 2013; O'Healy, 2016). The entire population of the Pelagian Islands is equivalent to 6335 inhabitants, most of whom reside in the main village on the island of Lampedusa also known as Lampedusa. Some 433 inhabitants live on the island of Linosa. Between 2001 and 2011, the population increased by 7% but those falling within the age range of 0-29 decreased by 8% (Ferrari, 2006; Comune di Lampedusa e Linosa, 2015). The population of the archipelago multiplies during the month of August due to tourist arrivals (SISPlan/IGEAM, 2012) which surpass 100,000 arrivals annually. Most tourists (85%), visit the archipelago in the summer period. The main aspects that attract tourists to the archipelago are the natural environment, excursions and services available including accommodation structures and restaurants (Comune di Lampedusa e Linosa, 2015).

The Island of Lampedusa has an airport that connects the island to Sicily. Daily flights connect the island with Palermo and Catania. During the summer period chartered flights to a number of destinations including Milan, Venice, Turin, Verona, Bologna and Rome are organised by local consortia (Ravazza and Anselmo, 2010; Lampedusa Pelagie – Informazioni Turistiche, 2017). The company Siremar offers a circular ferry service stopping at Porto Empedocle (Agrigento, Sicily), Linosa and Lampedusa. The part of the voyage between Porto Empedocle and Linosa takes seven

hours whereas the part of the voyage between Linosa and Lampedusa takes a further two hours. The company Liberty Lines links Linosa and Lampedusa through a hydrofoil service which takes one hour. The service runs all year round weather permitting. In the summer period, the hydrofoil service also operates between Linosa and Porto Empedocle and it takes up to three hours to complete the journey (Domina *et* al., 2012; Longhi *et al*., 2006; Nicolini *et al*., 2008).

Until less than 30 years ago, the fishing sector and bluefish canning industry characterised the economy of Lampedusa and provided employment for almost the entire population. Gradually, several locals abandoned the fishing industry and specialised in the tourism sector to earn a living and today most locals obtain their main income from tourism related activity (Orsini, 2015). Working in the tourism sector is considered by some as the only way to make a living on the island (O'Healy, 2016). According to ISTAT data, the agriculture area in the archipelago accounts for 4.44 ha (Ferlito *et al*., 2013). In fact, agricultural activity represents a smaller share of the local economy and mostly takes place on Linosa. The fishing sector still plays an important social and cultural role on the islands yet the economic weight of the sector, which was once a major player in the economy of the archipelago, has decreased despite the presence of small companies focusing on canning and packaging of fish products (Comune di Lampedusa e Linosa, 2015).

Lampedusa has also been considered by several migrants and refugees of African origin as a major gateway to Europe. In fact, the island has faced an immigration crises over the past two decades (Domina *et al.,* 2012; Melotti, Ruspini and Marra, 2017; Milioto, 2013). This has also raised concern regarding the possible impact on the tourism sector (O'Healy, 2016). Apart from immigration, urbanisation has also been a concern on the island since it has increased drastically in the past 50 years. Throughout this period the image of Lampedusa has been changed drastically due to the rise in tourism and its impact on the economy and the environment of the island (Comune di Lampedusa e Linosa, 2015). Compared to Lampedusa, Linosa suffered only minor human impact (Nicolini *et al.*, 2008).

The Pelagian Archipealgo is of outstanding importance with respect to its natural environment. It is closely associated with turtle nesting sites which include the Spiagga dei Conigli on Lampedusa with an area of 6000 m^2 (the largest beach on Lampedusa) and the Spiagga Pozzolana di Ponente on Linosa with an area of 1100 m^2. These sites represent the most monitored beaches in Italy where the loggerhead sea turtle (*Caretta carretta*) lays its eggs (Piovano *et al*., 2006). Local flora and vegetation is of exceptional interest and includes 21 strictly endemic plants (Pasta, La Mantia and Rühl, 2012; Pasta and La Mantia, 2013).

Due to its natural importance the archipelago has been subject to a number of designations both at national level as well as at EU level through four Natura 2000 sites. The Natural Reserve "Riserva Naturale Orientata Isola di Lampedusa"[2] was instituted in 1995 and its management was entrusted to the eNGO Legambiente Sicilia (Prazzi, Nicolini, Piovano and Giacoma, 2013). The area consists of 3.7 km^2, equivalent to 18% of the territory of Lampedusa, and is situated towards the south of the island between Vallone dell Acqua to the west and Cala Greca to the east. The site is divided into two zones in which different activities and land use can take place according to the environmental characteristics and the management objectives (Barbagallo, 2003). The entire area lies within the Site of Community Importance (SCI) ITA040002 "Isola di Lampedusa e Lampione" which covers two thirds (67.81%) of the land surface of the island of Lampedusa (Sposimo, 2014) (see Figure 3.7).

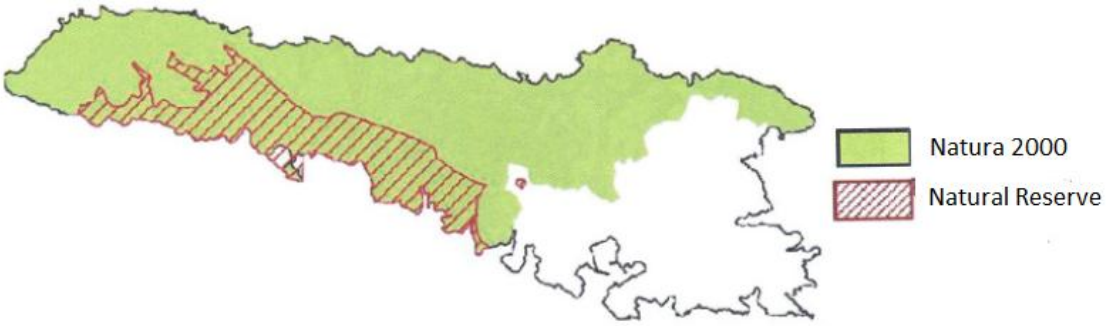

Figure 3.7: *The nature reserve on Lampedusa shown lying within the Natura 2000 site SCI ITA040002. Source: SISPlan/IGEAM, 2012.*

Part of the island of Linosa and the entire territory of Lampione falls within the Natural Reserve "Riserva naturale integrale/orientata Isola di Linosa e Lampione". The reserve with an area of 2.65 km^2 was established in 1997 and is managed by the Department of Rural and Territorial Development (former Forestry Authority - Azienda Foreste Demaniali) of the Sicilian Region (Sposimo, 2014) and covers about 49.5% of Linosa (as an oriented nature reserve) and 100% of Lampione (as an integral nature reserve[3]) (Fattorini and Dapporto, 2014). Much of the surface of the island of Linosa also falls within the Natura 2000 sites SCI ITA04001 "Isola di Linosa" which extends over an area of 4.35 km^2 accounting for 80% of the island (EUR-Lex, 2015). The islet of Lampione

[2] An oriented (=orientata) nature reserve is a protected area where cultural, agricultural, forestry and pastoral activities are allowed, provided that they do not conflict with the conservation of the natural environment.

[3] An integral (=integrale) nature reserve is a protected area where no human activities of any kind are allowed, with the exception of scientific research.

also falls within the Natura 2000 site SCI ITA040002 “Isola di Lampedusa e Lampione” (Sposimo, 2014). The entire territory of the islands of Lampedusa and Linosa falls within the IBA 168 Pantelleria and Pelagian Islands (Sposimo, 2014). To this effect the entire territory of the Pelagic island also forms part of the Natura 2000 site ITA040013 “Arcipelago delle Pelagie – area marina e terrestre” (Prazzi *et al*., 2013).

In 2002 a portion of the waters surrounding the Pelagian Islands was declared a MPA (AMP Isole Pelagie) by the Italian Ministry for the Environment (La Manna *et al.*, 2014). Its management was assigned to the municipality of Lampedusa and Linosa a year later with the objective to protect the marine vegetation and fauna, biological resources and geomorphology of the area (Cooperativa Sesto Continente, 2012). The area includes 41.36 km^2 and 46.28 km of coastline (Giardina, 2012). As with all MPAs in Italy, the MPA is managed through a system of zones. The sea area adjacent to the Spiaggia dei Conigli (Rabbit beach) has been designated as Zone A (absolute protection) (Prazzi *et al*., 2013). The area is also designated as a SCI ITA040014 “Fondali delle Isole Pelagie” (EUR-Lex, 2015). For a full list of designations under the EU Birds and Habitats directives see Annex 1 (Table A1.4).

3.6 Pantelleria

With an area of 83 km^2 Pantelleria is the largest of the Sicilian satellite islands (Tudisca, Di Trapani, Sgroi and Testa, 2013) and the fifth largest island of all Italian islands (Gabriele, 1995). It is 14 km long, 8 km wide (Buck, 2013), has a coastline of 51.5 km and exhibits an elliptical shape (Ferlito *et al*., 2013). The island is located to the northwest of the Maltese Islands (Gabriele, 1995), in the middle of the Strait of Sicily at a distance of 85 km from Sicily and 67 km from Tunisia (Tudisca *et al*., 2013) (See Figure 3.8). Pantelleria is a quiescent volcanic island with present volcanic activity limited to low temperature fumarolic emissions and thermal springs (Aiuppa *et al*., 2007). Fumarolic emissions consisting of water vapour and carbon dioxide are found in various spots including the Grotta del Bagno Asciutto. Thermal springs with temperatures varying between 30-90 ^oC are quite common on the island and are found in various areas along the coast including Gadir, Scuari and Sataria. Such thermal springs are also found inland case in point along the volcanic lake Specchio di Venere (Gianguzzi, 1999). The morphology of the island is mainly derived from ancient volcanic and tectonic activities (Bianchi and Acri, 2003). It is dominated by Montagna Grande (836 m), followed by Monte Gibele (700 m) and other inactive volcano cones (Gianguzzi, Cusimano, Cuttonaro and Romano, 2013) that characterise the territory including Cuddia Mida (591 meters) and Cuddia Attalora (560 meters) (European Commission, 2013).

Pantelleria enjoys a Mediterranean climate, with hot summers and mild winters and with average monthly temperatures between 11.7 and 25.6 ^{o}C. Rainfall is scarce with an average annual precipitation of 409 mm (Gianguzzi, 1999) mostly between October and February (Mazzola, Geraci and Raimondo, 2001). The island is characterised by constant wind which blows almost every day of the year (337 days on average) (Falcone and Nicotra, 2005; Tudisca *et al*., 2013). Administratively the island belongs to the Republic of Italy. Pantelleria has its own municipality (known as *comune*) and forms part of the province of Trapani. Tourism represents its main economic activity which has been on the rise since the 1980's. This is followed by agriculture with the latter dominated by the cultivation of vines (Tudisca *et al*., 2013) the latter being an important pillar of the local economy (Ferlito *et al*., 2013). Tourism has also served to re-launch agricultural activity on the islands following years of disinterest in the sector during which period a lot of terrain was abandoned (Altamore, Bacarella, Di Franco and Corona, 2009).

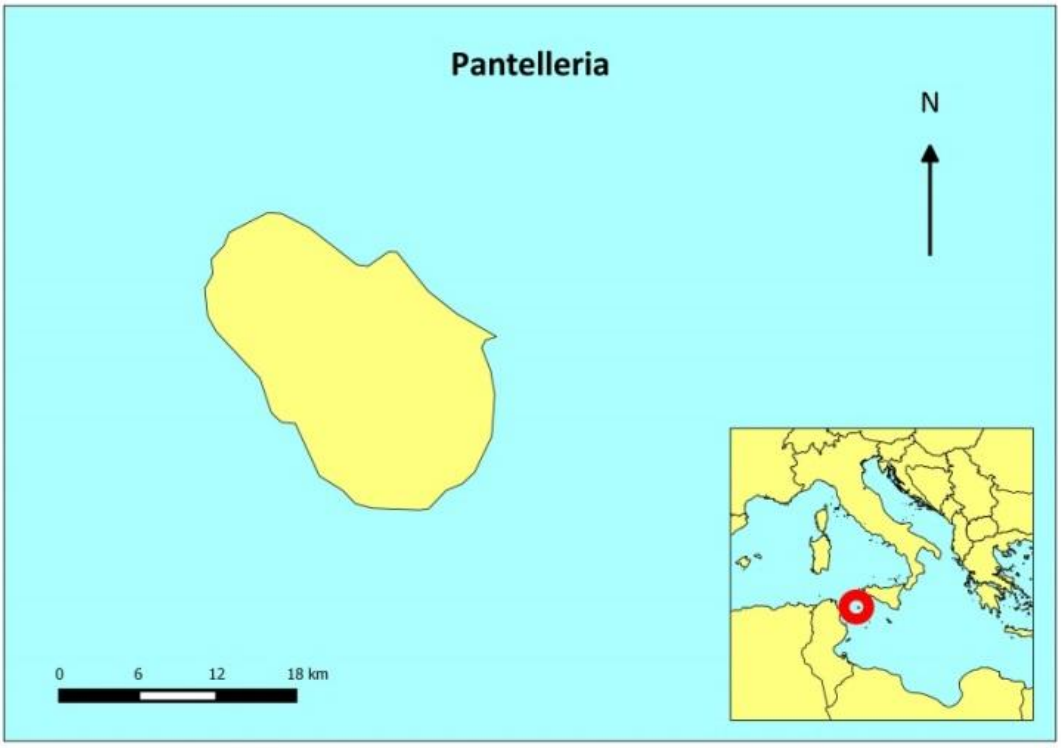

Figure 3.8: *The island of Pantelleria. Source: QGIS, 2016. Designed by Andrea Pace*.

The island of Pantelleria has a seaport and an airport. It is connected with Trapani via ferry by the companies Siremar and Traghetti delle Isole with the voyage taking between six to seven hours. The company Liberty Lines operates a hydrofoil service in the summer period and the voyage takes approximately three hours. With respect to transport by air, there are two daily flights of 45 minutes

linking the island with Trapani and Palermo. In the period between May and October chartered flights link the island to additional destinations such as Rome, Milan, Turin, Bologna and Venice (I Love Pantelleria, 2017).

In 2008 Pantelleria had a resident population of 7,736 (Tudisca *et al*., 2011) who resided in the main village (Pantelleria) and in other dispersed settlements all around the island including Khamma, Tracino, Scauri, Rekhale, San Vito, Sibá and Bugeber (Lacano, 2009; Palazzolo, 2010). The population density of Pantelleria is 93 inhabitants per square kilometre (Altamore *et al*., 2009). Population has decreased over the years but increased slightly as of 2001 (Tudisca *et al*., 2011). According to data from the Italian Civil Aviation Authority (ENAC) and the Ministry for Transport cited by Altamore *et al*., (2009) there are circa 231,000 annual visitors, 66% of whom travel by air.

The geomorphology of the island has been profoundly altered due to human activity mostly related to agriculture and more specifically due to the modification of slopes into terraced fields to create flat surfaces for agriculture purposes (Gianguzzi, 1999; Rühl, Pasta and La Mantia, 2005). Whereas in the past large parts of the island used to be characterised by such a landscape, nowadays the terraces are commonly being abandoned and causing soil to be impoverished due to the weeds that take over the terrain, damaged rubble walls, soil erosion and fire. According to ISTAT data, the cultivated area on the island accounts for 1680.81 ha (Ferlito *et al*., 2013). As a result, 59.5% of the area of the island is said to be used for agriculture (Tudisca *et al*., 2013).

Whereas human activity has led to large-scale environmental changes, some areas are still in a pristine state due to limited accessibility (Ferlito *et al*., 2013). Thus Pantelleria is still of interest from a biodiversity point of view. It is characterized by abundant plant species richness (approximately 600 species), with the presence of several endemic species including six plant species such as *Helichrysum errerae*, *Limonium cosyrense*, *Matthiola incana* subsp. *pulchella* in the coastal zone, and *Limonium secundirameum* along the shore of lake Specchio di Venere (Gianguzzi, 1999; Gianguzzi *et al*., 2013; Pasta and La Mantia, 2013). Bianchi and Acri (2003) refer to a number of studies conducted on the marine biology of Pantelleria and which mainly focus on the botanical aspect. These have confirmed a high rate of biodiversity of marine life and thus showcase the importance of the coastal habitats of this island. On the other hand Margottini (2011) refers to claims made by a number of scientists that the waters around Pantelleria serve as a nursery for the logger-head sea turtle and the white shark. One also finds cetaceans such as the fin whale and the striped dolphin, several species of rays, so-called maërl beds and rare coral reefs. Thus the waters surrounding Pantelleria have been recommended to become a MPA (Margottini, 2011).

Discussions to institute a MPA in Pantelleria have been on the table as of 1991 through a legislative framework on protected areas that identified the Island as a possible site where a marine park or reserve could be instituted (O.P. della Pesca di Trapani, 2010). Yet it was only in 2001 that the municipality of Pantelleria made a request to the responsible Ministry in order to launch the institutional procedures for the establishment of a MPA to protect the biodiversity of marine organisms on the seabed of the island (Bianchi and Acri, 2003; Bianchi, Acri, Aubry and Camatti, 2004). A Committee backing the institution of the MPA (*Comitato Pro Parco Marino di Pantelleria*) was formed and a number of scientific studies and preliminary investigations to determine the feasibility of the MPA, which are a prerequisite for its very establishment, were commissioned (Bianchi *et al*., 2004). Further funds have been approved by the Ministry for the Environment to complete such studies (Picchetti, Caravello, Ghelia and Di Martino, 2010). After such a lengthy and bureaucratic procedure, the institution of the MPA is yet to be completed.

The protection of the terrain took a different direction on the island. In 1998, the Regional Government instituted the reserve as a 'Riserva Naturale Orientata <<Isola di Pantelleria>>' (Gazzetta Ufficiale della Repubblica Italiana, 2016). The reserve with an area of 26.27 km² of land (Dipartimento Regionale Azienda Foreste Demaniali, 2017) comprised the central area of the island including the mountain, Montagna Grande, was managed by the Azienda Regionale Foreste Demaniali (Bianchi and Acri, 2003) and accounted for about 30% of the island's area (Fattorini and Dapporto, 2014). In 2007 the Ministry for the Environment proposed the institution of the National Park incorporating existing and future protected areas including the MPA. In 2008 the budget document also forecast the establishment of the National Park. However this was met with opposition and in 2008 the Regional Government contested the decision through the Constitutional Court. Following an unfavourable ruling in 2009, a decision on the way to take discussions forward was taken in 2010 and relevant studies were conducted. Following the long bureaucratic/legislative process, the establishment of the Park took a different turn in 2016 following a vindictive fire incident which caused extensive damage in wild areas. The regional government called on the Ministry to resume talks which appeal was accepted. In 2016, following the favourable advice of the Municipality of Pantelleria, agreement by the Regional Government and Government's adoption of the proposal presented by the Minister for the Environment, the institution of the national park was completed through the signing of a decree by the President of the Republic of Italy. The National Park has three zones, with zone one being the least prone to anthropic pressure and zone three being the most anthropic in nature. For each zone permitted and prohibited activities are listed (Gazzetta Ufficiale della Repubblica Italiana, 2016).

Apart from national designations the island is also protected through the Habitats and Birds Directives. See Table A1.5 in Annex 1 for a full list of Natura 2000 designations. Apart from two SACs adopted in 2015, almost the entire island of Pantelleria and surrounding marine environment falls in the SPA ITA010030 “Isola di Pantelleria e area marina circostante” (EUR-Lex, 2015) (See Figure 3.9). The entire island of Pantelleria falls within the IBA 168 Pantelleria and Pelagian Islands (Sposimo, 2014).

Figure 3.9: *Map of Pantelleria with the extesnive area highlighted in green (which extends beyond the terrestrial area) showing the Natura 2000 site SPA ITA010030 “Isola di Pantelleria e area marine circostante”. Source: Protected planet, 2018.*

3.7 Conclusion

This chapter has presented the different characteristics of the islands under study and one can reach a number of conclusions. Firstly, the islands under study have substantial areas which are protected. Whereas in the islands under Italian jurisdiction which are being studied a big portion of the islands are protected, in the case of the Maltese Islands, protection is limited to small fragmented areas mostly confined to coastal areas. Marine areas receive extensive protection

across the entire area of study. All islands under study have been altered to some extent by human activity, yet all islands under study can still boast of a high degree of biodiversity including marine fauna. As outlined in chapter 2, protected areas form the basis of ecotourism venues and along with natural attractions serve as an important component of the ecotourism product. Therefore such islands, should, at least on paper, have an important prerequisite to practise marine ecotourism.

The islands under study have also different geomorphological features with some having high altitudes including the presence of mountains. The islands also vary in terms of geology offering different habitats and environments thus offering various attractions for the ecotourist. Such differences are at times pronounced within the same archipelago. This makes each island particular, despite the fact that they are all found in the centre of the Mediterranean Sea, making each island interesting in its own right.

In terms of climatic conditions, whereas wind is prevalent, one may expect fair weather conditions in the winter period with a relatively low level of precipitation and hot dry summers. This implies that there is a potential to hold outdoor activities throughout most of the year, including in winter. Weather conditions in the summer period call for more emphasis on marine based activities. Whereas all islands have their economy geared towards tourism, the extent of this economic sector varies between one island and another. In all islands under study, except Malta, tourism is highly seasonal. Therefore the islands under study are at a different stage of tourism development and maturity which may call for different policy actions.

Some of the islands not only have aspects which are characteristic of ecotourism destinations but are supported by marginality, low resident populations and minimal industrial footprint. Thus what appears to be handicaps for conventional economic development can become significant attributes for a sustainable ecotourism policy.

With this information in hand one can now focus on the research methods needed to collect data from such sites and later interpret them in the context of the various aspects outlined including the environmental, social and economic realities of the respective archipelago/island.

Chapter 4:

Research Methodology

Plate 4.1: *The dammuso, a typical dwelling on Pantelleria ideal to serve as an ecolodge due to the several environmentally-friendly and energy saving features, including the presence of a water cistern and its characteristic cupola. Photos: Karl Agius.*

Chapter 4: Research Methodology

4.1 Introduction

This chapter provides information on the research methodology used to study the potential of marine ecotourism in central Mediterranean islands. It opens with an overview of the research methods most commonly used in the field of ecotourism followed by an explanation of the overarching methodology used to conduct the research. Presentation of the research instruments (both quantitative and qualitative) used to collect data is eventually presented along with a description of the sampling techniques adopted. The statistical technique used to analyse the data is also explained. An account of the limitations of the study and measures taken to ensure that research ethics standards were abided by is provided. The chapter concludes with an overview of the validity and reliability of the research methods.

Whereas ecotourism research has been mostly conducted via a case study approach (Weaver and Lawton, 2007), including the study of the application of marine ecotourism in Mediterranean islands (Sakellariadou, 2014), various research methodologies (both qualitative and quantitative approaches) and research instruments (interviews, focus groups, observation, surveys, content analysis and image analysis) have been utilised in the field of ecotourism research. This is considered an indicator of the development stage that the field is going through. It has been argued that the research methodology in the field of ecotourism has evolved from an exploratory, case study-oriented and conceptual in nature to research that focuses more on the application and testing of traditional tourism practices in the field of ecotourism (Backman and Morais, 2001). The latter also argue that more longitudinal studies are required in the field of ecotourism making reference to cohort studies that scrutinise subpopulations such as visitor segments as they change over time and panel studies which investigate a set of ecotourists over time. Such aspects have been partly taken on-board in this study as further explained below.

4.2 Research Design

Owing to the fact that the subject under study involved a complex, multi-faceted phenomenon, with several aspects of interest, various research designs that allow the phenomenon being studied to be investigated in its natural context were considered so as to choose the ideal research design.

The selection process took into account the nature of the research questions and the resources in hand.

Surveys were considered ideal to collect structured information in a quantified manner from a relatively large number of ecotourists over a short period of time allowing statistical manipulation and comparison of results between one site and another (Veal, 2006). Yet whereas their design to some extent allows the participants to openly express their views through open-ended questions as discussed in section 4.6, surveys alone and extensive quantitative data would not have permitted the researcher to obtain a detailed understanding of the views of stakeholders regarding challenges and opportunities with respect to ecotourism development on the islands, one of the aims of the research. This was also crucial considering the limited studies conducted in the area of study. Furthermore, results of surveys are not indisputable as respondents might have specific intentions (Veal, 2006) and in some cases amplify their level of participation due to their desire to be helpful and friendly towards the individual conducting the research leading to possibly unreliable data (Chase and Harada, 1984). On the other hand, whereas interviews permit one to obtain a comprehensive understanding of the views of stakeholders, these are time consuming and do not allow extensive comparison of results (Veal, 2006). They were thus considered unfit to be used as the only research method to seek information from ecotourists on the potential of ecotourism in central Mediterranean islands.

Considering the fact that little is known on the potential of marine ecotourism in central Mediterranean islands, a thorough investigation on the overall scenario and thus an exploratory approach was deemed necessary. Focus groups have been used as an overarching methodology in exploratory research (Bhattacherjee, 2012). However, one should keep in mind the fact a possible scenario whereby rivalry dominates several of the small communities under study. Therefore the acceptance of stakeholders, especially those locals and service providers who are in overt competition with each other, to participate together in such groups, is quite challenging. The inclusivity challenge of focus groups and the possibility of bringing together people with different and sometimes conflicting views is also outlined by Conrad and Cassar (2007). Furthermore, it is very challenging to bring together a number of tourism stakeholders such as operators during the summer period (the period when most stakeholders are found on the islands) due to their workload during the peak season. The use of focus groups as an overarching methodology was thus excluded as it was not ideal to obtain the views of the various stakeholders. However its use in complimenting surveys to collect further data from ecotourists that could not have been collected through structured surveys was considered crucial. This is discussed in further detail in section 4.7.

Ethnography, which is further discussed in section 4.3 and its sub-type, multi-sited ethnography, which involves the study of a phenomenon that cannot be accounted for by focusing on a single site (Marcus, 1995), was also taken into consideration as it allows one to collect information that other methods such as surveys and interviews fail to provide. Furthermore within small communities where locals can be suspicious and fail to agree to participation in research methods, ethnographic techniques such as observation can facilitate the collection of information (Veal, 2006). Ethnography has been identified as ideal to investigate descriptive research questions such as "what" type of questions, questions which feature in this study such as the one dealing with the possible impact of ecotourism in the area of study and one looking into opportunities and challenges in order for ecotourism to flourish. However ethnography typically entails months/years of immersion within the community being studied (Falzon, 2016; Parker-Jenkins, 2018; White, Drew and Hay, 2009). This did not permit the researcher to practice ethnography as the overarching design due to lack of financial resources. Furthermore, data collection relies solely on qualitative methods making comparison of results less straightforward while depending heavily on the researcher, possibly introducing bias (Suryani, 2013).

Each and every research design (including focus groups, interviews, ethnography and surveys) outlined above has its advantages and disadvantages and as explained in the respective sections below, are in themselves useful to address a particular research component. Yet, no specific method was deemed fit to investigate all research questions and reach the entire aims of the research. Over the years, there was a rise in methodological dualism whereby rather than the use of one method or another, a combination of approaches is used (Pickard, 2007; Finn, Elliott-White and Walton, 2000). The use of mixed methods involves the collection of both quantitative and qualitative data, concurrently or sequentially which are later integrated at one or more stages throughout the research (Creswell, Plano Clark, Gutmann and Hanson, 2003). It is nowadays widely accepted that these two type of methods complement each other in research (Veal, 2006).

According to Backman and Morais (2001) a relatively limited number of studies in the field of ecotourism have used qualitative and quantitative methods to gain further insight into the topic and reducing the bias of the researcher. The latter may easily develop when the researcher becomes attached to the ecodestination which itself may have an impact on the research (Finn *et al.*, 2000).

One research design that provides flexibility as a multiple methodology facilitating use of either qualitative or quantitative research methods or a combination of both (Gerring, 2007; Jennings, 2001; Yin, 2014) and thus allowing the use of various data sources (Swanborn, 2010) is the case

study approach. Such a feature has been identified as the main reason why the case study approach has been used extensively in tourism research (Beeton, 2005). In this regard, whereas the case study is often also referred to as a strategy or method, the term approach is generally preferred in order to highlight the overarching research intent and methodological scope which determines the methods used to collect data (Simons, 2009).

The case study approach has been described as an investigation of a contemporary specific phenomenon within its natural settings due to the belief that these are relevant to the phenomenon being studied when the boundaries between the context and the phenomenon are not clear (Yin, 2005; 2014). In this regard, the phenomenon - marine ecotourism, had to be investigated within its natural settings - the central Mediterranean islands since the relationship between the two and therefore the potential of marine ecotourism in central Mediterranean islands is not fully known. The necessary components of a good case study in a real context include a small geographical area, a limited number of individuals, events, problems and conflicts (Dooley, 2002; Zainal, 2007). Such components corresponded to important aspects of the study identified ahead or in the early stages of the research.

Owing to it being able to obtain data through various methods, the case study approach facilitates the possibility of addressing more complicated research questions (Shoaib and Mujtaba, 2016) and to better understand complex relationships, interactions and issues (Beeton, 2005; Dooley, 2002) as well as the subject under study due to being able to take into consideration numerous study foci. The case study approach is in fact useful when one finds different subcases within the case, such as the various stakeholders at a tourism destination (Miles and Huberman, 1994; Stake, 1983). This was found to be ideal as various aspects were identified as instrumental for the research such as ecotourism activities, venues, impacts and policies as outlined in the literature review.

The case study has been touted as ideal for different research as it offers various levels in terms of design whether this is explanatory, exploratory or descriptive (Yin, 2014) and thus the researcher can choose from a variety of options depending on the needs of the research (Baxter and Jack, 2008). Furthermore, since a case might have a number of facets, overlap between the various designs is possible (Grandy, 2010). This is also supported by Bhattacherjee (2012) who states that explanatory research may include elements of descriptive and exploratory research. This further supports the consideration of the case study approach as the overarching methodology since the case understudy is mainly explorative but incorporates to some extent all three aspects of research.

Noting that the nature of the major research questions of the study related to the possibility of developing the central Mediterranean region as a hub for marine ecotourism and on ecotourism as a means to tackle seasonality on the islands consisted of “how” questions, the choice of the case study as a research design was further supported as the case study is the preferred approach when the focus of the study revolves around such questions (Yin, 2014). This is also known as the explanatory aspect of the case study (Bhattacherjee, 2012). Whereas the researcher kept the main research questions as the point of departure, as in most case studies, the researcher maintained openness towards unknown aspects (also referred to as serendipity) (Swanborn, 2010). In fact, due to the lack of knowledge and research on the topic in the specific area of study, the exploratory approach was also adopted. The case study approach incorporates an investigative and exploratory nature which can serve as a means to obtain a more comprehensive understanding of a phenomenon thus creating new knowledge. In fact the case study approach has been described as outward looking as it has the capacity to not only test but also build theory and extrapolate knowledge learned through a case study (Dooley, 2002; Herling, Weinberger and Harris, 2000; Suryani, 2013). The use of this approach thus gives one the opportunity to gain new knowledge on the subject which might be applicable to other central Mediterranean islands/archipelagos or similar scenarios. The research was partly also descriptive as it aimed to make observations on the phenomenon under study and also answer research questions based on “what”, “where” and “when” of the phenomenon concerned. Such questions related to the potential of marine ecotourism in the area of study and the impact of ecotourism on the islands and the local community (Bhattacherjee, 2012).

Yin (2014) differentiates between single and multiple case studies. Due to the fact that the study entailed more than one island (each considered to be a case) and since the cases exhibited similarity to some extent (Stake, 2013), the multiple case study approach was implemented whereby the same research methods were applied to the different islands under study. This design was preferred as it is considered to be equivalent to multiple experiments allowing the research to be more robust and rigorous (Rowley, 2002) while facilitating comparison of results (Yin, 2014) allowing a deeper understanding of the phenomenon under study (Suryani, 2013)

Several advantages have been linked with the case study approach, including the fact that it allows longitudinal studies to take place, provides detail on the phenomenon under study, allows the natural phenomenon to be studied in context and can be run on a limited budget depending on the type of the research (Suryani, 2013). The case study approach also has an advantage over other methods such as ethnography as whereas the former can incorporate mixed methodology and

various data sources the latter relies on qualitative methods only (Cohen and Court, 2003; Suryani, 2013, Yin 2014). Furthermore whereas similar approaches such as ethnography entails months/years to run, a case study it is normally a matter of hours/days/weeks (Parker-Jenkins, 2018). A number of disadvantages have also been identified including any possible bias of the research, the perceived lack of rigour and the difficulty to conduct since a massive amount of data is generated (see Hoaglin, Light, McPeek, Mosteller and Stoto, 1982; Yin, 2014). In the case of the latter the development of schemes through literature, experience and theories can be instrumental to set boundaries to the scope of the research and guide the researcher (Baxter and Jack, 2008). As shown in Figure 4.1, the research components chosen as part of the case study approach include observation, interviews, focus groups and surveys. The use of such research methods will be further discussed below.

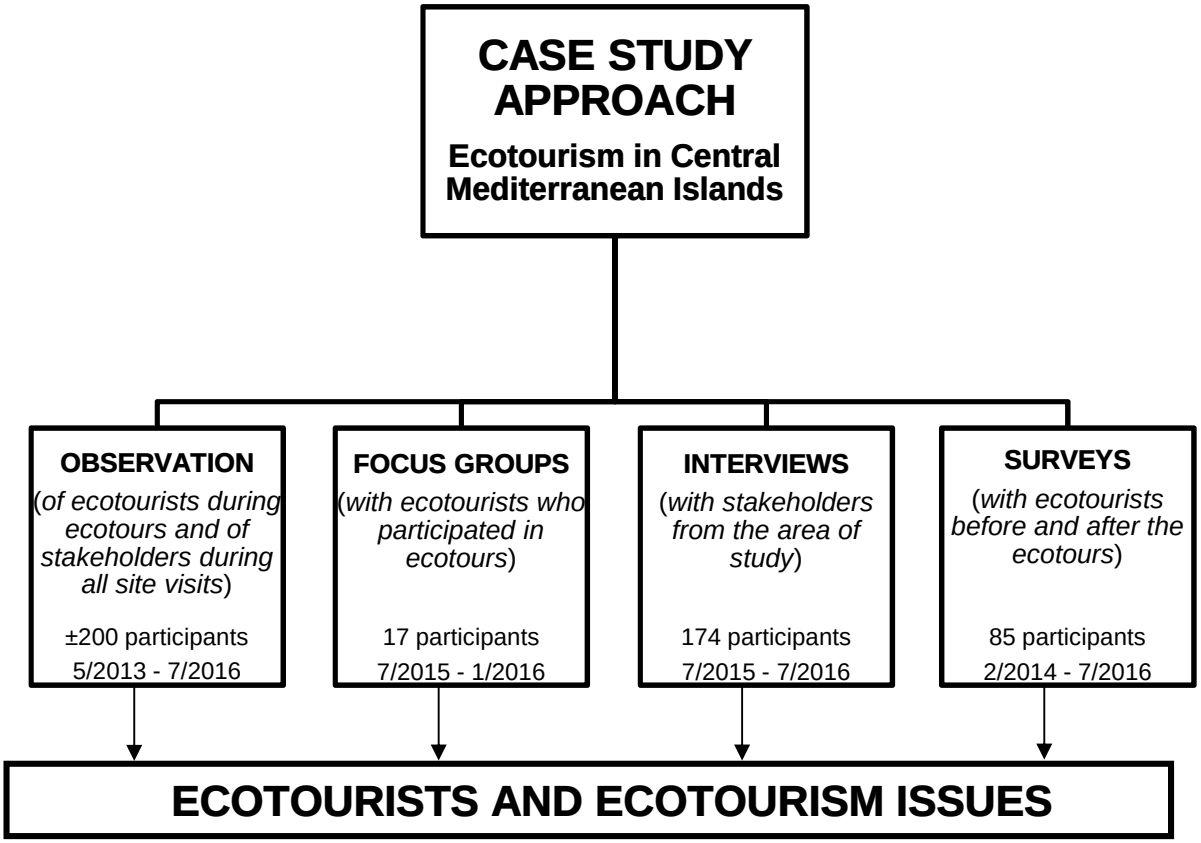

Figure 4.1: *Components of the case study approach adopted throughout the study.*

4.3 Study Visits

At least three study visits were held on each archipelago/island in the area of study. Photos were taken throughout all visits to record important data and to serve as proof.

The first visit, referred to as the preliminary study visit, served to get to know the connectivity options available, acquaint oneself with the area of study, identify and get to know stakeholders, conduct useful observations that could support the research, build necessary contacts, identify and test ecotourism related services, experience activities and excursions and plan the ecotours. During such visits the researcher also collected several tourism related flyers, publications and other material useful for the research. The researcher also visited a number of local libraries. Table 4.1 shows the period when such preliminary study visits were held. In the case of the Maltese Islands, since the researcher was residing in Malta throughout the first part of the research period, visits to ecotourism sites and other islands were held over a longer span of time save for Comino which is not accessible all year round.

The second visit was held with a group of tourists and is referred to as the ecotour. During this visit a full programme of excursions was completed. Such visits will be discussed in further details in section 4.5. The third visit, referred to as the follow-up visit, was held solely by the researcher to conduct a series of interviews with stakeholders and will be discussed further in section 4.8. In the case of Malta, interviews were held over a longer span as the researcher was residing abroad and visited the island from time to time to conduct the interviews.

Table 4.1: Dates when study visits were held.

Ecodestination	Preliminary visit	Ecotour visit	Follow-up visits
Pelagian Islands	31/5/2013 - 11/6/2013	3/7/2016 - 7/7/2016	30/6/2016 - 6/7/2016
Aegadian Islands	23/10/2013 - 30/10/2013	5/2/2014 - 9/2/2014	6/8/2015 - 8/8/2015
Pantelleria	4/12/2013 - 10/12/2013	2/7/2014 - 9/7/2014	28/7/2016 - 31/7/2016
Maltese Islands	5/2013 - 12/2013	5/10/2015 - 10/10/2015	18/2/2015 - 7/12/2015

4.4 Ethnography: Observation

Whereas the case study approach was adopted, ethnography, mainly observation, was still utilised as a supplementary data collection method within the case study approach. Similar approaches have been reported in literature whereby ethnography was utilised as a supplementary data collection method rather than an overarching approach. Taft (1997) considers ethnography as a case study method and Suryani (2013) recalls how participant observation, ethnography's major data collection technique, can be used as a supplementary data collection technique. Veal (2006) also specifies that observation is rarely used as the only research technique in tourism studies but underlines how it can serve as an important component of the research strategy. Several studies in the field of tourism have involved informal but careful observation (Veal, 2006). Gorman and Clayton (2005, p40) describe observation as

> "*research that involves the systematic recording of observable phenomena or behaviour in a natural setting*".

Observation has been commended as a research method as it provides information that questionnaires or informal interviews fail to provide (Veal, 2006). It also permits the study of people who are unable or unwilling to share their views on their activities. Furthermore, apart from taking place in its natural setting thus putting the study in context, there are various possibilities in which the researcher can be involved within the case being studied (Gorman and Clayton, 2005). On the other hand, ethical issues have been raised including the extent to which subjects be informed that they are being observed. This however often depends on the setting such as if one is conducting observation in a public space or through infiltration in a group (Pickard, 2007).

Observation allowed the researcher to obtain a wider perspective with respect to the research questions. Observations made were kept relevant to the research questions to avoid collecting any unwanted data but observation was practiced with an open mind so as to also record any aspects which could have been overlooked or which were not expected to be observed but which were considered crucial for the research (Gorman and Clayton, 2005; Pickard, 2007).

Descriptive, non-interpretative notes were taken in a discrete manner, in most cases not in public or in front of research subjects, committing observations and conversations to memory and jotting down points when the first opportunity arose without attracting unnecessary attention to avoid prompting different behaviour from the study subjects (reactivity), or interfering with the natural

relationship. Yet, when taking notes, one did not allow a lot of time to pass to avoid selectivity in the data recorded which could cast doubt on the very validity of the data (Finn *et al*., 2000; Gorman and Clayton, 2005; Patton, 2002; Pickard, 2007; Ritchie, Burns and Palmer, 2005; Veal, 2006). When possible issues observed were later discussed with relevant stakeholders to ensure validity of observation, a technique also referred to as 'respondent validation' (Ritchie *et al*., 2005).

As per Veal (2006), qualitative observation during the research was carried out to study the behaviour of stakeholders including the local community and tourists and how they used the land. Observation was conducted along a continuum starting from incognito (undercover) during preliminary study visits and developing to different degrees of participant observation during ecotours organised and follow up visits to conduct interviews once the researcher gained knowledge and confidence in the area of study (Gorman and Clayton, 2005; Veal, 2006). Incognito observation was mostly carried out during the preliminary study visits to assess the availability and standard of ecotourism related information and services provided for tourists and to observe the attitude of the locals towards ecotourists, mostly by playing the customer. The researcher also observed any activity which could serve as an ecotourism attraction during the ecotours. Whereas incognito observation overcomes reactivity, it can also limit observation due to a lack of understanding of the research subject (Seale, 2002) and interpretation can be subjective according to the researcher's own value judgement (Finn *et al*., 2000). Participant observation was mostly conducted during the follow up visits to conduct the interviews so as to further observe the behaviour of stakeholders while observation during the ecotours served to observe the behaviour of ecotourists themselves. While the researcher was a participant of the ecotour, one also relied on informants and influential people to obtain further information reflecting the views of the whole group. Such a method is challenging as it is not easy to gain access to a group (Pickard, 2007) and bias may develop if the researcher becomes too close to the research subject or interacts with it extensively, a phenomenon also known as "going native" (Finn *et al*., 2010). When practicing participant observation both during the ecotours and the follow up visits to interview stakeholders, the researcher duly informed the subjects of the study taking place. This has its benefits as the subjects might feel more comfortable and be more cooperative (Pickard, 2007). Furthermore, when stakeholders got to know about the scope of the study and its potential benefit to the islands under study, they were more open and cooperative.

Observation was conducted across key areas such as areas earmarked for ecotourism especially in coastal and marine sites and other areas visited by the researcher throughout the study. An effort was made to conduct observation throughout different seasons and to cover different time periods even if this is something difficult to achieve and can be considered a limitation.

4.5 Ecotour Organisation

An ecotour, referred to by some researchers as the ecotrip has been defined as:

> *"purposeful travel to a natural environment to interact, learn and experience other cultures, and to help local communities economically that work towards conservation and preservation of the ecosystem"* (Khan and Su, 2003:118).

Four ecotours were organised as part of the research as shown in Table 4.2. The ecotours were organised in collaboration with NGOs and tour operators. Following the preliminary study visit the researcher eventually presented a proposal to the NGO and/or tour operator. Logistical and marketing aspects including the booking of travel and accommodation and recruiting of ecotourists were coordinated by the relevant NGO/tour operator with the assistance of the researcher.

The researcher prepared the programme of the ecotours in collaboration with the NGO and/or tour operator. Each programme involved a number of ecotourism activities/excursions including botanical trips, trekking along the coast and in protected areas, bird watching, eating local cuisine, visiting cultural sites, boat trips along the coast with local fishermen, snorkelling, geological excursions, horse-riding, assisting eNGOs (volunteering) and interacting with locals. The full programme of each ecotour can be found in Annex 2. The programme was developed after consideration of a number of factors. Priority was given to ecotourism activities taking place close to the coast or on/within the sea. Excursions offered by local operators working in the field of ecotourism and which were tested by the researcher during the preliminary study visit were also incorporated into the programme. Due importance was also given to activities and excursions run by eNGOs and operators investing the income from fees in conservation and environmental related projects. Minor changes in the programme were also made before and throughout the ecotour depending on the requests of the participants. Participants were also given free time to engage in other ecotourism activities or other activities of their choice.

The longest ecotour took place on the island of Pantelleria which lasted one week whereas the ecotours in the Aegadian and Pelagian Islands both lasted four nights. The duration of each ecotour can be found in Table 4.2. The period chosen for the ecotour depended on a number of factors including the availability of the researcher, the availability of the ecotourists, the period chosen by the eNGOs, the availability of services on the islands visited, the availability of air/sea connections and the conditions set by tour operators.

Table 4.2: Duration of ecotours organised in the area of study.

Ecodestination	Nights spent
Aegadian Islands	4
Pantelleria	7
Maltese Islands	5
Pelagian Islands	4

In total 94 tourists participated in the ecotours. Most ecotourists (45%) participated in the ecotour in the Aegadian Islands. The lowest rate of participation recorded was equivalent to 12% and accounted for participants attending the ecotour in the Pelagian Islands as shown in Figure 4.2. Further information is provided in Table 4.3.

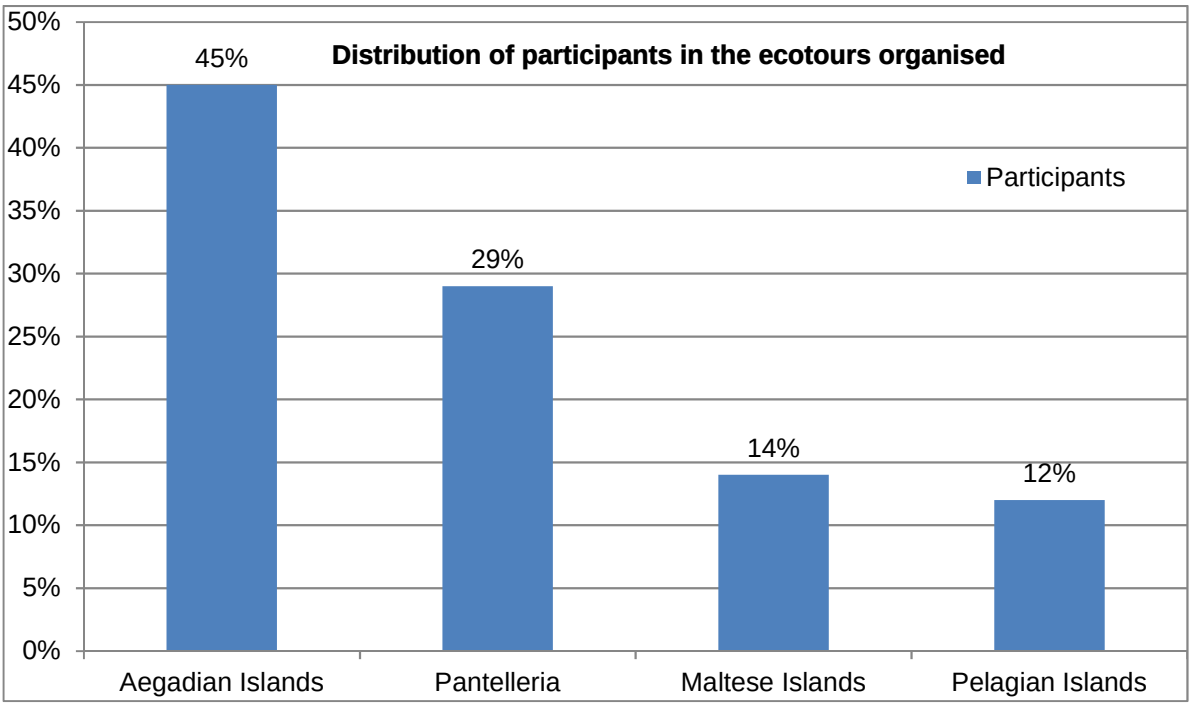

Figure 4.2: *Distribution of participants in the four ecotours organised throughout the study.*

4.6 Questionnaire Survey

The survey is one of the most common data collection methods used in the field of ecotourism research mainly because it provides a short turn-around on the data collection process (Backman and Morais, 2001). This instrument was also used throughout the research. A questionnaire survey in English was designed to examine a series of aspects that could be used to determine the ecotourism potential of central Mediterranean islands. As per Orams and Page (2000) the survey was designed in a concise manner to avoid discouraging potential respondents from replying. The five pages long questionnaire was divided into two sections. The first three pages included the introductory note and the pre-trip questionnaire, whereas the last two pages contained the post-trip questionnaire.

This method of conducting surveys before and after a trip has been regularly used in the field of tourism research (Backman and Morais, 2001; Papadimitriou and Gibson, 2008), but also features in the field of ecotourism on a number of occasions. In his account on a more desirable form of ecotourism Orams (1995:7) speaks about the before and after ecotourism experience questionnaires and argues that a before and after type research strategy allows comparison of data collected prior to and after the ecotourism experience and permits one to evaluate the impact of the ecotourism experience. McGehee (2002) used the technique to study Earth-watch expedition volunteers. Powell and Ham (2008) used a pre- and post-voyage questionnaire to conduct exploratory research in the field of ecotourism which included the affective evaluation of the experience. The technique has also been used to study specific marine ecotourism excursions such as dolphin (Orams and Taylor, 2005) and whale watching (Jacobs and Harms, 2014).

The pre- and post-trip questionnaires were used to investigate four categories of variables. For the pre-trip survey the categories included: (1) the profile of the ecotourists together with their level of environmental ethics and awareness, (2) the knowledge of the tourists on the subject of ecotourism, (3) their motivation and reasons for participating in the ecotour and (4) their projected spending patterns. The section dealing with the post-trip survey was used to obtain information on: (1) aspects of the organisation of the ecotour, (2) the programme of the ecotour, (3) enjoyment, fulfilment and satisfaction with the experience and (4) willingness to participate in future ecotours in similar ecodestinations and the future of ecotourism. The post-visit survey questions mirrored a number of questions asked in the pre-visit survey in order to assess any changes in behaviour of the ecotourist, any change in attitude towards ecotourism and in order to compare expectations and fulfilment.

4.6.1 Structure of Survey

The questionnaire survey was designed within the boundaries of the research questions established and questions asked were derived from research objectives and formulated to test the objectives set as part of the research. Existing literature and other surveys conducted in the field of ecotourism were consulted to serve as a guide on how the subject can be investigated and to facilitate comparison with research conducted in a different temporal and geographical position (Finn *et al*., 2000).

The survey was both descriptive and analytical in nature as it attempted to identify the characteristics of the population as well as to seek explanations for observed phenomena (Finn *et al*., 2000). In fact both the pre-trip and post-trip survey consisted of a combination of pre-coded (close ended) and open ended questions. Close ended questions are quick to answer and easy to analyse but limits the answers of respondents (Finn *et* al., 2000). Open ended questions have a number of disadvantages such as allowing room for error when grouping answers, are time consuming in terms of analysis and may lead to low rates of response. Yet, they also provide a wide array of information that might have been lost if only pre-coded answers were provided (Veal, 2006). This is because open ended questions allow respondents to think freely and to express original and unique views (Usakli and Baloglu, 2011). A mixture of both was thus used to obtain the necessary information but also to give room to respondents to express themselves fully. A range of techniques were used to explore characteristics, behaviour/activities and attitudes of respondents. These included single and multiple response checklists, ranking, scaling and 4- and 5-point Likert scales. Filters, whereby responses of certain questions led to specific subsequent questions, were also employed to delve further into certain topics. Attention was given to make the questionnaire clear and user friendly. Instructions on how to answer the survey, such as how many options to choose from a list of answers were also provided next to the questions asked. A copy of the questionnaire can be found in Annex 3.

4.6.2 Pretesting and Piloting

Before being administered, the questionnaire was pre-tested and piloted. According to Finn *et al.*, (2000) pre-testing involves testing the questionnaire whereas a pilot project tests a small-scale administration of the survey procedure as a whole. The questionnaire was scrutinised by a number of academics including some from the tourism sector who have ample experience in the use of questionnaires. The questionnaire was later pre-tested and piloted on a small number of domestic

tourists travelling to Comino for a trekking activity to identify any potential deficiencies and test feasibility (Usakli and Baloglu, 2011). As per Orams and Page (2000) this included testing the procedures to be used for administration, assessing the clarity, structure and ease of participants in using the questionnaire and assessing whether questions are interpreted correctly through the answers provided. Aggregation of data compiled from responses was also tested to ensure smooth data processing and analysis. Respondents were asked for feedback to check if the questions were clear and if any other problems emerged. The time taken for the questionnaire to be answered was also noted. The average response time to read the introductory note and complete the pre-trip questionnaire was eight minutes. The last two pages of the survey were provided after the trip and took approximately five minutes to fill in. This exercise revealed that some questions required clarification and rewording in order to be understood in a more straightforward manner. As a result, following the feedback received, minor changes were made to refine the questionnaire making it more user-friendly in terms of presentation and clarifying ambiguous questions.

4.6.3 Sampling

Since the sampling frame was unknown, a non-probability (not random) sampling technique was adopted. The sample consisted of those who presented themselves for the study by chance (as they participated in the ecotours) and were thus the most conveniently available. This is also known as a haphazard (convenience or availability) sampling technique (Finn *et al*., 2000; Zikmund, 2003).

4.6.4 Administration

The researcher accompanied the tourists on each of the ecotours organised. Participants of the ecotours were approached and asked if they were willing to take part in the questionnaire survey. Once they agreed, they were asked to complete the questionnaire. Prior to the distribution of the questionnaire, the researcher and the research were introduced *viva voce*. The first page of the pre-trip survey also contained an introduction of the research and the researcher, information on the purpose of the research as well as the proposed use of all results. It also included a statement guaranteeing respondents' anonymity and full confidentiality of any responses provided. Furthermore it contained a clause reminding respondents that participation was voluntary and thus one had the right to refuse to answer or complete the survey or withdraw participation at any time. The questionnaire included a number of personal questions. In order to ensure authentic and reliable responses, the administration was conducted solely by the researcher and questionnaires were all distributed and collected by the researcher. The participants were assured complete

anonymity and that all information would be treated with strict confidentiality and that responses could not be traced back to them. To ensure anonymity, respondents were not required to provide identity while questionnaires were returned in an unrecorded manner so that it was not possible to identify who submitted the questionnaire, who delivered which survey and who chose not to participate. Furthermore as per Honey *et al*., (2016) respondents were informed that only aggregate information will be released and under no circumstances will any individual information be released to any individual, government, government agency, company, or association.

The questionnaire was group administered. Such a technique is also known as the captive group survey and is said to have a high response rate (Veal, 2006). This is because access to members of the group is facilitated by the fact that the group is in one place at the same time. Veal (2006) calls for particular attention on the criteria for membership of the group and to ensure that this reflects the needs of the research. In the case of this research, the ecotourists joined the group with the purpose to travel on an ecotour in a central Mediterranean island/archipelago making their membership to the group relevant to the research undertaken. The questionnaire was respondent completed to further ensure anonymity and to ensure the collection of as many surveys as possible in a short time. The researcher collected surveys immediately upon completion to minimise any losses.

Those confirming willingness to participate in the research were asked to complete the questionnaire individually without discussing the answers with other participants in order to avoid bias. The respondents were provided with a clipboard, pen and the questionnaire to facilitate their participation. All respondents were English speaking.

Taking into account the time taken to read and answer the questionnaire during the pilot study, the time spent by respondents waiting at the airport was considered to be sufficient for interested respondents to complete the questionnaire. Respondents were enthusiastic about filling in the questionnaires because it also provided passengers with ‘something to do’ while waiting to board the aircraft. This resulted in a high response rate. The first three pages, including the introductory note and the pre-trip questionnaire, were handed to respondents before the trip. Respondents completed this part of the questionnaire before departure or on arrival at the destination airport. Such responses constituted the pre-trip data set. The last two pages containing the post-trip questionnaire were handed to respondents after the trip. This part was completed at the airport just before their return flight. Such responses constituted the post-trip data set.

4.6.5 Response and Refusal Rates

In general, the participants of the ecotours showed a high level of interest in supporting the research. In fact a high respondent rate was registered as shown in Table 4.3. Out of all participants, 88% completed the pre-trip survey whereas 90% submitted the post-trip survey provided. Refusal rates were thus relatively low.

Table 4.3: Actual number of attendees and respondents for the ecotours organised.

	Actual no of attendees		**Actual number of respondents pre-trip**		**Actual number of respondents post-trip**	
Ecodestination	**Count**	**Percentage**	**Count**	**Percentage**	**Count**	**Percentage**
Aegadian Islands	43	45	35	42	37	43
Pantelleria	27	29	27	33	27	32
Maltese Islands	13	14	10	12	10	12
Pelagian Islands	11	12	11	13	11	13
Total	94	100	83	88	85	90

4.7 Focus Groups and Interviews Following Ecotours

Following the ecotours, three focus groups and one group interview were held with a number of ecotourists. The ecotour organised in the Aegadian Islands led to some ecotourists becoming attached to the archipelago and who thus decided to return to the islands. In this regard, one focus group (focus group A) was held with a group of 5 ecotourists who visited the Aegadian Islands. Four of them participated in an ecotour organised by the researcher but later returned to the Aegadian Islands together with another ecotourist (a first time visitor). Another focus group (focus group B) was held with 5 ecotourists who participated in three (Pelagian Islands, Aegadian Islands and Pantelleria) out of the four ecotours organised by the researcher. A third focus group (focus group C) was held with five ecotourists who participated in the ecotour taking place in the Maltese Islands. A group interview (group interview D) was also held with two ecotourists. One of these ecotourists participated in two ecotours (Aegadian Islands and Pantelleria) organised by the researcher and later revisited the Aegadian Islands along with two other friends (first time visitors), one of whom was also present for the interview. See Table 4.4.

Table 4.4: Focus groups/group interview held.

Name of focus group / interview	Number of participants	Ecodestinations concerned	Date when focus group / interview was held
Focus Group A	5	Aegadian Islands	18/7/15
Focus Group B	5	Pelagian Islands, Aegadian Islands and Pantelleria	4/1/16
Focus Group C	5	Maltese Islands	10/10/15
Group Interview D	2	Aegadian Islands and Pantelleria	13/8/15

Participants of the focus groups either volunteered or were handpicked by the researcher due to their role with respect to the research including (1) participating in a number of ecotours organised as part of the research and (2) serving as multipliers. For the scope of this study a multiplier is an ecotourist who had participated in an ecotour organised as part of the research but who later revisited the ecodestination under study with other groups and friends who were first time visitors. This, in itself, reflected a sense of attachment to the place as well as the positive experience garnered during one or more ecotours, organised as part of the research in which they participated. Multipliers were identified on the basis of information communicated to the researcher by the multipliers themselves who returned to the researcher to seek contacts and information on the islands prior to re-visiting the destinations. Involvement in focus group discussions also depended on the availability of participants. Care was taken to ensure that all islands under study were represented through participants chosen (ecotourists) to contribute in the focus groups. In total 17 ecotourists participated in the focus groups/group interview, 15 of whom participated in an ecotour organised by the researcher whereas the other 2 ecotourists joined an ecotour organised by a multiplier. Table 4.5 shows that 58.8% of participants were females and 41.2% were males. In terms of nationality participants were Maltese, Spanish, Italian and Polish.

Focus groups were used to obtain the opinion of participants on the ecotourism potential of central Mediterranean islands along with their views on activities and excursions in which they had participated. The focus groups also explored environmental and socio-economic impacts noted by the participants during the ecotours. Participants were asked to discuss in detail their views on the organisational aspects, level of interpretation (including signage and tourist information), services provided and if these reflected ecotourism principles. Questions asked to participants included why they decided to participate in the ecotour/s, or why they encouraged others to join them on an ecotour in the area under study. Other aspects discussed included connectivity and transport on the islands and promotion of the ecodestinations.

Table 4.5: Gender distribution of ecotourists participating in focus groups and group interviews.

Gender	Count / Percentage	Focus group / group interview				Total
		Focus group A	Focus group B	Focus group C	Group interview D	
Male	Count	0	4	2	1	7
	Percentage	0%	80%	40%	50%	41.2%
Female	Count	5	1	3	1	10
	Percentage	100%	20%	60%	50%	58.8%
Total	Count	5	5	5	2	17
	Percentage	100%	100%	100%	100%	100%

Following an introduction by the researcher, the participants introduced themselves and the discussion ensued. A checklist of questions to be raised during the focus groups was prepared and can be found in Annex 3. Discussions normally took just over one hour depending on the way they developed. As per Gorman and Clayton (2005), Veal (2006) and Pickard (2007), a number of precautions were taken. The researcher kept the discussion informal but ensured that all pre-determined aspects in the checklist were covered during the discussion. Furthermore it was ensured that all members of the group were allowed to participate actively in the discussion without any other participant taking over the discussion. This was facilitated by asking different questions to different members of the group while respecting those who decide to remain silent on a particular topic. The researcher ensured personal impartiality during the discussion and refrained from cutting short comments from participants to introduce his personal views.

Throughout the discussion the researcher took notes rather than using a tape recorder to ensure maximum openness of the participants. Immediately after the discussions notes taken were further elaborated into a summary note detailing the main findings of the discussion for further analysis. According to Gorman and Clayton (2005) such a system is the most useful in the case of focus groups. Backman and Morais (2001) point out that this system has been widely adopted in ecotourism research.

4.8 In-depth Interviews

Interviews are among the most widely used method for data collection in ecotourism research based on qualitative research methods (Backman and Morais, 2000). Furthermore, their use together with questionnaires remains the most frequent way of engaging stakeholders (Conrad and

Cassar, 2007). Interviews were conducted to obtain a wide understanding of the challenges faced by stakeholders and unearth opportunities for the sector to develop further on the islands under study. Furthermore the technique was used to delve further into the research questions and come up with a number of recommendations reflecting the views of all stakeholders.

4.8.1 Stakeholder Involvement

A stakeholder may be defined as anyone with an interest, either indirect and implicit or direct and stated in the issue at hand (Conrad and Cassar, 2007). Involvement of stakeholders has its limitations including the cost of resources and time (Cassar, Conrad, Griffiths and Morse, 2006). There may be a wide variety of opinions within a group of stakeholders and dominant representatives may not necessarily represent majority views. Views of the minority group may be overlooked especially if the stakeholders feel unconformable in expressing their views. Participants may also be motivated by personal interests rather than by the objective of acting for the benefit of all concerned. Irrespective of these challenges the perspectives and opinions of different groups are all valid (Conrad and Cassar, 2007). Meffe, Nielsen, Knight and Schenborn (2002) and Conrad and Cassar, (2007) identified three key principles of stakeholder involvement that can overcome such limitations. These include:

- the principle of inclusivity - to involve every individual with a diverse view and not just those in favour of a desired decision;
- the principle of self-selection - to allow the stakeholders to choose their own level of involvement. This depends on the comfort and interest of the stakeholder. The position of a stakeholder might change throughout discussions depending on the increase or decrease of interest in an issue; and
- the principle of diversity of representation - to include different genders, age groups, employment groups, and political affiliations. It is thus necessary to have a comprehensive understanding of the community within which the researcher is working.

A list of groups of stakeholders suitable for the study was devised as per Holden (2008), Okech (2011) and Orams (1999b). These included:

- Affected locals including inhabitants, land owners;
- Resource users including hoteliers, restaurant and café owners, shop owners, tour operators, island ferry services, guides, rubbish collectors, tourists;

- Government and other official agencies such as local authorities including tourism authorities, politicians; management bodies of protected areas;
- NGOs with a remit related to the natural and cultural environment; and
- Academic community which includes individuals with an academic interest in wildlife, islands, tourism and subject being studied.

Stakeholders from each group outlined above were then identified.

4.8.2 Sampling

The two sub types of strategic informant sampling technique (a non-probability sampling technique) were used to recruit interviewees. The first is known as expert sampling and involves the selection of 'typical' and 'representative' individuals (Finn *et al*., 2000). This special population was set up by identifying several stakeholders such as operators, NGOs and politicians through online portals, news portals and social media. The researcher also identified other stakeholders during the preliminary study visits through observation and informal discussions. Some of the interviewees were also known by the researcher as they had provided a service during one of the ecotours organised by the researcher. Several of these interviewees were contacted prior to the study visit to fix an appointment for the interview. The second technique used, also known as snowball sampling, involves asking an initial set of informants to propose other potential sample members (Finn *et al*., 2000). In this regard the researcher made use of sponsors and testimonials including interviewees themselves and popular locals who play an important role in society to introduce him to or recommend other stakeholders to be interviewed as part of the research.

The network of stakeholders may, at times, extend quite broadly beyond the evident direct impacts and interests (Conrad and Cassar, 2007). Therefore an effort was made to ensure that all those concerned were involved. It was assured that stakeholders from the different islands were chosen. During consultation with stakeholders care was taken to take note of any stakeholder who had not yet been identified especially when a particular stakeholder made reference to third parties.

Table 4.6 shows the distribution of stakeholders with whom interviews were conducted in the area of study. Over all, the cluster most interviewed was resource users which included a good number of operators working in the field of ecotourism. This was followed by governmental entities, agencies and policy makers that accounted for 23.6%. Affected locals and academics were the least interviewed and together accounted for 10.9% of all stakeholders interviewed. Whereas in the

Italian islands the cluster most interviewed were resources users; governmental entities, agencies and policy makers were the most consulted in the case of the Maltese Islands.

Table 4.6: Distribution of stakeholders with whom interviews were held in the area of study.

Eco-destination	Count / Percentage	Stakeholders					
		Affected locals	**Resource users**	**Academics**	**Government, agencies, politicians**	**NGOs**	**Total interviews**
Aegadian Islands	Count	10	19	2	3	4	38
	Percentage	26.3%	50%	5.3%	7.9%	10.5%	100%
Pelagian Islands	Count	2	12	3	1	5	23
	Percentage	8.7%	52.2%	13%	4.3%	21.7%	100%
Pantelleria	Count	3	12	5	8	3	31
	Percentage	9.7%	38.7%	16.1%	25.8%	9.7%	100%
Maltese Islands	Count	4	22	9	28	16	79
	Percentage	5.06%	27.8%	11.39%	35.44%	20.3%	100%
General	Count	0	1	0	1	1	3
	Percentage	0%	33.3%	0%	33.3%	33.3%	100%
Total	Count	19	66	19	41	29	174
	Percentage	10.9%	37.9%	10.9%	23.6%	16.7%	100%

4.8.3 Interviewees

In-depth interviews were held with the stakeholders identified throughout the research. As shown in Table 4.7, the majority of interviewees (75%) were males whereas a quarter of those interviewed were females. In total 189 people were interviewed. In minor cases rather than one person, two persons were present for the interview. The highest proportion of interviews (45%) were held in the Maltese Islands, the largest archipelago in the area of study in terms of dimension and population. The smallest proportion of interviews (13%) were held in the Pelagian Islands. The relatively higher number of interviews held in the Aegadian Islands (when one considers that Pantelleria is larger in dimension and population) is due to the fact that the archipelago consists of 3 islands and there is a relatively strong ecotourism sector already in place. In consequence, the researcher felt the need to interview more actors involved. As per Dooley (2002), data collection through interviews was considered to be completed when the researcher experienced exhaustion of sources, saturation of categories and emergence of regularities.

Table 4.7: Proportion of males and females and number of interviews held in the area of study.

Ecodestination	Count / Percentage	Gender		Total interviewees	Total interviews
		Male	Female		
Aegadian Islands	Count	31	14	45	38
	Percentage	68.9%	31.1%	100%	21.8%
Pelagian Islands	Count	21	4	25	23
	Percentage	84%	16%	100%	13.2%
Pantelleria	Count	29	6	35	31
	Percentage	82.9%	17.1%	100%	17.8%
Maltese Islands	Count	59	22	81	79
	Percentage	72.8%	27.2%	100%	45.4%
General	Count	2	1	3	3
	Percentage	66.7%	33.3%	100%	1.7%
Total	Count	142	47	189	174
	Percentage	75.1%	24.9%	100.0%	100.0%

Interviews were held during purposely organised visits. In the case of islands under Italian jurisdiction these were mostly held during the summer period as shown in Table 4.1 (marked as follow up visits). This period was chosen due to the availability of the researcher to travel to conduct the interviews but also because it coincided with the tourism peak season, during which period the majority of stakeholders are found on the islands under study. Several of the stakeholders do not necessarily reside on the islands, and are therefore not available or easy to find throughout the other months. The latter had been observed and/or learned by the researcher during preliminary study visits and during the ecotours organised.

Most interviews lasted between 30 to 60 minutes but in minor cases, when interviewees were outspoken or who were individuals who play an important role in society and in the ecotourism sector, interviews took up to 90 minutes. Interviews were kept semi-structured and informal. Issues tackled included rivalry within archipelagos, connectivity, venues ideal to practice ecotourism, ecotourism activities that can be practiced, availability of ecotourism services, the promotion and image of the islands under study, the profile of the ecotourists visiting the islands, environmental issues, socio-economic issues and aspects of governance and tourism policy.

No formal questions were prepared but a checklist of topics was kept ready in hand to guide the researcher throughout the interview (see Annex 3). This ensured that a consistent range of topics

was covered in each interview (Wearing, Cynn, Ponting and McDonald, 2002). Whereas such forms of interviews permit the researcher to ask supplementary questions or to ask the interviewee to explain the answer provided (Veal, 2006), they may also increase bias and comparability of responses may be reduced (Finn *et al*., 2000).

The researcher noted four levels of behaviour, confidence and trust expressed by interviewees. Different interviewees started the interview at a different level. Whereas some interviews evolved completely from level one or two or three to level four, some did not reach the level described in point 4. Such levels can be described as follows:

1. The interviewee was reserved and gave little information, at times also asking for reassurance that information provided will be kept confidential due to possible negative repercussions and attempted to keep interview as short as possible;
2. The interviewee provided controversial and sensitive information on the proviso that all information given is kept confidential.
3. Following questions, including supplementary ones, the interviewee provided controversial information whilst pointing out that the researcher can mention the name of the interviewee as one was saying the truth and had nothing to hide;
4. The interviewee appealed to the researcher and insisted to also include in his notes a specific issue/recommendation related to the research being conducted and which, according to the interviewee, was a matter that should be tackled by the competent authorities. Such interviews generally took over an hour.

Almost all interviews were conducted face to face on the islands under study. The venue chosen was one agreed by the researcher and the interviewee. In minor cases interviews were held on the telephone or via internet programmes such as Skype. The latter was done with persons who were not available for an interview during the study visit organised by the researcher, in most cases due to their workload during the peak season. This is not considered to be a limitation. In fact it has been argued that internet and telephone interviews can be used to conduct a valid and high quality interview (Suryani, 2013).

Most interviewees were not familiar with the researcher and during some of the interviews controversial and confidential matters including tax avoidance measures were discussed. Furthermore, societies within small islands can at times be quite divided and individuals tend to be very much interested in matters concerning others (Andriotis, 2004; Baldacchino and Ferreira,

2013). This makes it difficult for one to discuss certain issues, including making statements that concern other individuals (such as politicians and NGOs or lobby groups) living on the same island, with an unknown researcher. The researcher feared that audio recording interviews might inhibit respondents. This has also been reported by Parker-Jenkins, (2018) who stated that local communities can feel uncomfortable or even suspicious in the presence of tape recorders. To ensure that an adequate pool of stakeholders acceded to participate in the interview and also provide tangible information, the researcher opted to take notes during and right after each interview. Following this, the researcher prepared a typed note of each interview. Over 155,000 words were generated through such notes resulting from interviews held across the area of study.

4.9 Statistics and Data Analysis

The most frequently used methods to analyse data collected through the qualitative methods applied in the field of ecotourism have been coding, sorting and looking for dominant themes. With respect to statistical inference of data collected through quantitative techniques, descriptive statistics and the chi-squared test have been the methods most widely adopted in ecotourism research (Backman and Morais, 2000). Such techniques were also adopted in this research.

Interviews, focus groups and data collected through observation were analysed manually. Open coding, as suggested by Beck and Manuel (2008), was employed. This involved reading and analysing the data for specific trends reflecting the questions posed, identifying, developing and introducing specific categories that unexpectedly came out of the interviews/focus groups to which the researcher wanted to pay attention and then dividing the data into such categories to aggregate relevant data under each category. Data was constantly compared with emerging categories to ensure that they are in line with data being analysed. This also involved reassessing and revising categories and, if need be, divide and reorganise a category into two other categories or redefining a category to include other information. Eventually the content was summarised omitting repetitive information.

Once collected, the questionnaire survey data was analysed. Some data was already in numerical form and thus could be easily analysed. Closed ended questions had already been coded when designing the questionnaire survey. Other data obtained from open ended questions had to be coded. In such cases a coding system that groups responses into a manageable number of categories was devised for further evaluation. Such a procedure has its limitations as it is

subjective. This data was inserted into the Statistical Package for the Social Sciences (SPSS) version 20 for further analysis which included both descriptive and inferential analysis.

Data analysis included several stages as listed in Annex 4. Since all the variables collected had a categorical scale, the Chi-Square test was used extensively to determine whether there exists a significant association between two categorical variables in a two-way contingency table. One of the variables indicated the ecodestination being visited whereas the other variable specified one of the various ecotourist / ecotourism related aspects being studied.

Figure 4.3 shows the chi-square distribution for various degrees of freedom *k*. If *R* and *C* are respectively the number of rows and columns in the crosstab $k = (R - 1)(C - 1)$. The p-value is the area under the Chi distribution beyond the value of X^2 given by:

$$X^2 = \sum_i \frac{(O_i - E_i)^2}{E_i}$$

where O_i are the observed and E_i are the expected frequencies.

A p-value of 0.05 was used as a cut-off point for considering differences as statistically significant. The Null hypothesis specified that there is no association between the two categorical variables and was accepted if the p value exceeded the 0.05 level of significance. The alternative hypothesis specified that there is a significant association between the two categorical variables and was accepted if the p value was less than 0.05 level of significance. The larger the value of X^2 the smaller the p-value and the more likely it is that the association is significant.

Descriptive statistics was also used to present the findings of the research in a more user-friendly manner to facilitate interpretation. Clustered bar graphs representing percentage of cases per archipelago/island were also produced. This permitted the researcher to compare the various case studies.

As recommended for the case study approach, all data collected was eventually organised and amalgamated into categories in a process also referred to as categorical aggregation (Stake, 1995). This gave rise to a number of themes which despite originating from the particular case study, give one the necessary framework to look into other cases (Cohen and Court, 2003). This procedure was conducted stepwise, first taking into account one archipelago/island at a time (referred to as single case data collection and analysis) and eventually incorporating data collected from all islands

under study (cross-case analysis) as per Yin (2014). The latter involves the examination of multiple cases as part of the same case study approach (Yin, 2012).

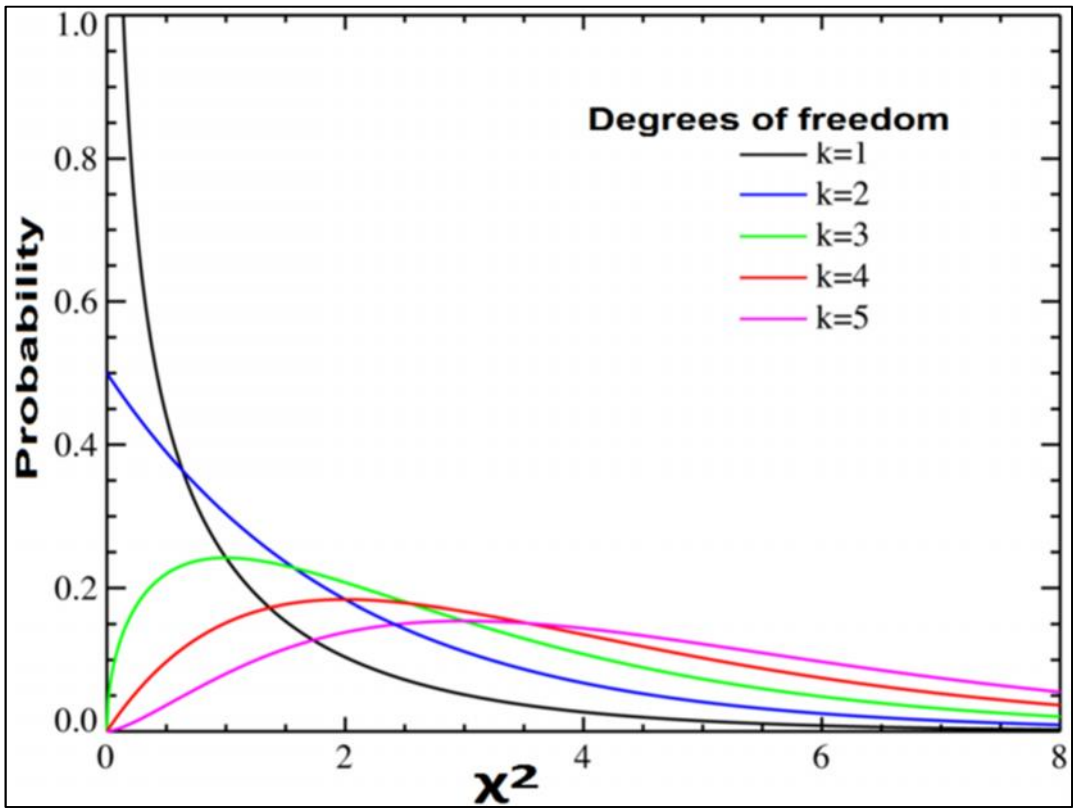

***Figure 4.3**: Plot of the chi-square distribution for values of k = {1, 2, 3, 4, 5}. Source: Häggström, 2010.*

4.10 Research Ethics

Research ethics issues have already been discussed in various parts of this chapter. Some further emphasis is being raised in this section. As the research involved human subjects an application supported by the research plan and the relevant documentation used throughout the research, including the questionnaire, were submitted to the University Research Ethics Committee (UREC) at the University of Malta for clearance. The form clearly identified the person taking responsibility for the research and proved compliant with University regulations/guidelines and Data Protection legislation. The form can be found in Annex 5. In total 285 people participated in the study through ecotours organised, surveys, focus groups and interviews.

With respect to the organisation of ecotours, the NGO serving as a supporting organiser was aware of the research being undertaken. The participants were also informed prior to the ecotour during an introductory meeting.

In the case of questionnaires completed before and after ecotours no consent form was collected as most of the people who completed the surveys were unknown to the researcher as per Veal (2006). Furthermore privacy was ensured and confidentially of data was never an issue since the questionnaires were run in an anonymous manner. Those approached to participate in the survey had the right to refuse participation and information was available throughout the voluntary participation. Before starting to answer the questionnaires, participants were reminded of their right to withdraw at any time. Apart from being assured of confidentiality participants were given a brief description of the purpose of the research. The interviewer-completed questionnaire took only a short time to complete and mostly involved non-personal questions.

When holding interviews, group discussions and focus groups, the necessary information was provided for participants to be able to give informed consent on whether they are willing to participate or not. This involved a chat during which the researcher identified himself and explained the reason for conducting the research. Furthermore the researcher provided information on the aims of the research, how and why participants were chosen, what participation involved, the time needed to complete the discussion and any possible uses of the research outcomes (Finn *et al*., 2000). The researcher also assured complete anonymity of any information provided.

In the case of interviews and focus groups, care was taken by the researcher not to skew the information derived during the interviews/meetings as this would lead to misleading and unethical reporting (Veal, 2006). Thus notes were taken during the interviews/meetings and these were further expanded after the interview/meeting and crosschecked in follow up meetings when it was deemed necessary. The points noted during interviews and focus groups were securely stored and only the researcher had access to them. Digital summaries of both interviews and focus groups were stored online on a password protected platform. Raw data was not made available to unauthorised persons. Care was also taken in the way results were written up. The names of the stakeholders interviewed or of the participants of focus groups were never revealed. Furthermore results were published in an aggregate form so that individual responses could not be identified (Finn *et al*., 2000).

4.11 Reliability, Validity, Generalisability of Results and Limitations of the Research Methods

The concepts of reliability and validity in social science research have been hugely debated. Whereas some have argued that such concepts apply in principle to assess the quality of both quantitative and qualitative research (Leung, 2015), others have remarked that these concepts have been mostly associated with quantitative research and thus need to be remodelled in terms of qualitative research putting more emphasis on trustworthiness, rigor and quality (Golafshani, 2003).

The **Reliability** of results has been closely associated with replicability (Joppe, 2000), something on which less emphasis has been placed in qualitative research (Glesne and Peshkin, 1992). Due to the fact that recording of interviews and focus groups might have led to inhibition in some participants, notes were taken instead. Whereas the researcher took a number of precautions such as elaboration of notes immediately after each session, undoubtedly some issues might have been overlooked by the researcher which could not be retraced due to a lack of recording. Therefore such research might have limitations in terms of replicability. Furthermore, as explained earlier, semi-structured interviews are prone to an element of bias. On the other hand, several measures were taken to ensure that if repeated, the interviews and focus groups yielded similar results. Some examples include the use of a check-list during the semi-structured interviews and focus groups as guidance and follow up discussions to confirm content of the interviews with interviewees in what Brink (1993) compares to a test-retest technique. This also has its limitations as the process can sensitise the respondent and influence responses as respondents might change their views over time (Joppe, 2000). The split-half method was also employed for the qualitative methods adopted where trends of both samples overlapped, further confirming the reliability of the data collected.

The fact that the topic under study was quite extensive and multidisciplinary meant that a horizontal approach had to be adopted. A vertical study, whereby a number of ecotours are organised to the same destination throughout the six year research period might have been beneficial to confirm consistency of results, identifying if any trends were overlooked in previous research efforts and thus confirming the reliability of the research. Yet this was not possible due to limited temporal and financial resources.

According to Joppe (2000) reliability in research also refers to the use of an accurate representation of the total population under study. In this regard, the non-probability sampling techniques used throughout the research are a limitation and can lead to an unknown amount of bias being

introduced into the research findings (Finn *et al*., 2000). A representation of the entire population is thus questionable because the sample was not chosen at random. This implies that particular groups could have been under-represented or over-represented.

With respect to the number of interviews held in the area of study a relatively higher number of interviews were held in the Maltese Islands when compared to the Italian Islands. This is because the researcher resided in the Maltese Islands throughout most of the research and thus holding interviews on this archipelago was relatively straightforward. In the case of the Italian Islands the researcher had to travel to all the islands and this introduced a number of challenges including the timing when the researcher could visit the islands. This implies that certain stakeholders might have been overlooked during that particular visit. Furthermore the limited duration of each visit, as a result of the time available for research and financial resources available, led to a natural limit on how many interviews could be held by the researcher. When using the snowball sampling technique to engage interviewees, care was taken to ensure that not just a particular section of society was interviewed and that those with contrasting views were also consulted. With respect to the identification of stakeholders, whereas the researcher took necessary steps to ensure all relevant stakeholders are consulted, some important stakeholders could still have been overlooked especially in the Italian Islands which was a new territory for the researcher where he had fewer contacts with civil society, NGOs and agencies when compared to the Maltese Islands. Having said that, across the entire area of study, but mostly in the islands under Italian jurisdiction, the researcher experienced exhaustion of sources, saturation of categories and emergence of regularities indicating that a comprehensive perspective of stakeholders was obtained.

Here one should also point out that participants of ecotours were recruited through marketing campaigns run by NGOs and/or tour operators and thus the methods used differed. The ecotours in the Italian Islands were mostly marketed among Maltese youths and students from the University of Malta interested in the natural environment and/or studying in the field of earth systems. The participants of the ecotour in the Maltese Island were recruited by a tour operator through contacts with foreign partners. Furthermore, of the 66 ecotourists, 23 participated in two of the ecotours organised whereas five ecotourists participated in three of the ecotours organised. This implies that the voice of these ecotourists was heard more than once even if this was done for different ecotourism experiences. This might skew the results obtained. As explained below the matter was addressed through statistical analysis.

Validity determines if the research instrument adopted was successful in measuring what was intended to be measured (Drost, 2011). In terms of what is known as face validity (Joppe, 2000), the various research instruments used managed to collect data that allowed the researcher to shed light on the research questions raised. As explained in section 4.2, the case study approach, through its various research instruments, made this possible as no single method could have reached such an objective. For example, the organisation of ecotours and the use of questionnaires among participating ecotourists helped to test if ecotourism can serve as a means to tackle seasonality. The interviews with stakeholders were instrumental in obtaining their views on the possible impacts of ecotourism and identify policy actions needed for the advancement of ecotourism in the area of study. Furthermore, other measures such as pre-testing and piloting were also taken ahead of applying the questionnaire to ensure that questions were clear and well worded. Criterion validity was also employed by asking a question in a similar way/repeating a question to ensure consistency in the way a respondent answered.

Validity in qualitative research is also concerned with accuracy and truthfulness of findings and that the study demonstrates what actually exists. The presence of the researcher, a new member on most of the islands, which are considered as relatively closed societies, may also effect the validity of the data as the researcher might cause new social behaviour known as reactivity (Brink, 1993). Such a limitation could easily have impacted observation. For example, ecotourists could have behaved in a far more pro-environment manner knowing the scope of the research and the background of the researcher. During interviews stakeholders might have also given their views in such a way to reflect the scope of the research and please the researcher. In other circumstances controversial information might have been withheld. According to Leininger (1991) this can be overcome by shifting one's attitude as a researcher from that of a stranger to one of a trusted person throughout the research. In fact when conducting observation the researcher adapted his behaviour from an incognito observer to a participant observer and conducted interviews and focus groups after establishing an acquaintance with the participants of ecotours and interviewees. To further improve the validity of responses one also followed a number of measures suggested by Brink (1993) including informing the interviewees about the nature of the research and comparing the results with other evidence including data obtained through other research instruments.

Another limitation faced throughout the research was the fact that obtaining secondary data, statistics and other official information from local, provincial and regional government and national agencies proved difficult. In most cases, especially in the case of Italian Islands, data which could have supported the research was lacking. Such an issue has also been highlighted by the European

Commission in its strategy for more growth and jobs in coastal and maritime tourism (European Commission, 2014).

Statistical conclusion validity has been used to determine the validity of research and takes into account whether conclusions about the relationship between variables based on the data are correct (Drost, 2011). In this regard one should note that the relatively small sample size set a limitation on the Chi-Squared test as the p value depends heavily on the sample size. When the sample size is small there is a possibility that the chi-squared test yields a p value that leads to a Type 1 or Type 2 error. Therefore a number of inferences deducted in the interpretation of the statistical tests might have been unrealistic. In the case of statistical inference, due to a relatively small sampling size it was not possible to study the association of more than two variables at a time and thus the statistical inference was limited to studying the association between two variables at a time.

The use of mixed methods in data collection and analysis have been used to ensure and test the reliability and validity of the research (Golafshani, 2003). With respect to rigour, the use of mixed methods allows the researcher to collect a richer and stronger array of evidence than can be accomplished by any single method alone (Shoaib and Mujtaba, 2016). The use of mixed methods is said to improve the validity of the research (Pickard, 2007; Finn *et al*., 2000) as it allows findings of one investigation to be cross checked by findings from another type of investigation (Finn *et al*., 2000). As discussed in subsequent chapters, data obtained from one particular research instrument were in several circumstances confirmed through other research instruments confirming the reliability of the results. It has been argued that the utility of a mixture of methods not only improves the validity of the research but also offsets the weaknesses which either approach alone would have instituted in the research (Creswell and Plano Clark, 2007) while maximising the strengths of either method (Finn *et al.*, 2000).

In terms of qualitative research more emphasis is made on transferability of results (Hoepf, 1997), something which is also equated to **generalisability** of results (Lincoln and Guba, 1985) and thus the application of the findings to other settings. The concept of using a number of islands to serve as a hub for ecotourism which is being investigated through this research can, not only be extended to other central Mediterranean islands, but possibly also applied to other regions which share similar challenges to those of the area of study. In this regard one should recall that the application of ecotourism and its principles are said to vary from one setting to another (as explained in chapters one and two) and thus caution is necessary with respect to generalisability in ecotourism research.

4.12 Conclusion

This chapter gave an overview of the research methodology and techniques used. The case study approach as an overarching design gave one the possibility to use a number of research techniques to obtain rigorous data from across the area of study which would have been otherwise difficult to collect through one method. The mixed methods adopted also permitted one to collect quantitative data which could be statistically analysed to support the findings and assertions made. Furthermore, data collected through different research instruments gives one the possibility to counter-examine the results. Whereas the research had a number of limitations, one can say that that the results were valid and reliable. The data collected will be presented in the following two chapters.

Chapter 5:

Results – Ecotourism Aspects and Issues

Plate 5.1: *Fishermen, major stakeholders in the area of study, preparing the fishing nets ahead of the next fishing trip - Marettimo, Aegadian Islands. Photo: Karl Agius.*

Chapter 5: Results – Ecotourism Aspects and Issues

5.1 Introduction

This chapter presents the findings of the interviews held with stakeholders on the themes relevant to the development of ecotourism in the area of study. Related issues which directly or indirectly have an impact on the niche are also discussed. The findings of the interviews are supported through feedback given by participants of the ecotours via focus groups and group interviews along with observations made by the researcher throughout the research.

Taking into consideration the context of the study, it is not surprising that various island issues have emerged. The chapter opens with a presentation of such issues and their impact on ecotourism. This is followed by an analysis of the various aspects related to the operation of ecotourism at the ecodestination such as venues, activities and services. Both marketing efforts and the related challenges are also presented. The chapter concludes by highlighting the various impacts and issues identified by stakeholders and ecotourists. These include environmental and socio-economic ones which are relevant to the development of the niche in the area of study. An account on the current status of ecotourism policy is also given.

5.2 Island Issues

5.2.1 Rivalry

Across the area of study one finds various levels of rivalry and in several cases this is the result of issues related directly or indirectly to tourism. Rivalry exists within the same island between operators working in the same or similar sector such as between those organising excursions using traditional fishing boats. Competition has at times escalated to rivalry and in some cases led to rifts between locals from the same island. Tourism has at times aggravated the situation as it led to further social and economic differences between locals from the same island. This will be further explained in section 5.3.3 in terms of excessive competition and in section 5.5 in the context of the socio-economic impact of ecotourism.

Inter-island rivalry exists at two levels. Firstly it appears among locals and operators from different islands within the same archipelago. For instance it has been argued that smaller islands within archipelagos such as Gozo, Linosa, Marettimo and Levanzo receive less attention with respect to promotion in comparison to the mainland island of the respective archipelago. Some argue that, at times, the smaller islands are completely excluded from promotional efforts for tourism purposes.

> "*In terms of tourism, Lampedusa belongs to the Serie A, whereas Linosa belongs to the Serie B*." – Academic, male, Lampedusa.

In the case of connectivity, smaller islands are less well served or experience heftier fees for the service. Areas exhibiting the highest level of protection are at times found in the areas close to the smaller islands prohibiting several tourism activities and imposing several restrictions which indirectly impact inhabitants. In terms of governance smaller islands are given less attention and locals have a relatively lower level of representation. The level of inter-island rivalry is also evident in terms of competition for sales. Owners of restaurants and stores on Linosa claim that at times tourists visit the island with packed food items as they are advised by individuals on Lampedusa that there are limited supplies on the island of Linosa so as to buy all necessary supplies on Lampedusa, thus reducing sales on the smaller island. As a result, in most cases, islanders from smaller, less populated and the most peripheral islands consider themselves at a disadvantage. Such issues will be discussed in further detail in the relevant sections below. It is worth pointing out that such issues have led to tensions between islands of the same archipelago to the extent that such tensions have also been observed by the researcher during youth gatherings whereby youths from the island of Levanzo sing chants that insult the locals from Favignana - another island within the same archipelago - due to the dominant role Favignana plays in terms of tourism.

Inter-island rivalry also exists at a secondary level, that between operators from different archipelagos/islands, such as those from Pantelleria and those from the Pelagian Islands especially on the grounds as to who manages to attract most tourists to the respective archipelago / island. Remarkably, whereas stakeholders raised the issue of rivalry in several circumstances and in relation to various aspects, the ecotourists interviewed and those who participated in the ecotours organised as part of the research never brought up the issue of rivalry. On the contrary, they noted the positive sense of community and tranquillity found across the area of study, especially on the Aegadian Islands.

5.2.2 Connectivity

The introduction of various low cost flights to Trapani Birgi airport has increased tourist arrivals on the Aegadian Islands substantially so that the surge has been termed the “Birgi effect”. Yet this flow of tourists is from time to time placed in jeopardy as the responsible municipalities in the region of the airport fail to pay fees due as per co-marketing agreement established with the low cost airline Ryanair. In the case of Lampedusa (Pelagian Islands) and Pantelleria there are very few low cost airlines operating seasonally. As with other flights offered by other airlines, these are limited to domestic flights and are relatively expensive. As a result, operators and policy makers claim that such destinations are less competitive than other destinations which are well connected via low cost airlines and cheaper flights. The absence of international flights has also been identified by stakeholders as a root cause of the seasonality problem faced by various islands, amongst them the Pelagian Islands and Pantelleria. Such islands mostly depend on flights chartered by operators, which normally have a low capacity due to the size of the aircraft. A smaller aircraft limits the risk taken by the private sector. Furthermore, the small operators said that they cannot afford to take financial risks and charter flights off-season as demand in this period is not guaranteed. Stakeholders have also raised concerns that the arrival of low cost airlines can attract mass tourism to the islands rather than the much expected high end tourists. In the case of the Maltese Islands, whereas the islands are well connected through various airlines, including low cost, stakeholders have raised concerns on the constant changes and restructuring within the national airline. Policies taken in recent years such as the reduction of aircraft and cessation of certain flights to destinations such as Germany considered to be an important source of ecotourists have not gone down well with tourism stakeholders. These decisions were eventually reversed.

With respect to the hydrofoil (fast ferry), the service is considered to be good but concerns have been raised by stakeholders since the two competing companies have merged leading to a monopoly in the sector resulting in lack of competition. In the case of the smaller, more peripheral islands, locals and operators complain about the lack of frequent crossings. This aggravates the situation for the most distant islands since the crossings are circular and go from one island to another, at times leaving limited seats for those travelling to or from such islands. Locals from such islands also complain that the price for each crossing to the more peripheral islands is higher than that to closer destinations thus making such destinations less competitive than neighbouring islands. In minor cases, service schedules have also been criticised and led to petitions by the local communities. Another issue with the hydrofoil is the fact that the service from mainland Sicily

(Trapani) to Pantelleria and from mainland Sicily (Porto Empedocle) to Lampedusa is seasonal, operating solely between July and September due to weather conditions. Whereas ongoing discussions are underway, the discontinued fast ferry service between Malta and Gozo is still unavailable. Locals claim that such a service is crucial for both locals and tourists.

The ferry service between Malta and Gozo is adequate according to various stakeholders, however in the case of the ferry between mainland Sicily to Pantelleria / Pelagian Islands, the service is considered inadequate mostly because the crossings by aging ferryboats take over seven hours to complete and the limited commodities onboard. Here one should recall that whereas comfortable transportation was considered as one of the least important features for the ecotourist before the ecotour (see Table 6.6), transportation headed the list of the least interesting experiences of those travelling to the Aegadian Islands (see Table 6.8). Concerns over the possibility of ecotourism activity on Comino have also been raised by stakeholders due to the seasonal connectivity between Malta and Comino which mostly operates between April and October.

In the case of bad weather, crossings between islands are suspended. This mostly impacts the most distant islands and is, in most cases, a concern for tourists visiting the islands. This has in fact also been raised by ecotourists who participated in the ecotours. Incidentally, during one of the ecotours, the programme had to be adapted as bad weather forced the hydrofoil heading to Marettimo to change course half way through the journey and divert to the less peripheral island of Levanzo. This confirms claims made by locals that tourists at times fail to visit the most peripheral islands of archipelagos, especially in winter, due to a lack of a guaranteed return to the mainland.

This also has an impact on operators who at times lack fresh food supplies for a fortnight. Locals said that bad weather is an all year round issue but mostly impacts tourism operations off-season, including during the months of March and April. While bad weather is touted as one of the causes leading to seasonality in tourism, the weather is not the only factor to blame when it comes to suspension of services. Hydrofoils do operate in mild conditions but face problems when it comes to berthing due to inadequate ports and a lack of infrastructure. Furthermore, services are at times suspended due to a lack of continuity from one contractual agreement and another between the regional government and the private operators.

"*So close yet so far.*" – Local, male, Lampedusa.

As shown in Figure 5.1, the connections linking the different archipelagos are lacking or seasonal even when distances are relatively short. Whereas various stakeholders have proposed that more links should be in place, some policy makers have questioned the economic feasibility of such links due to the lack of demand. On the other hand, operators have said that demand can only be ensured if adequate promotion is undertaken. An existing link between Linosa and Pantelleria has been discontinued and this has been heavily criticised by operators as it is considered a disadvantage for Pantelleria. In contrast to options available on other islands forming part of archipelagos, one cannot easily visit other islands from Pantelleria. On the other hand, operators claim that the new air link between Malta and Lampedusa is giving one the option to visit other islands when visiting either destination. Such inter-island connections also give one the possibility to extend the ecotours, as confirmed by an operator on Pantelleria who also offers ecotours on the neighbouring Aegadian Islands. An interest to participate in longer ecotours on other islands has also been expressed by ecotourists during focus groups, should the service be available.

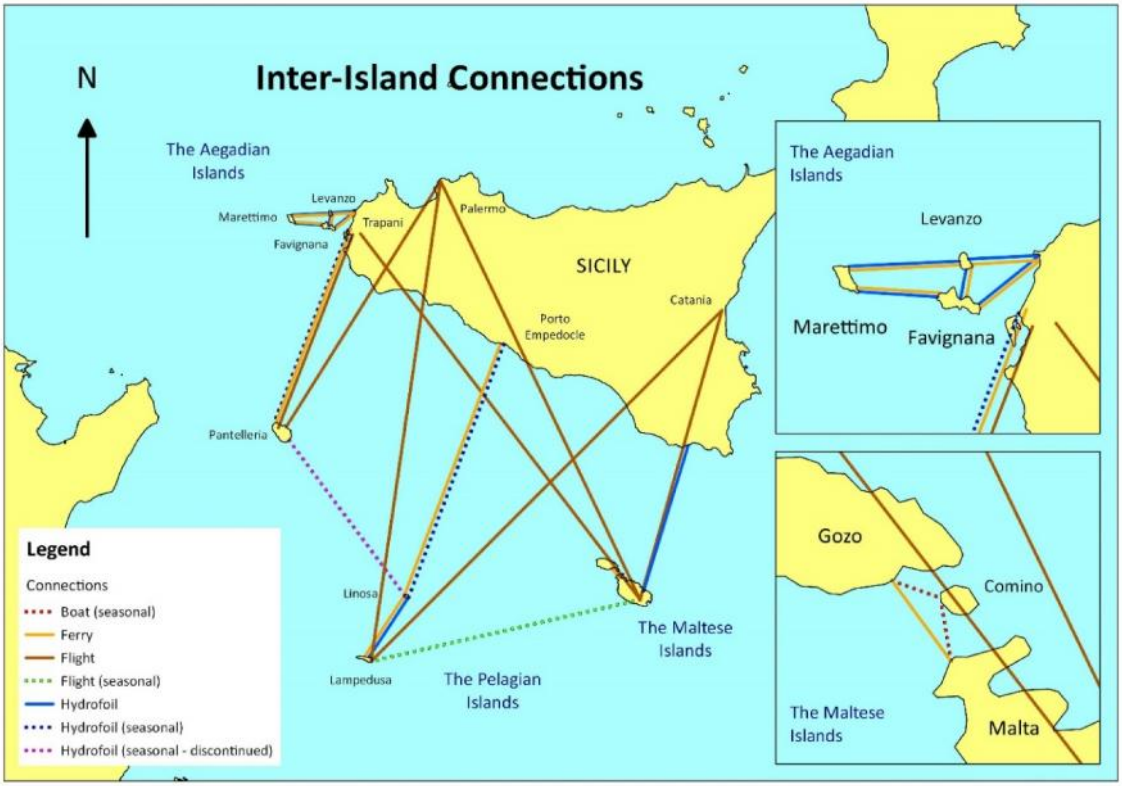

***Figure 5.1**: Inter-island connections in the area of study. Compiled by Karl Agius, designed by Andrea Pace.*

Another issue with connectivity is that small islands such as Levanzo, Favignana, Marettimo and Linosa heavily depend on ports to ferry all visitors to and from the small islands due to lack of airports. Such ports are found close or literally meters away the sole village found on such islands. As a result the ports and villages they serve become chokepoints for the inflow and outflow of tourists. This is especially the case on Favignana which receives over 60,000 visitors on some of the days throughout summer. This has caused irritation among the local community especially the minority which is not involved in the tourism sector. The situation is mitigated by prohibiting entry of cars by non-residents throughout summer on some of the islands such as Favignana. In other cases, lack of roads and terrain of the islands makes the entry of cars impossible case in point on Marettimo and Levanzo. Meanwhile, ecotourism as a form of tourism that is not based on the masses but on small groups will further mitigate such a challenge.

> "*Megaprojects such as the cruise liner terminal, the Malta-Gozo tunnel and the airstrip will make Gozo an appendage of Malta.*" – eNGO, male, Malta.

Various megaprojects have been proposed to improve the connectivity of the islands. Such projects include larger and more adequate ports on the Aegadian Islands and Pelagian Islands and the upgrading of the port of Pantelleria. Cruise-liner terminals have been recommended for the islands of Gozo and Pantelleria. Whereas the runway on Pantelleria has been extended in recent years to facilitate the landing of bigger aircraft, policy makers pointed out that discussions constantly resurface for the introduction of a fully-fledged airstrip on the island of Gozo. Discussions on the connectivity between the Islands of Malta and Gozo have been ongoing for the past years with the idea of a tunnel receiving a lot of support from tourism operators. Yet such projects have also raised environmental concerns, especially among eNGOs and among some operators, due to the impact they might have on ecotourism. On the other hand, locals are evenly split between those who want to conserve the environment and those who want to improve their living conditions. Whereas some operators have argued that without proper connectivity, one cannot attract ecotourists, other ecotourism operators have argued that the element of remoteness can be a marketing instrument within itself.

5.2.3 Governance

A major concern raised by locals across the area of study, but mostly in the Aegadian Islands and the Pelagian Islands, is the fact that the smaller/smallest islands within the archipelago are not given due attention by the local authorities. Locals feel abandoned as the biggest island of the

respective archipelago is given absolute priority. Locals and operators from Levanzo and Marettimo said that the municipality focuses its work on Favignana and opportunities are only shared with inhabitants from Favignana. It is claimed that the mayor barely ever visits the smaller islands. Locals from the Pelagian Islands who emphasised such a challenge remarked that the small island of Linosa is only used by the authorities of the archipelago for their advantage to obtain funding and to participate in projects.

"*Linosa is always at the mercy of Lampedusa.*" *– Operator, male, Linosa*.

Locals from the smaller islands of the archipelagos such as Linosa, Marettimo and Levanzo also feel underrepresented within the respective municipality. On the other hand, authorities consider this to be quite natural due to the smaller population size of such islands. Furthermore, the municipalities rebutted such an argument saying that representatives from the smaller islands were also given important roles within the respective municipality. For example, whereas the mayor of the Aegadian Islands hailed from Favignana, the vice-mayor was from Marettimo.

Across the area of study, most stakeholders expressed a lack of trust in politicians, especially on the islands under Italian jurisdiction. Locals argued that whereas several promises are made ahead of elections, few are kept. However, some locals and politicians said that it was challenging to implement certain promises and to govern on such islands due to a lack of power (limited level of subsidiarity) and resources. In this regard it was easy to blame the mayor and the municipality but this was unfair since various decisions depended on the various levels of governance including regional and national governments. Locals claim that whereas such challenges were partly true, the current situation was also due to the fact that politicians always placed their interests first and failed to put the interest of the islands first. Locals and operators from the Pelagian Islands added that proof of this was the fact that footage of the islands and interviews with locals available on YouTube and dating back 30 years confirm that challenges faced by islands back then are still relevant today. On the other hand, stakeholders contend that politicians face a lot of challenges and pressure when taking decisions due to strong lobby groups such as hunters and construction contractors, especially in the case of Malta and Pantelleria. Locals and operators also remarked that regional and national politicians barely ever visit the islands under Italian jurisdiction and hence are detached from the challenges faced by the locals and fail to legislate accordingly in order to tackle such challenges.

NGOs from the islands under Italian jurisdiction argued that politicians have little interest in the environment and the related tourism product but show some form of interest in tourism in general. In the case of Pantelleria those offering ecotourism services remarked that constant meetings are held between the municipality and the operators. On Lampedusa, locals and operators expressed concern at the fact that the municipality and the mayor focused their work on the migration crisis and have little time to spare for the challenges faced by locals, especially those related to tourism. This is rebutted by policy makers. In the Maltese Islands, the lack of interest in the management of protected areas and the environment has been blamed on the lack of political will as, according to NGOs, work conducted in such areas is not visible and such policies do not necessarily yield votes for politicians.

In the case of islands under Italian jurisdiction, changes in the elected representatives leads to considerable changes in terms of policies. In the case of Pantelleria a change in administration also affected the relationship established with the regional government and ties had to be re-established to take forward ongoing initiatives and projects such as the institution of the national park. In the case of the Maltese Islands similar problems were reported. A change in the national administration in 2013 led to a situation whereby projects were abandoned or overhauled. One example is the lack of priority given to the initiative ecoGozo once the new administration took office. Such changes lead to a situation whereby operators are disheartened from collaborating with the government on ecoGozo related projects. Furthermore, a pertinent problem in the Maltese Islands is the lack of communication between one government Ministry and another. One such example is the Ministry responsible for the environment and that for tourism while another is that between ministries and local councils/NGOs leading to a situation whereby efforts are duplicated. In one case, various governmental entities worked on similar and overlapping projects related to walks and signage across the archipelago.

Various stakeholders from Pantelleria and the Pelagian Islands, especially policy makers and operators, remarked that owing to the difficulties faced by the islands, there should be some form of compensation. In this regard, campaigns are underway to make such islands tax free zones. They argue that such a measure would also attract more tourists to the islands all year round.

5.3 Ecodestination

5.3.1 Ecotourism Venues

NGOs and academics remarked that one finds several protected areas across the Maltese Islands which are ideal as ecotourism venues, including over thirty Natura2000 sites and several MPAs. Various sites including Xrobb l-Għaġin Nature Park, Dingli Cliffs, Għajn Tuffieħa, Majjistral Nature and History Park, Aħrax tal-Mellieħa, Rdum tal-Madonna, Simar and Għadira Nature Reserve were identified by stakeholders, however it was argued that owing to the size of such sites one would need to visit several sites throughout an ecotour leading to minor logistical issues. On the other hand, NGOs and academics said that since most of these sites are found along the coast, it is also possible to develop a network of sites ideal for marine ecotourism. Ecotourists visiting Malta also remarked that owing to the human impact and level of urbanisation, one had to be quite selective regarding sites earmarked for ecotourism. In this regard they argued that it was more ideal to run the majority of ecotourism activity on Gozo and Comino. In the case of Gozo, the sites earmarked for ecotourism include Ta' Ċenċ, Mġarr ix-Xini, Xlendi, Dwejra and Ramla l-Ħamra. Activities revolving around various islets such as Filflawere also recommended. Ecotourists visiting the Maltese Islands remarked that the fact that the ecotourism venues were spread over more than one island was an advantage that should not be overlooked. Owing to the various levels of environmental impact as explained in detail in section 5.5.1, ecotourists remarked that one finds a different from of wilderness in the case of the Maltese Islands and that the anthropogenic impact makes ecotourism venues in Malta different from that of other regions. Meanwhile they acknowledged that on the islands one could still find various natural sites which should not be undervalued.

Stakeholders from the Pelagian Islands pointed out that the archipelago had an extensive Natura 2000 site, a MPA and a nature reserve. Once again, even if to a smaller extent, stakeholders identified a number of sites towards the north of the island of Lampedusa, including the coastal areas at Cala Pulcino, Rabbit beach and nearby valleys in coastal areas. In a similar scenario to the Maltese Islands, during focus groups, ecotourists argued that the smaller island of Linosa was more ideal for ecotourism due to limited human impact, a lower urban footprint and its pristine state. In fact, the day spent on Linosa was considered by ecotourists as the favourite activity throughout the ecotour on the Pelagian islands. Stakeholders in the Aegadian Islands collectively remarked that the MPA surrounding the islands is one of the biggest MPAs in the Mediterranean Sea making this extensive area ideal to practise various marine ecotourism activities. They added

that the islands also form part of a Natura 2000 site. Of all islands in the archipelago, once again the larger island was considered the least ideal for ecotourism due to human impact. Whereas Marettimo and Levanzo were considered as the ideal islands to serve as an ecotourism destination, it was argued that the island of Favignana could support such a niche. With respect to Pantelleria, stakeholders remarked that the extensive Natura2000 site and national park found on the island are ideal as ecotourism venues. Furthermore, whereas there is no MPA, five sites along the coast have ultimate protection equivalent to a zone A (subjected to comprehensive protection) of a MPA due to the presence of underwater archaeological artefacts.

Considering the limited dimensions of protected areas in the area of study, the extension of protected areas was raised throughout various interviews. In the case of the Maltese Islands, MPAs have been extended through LIFE+ funded projects which identified other sites that merit protection. On the other hand, coastal areas adjacent to Natura 2000, sites which also deserve protection, have been earmarked for development. One such example is the area known as White Rocks situated next to a Natura2000 site at Pembroke. In the case of Pantelleria, various locals including hunters and farmers have objected to the extension and development of the nature reserve into a national park due to a fear of further restrictions including that of losing the possibility to recuperate abandoned agricultural terrain and to build on such terrain. Instead, the park was described by some locals as an instrument for the economic benefit of the very few. In the case of Pantelleria, the institution of the MPA has been dragging for over a decade due to a fear of restrictions imposed on resource users including those practising apnoea and amateur fishermen. This will be further discussed in section 5.5.2 in terms of the socio-economic impacts of ecotourism.

"*MPAs in the Maltese Islands are a paper tiger.*" – Academic, male, Malta.

The management of protected areas is a major concern across the area of study. In the case of the Maltese Islands, stakeholders said that MPAs were devoid of any management strategy, there was no zonation or framework on permissible activities within respective areas of the MPAs in place and there was no enforcement whatsoever. In the case of the Aegadian Islands, adequate management is in place yet the management body feels that there is a lack of both human and financial resources According to the management bodies of the MPAs, there is also lack of awareness among locals on what role the management bodies of MPAs play with some expecting them to be responsible for enforcement and others reverting to them to tackle issues which concern local government. The mayors of the municipalities on the Aegadian and Pelagian

Islands serve as the President of the respective MPA management body. Whereas this is seen by some as a positive aspect since it confirms interest in the management of such sites by local government, for others this is considered to be an element of unnecessary interference in management. In the case of the Pelagian Islands calls have been made by academics and NGOs for consortia composed of NGOs and competent academic bodies to manage such sites.

In the case of the Maltese Islands, academics and policy makers remarked that various coastal protected areas are managed by different NGOs through different legal instruments. Whereas this is not necessarily wrong, stakeholders including academics remarked that structures with more human and financial resources were needed. Several other Natura 2000 sites are left in disarray, even if management plans have been prepared. Difficulties in management have also been met on the Aegadian Islands and Pantelleria since park rangers responsible for the upkeep of parks and reserves are not replaced once they go into retirement. Furthermore, due to a lack of funding from the regional government, the number of working hours dedicated for the upkeep of sites has decreased considerably over the years.

The involvement of stakeholders in the management of ecotourism venues and the impact on their livelihood and lifestyle was raised several times during interviews and will be further discussed in section 5.5.2. According to fishermen from the Aegadian Islands, the institution of the MPA started off on the wrong foot due to a lack of stakeholder involvement which consequently brought about a lack of trust in its governance. Fishermen from the Aegadian Islands argue that they should be more involved in the management as the management body bases its decisions solely on the input of academics. Furthermore, they argue that stakeholders' involvement should be genuine. There have been cases were efforts to involve stakeholders were fake and views were taken from individuals who did not really represent the interests of the local fishermen but the interests of authorities and fishermen from the bigger island of the archipelago. Stakeholders agreed that the new management team had achieved better results due to a different approach based on greater involvement of stakeholders. Similar issues were reported in Pantelleria where artisanal fishermen were not consulted on the introduction of underwater archaeological sites which limited their area of activity. Furthermore, several complained that the institution of the MPA on Pantelleria is being promoted by foreigners who have moved to the island in recent years and by NGOs which are not based on the island. Thus, there is no concrete ownership in the proposal and no bottom up approach involving all stakeholders. This has been denied by professional fishermen who are in favour of such MPA due to various benefits they stand to gain with its institution.

With respect to management, NGOs and policy makers agree on the need to involve NGOs. Meanwhile NGOs claim that in certain circumstances, policy makers fail to consult with them on important management related decisions that also have an impact on ecotourism activity. Stakeholders also remarked that NGOs fail to cooperate together when it comes to management save for minor cases when they collaborate with governmental entities such as in the case of the surveillance of turtle nesting sites on Lampedusa. Academics from Malta and locals from the Pelagian Islands remarked that in recent years the role of NGOs has changed considerably, with the voluntary aspect being overshadowed by financial interests.

In terms of management and accessibility, NGOs remarked that the right balance between protection and accessibility needs to be found since some small and fragile areas might require some form of control on the daily amount of visitors permitted. Operators and locals across the area of study also remarked that various ecotourism excursions could be free as there are no entrance fees to parks and natural attractions. Most stakeholders were hesitant on imposing limits to the number of visitors and entrance fees. On the other hand policy makers and academics remarked that in the case of Comino, capping and possible entrance fees were required to limit tourism activity in order to preserve the site and to sustain the management of the area. In the case of the Pelagian Islands an entrance fee and capping on the number of visitors has already been introduced on Rabbit beach however, there is a lack of agreement on technicalities between the municipality and the management body of the reserve. Yet according to NGOs and policy makers discussions are underway to assess and reintroduce the system.

Accessibility is also a major issue when it comes to protected areas and ecotourism venues on the Maltese Islands. According to ecoguides, several areas have been taken over by squatters for leisure purposes, while hunters and trappers impede ecotourists from making use of such sites. Furthermore, ecotourism activities including trekking have been shunted from wild terrain to asphalted rural pathways. There is consensus among stakeholders to conduct an exercise in specific areas to identify which areas are truly private or public. Hunters/trappers and policy makers argue that there is a wrong impression that wild areas such as garigue areas and Natura 2000 sites are public land, however this is not always the case. According to operators, locals and ecotourists, accessibility to protected areas needs to improve in general across the archipelago but especially in the Maltese Islands where official pathways are lacking or not managed. Operators also said that accessibility of MPAs for divers was also an issue across the area of study due to lack of pathways and ladders on rocky shores.

A lack of awareness among locals on the importance of protected and wild areas has been flagged by stakeholders across the entire area of study. Locals from the Aegadian Islands opposed such claims and remarked that the good state of the islands is not only due to the initiatives of the local government and NGOs but also due to the respect shown by the locals towards the natural environment. Whereas progress has been registered in recent years and even if several locals have a sense of attachment to the islands in question, there are still several ongoing bad practices in such sites as discussed in section 5.5.1. Ecotourists visiting the Maltese Islands remarked that the lack of awareness and importance given to such sites can be confirmed by the fact that there are barely any locals visitors. Using the same argument, policy makers claim that such sites are undervalued by locals. The lack of appreciation of such sites on Pantelleria can also be confirmed by the extensive fire set up to allegedly retaliate against government policy. This lack of appreciation of protected areas will be further discussed in terms of promotion in section 5.4 and in section 5.5.1 in terms of environmental impacts.

5.3.2 Ecotourism Activities

According to stakeholders, whereas the islands in the area of study are relatively small, they nevertheless have great potential to serve as destinations where one can practise marine ecotourism activities. This is mostly because the islands in question have a strong natural environment facilitating the practice and further development of such activities. In fact, several stakeholders argued that the organisation of ecotourism activities on such islands comes quite naturally due to the characteristics of the islands.

> "*There is nothing else to do on the island other than to appreciate nature*." – Local, male, Pantelleria.

> "*The island is a paradise of natural beauty.*" – Local, female, Lampedusa.

> *"Tourism in the archipelago revolves around the strengths of the islands - the natural beauty, the rich terrestrial and marine biodiversity, cultural attractions, local cuisine, traditions and the tranquillity found."* – Local, male, Aegadian Islands.

A major concern outlined by ecoguides lies in the fact that there are no flagship/charismatic mega fauna on the islands in question save for some introduced species such as deer on Marettimo. In

fact, during focus groups, ecotourists visiting the Maltese Islands also outlined the point that they observed quite little charismatic fauna during the ecotour save for the fresh water crab. Nevertheless, the islands can boast of a rich biodiversity which includes the presence of endemic and rare species, and other species with a limited distribution found in the various habitats. The various species of flowering plants within a small area implies that the islands have great potential for flower gazing, ethnobotanical tours and nature photography in, but not exclusively, coastal areas. Meanwhile ecotourists who participated in the ecotour taking place in the Maltese Islands argued that one should avoid putting too much emphasis on terrestrial activities and botany related activities and focus more on activities centred on coastal and marine settings. This is because biodiversity is also extremely rich in coastal and marine environments to the extent that according to academics even in very shallow waters one can observe a vast variety of species. In fact, one marine ecotourism activity proposed by an academic from the Aegadian Islands is rock pooling.

Making reference to an underwater video filmed during the ecotour, ecotourists visiting the Aegadian Islands along with academics and operators from Lampedusa also remarked that the sea is a major attraction on the respective archipelagos. This is due to the abundant marine life and the extremely high visibility in the sea. This is due to the presence of MPAs which prohibits the use of destructive fishing techniques making the islands ideal for diving and snorkelling. Furthermore, most islands under Italian jurisdiction are remote and have limited boat traffic making them safer to practise such activities. Various diving spots have been earmarked in the Aegadian Islands and relevant information has been documented. In the Maltese Islands one also finds an underwater trail in the Majjistral Nature and History Park. In addition, across the area of study specifically in Pantelleria, Levanzo and Gozo one also finds underwater archaeological sites which serve as additional attractions to those practicing such activities. According to policy makers, the development of similar sites off Linosa is also in the pipeline.

Boat trips with the intention of watching various marine targets and attractions, at times linked with other ecotourism activities, are already being organised. One example is the organisation of trips to caves and coastal stretches to learn about the geology and coastal formations of the islands. Such excursions normally include an allocated time for ecotourists to snorkel in specific points. Provided that relevant permits are obtained, boat trips are also organised to islets such as Filfla and Lampione. In the case of the latter, the trip is linked with diving to observe the juvenile grey sharks inhabiting the area. This takes place mostly between July and September and serves to raise awareness on the need to protect such species. In other cases boat trips are organised

with the intention to observe various species including dolphins, whales, turtles and tuna. According to operators from Lampedusa, sightings are quite common due to the abundance of wildlife. Boat trips have also been organised to practise bird watching and in some cases such activities target specific species such as the Yelkouan shearwater. Extensive populations of this species are found in the Maltese Islands and on Linosa. Bird watching can also be practised from coastal areas. Such activity has great potential in the area of study owing to the fact that the islands are situated in the migration pathway followed by various bird species crossing from Africa to Europe, especially between September and November. Ecotourists participating in the ecotour taking place in Malta remarked that greater importance needs to be given to such activity.

NGOs, academics and operators also pointed out that entomology and herpatology excursions in coastal areas which focus on insects and reptiles respectively should not be overlooked. This is especially relevant in the case of reptiles as one finds various related species (sub-endemic species) of reptiles on the islands in the area of study.

The islands in the area of study are also of interest for ecotourism as in terms of geology some are sedimentary whereas others are volcanic. This implies that Pantelleria and Linosa portray various volcanic phenomena ranging from volcanic craters to other active phenomena including the presence of hot water springs in coastal and marine settings. In fact, such an aspect was also highlighted by ecotourists during focus groups. Ecotourists remarked that ecotourism excursions focusing on such volcanic phenomena can be developed to target ecotourists, especially those not familiar with such environments.

Due to the fact that ecotourism overlaps with other niches, various other activities linked to cultural, adventure, agri/rural tourism can be practised. Following the ecotour taking place in Malta, ecotourists remarked that ecotourism in central Mediterranean islands needs to be practised from a Mediterranean perspective. This implies that ecotours should include elements of cultural tourism and agritourism rather than being practised in its pure form. This can possibly not only enhance the ecotourism experience itself, but also overcome limitations such as the absence of charismatic fauna.

Visits to archaeological sites can also be incorporated in ecotours owing to the fact that most of such sites are found in natural settings or close to the coast. Some examples include the sesi (sese is a type of megalithic funerary building) and byzantine tombs on Pantelleria, the garum tanks on Linosa and the Ħagar Qim and Mnajdra archaeological park on Malta which includes

two nature trails. The importance of including such activities in ecotourism was also raised by ecotourists participating in the ecotour taking place in the Maltese Islands. They emphasised that the cultural element overlapped perfectly with ecotourism.

Stakeholders argued that agricultural activity should be included in the ecotourism programme of activities. This is especially the case for Pantelleria due to the strength and quality of the agricultural sector on the island. In fact, it has been proposed that ecotourism should include the consumption and tasting of local products as this also gives one the opportunity to interact with the local community. In this regard, some agriculture cooperatives and some small family run restaurants already offer such services specialising in local recipes based on organic products. The collection/harvesting of various edible food products such as lentils, capers, olives, grapes, fungi and asparagus has been identified as a possible ecotourism related activity across the area of study. Ecotourists visiting Malta remarked that whereas the overlap between ecotourism and agritourism should exist, especially when the latter embraces sustainability such as permaculture, this should not become a priority of the ecotour and emphasis should remain on activities that revolve around the natural environment.

Activities related to adventure tourism such as cycling, kayaking, climbing, horse-riding and trekking have all been earmarked by stakeholders to be included in the list of ecotourism excursions. In the case of trekking, various walks have been developed in the Maltese Islands. Across the area of study, various NGOs, such as Legambiente on Lampedusa, also organise guided walks. Furthermore, various private operators work in this sector, especially in the Maltese Islands and Pantelleria. Horse-riding is also practised in the Majjistral Nature and History Park in Malta and on Pantelleria and Marettimo. In the case of islands under Italian jurisdiction, this normally includes donkey trips along traditional pathways used by farmers in the past. Cycling, trekking and canoeing have been heavily promoted on the Aegadian islands to the extent that a specific policy document has been published by the municipality on such tourism activity following a consultation process.

Volunteering, such as monitoring turtle nesting sites on Lampedusa and assisting in turtle rehabilitation centres (found on Lampedusa, Linosa and Malta), was also identified by stakeholders as one of the ongoing ecotourism activities in the area of study. Such activities mostly take place during the summer period. This is because this is the nesting season for turtles and the period during which most fishermen operate out at sea thus increasing the likelihood of encountering injured turtles. Volunteering is also gaining ground in Malta thanks to the Gaia

foundation nursery where endemic plants are cultivated and later planted in negatively impacted areas including coastal slopes. Due to an absence of light pollution, celestial ecotourism, including stargazing on the small islands of Levanzo, Linosa and Gozo, has also been recommended.

Whereas several of such ecotourism and related activities are already being organised, stakeholders feel that these need to be further developed to reflect ecotourism principles. Yet one needs to further study the sector as some existing ecotourism related activities are possibly being overlooked by operators. Furthermore one needs to develop other potential ecotourism activities in conjunction with experts and operators.

Pescatourism, whereby tourists join traditional fishermen to participate in a fishing trip using artisanal sustainable techniques, has also been promoted as an ecotourism activity as it reduces the amount of fishing and provides alternative income for local fishermen. Furthermore, it also facilitates interaction with the local community. Some policy makers also proposed visits to the land fish farm on Lampedusa, swimming with tuna in cages found offshore in the Maltese Islands along with visiting insect museums, aquaria, marine parks and zoos as possible ecotourism activities that can be practised in the area of study. However, this has raised concerns among environmentalists as such activities involve animals kept in captivity.

Whereas the weather can pose a challenge to practise certain ecotourism activities outdoors, mostly due to wind and humidity, the climate in the area of study has been considered to be ideal to practise ecotourism almost all year round save for the period between December and February. In fact, according to operators from Lampedusa, in certain cases sea water temperature also permits one to practise snorkelling and diving up to December. Ecotourists visiting the Aegadian Islands in February and April remarked that weather conditions during these months were adequate to practise ecotourism activities. Whereas lower temperatures present during the low season might be more practical for ecotourism excursions, soft ecotourists might prefer milder conditions. Nevertheless, ecotourists participating in the ecotours on Pantelleria and the Pelagian Islands pointed out that during the summer period one can still practise various ecotourism activities, especially those in coastal and marine settings. According to operators, the favourable climatic conditions are not being reaped and there exists no specific ecotourism packages for specific months. In fact, due to a lack of organisation, few visit the islands off-season leading to seasonality in tourism influx. Ecotourists visiting the Maltese islands remarked that it was vital to link specific excursions and activities with the ideal season and that different ecotourism excursions should be practised throughout the year, depending on the season.

Ecotourists visiting the Maltese Islands also emphasised the need to practise the right ecotourism activities at the right time throughout the day and to connect activities in the right sequence. For example, ecotourists remarked that throughout the month of October, birdwatching should be practised in the morning and snorkelling should be conducted during mid-day when the sun is normally at its peak thus alleviating the hot temperatures. Trekking is more ideal in the afternoon when the intensity of the sun is lower. This needs to be adapted depending on the season.

Stakeholders pointed out that since the islands are relatively small, one could easily move around from one area to another giving one the opportunity to practise various ecotourism activities over a couple of days. On the other hand, some stakeholders, including ecotourists, remarked that this was not straightforward in the case of the Maltese Island due to excessive traffic. According to policy makers, considering the myriad of activities which can be practised in the area of study, it is possible for operators to develop ecotours ranging from a few days to a fortnight. Academics argue that the organisation of extensive ecotours might be challenging if one had to target the true specialists. Hence, the central Mediterranean approach, whereby one involves various islands to experience the diverse aspects of the islands, would be ideal. This is because whereas islands in the area of study are similar to some extent, they are all unique in terms of biodiversity, landscapes and geology. This is in fact already taking place on Pantelleria whereby one operator claimed to offer ecotourists the possibility to extend the ecotour by organising further excursions on the Aegadian islands. The ecotourism activities which are most and least preferred by ecotourists will be further discussed in section 6.6.

5.3.3 Ecotourism Services

5.3.3.1 Availability of Ecotourism Related Services

On the islands under Italian jurisdiction, services which are directly or indirectly related to ecotourism are not available all year round. Since availability of services is mostly limited to the peak season, ecotourists visiting the islands off-season are not always well served. This is due to a number of related reasons. Firstly, some of the islands under Italian jurisdiction lack educational institutions. For instance on Levanzo there is not even a primary school and thus locals have to depend on schools on the mainland to provide education for their children. Secondly, due to the economic dependence on seasonal tourism in the islands under Italian jurisdiction, locals have few job opportunities with a secure income all year round. Thus several seek jobs on the mainland at least throughout a period of the year. Thirdly, the elderly or those

who have relatives who need medical treatment, or those families who are expecting a new-born depend on hospitals found on the mainland. As a result, in several cases (especially in the case of the Aegadian Islands) entire families move to mainland Sicily and thus the islands become mostly deserted during the winter period. This has a drastic impact on ecotourism related services including accommodation and organised excursions as services usually provided by members of such families are not available all year round. According to operators working on the islands all year round, this was also leading to a "vicious circle" as tourists were not visiting the islands off-season since they were not finding adequate services on the islands throughout this period. In return, less and less operators were working off-season due to the lack of demand for such services throughout this period. On the other hand, some operators remarked that in recent years, more operators started to work all year round making themselves available to tourists.

Similarly, on the islands under Italian jurisdiction, several museums and heritage sites which due to their relevance/overlap with the environment are of interest to ecotourists, are closed during the off-season due to both lack of demand and of human and financial resources. The ecotourists claimed that information on opening hours were at times also lacking. For example, information on opening hours of the seal observation centre on Marettimo was lacking and the centre was kept close most of the time. Furthermore, certain ecotourism excursions could not be practised throughout the entire week. For example, bird watching at the Għadira nature reserve can only be practised during weekends due to restricted opening hours. In other circumstances services were not available due to weather conditions which had an impact on the supply of fresh food products.

Ecotourism services are not always easy to access across the area of study. According to ecotourists visiting the Maltese islands access to ecotourism packages was necessary as the island was mostly geared for mass tourism. Thus it was not always straightforward to find ecotourism services. Operators and policy makers said that ecotourism services were at times not easily accessible as they were promoted in a discrete manner by operators to avoid paying taxes as they believe that the legal requirements in place make such operations unfeasible. Furthermore, since the demand for such services is limited, several operators work on a part-time basis and thus ecotourists have to adapt to the availability of the operators. Access to ecotourism services is also conditioned by the limited resources available to operators. Operators claim that the resources available normally permit excursions for a small number of ecotourists at a time. This is due to the aforementioned seasonality in the demand of services which impacts on the

level of investment by ecotourism operators. However according to other operators this is not a limitation as ecotourism normally targets small groups.

Stakeholders also remarked that access to services was also challenging due to language barriers. Most operators on the islands under Italian jurisdiction, save for young operators, claim that they can only speak in their mother tongue and cannot communicate with foreign ecotourists. Ecotourists visiting the islands under Italian jurisdiction also pointed out that that a language barrier existed between operators and ecotourists. During focus group meetings, ecotourists claimed that they were not fluent in the Italian language and were not able to understand local dialects. Furthermore, few service providers had a good command of the English language. As a result, communication between service providers and ecotourists was quite difficult making access to ecotourism services difficult. Some companies such as those offering travel services engage staff fluent in various languages. However, such a service is only available throughout the summer period due to lack of demand beyond the peak season.

Ecotourists visiting the islands under Italian jurisdiction said that information on the islands for ecotourists was lacking. Operators explained that information points on Pantelleria and Lampedusa were lacking or kept closed due to political disputes and any initiatives were taken solely by the private sector. According to operators, most information was provided in Italian thus international tourists faced difficulties to access such information although in the case of Lampedusa one of the mobile applications available provided information in the English language. Through observations made, tourist information centres on the Maltese Islands also lack information with respect to ecotourism while staff lack knowledge on possible ecotourism activities and excursions that could be practised on the islands.

5.3.3.2 Entrepreneurship

Several operators working in the field of ecotourism pointed out that they started to operate in the field due to a specific cause. Some examples include to safeguard an area earmarked for development such as the area of Ta' Ċenċ in Gozo or to safeguard an area from being taken over for leisure purposes such as the proposed development of a golf course at Manikata, Malta. Others adapted to circumstances, for instance, one operator from the Aegadian Islands went all the way from offering underwater spearfishing excursions to developing an excursion involving cycling followed by snorkelling/diving once spearfishing became prohibited due to the institution of the MPA. Other operators claimed that they started to operate in the field to fill a vacuum. One

operator based in Malta remarked that he offered conventional tourism services but started to offer ecotourism services due to the demand and lack of services in the sector. One other operator said that he operates in the field of special interest tourism but offers ecotourism services when the opportunity arises. NGOs also added that they started to offer ecotourism services due to a vacuum in the sector and the lack of operators offering ecotourism services. NGOs believe that they can play an important role in this regard due to their knowledge. According to stakeholders there is ongoing development when it comes to new ecotourism services. On the island of Levanzo an operator started to sell souvenirs made from flotsam and other waste material washed ashore. According to academics, locals and operators, such a drive is due to the understanding of the potential of ecotourism.

Due to the seasonality experienced on most of the islands, operators and locals said that one could not specialise solely in the field of ecotourism. In reality, operators and locals exhibited a high element of diversification in the services they provided. Fishermen were engaged in accommodation services and pescatourism excursions apart from fishing. Another local remarked that he provided mooring services for sailing boats throughout the summer and worked as a park ranger off-season. Occupational multiplicity is in fact a common occurrence on such islands.

> "*When living on an island one needs to know how to make a living and cannot depend on one source of income.*" - Fisherman, male, Marettimo.

On the other hand, some policy makers remarked that there is a lack of entrepreneurship and innovation in the field of ecotourism across the entire area of study. In fact, several new ecotourism initiatives are run by non-locals, as confirmed by operators on Gozo, Lampedusa and Levanzo. Furthermore, according to ecotourism related service providers, the trend on the islands is to copy success stories leading to unnecessary competition and an over-emphasis on mainstream tourism services based on rentals of accommodation and means of transport.

The lack of entrepreneurship and initiative in the sector has also been associated with the lack of adequate demand and the unfeasible nature of the ecotourism sector across the area of study. Whereas economies of scale have been blamed for such a matter, various ecotourism operators, especially those from the Maltese Islands, blamed the licensing fees and other requisites to operate in the sector such as the need of an insurance policy and the tax due for making the sector unfeasible. Small operators paying tax on some of the islands under Italian jurisdiction are considered abnormal by others working in the sector. In fact, several small operators across the

area of study are running the activity in an underground manner to avoid paying taxes and to avoid the need to abide with all legal requirements which come at a cost. Some ecotourism services in Gozo have been rebranded under different taglines such as spiritual walks to keep the excursions out of sight of the authorities and to avoid paying taxes.

Ecotourists visiting the Maltese Islands remarked that whereas the islands were far too geared for mass tourism, this could also be an advantage as operators could easily shift to ecotourism due to their grounding in tourism in general. Yet, according to policy makers, mainstream tourism operators are not interested in ecotourism due to little interest in the niche, a lack of understanding of its potential and because the niche might not be lucrative enough when compared to mass tourism since they preferred to make "*an easy buck*". Ecotourism operators remarked that such reasons made it difficult to convince the older generation on the islands to shift their operation to an ecotourism related service. Likewise, it was difficult to convince fishermen to start offering pescatourism excursions. They said that greater awareness on its potential was needed among locals. NGOs emphasised that policy makers need to encourage operators to develop ecotourism services targeting new marine ecotourism services.

In this regard, locals, NGOs and policy makers pointed out that mentoring and training was needed to assess opportunities offered by each island in the area of study and to develop new ecotourism services. This may also generate new jobs for the locals. They added that the sharing of good practices from other ecodestinations was also needed to bring to the islands new ideas related to the niche. When it comes to funding, various EU funding programmes have been used by operators, NGOs and governmental entities to support ecotourism initiatives, such as the LIFE+ programme. NGOs emphasised that the private sector needs to be incentivised to flourish. Meanwhile small operators remarked that they are finding it difficult to tap funding as this normally requires hefty investments. Furthermore, there are few opportunities for start-ups in the field to invest in the development of ecotourism services. Operators said that more support needs to be offered to small operators working in the field of ecotourism especially those based on the smaller islands as they are usually unaware of opportunities promoted solely on the bigger islands of archipelagos.

5.3.3.3 Cooperation and Competition Amongst Operators and NGOs

Stakeholders across the area of study pointed out that there is a distinct lack of willingness among operators to collaborate together. For instance, operators from Levanzo said that some operators

who have excess customers fail to refer them to other operators offering the same service. Operators added that there was quite a lot of competition. On the islands under Italian jurisdiction such competition is limited between operators offering boat tours and related excursions. They added that whereas competition is positive to improve the standard of services, too much competition could send the wrong message to ecotourists. On this aspect locals from Marettimo commented that there was too much individual promotion taking place on the island. Once tourists arrived on the islands they were welcomed with several promotional placards and this did not send the right message to ecotourists. Hence, more cooperation in this regard was the right way ahead.

In the case of the Maltese Islands, competition was limited between operators offering excursions based on guided walks. Operators from Malta said that at times they were reported to authorities by operators offering similar services as they were offering a service at a cheaper price and thus the other operators felt that this was leading to unfair competition. Yet, on inspection by authorities this was found not to be the case. In the case of the Maltese Islands, competition also existed between ecotourism operators and NGOs. NGOs claimed that at times operators reported them to authorities on the basis of unfair competition claiming that NGOs were offering competing services without charging tourists or without paying due licenses and fees, however they argued that such claims were unfounded.

Operators from Levanzo pointed out that an attempt to form a cooperative between boat operators failed. Whereas according to tourism operators on Lampedusa, any collaboration between operators usually does not last longer than a year, other success stories have been reported. For instance on Lampedusa, various operators formed the Malta Project Group which saw the commencement of a chartered flight between Malta and Lampedusa in 2016. Owing to its success, the flight was operated again in 2017. Similarly, a number of operators on Pantelleria collaborate to charter flights on an annual basis.

Policy makers and operators remarked that due to the lack of cooperation between operators, there was a lack of ecotourism packages across the area of study. They said that this was to the detriment of ecotourism as it discourages tourists who find access to services, including accommodation and excursions, unnecessarily difficult. Such packages are needed, especially off-season, when ecotourism related services are quite limited. Stakeholders said that the setting up of such packages was possible especially between operators that offered different services

provided that there is good will. They remarked that such joint efforts also helped operators to promote their services further at a cheaper price than if they promoted their services on their own.

5.3.3.4 Transportation and Infrastructure

Ecotourists visiting the Aegadian Islands said that they were satisfied with the modes of transport used during their visit on the islands. These included cycling and transport by small motorised boats owned by fishermen. In fact cycling on Favignana was one of the most enjoyed activities of the ecotour. On the other hand at times some ecotourists complained that too much trekking was conducted to reach remote parts of the islands. When it comes to Pantelleria, some ecotourists complained that sometimes there was too much waiting time when being transported from one site to another, especially when vans/public transport were needed. In addition, too much trekking took place considering the relatively high temperatures during the ecotour. On Linosa, ecotourists considered the use of electric bikes adequate to roam around the island. On Lampedusa ecotourists agreed to use cars, scooters and boats to reach ecotourism venues so as to mitigate the extensive trekking experiences in previous ecotours.

Ecotourists visiting Malta remarked that local transport was a big challenge as unsustainable transport was used in most cases, save for a few occasions when ecotourists moved via sailing boat, horses or on foot. Vehicles used were often too big and inadequate for the local climate and did not reflect ecotourism ethos as they were closed and used air-conditioning. Furthermore, there was too much traffic, a major concern for ecotourists, and vehicles were driven at excessive speed. Ecotourists added that there were too many journeys from one protected area to another. They remarked that emphasis should be made on sailing, walking, cycling and horse riding. Furthermore, journeys should be kept at a minimum to reduce the carbon footprint by improving the sequence of excursions, do less activities and immerse more deeply into the natural environment of the venues. Ecotourists also recommended that accommodation places, if need be more than one throughout an ecotour, are located close to the protected areas to reduce transportation. They also remarked that rural pathways should be preferred over main roads when possible.

According to ecotourism oriented operators, considering their small size, there are too many cars on Lampedusa and Gozo. Locals commended measures taken by policy makers to prohibit the arrival of cars via ferry boats by non-locals on some of the islands such as in the case of Linosa and the Aegadian Islands, at least throughout the peak season. A similar measure was proposed

for the island of Lampedusa but this attempt failed due to resistance by various operators who claimed that such a measure was implemented to favour operators renting cars and other means of transport.

Cycling is a major mode of transport for tourists on some of the islands across the area of study especially on Favignana. On Linosa and Pantelleria, various operators are renting electric bikes due to the fact that roads/pathways on such islands can be rather hilly. However such initiatives are still in their infancy on other islands. Policy makers said that the Ministry for Gozo was promoting the use of bikes through upcoming projects. In the case of Malta, stakeholders said that even if specific routes had been developed through an EU funded project - Sustainable Inter-Regional Bike Tourism (SIBIT), cycling in general was rather unsafe and at times challenging for non-professionals due to the hilly nature of the island. Policy makers said that the use of bicycles on Lampedusa and Malta was necessary to reduce traffic congestion.

Public transport is available in Malta, Gozo, Lampedusa, Pantelleria and Favignana. Stakeholders on such islands remarked that it is crucial for public transport to be efficient so as to encourage more tourists to use the service when moving from one place to another. Various stakeholders remarked that this was of crucial importance in Malta to reduce traffic which is a major concern for ecotourists. Operators expressed concern that there were too many changes and reforms taking place in public transport in Malta to the extent that the information published in guidebooks became obsolete a few months after publication. Through observations made by ecotourists, the public transport on Pantelleria is inefficient forcing tourists to rent cars throughout their stay on the island. In the case of Lampedusa the frequency of public transport is much better when compared to Pantelleria but stakeholders said that it was still relatively inefficient and ineffective in encouraging tourists to refrain from travelling by car on the island.

According to operators, the rental of car and scooters is highly promoted but few electric bikes and scooters were available for rent across the area of study. For instance on Lampedusa there is just one operator hiring electric scooters. Operators said that there is a need to encourage operators to invest in greener modes of transport and consequently, for more electric charging points. They said that this was also crucial since fuel on the islands was very expensive, especially on the islands under Italian jurisdiction.

Stakeholders remarked that the economy of most of the islands under Italian jurisdiction made a very abrupt shift from one based on fisheries/agriculture to tourism. Yet the infrastructure was

never given the due attention necessary to reflect the needs of tourism and the substantial increase in population on the islands, even if this is seasonal. For example, water and sewage systems were not upgraded to cater for masses of tourists and potable water on the Aegadian Islands is still transported by boats. Stakeholders remarked that more investment is needed in terms of basic infrastructure and emphasised on the need to install shelters for tourists waiting for the ferry boats/hydrofoils at the port and providing public conveniences across the islands. They also outlined the need to improve rural pathways leading to protected areas as these were currently full of potholes especially on Levanzo, Lampedusa, Favignana and the Maltese Islands. Various operators and fishermen from Pantelleria, Linosa, Levanzo and Marettimo also remarked that there was a need to improve the condition of the current ports due to their limited capacity. Such an issue was setting a limit on the number of sailing boats that could visit the islands, affecting fishermen and impeding hydrofoils/ferryboats from reaching the islands in bad weather. Replying to concerns raised by NGOs and a few operators on the environmental impact that such projects may have, operators supporting such projects added that natural boulders can be used to reduce such an impact.

5.3.3.5 Accommodation Services

Stakeholders remarked that various accommodation structures suitable for ecotourism, ranging from hotels to private residences, are available in the area of study. The most promoted ecotourism oriented structures are dammusi (found in abundance on Pantelleria and to a much smaller extent on Lampedusa) due to their energy efficient and water conservation features. In fact such structures are already being used for ecotourism purposes. On the other hand, some locals said that private residences on the Aegadian Islands and the Pelagian Islands tend to be quite humid and uncomfortable in the winter period. Owners of accommodation structures said that owing to the seasonal nature of tourism flows, demand for accommodation mostly revolves around the peak season and as a result annual occupancy rate is rather low. This implies that not enough return is made to invest in the upkeep of the properties.

The carrying capacity of accommodation structures varies throughout the year as families renting such residences or running such business move to mainland Sicily in the off-season. This is especially the case on the Aegadian Islands which are relatively close to the mainland. Furthermore, during the peak season it is not always easy to find accommodation due to repeat domestic tourists who rent the same places on an annual basis. Over the past years, several

residences have been bought by non-locals including business people from Milan and very important persons (VIPs) and thus even less residences are available for renting purposes.

In this regard, several locals argued that authorities need to allow further development on the Aegadian Islands. On the other hand, NGOs said that the carrying capacity of the islands could be improved simply by regenerating dilapidated and abandoned buildings such as *magazini* (stores) on Marettimo and buildings with a certain character such as the lighthouse on Levanzo. In the case of Pantelleria, various stakeholders said that there was a need to restore and renovate old dammusi instead of building new structures. With respect to Malta, policy makers said that old buildings in rural villages can be ideal to serve as accommodation for ecotourists due their proximity to protected areas. On the other hand, NGOs said that ecotourism should not be an excuse to build in outside development zones (ODZ) as in the case of agritourism which was being used as "*an excuse for land grabbing*". They added that initiatives such as the restoration of farmhouses in Gozo, the conversion of an abandoned building at the Xrobb L-Għaġin Nature Park and Sustainable Development Centre into a hostel and the restoration of the lighthouse at Delimara, which were all serving as accommodation for a specific niche of tourists including ecotourists, should be incentivised.

Ecotourists visiting the Maltese Islands and the Aegadian Islands added that there was a need for fully equipped camping sites on all islands in both archipelagos and to upgrade the existing sites on Malta, Comino and Favignana. They explained that the use of such sites would make the ecotour more environmentally friendly and have a lower impact on the environment. The expectations and level of satisfaction of ecotourists with regards to accommodation will be further discussed in section 6.7.

5.3.3.6 Interpretation

Stakeholders in the Maltese Islands explained that interpretation in the field of ecotourism was a major concern for the sector. This is because current legislation prohibits any individual, being it a representative of an NGO or a natural scientist, from providing interpretation services for groups larger than four persons, irrespective of the level of knowledge and where the interpretation is offered, even if the excursion is conducted within a protected area. In order to provide interpretation to a group larger than four persons, one must hold a tourist guide license. Operators said that this implies that the operators had to engage a licensed tourist guide. As a result, operators made less money and ecotourists had to pay more to participate in ecotourism

excursions. Operators said that at times, owing to the hefty fees involved, excursions which included licensed guides only become feasible if they involve a large group, something which is usually avoided in ecotourism. As a result self-acclaimed guides and operators said that they were offering interpretation services or organising excursions for small groups only to avoid the need of a licensed guide. Others tagged ecotourism excursions under different tag lines such as spiritual walks not to draw the attention of authorities. Operators emphasised that the current legislation on this aspect was quite restrictive and did not reflect the realities of the niche.

"*This is a scandal, daylight robbery.*" – Operator, male, Gozo.

Policy makers and NGOs remarked that it was important for ecotourism to have high quality interpretation. Meanwhile while such restrictions are in place, only a handful of licensed guides have the expertise necessary on environmental issues and it was challenging to find knowledgeable licensed guides. Academics claim that at times guides provided the wrong information on environmental issues to tourists as they lack the knowledge. In fact, some operators said that they preferred to engage experts in the field such as botanists, geologists or nature photographers, depending on the type of excursion, rather than tourist guides. Operators added that because they do not know the subject, at times guides are engaged to abide by the law but are eventually not involved in interpretation throughout most of the excursion. Operators and NGOs also said that licensed guides are not interested in ecotourism and this can be confirmed by the fact that they tend to avoid ecotourism venues or when present, they often seem to rush the activities planned. Furthermore, they ask operators for commissions in order to take ecotourists to ecotourism related excursions. NGOs and operators said that one solution to tackle such a challenge would be to train ecological guides who are both knowledgeable and interested in ecotourism and the related venues.

Licenced guides opposed most of these remarks and said that ecotourists are also interested in the historical aspects which are found in various natural settings. This, according to them, is evident in the questions asked. Thus it was crucial for licensed guides to be involved in such excursions. They added that guides were also trained in health and safety matters and had skills related to communication, presentation and voice projection, skills which experts in particular subjects normally lack. They added that they could also provide the information in various languages, something experts normally fail to do. They added that their involvement did not exclude the engagement of experts and in fact throughout various excursions, specific operators and other experts provide further interpretation.

Ecotourists visiting the Maltese Islands said that guides chosen for ecotourism excursions need to be better trained, to have more knowledge in the field and be able to adapt to the interests of ecotourists. NGOs said that whereas they expressed interest in assisting with the training of guides, they had never been approached to make such a contribution. Guides said that from time to time they had refresher courses and environmental aspects could be one of the themes of such courses. Furthermore they added that the course for licensed guides already comprised a module on interpretation on environmental aspects.

Stakeholders on the islands under Italian jurisdiction said that there were specialised licensed ecoguides (guide ambientali escursionistiche) however there were only a handful of them. According to stakeholders, several persons become self-acclaimed ecoguides and operate without a license as enforcement is lacking. However, this has raised concern among some operators and licenced guides who pointed out that such excursions would not be covered by an insurance policy. Furthermore, at times self-acclaimed ecoguides lacked knowledge and the interpretation offered was quite limited or characterised by inaccuracies, as noted during some boat tours that were organised. Another serious concern raised by operators is the fact that few of the ecoguides have a good command of languages other than Italian. In one rare scenario, a licensed ecoguide residing on Levanzo offers interpretation in Italian, French and English.

In general, ecotourists expressed a lack of satisfaction with interpretation during ecotours. Ecotourists visiting the Maltese Islands said that the interpretation provided during ethnobotanical excursions was interesting but at times too academic. They added that there is also a need for interpretation of the various excursions throughout the same ecotour to be organised in order to avoid unnecessary repetition and to ensure better overlap. Ecotourists remarked that interpretation during some excursions such as horse riding at the Majjistral Nature and History Park and during the boat tour within the MPA at Dwejra Gozo, was rather weak. This is because the interpretation focused on the resemblance of rock formations to other objects and failed to provide information on the geology, flora and fauna of the surrounding environment. Likewise, ecotourists engaged in the ecotours taking place in the islands under Italian jurisdiction said that interpretation was quite limited. This was considered a major limitation throughout the ecotours. They remarked that more ecoguides need to be involved throughout the excursions.

Various interpretation tools are available and used in the area of study. Stakeholders said that when it comes to interpretation centres, those present on the islands under Italian jurisdiction mostly focus on archaeological and historical aspects save for those related to MPAs. MPAs had

interpretation centres on both the Pelagian and Aegadian islands, but the MPA info points on the smaller islands such as Linosa, were only open throughout summer. Similarly, NGOs and operators said that on the Maltese Islands few interpretation centres can be found but in recent years there has been a drive to convert existing buildings into interpretation centres. The Tactical Air Navigation system (TACAN) at Dingli Cliffs and the Deutsche Welle Radio station at Xrobb l-Għaġin both serve as interpretation centres for the respective areas. Other sites provide information on both historical and environmental aspects such as the Santa Marija Tower on Comino. NGOs emphasised the importance of making use of existing buildings and not to build interpretation centres within protected areas in the name of ecotourism.

With respect to signage, ecotourists visiting the islands under Italian jurisdiction said that signage is lacking. Therefore, persons who are unfamiliar with the islands and travelling on their own might find it difficult to move around. On Linosa and Pantelleria, directional signs have been installed by regional park rangers while publications include complimentary maps. Some signs have weathered away or were vandalised and have thus become an eyesore. Stakeholders said that constant maintenance is required but human and financial resources for such matters were on the decline. Stakeholders also remarked that there is a lack of interpretative signage in ecotourism venues. At times signage is limited to a few areas. For example NGOs said that signage within the reserve on Lampedusa was limited to Rabbit beach and Cala Pulcino. It was noted that most signage in the area of study is limited and mostly revolves around historical aspects and buildings. This is especially the case in the Maltese Islands. In other cases signage revolves around one particular theme such as signs related to the zones within the MPA on the Aegadian Islands. Operators also remarked that multilingual signage on the islands under Italian jurisdiction is lacking. Policy makers from the Maltese Islands pointed out that more coordination between various bodies was required when it comes to signage as there was a lack of uniformity. In fact, at times, one could find signs installed by NGOs, local councils and different government ministries regarding similar issues within the same sites.

Several guidebooks related to ecotourism have been published in the area of study by NGOs, the private sector and governmental bodies. Some specific guidebooks have also been published by management bodies of protected areas such as the underwater guidebook published by the Aegadian Islands' MPA management body. Some general tourism guidebooks also have specific chapters dedicated to nature. One such example is the publication *Capperi* distributed on Lampedusa. Stakeholders claim that guidebooks published on the occasion of the IYE in 2002 have been updated and republished by the MTA and the Ministry for Gozo. These books provide

information on a number of walks through protected areas and have been welcomed by both tourists and operators. On the other hand, NGOs have criticised guidebooks published by the Ministry for Gozo claiming that the walks have been moved from wild areas to asphalted pathways due to pressure by some interest groups including squatters, hunters and trappers wishing the wild areas to remain their undisturbed domain for them to do as they will. Other publications have been published by local councils to complement “heritage trails”. In both scenarios, at times, disproportionate attention is given to cultural heritage aspects while neglecting the natural aspect. Recently, various authors have taken the initiative to publish new guidebooks mostly focusing on coastal walks in Malta and Gozo. Some guidebooks written by NGOs and launched during the IYE are now out of print as pathways and signage were not maintained and as a result NGOs were receiving poor feedback from tourists.

A challenge with most guidebooks published in the islands under Italian jurisdiction is that they are only available in Italian. Recent initiatives have however been published in various languages, such as the guidebook for the underwater archaeological sites on Pantelleria, Levanzo and Linosa. On the contrary most publications available on the Maltese Islands are available in various languages including Italian, English, French, German and Danish. Meanwhile, some authors who recently wrote guidebooks for ecotourists claimed to have found limited support from governmental entities to publish the books in various languages.

Policy makers remarked that further online resources need to be available for ecotourists as these were less costly, required a lower level of maintenance and were not an eyesore, such as signage within protected areas. Whereas eBooks and leaflets are already available online, information on websites is rather limited especially in the case of local councils where protected areas fall within their territory. On a positive note, operators, NGOs and policy makers remarked that various mobile applications relevant to ecotourism have been developed such as the ones for the Majjistral Nature and History Park in Malta and for the underwater archaeological sites on Pantelleria, Linosa and Levanzo. The researcher was informed by policy makers that another mobile application on the natural aspect of Pantelleria is under construction.

5.3.3.7 Standards, Greenwashing and Ecocertification

Policy makers and NGOs claim that ecotourism principles such as ethical considerations are at times not given due attention by operators offering ecotourism services. For example, on the Pelagian islands, some operators organise boat tours to watch marine megafauna. Whereas

target species are often encountered due to the abundance of marine life, ecotourism principles are not respected and activities are at times conducted in an unethical manner. Operators approach the species sighted, ignoring the fact that such practices might impact animal behaviour. Ecotourists visiting the Maltese Islands remarked that ecotourism services and excursions need to reflect ecotourism principles and operators need to be more environmentally friendly. Policy makers remarked that relevant authorities such as management bodies need to train operators working in the respective protected areas to ensure that activities and services are run in an ethical manner. On the other hand, ecotourists visiting Lampedusa said that they noticed that some operators were quite environmentally conscious. For example, an operator organising a boat tour followed by a snorkelling activity insisted that no cigarette butts could be discarded into the sea.

NGOs claim that the lack of adherence to ecotourism principles and ethical aspects is a result of the fact that some operators were using ecotourism solely as a tag line to attract ecotourists and increase their sales. They also claim that false marketing and green washing has an impact on customer satisfaction as well as on the ecotourism sector as a whole. NGOs add that, at times, some operators associate their services and excursions with ecotourism without any bad intentions but due to a lack of understanding as to what the sector is. Such a phenonemon was encountered on the Maltese Islands and in Pantelleria where the term agritourism was used synonymously with the term ecotourism.

According to NGOs, campaigns need to be organised to encourage operators to obtain ecocertification. Policy makers believe that ecocertification serves as a marketing tool in itself and in fact some ecotourists seek ecocertified services for which they were willing to pay more. In the Aegadian Islands, the MPA management body introduced an ecolabel to reduce the environmental impact of operators working in the tourism sector. Over sixty companies including hotels, restaurants, diving centres and operators working in the rental sector earned the ecolabel after meeting the criteria. On the other islands under Italian jurisdiction little emphasis has been made on the importance of ecocertification. Policy makers remarked that in the Maltese Islands, a national ecocertification scheme was introduced during the IYE in 2002 and later updated to reflect the Global Sustainable Tourism Council (GSTC) standards. Such a scheme is limited to accommodation services, which include farmhouses in Gozo. No scheme exists for ecotourism operators and excursions, however policy makers said that this might possibly be introduced, especially if the sector develops further. Policy makers also pointed out that the EU ecolabel, applicable to both products and services, has been earned by few companies. Other international

ecolabels are in place in Malta thanks to NGOs that serve as an independent adjudicator. Examples include the Green Key and the Blue Flag which is also applicable for sustainable boating tourism operators as well as for beaches. NGOs remarked that due to a lack of funding, none of the management bodies have adopted the Charter for Sustainable Tourism in Protected Areas run by the Europarc Federation, even if this is crucial to ensure standards in ecotourism.

Ecotourists visiting Malta said that it was not enough for hotels to obtain an ecolabel. Such a step was important but obtaining environmental credentials should not be a one off exercise but an ongoing culture. On a similar note, operators in the Aegadian Islands said that the ecolabel introduced by the MPA management body should not be a simple exercise whereby one completes a checklist and is awarded the ecolabel. Regular audits should be in place to ensure that environmental standards are constantly adhered to.

Operators claim that, in terms of standards, problems arise due to ecotourism operators working underground to avoid paying the relevant permits and insurance policy. They believe that the safety of clients should be imperative and relevant permits and an adequate insurance policy need to be obtained by those offering ecotourism services. In this regard, law abiding operators claim that more enforcement is needed to ensure fair competition and that minimum standards are met. They added that currently authorities focus their attention solely on those who go by the book and declare their operations openly. Ecotourists visiting the Maltese Islands said that in terms of standards more effort was needed by operators. For instance, adequate information needs to be provided to ecotourists, both during the ecotour, before the start of the tour itself and at the protected areas being visited. Providing yet another example on the need for an improvement in standards, ecotourists said that the snorkelling equipment provided during the ecotour in Malta was not adequate.

5.4 Marketing Ecotourism

According to stakeholders, most of the islands under study, excluding Malta, are unpopular and unknown. This point was also made during focus groups by ecotourists who stated that through discussions held after the ecotour it transpired that their friends were unaware of such destinations. Furthermore, ecotourists argued that the lack of popularity of the islands can be confirmed by the fact that there were barely any tourists on the islands in March and April and accommodation structures were closed throughout the low season. Stakeholders said that this was result of the lack of promotion of the islands. Such promotion was badly needed in order to

tackle seasonality. Stakeholders from Pantelleria and Levanzo argued that the lack of promotion can be further confirmed by the fact that several tourists get to know about the islands from media reports of the annual visit of VIPs who own buildings and terrain on the islands. Previously Pantelleria used to be known for its food products such as oil, capers, herbs and wine.

In the case of the islands under Italian jurisdiction, little effort is made by the regional government when it comes to the promotion of the islands and, according to the stakeholders, other territories are favourably prioritised. Nevertheless, the local government does take the initiative to promote the respective islands but such efforts are limited due to restricted funding limiting most initiatives to national tourism fairs targeting domestic tourists. Despite the fact that in Pantelleria a consortium composed of tourism operators have taken the initiative to promote the island, there is a distinct lack of cooperation. For example some operators rent dammusi in an underground manner to avoid paying their due contribution to be invested in promotion.

Stakeholders expressed concern at the fact that current promotional efforts on the islands under Italian jurisdiction are conducted via traditional techniques. These include documentaries broadcast on Italian TV stations and interviews and articles published on Italian newspapers and periodicals. This implies that the international media is not taken into consideration and that only certain age groups are targeted. According to stakeholders the absence of the international dimension in terms of promotion is also a factor causing seasonality in terms of tourism influx.

When it comes to promotion, there also exists a hierarchy between islands within an archipelago with the bigger island receiving more attention than the smaller islands. At times smaller islands are completely excluded from marketing initiatives. For example, stakeholders claim that Linosa has been excluded from a mobile application promoting Lampedusa rather than the Pelagian archipelago. Some have seen this as an advantage as the lack of promotion meant less of an influx of tourists and thus the islands remained pristine.

The immigration of third country nationals has left a tremendous impact on the image of Lampedusa. According to stakeholders, when one looks for images on the island through online search engines, the first images that appear depict boats full of migrants. Images of the environment and natural attractions such as Rabbit Beach appear only later. Stakeholders remark that whereas the migration issue did not put a stop to tourism on the island, it had a negative impact. This is also due to the presence of the military and other forces which does not portray a good image of the island. The association of the island with migration was also observed by the

researcher when promoting the ecotour to the Pelagian Islands with some expressing a lack of interest in the ecotour because of this reason. Furthermore, ecotourists who participated in the ecotour to the Pelagian Islands also had to rebut such arguments when encouraging friends to visit the island following the ecotour. In minor cases, Pantelleria also experienced such negative connotations as it is mistaken for Lampedusa because in some rare cases, boats with migrants have also berthed in the ports of Pantelleria. Some said that migration also served to promote the island as various VIPs and journalists visited the island because of this issue and thus the matter led to the islands being indirectly promoted. Furthermore, whereas immigration and the presence of a migrant detention facility along with military on Lampedusa did leave an impact in terms of marketing, other stakeholders had different views. Owners of hotels remarked that the presence of the military on the island as a result of immigration was beneficial as these made use of their services all year round including off season thus leaving a positive economic impact on the islands. In fact, ironically immigration has led to a new tourism "niche" which involves human rights lawyers, policy army personnel, journalists and other government officials who visit the islands for reasons other than nature. This left an impact on an array of service providers including restaurateurs and hoteliers. Yet, according to stakeholders, this did leave a negative impact of nature based tourism.

In the case of the Maltese Islands stakeholders feel that promotion mostly focuses on 3S, leisure and partying. Diving, which is considered as an ecotourism activity, is promoted also as a leisure activity. Policy makers said that whereas Gozo is naturally easier to promote as an ecotourism destination, most promotion in this regard has until recently been done due to the personal initiative of officials working in the sector rather than through policy direction. However, governmental agencies remarked that plans to promote Gozo as an eco-destination have been on paper since 2002. Furthermore, in recent years the island was in fact promoted as an eco-destination through the ecoGozo initiative. This was also confirmed by academics. Some good practices have also been noted, with an advert promoting snorkelling in Comino being spotted in London by one of the stakeholders.

It has been argued by Italian stakeholders that the true assets of the islands, the natural resources such as the sea and the marine life, are not promoted and this partly explains why most islands experience seasonality. On the other hand, in recent years an effort was made to promote more sustainable tourism activity such as trekking, cycling and canoeing. Meanwhile there seems to be a lack of understanding on what the identity of the islands truly is. For example, the Pelagian Islands operators promote the archipelago as the "*Caribbean of the Mediterranean*".

Stakeholders expressed conflicting views on whether natural attractions such as MPAs, Natura 200 sites, national parks and related centres such as turtle rehabilitation centres serve to self-promote the islands and attract ecotourists. However, according to stakeholders from Pantelleria, in recent years there seems to be better understanding of the importance of such sites to attract ecotourists especially during the shoulder period, mitigating seasonality. Stakeholders believe that the management bodies of such sites should not focus their work on protection only but should also promote the territory.

Some stakeholders complained that at times individual excursions are given too much importance when promoting specific islands giving the impression that there is little else to do on certain islands. For example, too much emphasis is made on the Grotta del Genovese on the island of Levanzo. Various stakeholders, including operators and academics, agreed that the archipelagos need to be promoted as a whole rather than as individual islands in order to showcase the added value of visiting the entire archipelago. Stakeholders also argued that it would also be beneficial to promote the various islands and archipelagos through the central Mediterranean approach as one could hop from one island to another extending the ecotour to a duration that fulfils the expectations of the ecotourists. On the other hand, some have expressed disappointment at the fact that, at the Malta International Airport, one finds adverts promoting tours to Sicily on one's arrival in Malta.

5.5 Impacts and Issues Faced By and Resulting From Ecotourism

5.5.1 Environmental Impacts and Issues

Stakeholders remarked that there is a lack of adequate cleaning services all year round across the area of study especially on Favignana and Lampedusa. Furthermore, public cleaning is mostly undertaken in inhabited areas whereas other areas in the countryside or protected areas and beaches are not taken care of. This results in an abundance of discarded waste and other material such as plastic which is washed ashore. Cleaning is at times conducted in an inappropriate manner using heavy machinery which results in a negative impact on the environment. This is the case when valleys on the Maltese Islands are cleaned by the relevant authorities. The collection of waste on Comino is also at times conducted in an unprofessional manner with residue ending up in the sea during transportation.

Whereas the smaller islands in the area of study including Levanzo, Marettimo and Linosa tend to be cleaner owing to the attachment of locals to the islands, locals remarked that a surge in tourism might lead to waste related issues including the presence of litter all over the islands as experienced on Favignana and Lampedusa. Comino, on the other hand, faces serious problems with waste especially during the peak season, a situation which according to NGOs, also led to a rat infestation. This, in turn, had a drastic impact on bird nesting on the island. Waste separation has been introduced across the entire area of study but locals from Pantelleria and the Pelagian Islands complained that there were no incentives such as tax rebates to separate waste. Some tourism operators added that more awareness had to be raised among locals on the matter. NGOs also made specific reference to numerous plastic bullet cartridges discarded by hunters all over the place in various protected areas in the Maltese Islands and the nature reserve on Lampedusa, insisting that more awareness was needed among hunters on such practices. A major concern across the area of study, especially in Malta, Gozo, Lampedusa and Pantelleria is the illegal dumping of domestic appliances and construction waste which at times takes place in sensitive and protected areas, even if a free bulky refuse collection service is available. In this regard, policy makers remarked that authorities are considering installing closed-circuit television (CCTV) cameras in certain hotspots to tackle such illegalities. Calls have been made to introduce heftier fines and for the employment of rangers to increase the control on such illegalities. According to stakeholders, certain islands such as Lampedusa merit a general clean up as litter is found all over the island. Stakeholders reported that various initiatives have been taken by NGOs, private entities, ecotourists and diving centres across the area of study to clean up particular areas on land, along the coast and in the sea where material ends up due to run-off.

Sewage treatment plants are not yet fully functional on the Aegadian and Pelagian Islands. According to NGOs, this situation contradicts the initiatives taken by the management body of the respective MPAs to safeguard marine life and improve sea water quality. On the other hand, in the Maltese Islands sewage treatment is the norm all over the archipelago and the tourism sector had also taken measures to reduce water consumption through various initiatives funded under the EU LIFE+ programme. Operators claim that this was a further incentive to sustainable accommodation services for ecotourists.

Stakeholders on the islands under Italian jurisdiction remarked that ecotourism development on the islands was impacted by the current situation in the energy sector which is still heavily dependent on fossil fuels. They argued that this was an irony since owing to their small size, such islands had the potential to become self-sufficient in alternative energy. However, due to the

monopoly in the sector, there were no incentives offered to locals to invest in the generation of alternative energy, as opposed to high utility bills. Locals from Pantelleria also remarked that they faced various regulatory obstacles if they chose to install photovoltaic cells in the countryside. On the other hand, some positive initiatives have been taken on the Aegadian Islands such as the installation of energy efficient lighting along pathways/roads across the archipelago. In the Maltese Islands, various incentives have been given to locals and the tourism sector to invest in alternative energy. However, concerns have been raised by academics and NGOs that the EU2020 targets on renewable energy will not be reached. This has been considered as a drawback for ecotourism as ecotourists normally seek energy efficient accommodation structures. Past proposals in order for the country to reach such targets, such as offshore wind farms, have also raised concerns among academics due to their visual and environmental impact.

Industrial fishing and fish farming are also of concern among stakeholders due to their impact on ecotourism and related activities such as diving and snorkelling. According to fishermen from Pantelleria, illegal fishing via trawling close to the coast is practised by non-local fishermen. This leaves a detrimental impact on marine life. Fishermen argue that no enforcement is in place and no action is taken when reports are logged with authorities. Ecotourists visiting the island of Lampedusa also raised concern on the matter due to the presence of an extensive fleet of fishing trawlers based on the islands. NGOs remarked that ghost fishing, whereby abandoned submerged fishing nets keep on trapping fish, is a major concern in the Maltese Islands however there is no political will to tackle the issue even when NGOs and diving centres have volunteered to help. Fish farming has also been placed under the spotlight during interviews due to the generation of slime on the sea surface. The latter has at times been washed along the coast, including in sites earmarked for coastal and marine ecotourism such as Xrobb l-Għaġin. In the case of Lampedusa, whereas the land based fish farm had no visible impact on the sea, NGOs raised concern on the impact the relevant infrastructure had on the coastal stretch where the farm was built.

Service providers operating in the field of ecotourism also raised concerns on the presence and rise of alien species across the area of study. Since most alien fish species are undervalued and are thus not consumed, they are on the rise. Various alien jelly fish are also on the rise and this has raised concern among ecotourists who remarked that the presence of such species also had an impact on ecotourism excursions such as snorkelling. Furthermore, NGOs remarked that alien species are also a threat to ecotourism related activities such as snorkelling and diving as they threaten indigenous species and biodiversity. On the other hand, some academics remarked that

the presence of alien species does not have a huge impact on ecotourism due to a lack of awareness by tourists on such matters and because some species had integrated well in the Mediterranean ecosystem.

Agriculture activity is still relatively strong on Favignana and Pantelleria and in the case of the latter it has taken up a substantial area of the island. In the case of Pantelleria there has been considerable debate on the balance that needs to be found between protection and the regeneration of abandoned land into agricultural terrain. This is because agricultural terrain is at times considered to be wild terrain and is earmarked for protection. Policy makers outlined that in the case of the Maltese Islands, many pesticides and nutrients were being used. One had to keep in mind that agricultural terrain was adjacent to protected and wild areas and at times such substances ended up in such areas inadvertently having an impact on wildlife. According to NGOs, the over-use of fertilisers has also led to high nitrate levels in the few watercourses found on the islands. This also has a detrimental impact on wildlife. Tourism operators from Gozo also remarked that following heavy rain, slurry from farms ended up in the sea and in coastal areas. This, together with surface run off often made such areas inadequate to practise coastal and marine ecotourism activities.

Hunting and trapping is a major concern in the Maltese Islands and the subject was raised by practically all the stakeholders interviewed. Stakeholders remarked that illegal hunting on protected species is a normal practice on the Maltese Islands. At times nets used for the trapping of birds are also left unattended for days and birds caught are left to die. According to NGOs and academics such circumstances happen due to the weak enforcement of the responsible authorities. Wild/agricultural terrain has also been converted by trappers and hunters to accommodate their activities. Trapping sites and hideouts have been built on wild terrain to the detriment of the environment even on Natura 2000 sites and sensitive environmental areas. Furthermore, various alien species have been planted with malicious purposes so as to attract birds for hunting and trapping purposes. According to stakeholders, such illegalities have a very bad impression on the ecotourist and a direct impact on bird watching since it becomes unsafe and impossible to practise such an activity in such circumstances.

On the other hand, hunters remarked that this was a skewed version of the real situation, portrayed as such by the media, as in reality hunting across the archipelago was quite minimal since hunters could only target circa thirty-two species. Furthermore, illegal hunting was on the decline due to strict enforcement. Contrary to the image associated with hunters, they insist that

they cared deeply about the environment and at times also treated injured birds. Some hunters said that they use temporary wooden hide-outs and planted several trees making such sites ideal for bird watching. They also insisted that hunters could assist in bird watching due to their knowledge and resources including terrain and hideouts. They emphasised that one could not put all hunters in one basket as the majority of hunters respected the rules. Hunters argued that birds were on the decline not due to hunting but due to climate change. Operators remarked that a code of ethics was needed to enable the coexistence of hunting and ecotourism. Academics said this can take place through adequate policies making reference to the situation at the Majjsitral nature and history park where hunting was still permitted.

In contrast with the Maltese Islands, stakeholders from the islands under Italian jurisdiction did not raise any major concerns regarding hunting save for minor incidents reported in Lampedusa where illegalities still take place. According to stakeholders this is due to the stringent regulations in place including a *numerus clausus* on the number of persons permitted to hunt in certain protected areas (5 in the Pelagian Islands, 27 in the Aegadian Islands and 13 on Pantelleria) chosen on the basis of age with the oldest hunters given priority. While there were few remaining hunters on the islands, hunting was permitted on very few species and most hunting targeted wild rabbits. Hunting is also prohibited 150m from the coast throughout the month of October to limit the impact on the Cory shearwater nests. Hunters added that licensing fees were relatively high and this also impacted hunting activity. Restrictions are also in place as to who is permitted to hunt. In the case of Linosa operators said that hunting used to be a tourism activity in the off peak season but nowadays hunting is restricted to locals.

Over development and illegal development has also been singled out by stakeholders across the area of study as another major concern. Whereas no issue has been raised on the smallest islands including Comino, Marettimo, Levanzo and Linosa, the same cannot be said in the case of Malta, Gozo, Favignana, Lampedusa and Pantelleria. In fact, ecotourists visiting the Aegadian islands remarked that the islands of Marettimo and Levanzo had been well conserved with no buildings found outside of the main village. They remarked that this contrasted with Malta where buildings were found all over the island including in ODZs.

With respect to Pantelleria, stakeholders pointed out that extensive illegal development was still taking place on the island until a few years ago. However, such practices have diminished considerably due to harsh penalties, more controls and the decline of skilled workers who are capable of building the traditional dwellings – dammusi. In the case of Lampedusa, locals and

NGOs remarked that the institution of the nature reserve helped to bring such illegalities to a virtual halt. Nevertheless, whereas some illegal structures have been removed, others are still in place within the reserve. According to operators, the negative environmental impact experienced by the protected area on Lampedusa has also led to a decline of ecotourists and other tourists who used to visit the island to appreciate its natural aspects. Favignana also experienced similar problems to Lampedusa with various illegal structures being found all over the island.

However, overdevelopment and illegal development was mostly raised as an issue of concern, due to its negative impact on ecotourism, by stakeholders in the Maltese Islands. NGOs and academics remarked that extensive stretches along the coast have been heavily impacted by human activity and over development in the name of tourism. They added that the natural environment had been degraded to small patches since every open space was considered as a potential space to be built leading to habitat fragmentation. Furthermore, due to such a mentality, the urban character of the island is easily visible from protected areas as buffer zones had been extensively developed. In this regard, hunters and NGOs raised concerns that national projects such as new schools were being built in ODZs which served as a buffer to wild/protected areas. This affects ecotourism venues not only by visually polluting the area but also through the shade produced. Academics and policy makers remarked that even the island of Gozo was developing at a rapid pace. To make matters worse, Comino was under the spotlight as speculators were also eyeing the development of a bigger hotel. Academics said that owing to the constant development, one had to question the feasibility of ecotourism in Gozo and more specifically in Malta adding that the ecotourism potential is likely to decrease due to the continuous development and construction.

> "*If Gozo is to be an ecodestination, we cannot build further and kill the goose that laid the golden eggs*." - Policymaker, male, Gozo.

Stakeholders have also raised concerns due to the various plans put forward to develop mega projects directly or indirectly related to tourism as these will have a detrimental impact on ecotourism. Some examples include the development of seaports on the Aegadian Islands and cruise liner terminals on Gozo and Pantelleria. Such projects have at times also been met with resistance by politicians and NGOs. For example a proposal by national politicians to develop a golf course and install a lift to improve access to Rabbit beach on Lampedusa were objected to on the grounds of nature conservation.

With respect to the Aegadian and Pelagian islands, various stakeholders argued that regulatory plans are lacking. As a result, the development of tourism has led to a boom in construction in a haphazard manner. Furthermore, as a result, development is characterised by bureaucracy, nepotism and corruption, something also highlighted by stakeholders in the Maltese Islands. On the other hand, locals from Levanzo and Marettimo remarked that policies prohibiting further construction meant that prices of property had gone up impeding youths from buying property and living on the islands. On Pantelleria it was emphasised that policies should incentivise restoration of built dammusi rather than allow further development. NGOs and contractors had opposing views on the consequence of the Malta Environment and Planning Authority (MEPA) demerger in the Maltese Islands. Whereas authorities remarked that the new authority (ERA) had more resources and power to safeguard the environment, NGOs claim that the ERA is weak and that the MEPA demerger favoured contractors.

Ecotourists and policy makers also remarked that the presence of quarries, several of which are found along coastal cliffs, and their expansion had a detrimental environmental impact on areas which usually have great ecotourism potential. This is due to the obliteration of habitats and species found in such environments. Similar concerns on the matter have been raised by stakeholders in Malta, Gozo, Lampedusa and Favignana. In this regard, various stakeholders remarked that the expansion of quarries should cease while abandoned quarries should be reclaimed.

Concerns have also been raised by policy makers and academics that ecotourism related excursions to islets or boat tours to coastal cliffs can have a detrimental impact on wildlife due to the disturbance of the animals, especially if such excursions are conducted regularly. Self-acclaimed genuine ecotourism operators remarked that some operators were conducting excursions in reserves and protected areas without having the relevant permits in hand. Even when reports were filed, no action had been taken by authorities. One particular such incident took place in Gozo. Similar issues were raised by stakeholders from the Aegadian Islands whereby some operators remarked that some locals were organising excursions without the proper permits in hand and practicing illegally, and conducting spearfishing within the MPA. This is essentially due to a lack of surveillance and lenient enforcement. In this regard policy makers, academics and NGOs remarked that adequate permits need to be obtained and authorities need to ensure that such activities are conducted in a way that fulfils ethical considerations.

Stakeholders, especially NGOs, remarked that at times little attention is given to environmental protection and added that across the area of study protection was often only present on paper. This was especially the case in the Maltese Islands. Several illicit activities, including off-roading, was conducted in protected areas. Furthermore, on Pantelleria, Favignana and the Maltese Islands, cars were allowed to access and park on environmentally sensitive areas. The lack of adequate protection and enforcement was a major concern for stakeholders from Lampedusa. They argued that local authorities had, until recently, almost all their resources focused on immigration and were thus not in a position to take action against illegalities within the MPA. Recent political developments have placed more resources in the hands of the authorities, thus improving enforcement. Making reference to a fire incident which destroyed an extensive area on Pantelleria, policy makers and operators said that there was a need to raise more environmental awareness among locals to reduce acts of vandalism. Operators and locals from Pantelleria also raised concerns on possible environmental disasters due to the ongoing oil exploration activity taking place off the island. They remarked that any disaster would also ruin the tourism industry since this depends highly on the state of the coastal and marine environment of the island.

5.5.2 Socio-economic Impacts and Issues

5.5.2.1 Ecotax and Fees

Since most ecotourism related activity is run clandestinely in order to avoid the need to abide with expensive legal obligations, little is known on the economic aspect of the sector. Policy makers suggest that this might also explain why little investment has been made in the sector. As outlined earlier, operators claim that tax avoidance and clandestine activity also impacts on the promotional efforts for Pantelleria and has an impact on the funds available for authorities to invest in the upkeep of the islands which indirectly also has a negative influence on ecotourism.

On the other hand, various operators and locals across the area of study made reference to the introduction of an ecotax charging tourists for every night spent on the islands. In the case of Pantelleria and the Pelagian Islands discussions for the introduction of such a tax are underway. Operators and locals expressed positive views on such a measure as it this would generate new funds to further promote the islands and invest more in their upkeep, something which will be beneficial for both tourists and locals. Whereas the introduction of the ecotax in the Maltese Islands was met with opposition, this was eventually accepted.

A lack of entrance fees has also been identified by stakeholders on Pantelleria as an economic detriment. Academics assert that this had a negative impact on the management of the sites as well as on the local community as less money ended up in their pockets. On the other hand, others argued that this implies that the money will be spent by tourists on other services from which locals stand to benefit.

In the case of the Aegadian islands, the income made by the management body from fees, including licenses and permits to conduct specific activities in the MPA such as diving, is considered by the management as vital to sustain the running of the MPA. On the other hand, locals and fishermen see the institution of the MPA as a money making exercise and have strongly criticised the management body on this aspect.

The positive economic impact made by ecotourism in the area of study was also observed by the researcher. For example, during the ecotour on the Pelagian Islands, the ecotourists made a donation to an eNGO on Lampedusa who manage a turtle-nesting site and a donation to two other eNGOs running turtle rescue centres on Lampedusa and Linosa.

5.5.2.2 Price Fluctuations

According to locals, the cost of living on the islands under Italian jurisdiction is quite high because of tourism. This is especially the case on Lampedusa, Pantelleria and Favignana. Furthermore, on such islands, the prices of food products and services tend to fluctuate throughout the year with prices going up during the peak season. Locals and ecotourists participating in ecotours both pointed out that at times the food products and services provided did not reflect the expected value for money. Tourists visiting the Aegadian Islands added that they were often treated like ‘cash cows’ with some owners of restaurants having the audacity to ask for higher prices than originally agreed upon. On the other hand, ecotourists visiting Pantelleria remarked that they were treated fairly and were able to buy fresh products for a low price. Both tourists and locals insisted that controls and enforcement were needed to tackle price fluctuations.

5.5.2.3 MPAs and the Socioeconomic Impact on Stakeholders

The institution and presence of MPAs on the islands across the area of study, which are crucial for ecotourism, have different social and economic impacts on the various stakeholders. Little feedback was provided by fishermen from Malta and Gozo on MPAs due to the lack of

management and enforcement in place. Yet NGOs argued that through projects they conducted they realised that Maltese fishermen were by and large in favour of MPAs. In the case of islands under Italian jurisdiction, professional fishermen remarked that the institution of MPAs either did not affect them or was beneficial to their livelihood. Professional fishermen from the Pelagian Islands remarked that the presence of the MPA had little impact on their work as trawling activity was conducted offshore, beyond the MPA. Furthermore, fishing activity itself was on the decline. Professional fishermen from Pantelleria remarked that the MPA, if instituted, will not negatively impact their activity with many believing that it will be beneficial as it will give them exclusivity to fish in the area prohibiting non local fishermen from fishing around the islands. They added that the MPA will also prohibit illegal trawling activity around the island, something which was also negatively impacting their work.

On the other hand, various negative remarks were raised by artisanal fishermen. Those from the Pelagian islands said that too much emphasis was being put on protection, ignoring the interests of fishermen. They explained that their activity is quite limited due to an extensive zone A in which no fishing can take place. However, such claims were rebutted by the management body of the MPA claiming that zone A only consisted of a small area around part of the island and that artisanal fishing could still take place in zones B and C. Similar trends were reported on Pantelleria. Here artisanal fishermen expressed concern with the possible institution of an MPA out of fear of further restrictions as already experienced when underwater archaeological sites were introduced on the islands.

In the case of the Aegadian Islands, both professional and artisanal fishermen expressed concern on the impact of the MPA on their livelihood. Government entities claim that the presence of MPAs led to a series of socioeconomic benefits for fishermen since there was an increase in tourism and fish stocks, including threatened species, had increased due to the spill over effect. Moreover, certain activities, such as the use of harpoons, have been prohibited while local fishermen have been given exclusivity to fish in the area. Yet, such positive aspects were contradicted by local fishermen who argued that they did not experience any benefits such as new job opportunities related to tourism or higher fish stocks and believed that fishing was a dying trade as the presence of MPAs led to stricter controls on the catch. The management body of the MPA remarked that the MPA mostly affected artisanal fishermen as professional fishermen had also been assigned a zone where they could practise trawling activity. Yet artisanal fishermen were unfortunately the most problematic to control as they were practicing various illegalities such as selling fish to restaurants to the detriment of professional fishermen.

Diving centres and operators organising boat tours to observe wildlife across the entire area of study remarked that MPAs were essential for their activity as adequate protection and management meant that visitors could observe more marine life during excursions. These stakeholders emphasised that protection boosted their activity and thus they had a personal interest to comply and support such initiatives. Giving a tangible example, managers of diving centres based on Pantelleria said that the introduction of underwater archaeological sites attracted more customers and led to more awareness among diving centres and locals employed in the business. As a result, they also play a significant role in protecting such sites owing to the benefits they have personally experienced.

On the other hand, those practicing fishing via apnoea on the island of Pantelleria objected to the presence of the MPA citing further restrictions that would limit their activity as the main reason for their objection. Operators from the Aegadian Islands renting boats to conventional tourists also remarked that due to the MPA, various restrictions were in place. For example one could not anchor anywhere and fixed points had to be used not to damage *Posidonia* meadows. There were also limitations on where one could use motorised boats. They argued that this impacted tourism activity and more flexibility was required. In this regard they proposed the scaling down of zone A. Locals from across the area of study have expressed disappointment on the fact that at times too much emphasis is made on protection ignoring the basic needs of locals, tourists and divers. Locals from the Pantelleria, Marettimo and Gozo said that there was often no easy access to rocky shores making access to the sea difficult as authorities prohibited even small interventions, including the construction of pathways on the coast.

In the case of smaller islands within archipelagos, specifically Marettimo and to a smaller extent Linosa, locals and operators remarked that such islands experience disproportionate levels of protection and that zone A, which enjoys ultimate protection and permits little activity, is situated very close to such islands. This limits the possible tourism activities that can be practised by artisanal fishermen and operators. Locals argued that in reality the entire area merits the same level of protection and it was useless to attribute the MPA to the whole archipelago when the highest grade of protection was enforced solely around one island. With this in mind, locals are of the opinion that such decisions were taken by authorities based on the bigger islands, such as Favignana, in order to shift tourism activity to the larger islands where most tourism activities were permissible. Thus, smaller islands were placed at a disadvantage by shifting the “burden of protection” to such islands. Meanwhile academics, governmental entities, politicians and NGOs

remarked that contrary to public perception, a higher level of protection can serve as an advantage for the islands as they have the potential to attract more maritime ecotourism. They reiterated that owing to the presence of the MPAs, the economy of the islands improved as more tourists had been attracted to the islands.

Increased restrictions with respect to hunting has also impacted those working in the tourism sector. Tourism operators from Linosa remarked that in the past hunting on the island used to attract tourists off peak season, providing work and income off-season. Currently, restrictions imposed by authorities whereby only local hunters can hunt on the island has had a detrimental impact on their income as such activity was not replaced by other niches such as bird watching.

5.5.2.4 Socioeconomic Impact of Tourists and Tourism in the Area of Study

Excluding Malta, the islands under study offer few job opportunities for locals, especially youths, other than those related to tourism. This is because on such islands, the economy which once depended on fisheries and/or agriculture (both on the decline), now revolves around tourism activity. Tourism has in fact a great social and economic impact on local communities as most inhabitants of the islands under Italian jurisdiction make a living out of tourism. These include those who rent their property to tourists, restaurant owners, artisanal shop owners, ecotourism operators, locals assisting operators during the peak season, locals providing services for the upkeep and maintenance of accommodation structures and others working with non-local companies providing services in the territory such as companies involved in connectivity services. Fishermen also find that the fishing sector has become dependent on tourism since sales to restaurants depended on the presence of tourists. Moreover, tourists offered fishermen alternative income opportunities through tourism related activities such as pescatourism and boat tours.

Such a situation is quite challenging as, if one excludes Malta, the islands in the area of study face seasonality in tourism flows. The presence of tourist in the period between October and May is quite limited. In the case of smaller and more remote islands such as Linosa, tourism is almost limited to the month of August. As a result, locals have few job opportunities between October and May. Due to the seasonality issue, locals have to work round the clock in the peak season to obtain enough income that can sustain them all year round. Moreover, several locals are employed under precarious working conditions with contracts lasting for the duration of the peak tourism season only. Seasonality is thus said to have a social and economic impact on the islands

and its inhabitants as the latter experience a lot of work pressure over a short period of time, a fact which also impacts on their social life. Furthermore, a lot of money is lost during the shoulder period. Some operators said that they had become used to working hard for a couple of months and taking it easier throughout the shoulder season. Yet, most operators expressed concern on the fact that they had little work to do in the off-season and said that they would be eager to work throughout the entire year. Stakeholders are in agreement that there is a need to elongate the tourism season by attracting more tourists all year round.

Locals argue that in general, more tourism implies more jobs, jobs of better quality with higher income and thus a better lifestyle and improved well-being for the local community. However, stakeholders argue that rather than mass tourists and day-trippers the right form of tourists need to be attracted. They pinpointed ecotourists due to their interest in nature, sensibility towards the environment, and willingness to spend more money. In fact, ecotourism is seen as an instrument to tackle seasonality and the problems associated with it. This is because it has the potential to offer jobs to young people in ecotourism and related sectors, including interpretation and enforcement within protected areas. Furthermore, such job opportunities can be provided all year round including the shoulder period. Locals from Pantelleria expressed hope that the institution of the national park will generate new job opportunities through additional funding. Through the creation of job opportunities, ecotourism is also seen as an opportunity to give youth the possibility to reside on the island all year round or to return to the islands once they complete their studies.

According to ecotourists visiting the Aegadian Islands, the Pelagian Islands and Pantelleria, locals enjoyed their presence as during the off peak season few tourists visit the islands. Thus this was an opportunity for the locals to interact with outsiders. Moreover, ecotoruists noted that several locals are proud of their natural heritage and that such visits gave locals the possibility to discuss local attractions with visitors and advise them on which areas to visit and what to do throughout their stay on the islands. Furthermore, ecotourists participating in the ecotours remarked that when they visited the islands, mostly off-season, there were a limited number of tourists on the islands. They observed an overwhelming positive reaction from locals and service providers including those offering ecotourism services and owners of local stores due to the money spent on the islands off-season. They said that they spent over Euro 500 throughout their stay and even if some money was spent on fares, leakage of funds to the external economy was quite minimal. In fact most money was spent on accommodation provided by locals, ecotourism excursions provided by local operators and on local artisanal products. Money was also spent at family run food stores and family owned restaurants.

An increase in tourism all year round especially in the off peak season, possibly through ecotourism, is also seen by locals as beneficial. This is because the presence of tourists raises awareness on the challenges faced on the islands, such as those of connectivity. Thus their presence gives them hope that such challenges might be tackled for the benefit of the local community too.

On the other hand, a small segment of stakeholders who are not involved in tourism explained that they are not too eager to have more tourists especially if they are conventional tourists. This is because they consider the arrival of more tourism as a threat to the current sense of tranquillity that reigns on the islands. On a similar note, locals from Marettimo and Levanzo said that they did not want such islands to become crowded and noisy like Favignana. NGOs expressed concern that an increase in the islands' popularity among tourists will also lead to more air traffic and noise pollution on this islands. Those responsible for cleaning also expressed concern on the impact that more tourists will bring on the islands, including a heftier workload. Expressing concern on the rise of tourism, locals from Pantelleria said that they did not want to experience queues in stores and traffic on the roads. Some policy makers remarked that the rise in tourism on some islands over the years led to a boom and abuse in construction and they fear that such a problem will augment if tourism increases. This would also bring about a negative impact on the life of locals as the current infrastructure is not adequate for masses of people. Locals and NGOs also expressed concern that the identity of the islands will be impacted through an increase in tourism. Due to the fact that, as explained earlier, prices of goods tend to fluctuate throughout the peak season, locals fear that by elongating the tourism season, the cost of living on the islands under Italian jurisdiction will rise throughout a longer period of the year.

In the case of the Aegadian Islands, stakeholders said that the aforementioned rivalry and excessive competition which at times escalated to tension between operators was mostly due to the seasonal nature of tourism and the need to make the most out of the short tourism season. In fact, locals said that there was no animosity among operators and there is more unity on the islands once the tourism season is over. Stakeholders remarked that the elongation of the tourism season might extend such tension for a longer period throughout the year.

5.6 Ecotourism Policy and Regulation

According to stakeholders, the current one-size-fits-all approach adopted by authorities with respect to regulations is not ideal. This is especially the case when regulations targeted for larger

islands and regions are applied to smaller islands. For instance, policies that might make sense for large islands such as Sicily might be detrimental for smaller islands such as the islands under Italian jurisdiction being studied. Similarly, operators from the Maltese Islands said that the ecotourism niche cannot be regulated by a alone-size-fits-all legislation which is also applicable for the general tourism sector. Citing examples, ecotourism operators said that requirements included licenses, the need to have an insurance policy and the necessity to operate from a physical office. However according to the regulator, recent changes no longer impose a need for a physical office and operators can work through a website, remarking that some operators were not aware of recent updates in legislation.

Furthermore, constant changes in regulation introduces administrative and financial burdens on various tourism stakeholders. Policy makers said that legislation had to be constantly updated to reflect developments in the sector. At times, stakeholders feel that regulations are very restrictive. For example locals and farmers from Pantelleria who would like to build within their terrain, restore old buildings or install energy efficient features find current regulations in this regard quite restrictive. Similar problems are encountered by fishermen, especially those from the Aegadian islands, who would like to operate in the pescatourism sector. The limited number of persons allowed on board a vessel, health and safety regulations, the permits and licenses required make the operation unfeasible.

Operators working in various sectors related to tourism also remarked that bureaucracy was hindering their operations and disheartening investment due to the several permits required to kick-off any tourism enterprise. This situation has led to a scenario whereby locals and operators are dependent on politicians to obtain relevant permits and as a result corruption is quite flagrant across the area of study. Locals from the islands under Italian jurisdiction being studied also remarked that staff in official government bodies at times lack knowledge on the policies, procedures and legal issues which concern them and are thus not in a position to assist them when they seek help or when they turn to the municipalities to obtain the permits required. With respect to bureaucracy, policy makers from the Maltese Islands remarked that whereas the issued had to be tackled, the sector could not be unregulated.

Stakeholders also claimed that several policies are also adopted in a top-bottom approach and thus failing to reflect the challenges and necessities of islands and their inhabitants. In minor cases new structures have been introduced to adopt policies that reflect the views of tourism stakeholders. One example is the formation of a special committee on Pantelleira composed of

various private tourism operators to advise the municipality and the mayor on tourism related issues based on their expertise and studies conducted within the territory.

According to policy makers from the islands under Italian jurisdiction, due to the natural characteristics of the islands, nature based tourism is constantly evolving. According to locals and NGOs from the same islands, most of the islands fail to attract mass tourists and hence development of mass tourism cannot take place. This is due to a couple of factors which lead to a natural process of selection in the type of tourists attracted to the islands. Such factors include the limited carrying capacity on some of the islands such as Levanzo and Marettimo, a higher price to reach the island compared to other islands within the same archipelago (such as in the case of Marettimo), a lack or a limited number of beaches (such as in the case of Levanzo, Marettimo, Linosa and Pantelleria) and the lack of adequate promotion. This also applies for the summer period and thus there is no mass tourism taking place on these islands. Furthermore, there are no tennis courts, golf courses, discotheques and other amenities. As a result, by default, mass tourism cannot develop. Meanwhile, on Pantelleria some stakeholders fear the fact that a few operators want the island to become a mass tourism destination.

Having nature-based tourism as a major tourism activity has been mostly a natural course rather than a policy oriented development. According to stakeholders, especially those from Lampedusa, this reflects the haphazard manner in which tourism developed on the islands, with no form of policy or planning. They argued that the development of tourism on the island of Lampedusa was in fact incidental and associated with extensive coverage given by the press during certain episodes. These include an incident when a missile was launched by Gaddafi towards a US Coast Guard navigation station situated on the island in 1986 (decommissioned in 1995) and by the constant arrival of immigrants. Locals and operators claim that whereas the fact that tourism developed in such a natural manner was a positive thing, it was now appropriate to develop a long term tourism policy for these islands. They remarked that adequate planning was required as one could not develop and push forward ecotourism overnight.

Whereas locals and operators argued that politicians lacked vision and that no policy on tourism exists, politicians rebutted such an argument. Giving examples, politicians from the Aegadian Islands referred to a policy document discussing the development of tourism based on trekking, canoeing and cycling on the archipelago. Politicians claimed that there was a general interest to shift from conventional to more sustainable tourism products such as ecotourism. In fact, importance was already being given to ecotourism related operations on the smaller islands under

Italian jurisdiction. Policy makers pointed out that the push being given to nature based tourism such as ecotourism was not a vision of some NGO or operator but a mission that had been adopted by all stakeholders due to the understanding that it was the right step.

With respect to the Maltese Islands, policy makers referred to the IYE and to the ecotourism policy adopted ahead of such an occasion. They argued that this focused on very basic issues including cleaning the countryside, increasing ecological awareness among locals, pushing for the introduction of legislation for adequate enforcement on various aspects including vehicle emissions and for boats to be equipped with holding tanks for sewage. Yet NGOs questioned the work and achievements of the ecotourism board.

Politicians from the Maltese Islands remarked that the various national tourism polices published to date already make reference to ecotourism and the need to value parks and protected areas including MPAs for tourism purposes. NGOs said that whereas there was a lot of talk from politicians in this regard, action was quite limited. Furthermore, policies adopted were short sighted and rarely implemented. Operators added that whereas on a global level ecotourism was given considerable importance, little effort was being made in the Maltese Islands to push forward the niche as confirmed by the national tourism policy. NGOs remarked that it was true that there was the need to push ecotourism further through the national tourism policy however one had to also ensure that there was interest in the field. On the other hand, policy makers said that the diving strategies published make little reference to ecotourism even if MPAs were ideal sites for marine ecotourism and even if diving was a major marine ecotourism activity. They said that this is due to the current policy whereby diving was considered more of a leisure activity while MPAs were more synonymous with protection rather than with tourism.

Policymakers, academics and NGOs from the Maltese Islands are of the opinion that ecotourism can never become a major tourism sector but will remain a niche which can also complement other tourism niches and the current tourism product. Similarly, ecotourists who visited the Maltese islands remarked that ecotourism in Malta has the potential to make the general tourism industry more sustainable.

Policy makers said that the recent policy related to ecoGozo, which was developed in a bottom-up approach based on ideas submitted by locals, helped to push ecotourism on the island forward. They added that the policy adopted in 2010 was a step forward for the niche as it featured not only strict ecotourism projects such as the upgrade of a series of ecotrails but also covered

various aspects that had an impact on ecotourism. These included measures to encourage the utilisation of clean energy and measures promoting waste management. Various other initiatives have been taken including the organisation of various clean-ups and the organisation of a conference on ecotourism development in Gozo. Meanwhile, the implementation of the policies prepared have been questioned. Policy makers claim that these were not fully accepted by the locals and that this was possibly a green washing exercise and an opportunity to generate work for contractors such as those awarded tenders to clean-up valleys with heavy machinery.

NGOs remarked that ecotourism touches on various sectors and thus various policies (not just those related to tourism) had to be given due consideration to reflect ecotourism principles. This point was reiterated by policy makers who argued that a holistic way of planning was required targeting all aspects of ecotourism including transport, accommodation, energy and waste management, including that on beaches, to send the right message to ecotourists. Policy makers from the Maltese Islands said that such sectors depended on policies set by various ministries and in fact inter-ministerial committees were set up from time to time to tackle such issues. Meanwhile the outcomes of such committees were questioned by NGOs.

In the case of the three archipelagos under study, stakeholders raised concerns on the carrying capacity of the biggest island of each archipelago. Stakeholders argued that the quantity of tourists on Favignana, Lampedusa and Malta during the peak season had increased substantially ending up with too many people in a small place at the same time. In the case of the Maltese Islands, concerns were also raised on the huge quantity of daily visitors on the island of Comino throughout the summer period and the absence of a carrying capacity study. According to policy makers and some locals, too much emphasis was being put on mass tourism which also explains why some of the islands faced seasonality. They added that the current approach of 'the more tourists the merrier' had to stop. In this regard a carrying capacity study was called for by several stakeholders across the area of study especially in the Maltese Islands. Several policy makers and other locals argued that there was a need not only to target higher quality tourists, but also to spread tourism flows more evenly throughout the whole year to reduce seasonality rather than building more hotels to accommodate more tourists in the peak season.

5.7 Conclusion

This chapter has outlined the major ecotourism aspects and issues in the area of study. One can conclude that connectivity is a major limitation especially on the islands under Italian jurisdiction.

In the case of the latter, governance structures in place also have a negative impact on ecotourism especially on smaller islands. Ecotourism venues on larger islands tend to be fragmented due to anthropogenic impact whereas services are limited or seasonal. Nevertheless, several ecotourism activities can be practised in the area of study including several that are related to coastal and marine settings. Marketing is mostly limited and fails to reach all audiences which might be interested in this product. This is due to lack of strategy, funding and rivalry. Whereas ecotourism can bring positive impacts it cannot be considered as a panacea. In fact several negative socio-economic and environmental impacts have been identified. Several of these originate due to lack of standards and ecocertification schemes. With respect to policy, there have been efforts to develop ecotourism by the respective authorities but these remain rather scant and at times superficial.

Chapter 6:

Results –

The Ecotourist

Plate 6.1: *Ecotourists trekking through a designated footpath along the coastal area of Levanzo, Aegadian Islands. Photo: Karl Agius.*

Chapter 6: Results – The Ecotourist

6.1 Introduction

This chapter presents the main findings on various aspects which characterise the ecotourist. These findings were mainly derived from the evaluation of surveys conducted before and after the ecotours organised across the area of study. The findings are supported through information collected via focus groups and interviews held with specific participants of the eoctours organised as part of the research and other participants who participated in follow up visits as explained in section 4.7. Furthermore, the profiling of the ecotourists is based on findings originating from interviews held with various stakeholders and observations made during the ecotours.

Features tackled in this section comprise the demographics of the ecotourist, the environmental consciousness and behaviour of the ecotourist, knowledge of the term ecotourism among ecotourists, the importance of natural and protected areas for the ecotourist and time spent in contact with nature, activities/features expected before the ecotour and activities enjoyed most and least during the ecotour. Other aspects include the level of satisfaction with the accommodation provided, the level of participation in previous ecotours, motivations to visit the ecodestination under study and expectations, satisfaction ratings, along with spending patterns. Furthermore, findings on the organisational aspects such as the dimension of group participating in the ecotour and duration of the ecotours are also presented. The chapter concludes with a comparative analysis between the profile of the ecotourist according to literature, the profile of ecotourist joining the ecotours and the profile of target ecotourists as outlined by stakeholders.

Each aspect is analysed by taking into account the four ecodestinations under study: the Maltese Islands, the Pelagian Islands, the Aegadian Islands and the island of Pantelleria. Apart from the figures presented in this chapter, one can also find cross tables in annex 4, which tables present the frequencies, χ^2 value and p value for each figure presented in this chapter.

6.2 Demographics of Ecotourists

Demographic characteristics have been used extensively to profile the ecotourist as explained in section 2.6.1. As shown in Table 6.1, the vast majority of respondents (67%) were aged 25 and under. 18.1% were aged between 26 and 35 years. Only 14.9% of participants were within the age range of 36 and 65 years. At 12 degrees of freedom and a X^2 value of 61.82, the p value is less than 0.001. The chi squared test revealed that the p value is less than the 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the age range and the ecotourists visiting the respective ecodestinations.

Table 6.1: Age range of ecotourists.

Age range	Count / Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
18-25	Count	0	33	24	6	63
	Percentage	0%	76.7%	88.9%	54.5%	67%
26-35	Count	3	6	3	5	17
	Percentage	23.1%	14%	11.1%	45.5%	18.1%
36-45	Count	3	2	0	0	5
	Percentage	23.1%	4.7%	0%	0%	5.3%
46-55	Count	3	2	0	0	5
	Percentage	23.1%	4.7%	0%	0%	5.3%
56-65	Count	4	0	0	0	4
	Percentage	30.8%	0%	0%	0%	4.3%
Total	Count	13	43	27	11	94
	Percentage	100%	100%	100%	100%	100%

$X^2(12) = 61.82$, $p < 0.001$

As to the age of the ecotourist, the issue was also raised during various interviews with stakeholders. According to operators from the islands under Italian jurisdiction, tourists who have an interest in the environment and are attracted to the islands, especially off season, are generally older. Operators in Gozo stressed the need to attract tourists who are mature as they tend to have more of an appreciation towards nature.

Table 6.2 shows that in terms of gender, overall there was a slightly higher proportion of male participants in ecotours, equivalent to 53.2%. The highest proportion of males (63.6%), was recorded on the ecotour taking place in the Pelagian Islands whereas the highest proportion of females (51.2%) was recorded on the ecotour in the Aegadian Islands (see Figure 6.1). At 3 degrees of freedom and a X^2 value of 0.872 the p value is equivalent to 0.832. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus there is an association between gender and the ecotourists vising the respective ecodestination.

Table 6.2: Gender distribution of ecotourists.

Gender	Count / Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Male	Count	7	21	15	7	50
	Percentage	53.8%	48.8%	55.6%	63.6%	53.2%
Female	Count	6	22	12	4	44
	Percentage	46.2%	51.2%	44.4%	36.4%	46.8%
Total	Count	13	43	27	11	94
	Percentage	100%	100%	100%	100%	100%

$X^2(3) = 0.872$, $p = 0.832$

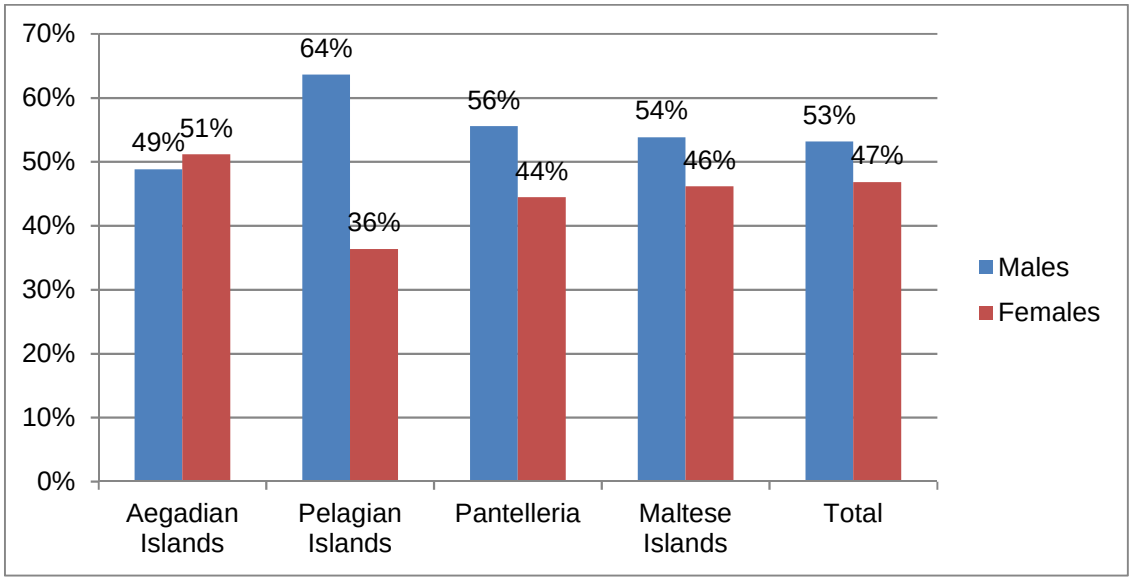

Figure 6.1: *Gender distribution of ecotourists.*

Table 6.3 shows that the majority of respondents (84%) were of Maltese Nationality. The second most popular nationality among participants was Italian. In total, participants hailed from seven different countries. At 18 degrees of freedom and a X^2 value of 109.144 the p value is less than 0.001. The chi squared test revealed that the p value is less than the 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between nationality and the ecotourists visiting the respective ecodestinations.

Table 6.3: Nationality of ecotourists.

Nationality	Count / Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Malta	Count	0	43	27	9	79
	Percentage	0%	100%	100%	81.8%	84.0%
Italy	Count	7	0	0	0	7
	Percentage	53.8%	0%	0%	0%	7.4%
Spain	Count	3	0	0	0	3
	Percentage	23.1%	0%	0%	0%	3.2%
Poland	Count	0	0	0	2	2
	Percentage	0%	0%	0%	18.2%	2.1%
USA	Count	1	0	0	0	1
	Percentage	7.7%	0%	0%	0%	1.1%
UK	Count	1	0	0	0	1
	Percentage	7.7%	0%	0%	0%	1.1%
Lebanon	Count	1	0	0	0	1
	Percentage	7.7%	0%	0%	0%	1.1%
Total	Count	13	43	27	11	94
	Percentage	100%	100%	100%	100%	100%

$X^2(18) = 109.144$, $p < 0.001$

According to stakeholders, several tourists arriving on the islands under Italian jurisdiction are domestic tourists (Italian nationals). With respect to the demographics of ecotourists, there was agreement amongst stakeholders, including operators from Malta, Gozo and the islands under Italian jurisdiction that further efforts are needed to target and attract international tourists from northern Europe such as the UK, Netherlands, Scandinavian countries, Germany and France.

Operators from Malta also said that tourists from other countries, including the USA and Russia are, in their opinion, interested in this niche market.

6.3 Environmental Awareness and Activity of Ecotourists

As outlined in section 2.6, there are contrasting views on whether ecotourists tend to be more environmentally aware and active than other tourists. To better understand the nature of ecotourists who participated in the ecotours the level of involvement of ecotourists in eNGOs and their self-consciousness in favour of the environment was investigated.

The majority of respondents (57.3%) who participated in the ecotours said that they were not affiliated to an eNGO (see full results of responses on this variable in Table A4.1 found in annex 4). As shown in Figure 6.2, taking into account individual archipelagos/islands, the majority of respondents who participated in the ecotours taking place in the Maltese Islands and Pantelleria claimed to be affiliated with an eNGO. On the other hand, the great majority of respondents who participated in the ecotours taking place in the Aegadian Islands and the Pelagian Islands were not affiliated to an eNGO. At 3 degrees of freedom and a X^2 value of 7.77, the p value is equivalent to 0.051. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus there is no association between being affiliated to an eNGO and the ecotourists visiting the respective ecodestinations.

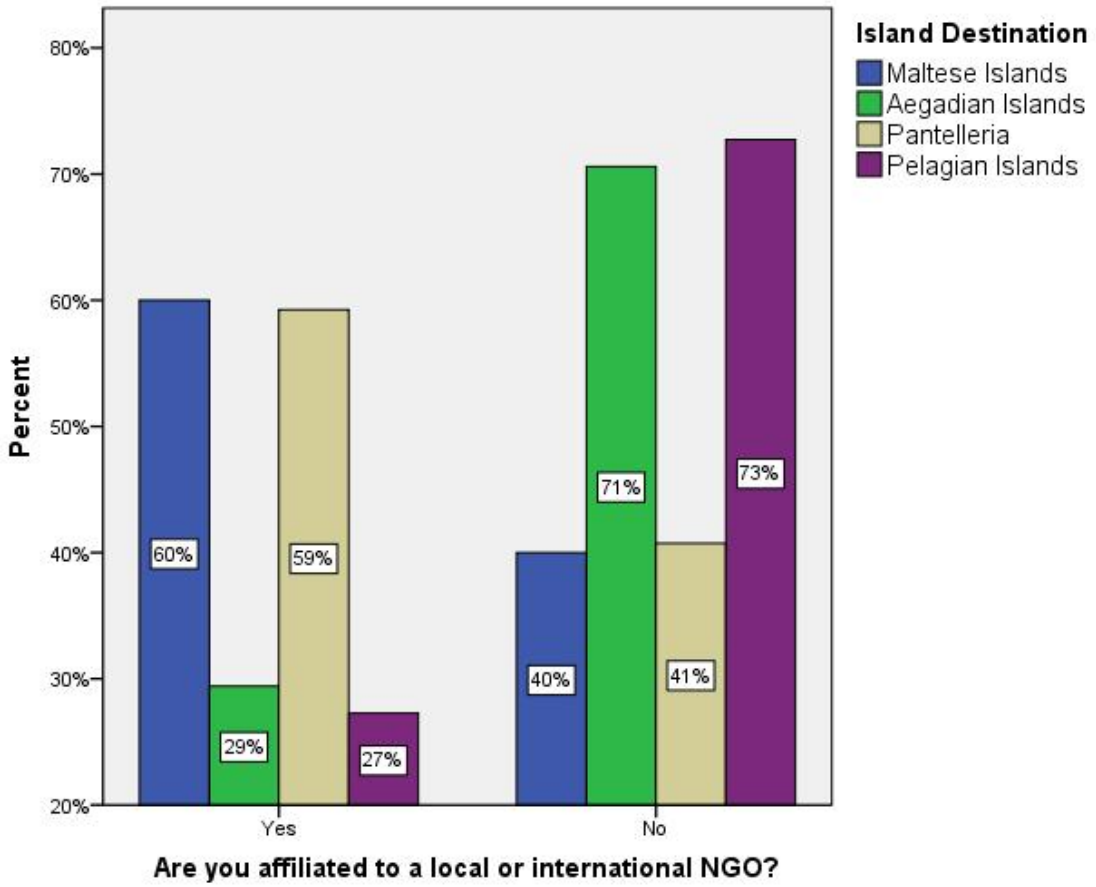

Figure 6.2: *Affiliation of participants to an eNGO.*

Most respondents (64.6%) claimed to be quite environmentally conscious. This was followed by those who felt to be very environmentally conscious. Only a small proportion of respondents (11%) claimed not to be particularly environmentally conscious. See table A4.2 in annex 4 for the detailed results. As shown in Figure 6.3, the majority of respondents claiming to be quite environmentally conscious participated in the ecotour taking place in the Maltese Islands, whereas the highest proportion (11.8%) of those claiming to be only a little environmentally conscious participated in the ecotour taking place in the Aegadian Islands.

At 6 degrees of freedom and a X^2 value of 5.87, the p value is equivalent to 0.438. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus there is no association between environmental consciousness and ecotourists who visited the respective ecodestinations.

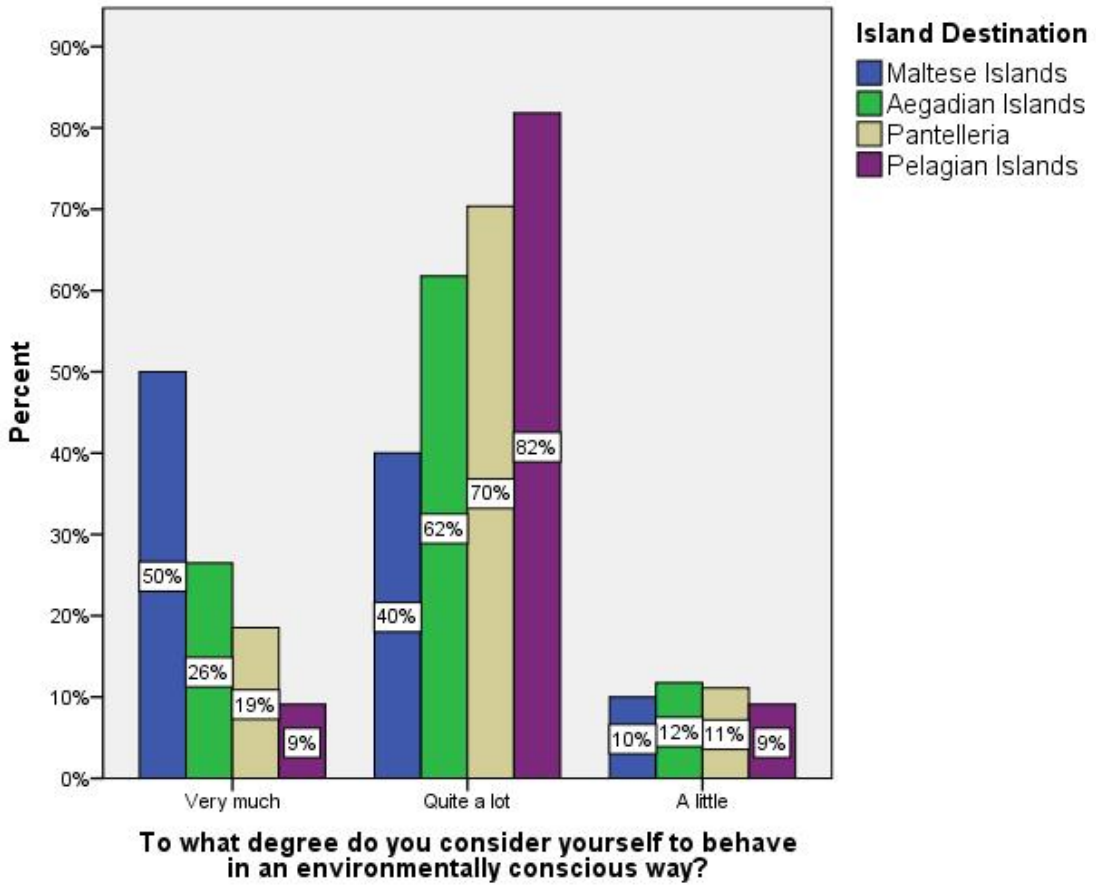

Figure 6.3: *Environmental consciousness of the ecotourists.*

The relatively high level of environmental consciousness was also confirmed by ecotourists themselves during focus groups organised following the ecotours. Ecotourists visiting the Maltese Islands remarked that their participation in the ecotour generated a lot of plastic and waste which was not recycled. They recommended that the use of plastic bottles, excess wrapping and packaging should be eliminated in future ecotours. On a similar note ecotourists visiting the Aegadian Islands, Pelagian Islands and Pantelleria remarked that they noticed that overall the groups were environmentally concerned due to the emphasis they made on recycling waste. Ecotourists also made it a point to stick to designated pathways during excursions to avoid unnecessary trampling and expressed great interest in the environment as confirmed by the various questions and follow up questions to the guides during the excursions.

Ecotourists also expressed concern about the presence of various trawling vessels present on Lampedusa due to their impact on the sea. One particular ecotourist visiting the Pelagian Islands expressed disappointment at the fact that a visit to a sponge store was included in the itinerary of the ecotour. This is because sponge fishing and their processing, a local tradition on the island of Lampedusa, involved the collection of wildlife, something which did not reflect ecotourism principles. Whereas locals remarked that the sponges in the store were caught accidentally by fishermen, ecotourists remarked that this could not be the case due to the abundance of sponges in the store and workshop. Ecotourists also raised concern on the environmental degradation on Malta, Gozo, Lampedusa and Favignana as a result of development in ODZs.

Owing to the strong natural element in the area of study, stakeholders remarked that it is relatively straight forward to attract environmentally conscious tourists such as tourists from northern Europe, the USA and Russia. This can also be instrumental in order to attract tourists off season and therefore tackle the challenge of seasonality in this manner.

6.4 Knowledge on Ecotourism

As outlined by Wurzinger and Johansson (2006) knowledge on ecotourism among ecotourists should not be taken for granted as there were cases where such knowledge was evidently lacking (see section 2.5.3). The level of knowledge on ecotourism among ecotourists was thus assessed through a series of questions regarding their awareness of the term, what they relate the term to, what features form part of the ecotourism concept and the likeliness that ecotourism will be important in the future considering the new travel and economic trends characterising the sector (see section 1.2).

The highest proportion of respondents (91.6%) were aware of the term ecotourism (see Table A4.3 in annex 4). Figure 6.4 shows that all participants of the ecotours taking place in the Maltese Islands and almost all respondents (96.3%) of participants participating in the ecotour organised on the island of Pantelleria claimed to be aware of the term ecotourism. The least aware of the term ecotourism were respondents who participated in the ecotour taking place in the Pelagian Islands.

At 3 degrees of freedom and a X^2 value of 3.46, the p value is equivalent to 0.326. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus there is no association between knowledge of the term ecotourism and ecotourists who visited the respective ecodestinations.

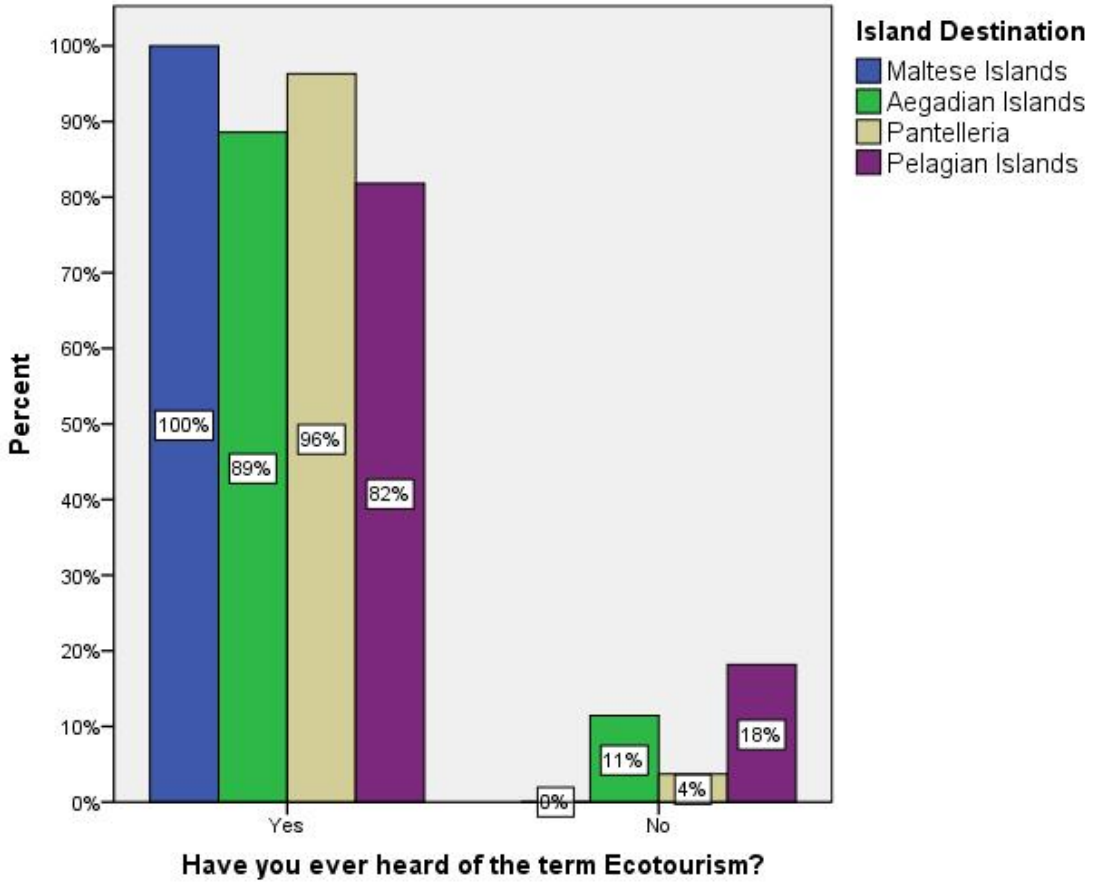

Figure 6.4: *Knowledge of the term ecotourism.*

As shown in Table 6.4, most respondents who knew of the term 'ecotourism' said that they relate the term to 'respecting the environment/nature', a 'nature based' form of tourism, tourism that is associated with 'conservation' and 'supporting the local community/economy'. At 36 degrees of freedom and a X^2 value of 43.921, the p value is equivalent to 0.171. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant.

Thus there is no association between such terms and ecotourists who visited the respective ecodestinations.

Table 6.5 shows the results obtained when respondents were asked about the elements/terms that form part of the ecotourism concept. The most selected element/term was ‘nature based tours’ followed by ‘supporting protected areas’, ‘educational’ and ‘conservation’. ‘Volunteering’, ‘travelling in small groups’ and ‘leisure’ were the elements/terms least chosen by respondents. Almost all respondents of the ecotour taking place in the Maltese Islands (90%) emphasised the need for ecotourism to be practised in protected areas. A relatively lower proportion (ranging between 40% and 52%) of respondents participating in the other ecotours chose this element too. At 36 degrees of freedom and a X^2 value of 19.811, the p value is equivalent to 0.987. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus there is no association between the elements/terms that ecotourists relate to ecotourism and the ecotourists visiting the respective ecodestinations.

It is noteworthy that according to stakeholders, several tourists visiting the islands under Italian jurisdiction are domestic tourists and with most visiting such islands throughout summer. They remarked that such tourists tend to be less interested in nature and cultural aspects, elements that were outlined by ecotourists as important for ecotourism. Another point to note is the fact that Maltese NGOs and operators argue that the right interest groups need to be targeted. In this regard specific reference was made to tourists seeking nature. Some operators also pointed out that there are several repeat visitors who are visiting Malta on an annual basis and these want to explore other aspects of the island with which they have not yet become familiar, including the natural aspect. Thus such tourists should also not be overlooked. Ecotourists from focus Group B remarked that unless such interest groups are attracted to the islands, a similar scenario to what happened to Comino will be experienced on other islands and business and abuse will take over.

Table 6.4: Aspects to which ecotourists relate the term ecotourism.

Ecotourism aspects	Count Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Respecting the environment / nature / environmental friendly	Count	4	18	12	5	39
	Percentage	44.4%	58.1%	48%	55.6%	
Nature based	Count	6	10	8	7	31
	Percentage	66.7%	32.3%	32.0%	77.8%	
Conservation	Count	0	5	5	0	10
	Percentage	0%	16.1%	20%	0%	
Supporting local community/economy	Count	3	3	0	1	7
	Percentage	33.3%	9.7%	0%	11.1%	
Sustainable tourism	Count	3	0	3	1	7
	Percentage	33.3%	0%	12%	11.1%	
Respecting/supporting local culture/heritage	Count	0	1	2	0	3
	Percentage	0%	3.2%	8%	0%	
Promote /support the environment of the area	Count	0	3	0	0	3
	Percentage	0%	9.7%	0%	0%	
Low budget	Count	1	0	1	1	3
	Percentage	11.1%	0%	4.0%	11.1%	
Cultural/historical aspect	Count	1	0	0	1	2
	Percentage	11.1%	0%	0%	11.1%	
Energy efficient ecolodges	Count	0	1	0	0	1
	Percentage	0%	3.2%	0%	0%	
Learning	Count	0	0	1	0	1
	Percentage	0%	0%	4%	0%	
Visiting unusual places	Count	0	0	1	0	1
	Percentage	0%	0%	4%	0%	
Genuine not artificial	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Total respondents	Count	9	31	25	9	74

$X^2(36) = 43.921$, $p = 0.171$

Table 6.5: Elements/terms that form part of the ecotourism concept.

Ecotourism elements/terms	Count Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Nature based tour	Count	10	28	22	11	71
	Percentage	100%	80%	81.5%	100%	
Supporting protected areas	Count	10	29	22	10	71
	Percentage	100%	82.9%	81.5%	90.9%	
Educational	Count	8	30	23	8	69
	Percentage	80%	85.7%	85.2%	72.7%	
Conservation	Count	10	29	22	6	67
	Percentage	100%	82.9%	81.5%	54.5%	
Cultural and historical excursion	Count	9	19	19	8	55
	Percentage	90%	54.3%	70.4%	72.7%	
Minimal environmental impact	Count	6	24	16	8	54
	Percentage	60%	68.6%	59.3%	72.7%	
Responsible travel	Count	9	17	21	6	53
	Percentage	90%	48.6%	77.8%	54.5%	
Adventure	Count	5	20	19	7	51
	Percentage	50%	57.1%	70.4%	63.6%	
Wellbeing of local population	Count	9	19	19	3	50
	Percentage	90%	54.3%	70.4%	27.3%	
Takes place in protected areas	Count	9	14	14	5	42
	Percentage	90%	40%	51.9%	45.5%	
Leisure	Count	5	10	15	3	33
	Percentage	50%	28.6%	55.6%	27.3%	
Travelling in small groups	Count	3	3	5	4	15
	Percentage	30%	8.6%	18.5%	36.4%	
Volunteering	Count	1	4	3	3	11
	Percentage	10%	11.4%	11.1%	27.3%	
Total respondents	Count	10	35	27	11	83

$X^2(36) = 19.811$, $p = 0.987$

A high proportion of respondents said that they think that ecotourism is likely to be important or very important in the future. As shown in Figure 6.5, the highest proportion of respondents who feel that ecotourism is likely to be very important was recorded among ecotourists who participated in the ecotours held in the Maltese Islands and the Aegadian Islands. 9.1% of respondents participating in the Pelagian Islands ecotour claimed that ecotourism will only be slightly important in the future. See Table A4.4 in annex 4 for the full results.

With 9 degrees of freedom and a X^2 value of 8.50, the p value is equivalent to 0.485. Since the p value exceeds the 0.05 level of significance, the null hypotheses is accepted confirming that the difference between percentages is insignificant. Thus there is no association between the belief that ecotourism is important in the future and the ecotourists visiting the respective ecodestinations.

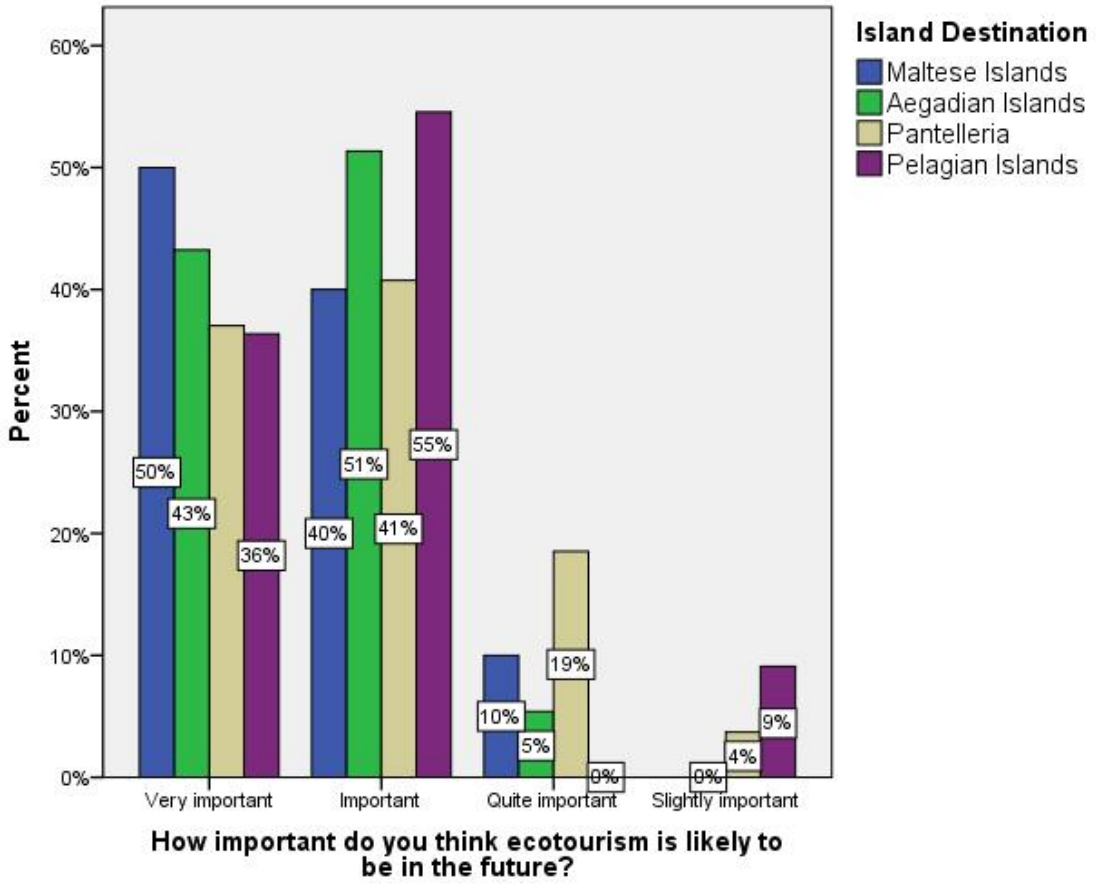

***Figure 6.5**: Likeliness that ecotourism will be important in the future.*

6.5 Ecotourists and Contact with Nature

Considering that the desire to leave mundane everyday life behind and immerse oneself in nature (mostly protected areas) was described as a major element motivating tourists to engage in ecotours, the research investigated the origin of the ecotourists and the time spent in contact with nature and if this lived up to their expectations. The majority of respondents (59.8%) who participated in the ecotours said that they hailed from an urban area while 40.2% of respondents said that they lived in a rural area. As shown in Figure 6.6, the highest proportion of respondents coming from an urban area was registered by participants of the ecotour taking place in the Maltese Islands followed closely by participants of the ecotour taking place in the Aegadian Islands. The majority of respondents hailing from a rural area were those who participated in the ecotour taking place in the Pelagian Islands followed by those on the Pantelleria ecotour.

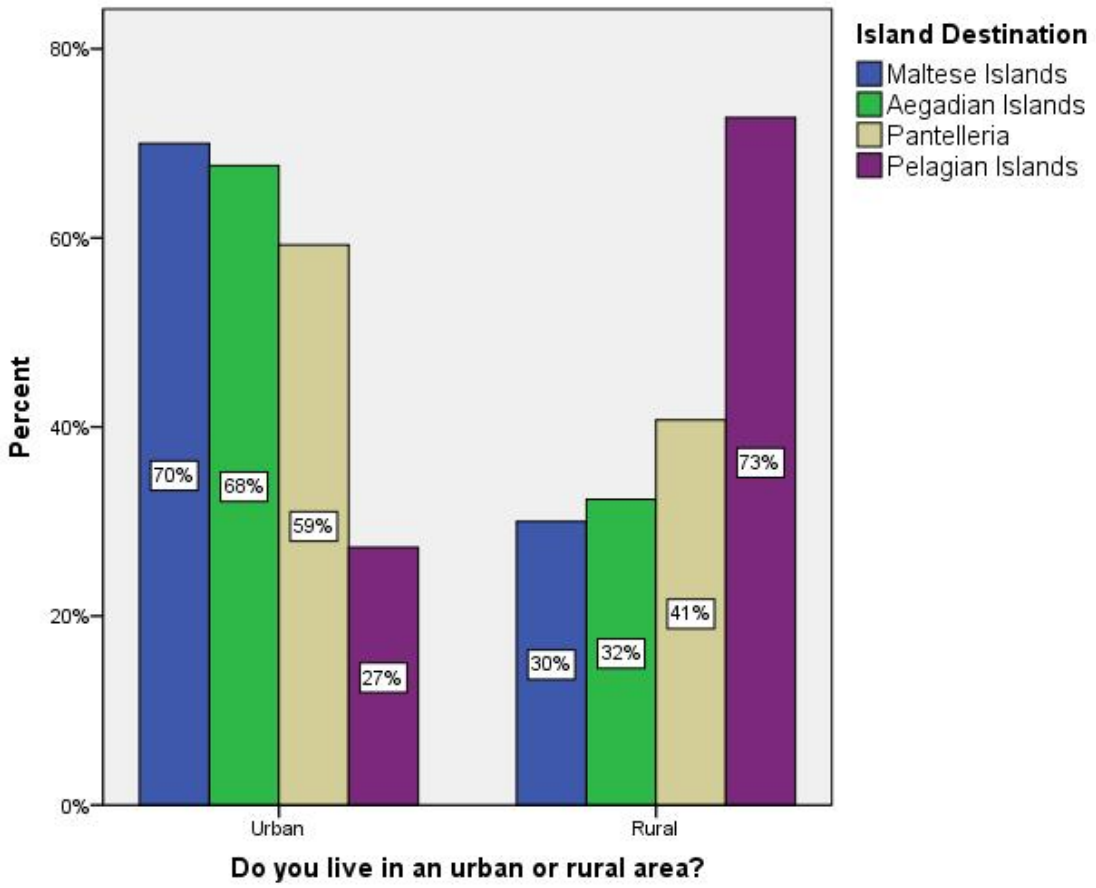

Figure 6.6: *Percentage of respondents living in an urban and rural area.*

The full results can be found in Table A4.5 found in annex 4. At 3 degrees of freedom and a X^2 value of 6.15, the p value is equivalent to 0.105. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus there is no association between whether the ecotourist lived in an urban or rural setting and ecotourists visiting the respective ecodestinations.

Overall, the majority of respondents (60.2%) said that the presence of protected areas, natural reserves or any form of conservation issue influences their choice of holiday/travel destination (see table A4.6 in annex 4). As shown in Figure 6.7, almost all respondents visiting the Maltese Islands claimed that the presence of protected areas, natural reserves or any form of conservation issue influences their choice of holiday/travel destination. On the other hand, a considerable proportion of respondents (63.6%) who participated in the ecotours taking place in the Pelagian Islands claimed not to be influenced by the presence of protected areas, natural reserves or any form of conservation when choosing their holiday/travel destination. At 3 degrees of freedom and a X^2 value of 6.54, the p value is equivalent to 0.088. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus, the presence of protected areas, natural reserves, or any form of conservation issue and the influence these have on the choice of holiday/travel destination has no association with the ecotourists participating in the ecotours.

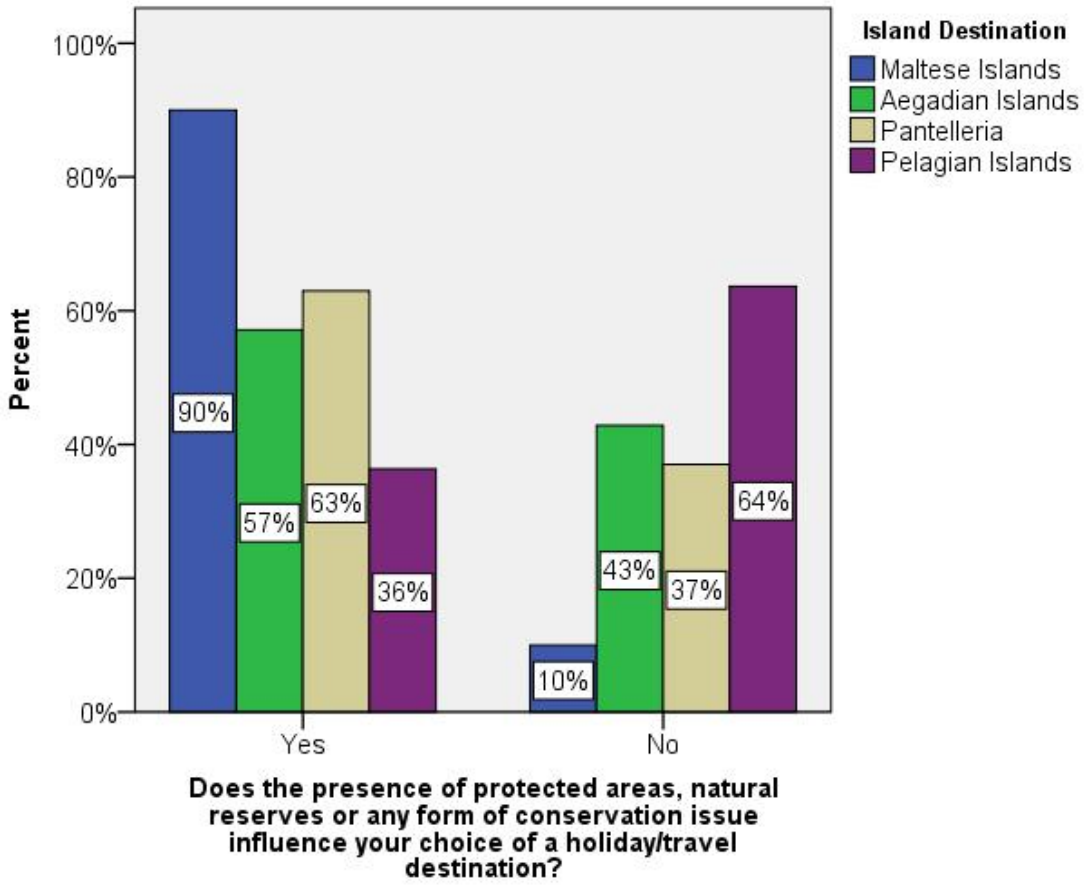

Figure 6.7: *Presence of protected areas and conservation initiatives and their influence on choice of ecodestination.*

Following their participation in the ecotour, the majority of respondents (78.6%) claimed that they spent most of their holiday in contact with nature. The results are summarised in Table A4.7 found in annex 4. Figure 6.8 illustrates that respondents from the Aegadian Islands claimed to have spent the most time in contact with nature. In fact almost a quarter of respondents said that they were in contact with nature throughout their holiday.

In the case of the Pelagian Islands, Pantelleria and the Aegadian Islands, a high proportion of respondents said that they spent either most or the entire duration of the ecotour in contact with nature. On the other hand, a significant high proportion of respondents who participated in the ecotour in the Maltese Islands (40%) said that they spent little time in contact with nature. This was also claimed by participants of the ecotour taking place in the Maltese Islands during the focus group meetings. Ecotourists remarked on the need for greater proximity to nature and to

avoid built up areas during these tours. In this regard they suggested spending more time in Gozo and Comino which are far less urban when compared to Malta.

At 9 degrees of freedom and a X^2 value of 34.05, the p value is less than 0.001. The chi squared test revealed that the p value is less than the 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the time spent in contact with nature and ecotourists visiting the respective ecodestinations.

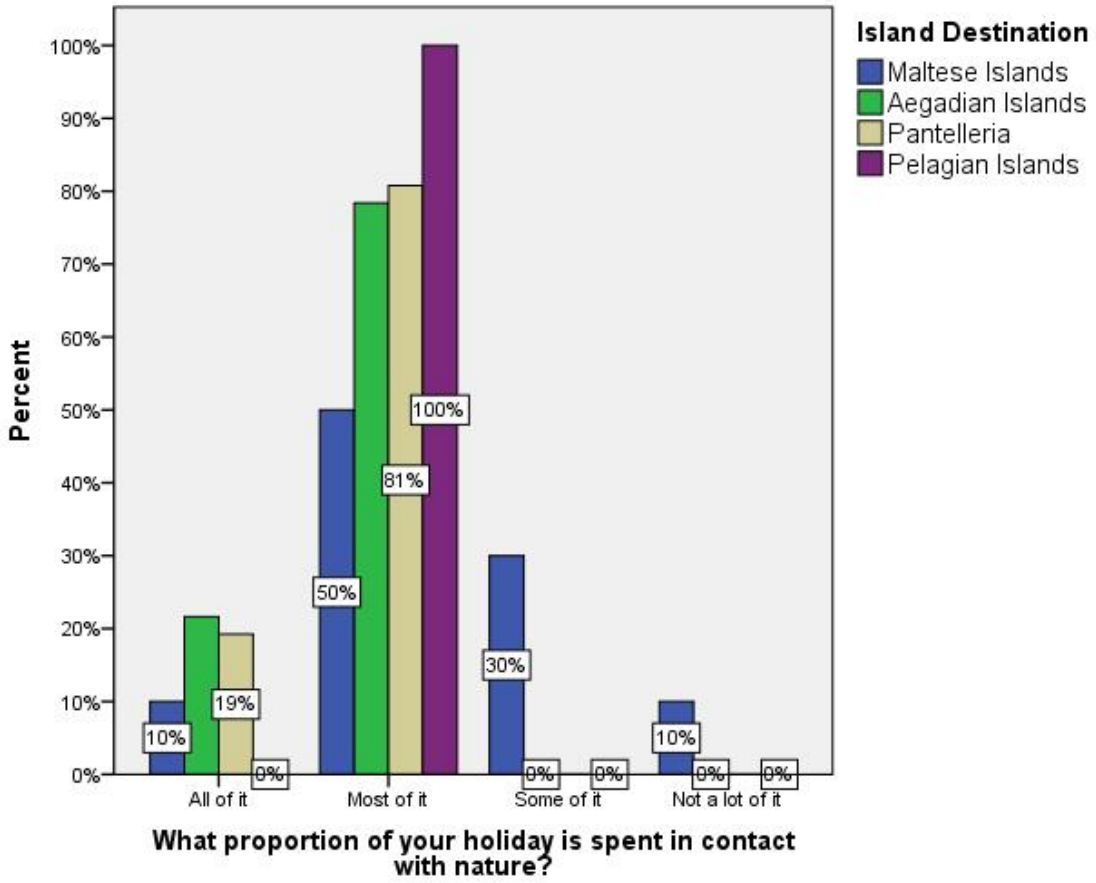

***Figure 6.8**: Time spent in contact with nature.*

6.6 Features and Activities Preferred by Ecotourists

When asked about which activities and features they consider most important during a trip abroad, most respondents referred to 'discovery and adventure', 'relaxation and fulfilment',

'experiencing remote and unspoilt nature', 'local culture', 'increasing knowledge on wildlife' and 'visiting uncrowded areas'. 'Supporting economic benefits to local communities', 'comfortable transportation' and 'increasing confidence through challenging activities' were the least cited features by respondents during a trip. The full results are presented in Table 6.6.

Table 6.6: Activities and features that are most important for respondents during a trip abroad.

Features / activities	Count Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Discovery and adventure	Count	8	30	25	9	72
	Percentage	80%	85.7%	92.6%	81.8%	
Relaxation and fulfilment	Count	5	30	24	10	69
	Percentage	50%	85.7%	88.9%	90.9%	
Experiencing remote and unspoiled nature	Count	10	20	19	9	58
	Percentage	100%	57.1%	70.4%	81.8%	
Local culture	Count	9	24	18	6	57
	Percentage	90%	68.6%	66.7%	54.5%	
Increasing knowledge on wildlife	Count	10	16	14	5	45
	Percentage	100%	45.7%	51.9%	45.5%	
Visiting uncrowded destinations	Count	8	15	11	8	42
	Percentage	80%	42.9%	40.7%	72.7%	
Exciting night life	Count	1	14	16	9	40
	Percentage	10%	40%	59.3%	81.8%	
Interacting with local people	Count	10	14	9	5	38
	Percentage	100%	40%	33.3%	45.5%	
Experiencing nature and beautiful scenery	Count	5	14	11	7	37
	Percentage	50%	40%	40.7%	63.6%	
Seeing unusual plants and animals	Count	7	15	9	5	36
	Percentage	70%	42.9%	33.3%	45.5%	
Shopping facilities	Count	0	16	10	5	31
	Percentage	0.0%	45.7%	37%	45.5%	
Friendly natives	Count	4	7	10	5	26
	Percentage	40%	20.0%	37%	45.5%	
Availability of clubs and pubs	Count	2	9	10	5	26
	Percentage	20%	25.7%	37%	45.5%	

Supporting economic benefits for local communities	Count Percentage	9 90%	7 20%	6 22.2%	3 27.3%	25
Comfortable transportation	Count Percentage	2 20%	6 17.1%	10 37%	3 27.3%	21
Increasing confidence through challenging activities	Count Percentage	1 10%	6 17.1%	4 14.8%	4 36.4%	15
Total respondents	Count	10	35	27	11	83

$X^2(48) = 59.044$, $p = 0.132$

It is noteworthy that the fact that features/amenities such as 'relaxation and fulfilment', 'shopping facilities', 'exciting nightlife' and 'availability of clubs and pubs' registered a relatively low frequency amongst participants of the ecotour taking place in the Maltese Islands when compared to the results obtained from the other ecotours. On the other hand, features such as 'visiting uncrowded destinations', 'experiencing remote and unspoilt nature', 'increasing knowledge on wildlife', 'interacting with local people' and 'supporting economic benefits for local communities' were mostly selected by respondents participating in the ecotour organised in the Maltese Islands, while lower frequencies for such features/amenities were registered by participants of the other ecotours.

At 48 degrees of freedom and a X^2 value of 59.044, the p value is equivalent to 0.132. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus, there is no association between features/activities that are most important for visitors during a trip abroad with the ecotourists visiting the respective ecodestinations.

Table 6.7 presents the activities most enjoyed by ecotourists. Trekking, excursions related to the volcanic phenomena and the boat tour were the favourite activities. These were followed by horse-riding, visits to cultural sites and cycling activities.

During interviews held with stakeholders, Maltese NGOs and operators argued that the right interest groups need to be targeted to develop ecotourism on the archipelago. They made specific reference to those interested in ecotourism activities such as trekking which was the activity most enjoyed during the ecotours. With respect to trekking, locals and policy makers

from the Maltese islands said that one should not overlook domestic ecotourists as people from Malta who live in urban areas tend to visit Gozo and Comino to conduct ecotourism related excursions which include trekking. Maltese NGOs and operators also referred to other activities which were identified amongst the most enjoyed activities during the ecotour such as the educational experience and volunteering. In the case of the latter, NGOs and operators remarked that university groups visit the Maltese Islands annually precisely for this reason and thus such groups should also be targeted by ecotourism marketing.

The activity enjoyed most by ecotourists in Malta was meeting with farmers and eating/tasting their locals produce. This was followed by trekking, horse-riding and the boat tour. The participants of the focus groups confirmed that the guided walks at the Majjistral Nature and History Park in Malta, around Comino and at Ta' Sanap Cliffs on Gozo, along with eating and meeting farmers, were among the most enjoyable activities. Sailing, the visit to the Ħaġar Qim and Mnajdra Archaeological Park and snorkelling in Gozo also made the list. Trekking was the activity enjoyed most during the ecotour on the Aegadian Islands followed by the boat tour. Similarly, ecotourists participating in focus groups said that cycling on Favignana, the excursion to the Grotta del Genovese on Levanzo and the boat trip to the coastal caves on board the traditional fishing boat with local fishermen from Marettimo were the most appreciated activities on the archipelago.

According to survey respondents, excursions related to the volcanic phenomena and trekking were the most exciting activities on Pantelleria. The participants of focus groups confirmed these two excursions as the most enjoyable activities but added that the stay in the dammuso situated in a remote area and horse riding were among the most important experiences during their stay on the island. A one day excursion on the island of Linosa (which involved cycling, snorkelling and consumption of local products) along with a boat tour (which involved snorkelling) were the activities most enjoyed by respondents participating in the ecotour taking place in the Pelagian Islands. This was also confirmed by participants of focus groups who also confirmed the visit to the turtle rehabilitation centres on both Lampedusa and Linosa as a favourite ecotourism activity of theirs.

At 48 degrees of freedom and a X^2 value of 127.42, the p value is less than 0.001. The chi squared test revealed that the p value is less than the 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the activities enjoyed most and the ecotourists visiting the respective ecodestination.

Table 6.7: Activities enjoyed most by ecotourists.

Activities	Count Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Trekking	Count	3	27	8	0	38
	Percentage	30%	73%	30.8%	0.	
Volcanic activity	Count	0	0	12	1	13
	Percentage	0%	0%	46.2%	9.1%	
Boat tour	Count	3	5	0	4	12
	Percentage	30%	13.5%	0.0%	36.4%	
Horse-riding	Count	3	0	7	0	10
	Percentage	30%	0%	26.9%	0%	
Cultural sites	Count	1	4	4	0	9
	Percentage	10%	10.8%	15.4%	0%	
Cycling	Count	1	5	0	2	8
	Percentage	10%	13.5%	0%	18.2%	
Linosa day trip	Count	0	0	0	7	7
	Percentage	0%	0%	0%	63.6%	
Permaculture /agritourism trip	Count	4	0	0	0	4
	Percentage	40.0%	0.0%	0.0%	0.0%	
Snorkelling	Count	1	0	0	2	3
	Percentage	10%	0%	0%	18.2%	
All	Count	0	1	0	1	2
	Percentage	0%	2.7%	0%	9.1%	
Learning	Count	1	0	1	0	2
	Percentage	10%	0%	3.8%	0%	
Botany trip – Comino	Count	2	0	0	0	2
	Percentage	20%	0%	0%	0%	
Interacting with locals	Count	1	1	0	0	2
	Percentage	10%	2.7%	0%	0%	
Island hopping	Count	0	1	0	0	1
	Percentage	0%	2.7%	0%	0%	
Sponge store visit	Count	0	0	0	1	1
	Percentage	0%	0%	0%	9.1%	
Bird watching	Count	1	0	0	0	1
	Percentage	10%	0%	0%	0%	
Turtle rehab centre	Count	0	0	0	1	1
	Percentage	0%	0%	0%	9.1%	
Total respondents	Count	10	37	26	11	84

$X^2(48) = 127.42$, $p < 0.001$

As to be expected, the focus groups revealed that conservation, considered an important element of ecotourism (see Tables 6.4 and 6.5) and one which influences visitors' choice of destination (see Figure 6.7), was also considered an important element of the ecotourism experience by ecotourists travelling to the Maltese Islands and the Aegadian Islands. Ecotourists also requested more information on how their participation in the ecotour would support conservation initiatives.

Table 6.8 presents the activities enjoyed least by ecotourists. Visits to archaeological sites, trekking in difficult terrain and for a long distance as well as the time spent on board the ferry/hydrofoil were the activities that ranked as the least favourite among ecotourists. Respondents from the Pelagian Islands claimed that the least interesting activity was a visit at the MPA interpretation centre. Traffic congestion and the need to use a car to move from one site to another was the major concern for 50% of respondents participating in the ecotour taking place in the Maltese Islands. The ferry service, visiting urban areas and visits to archaeological sites were the least appreciated by ecotourists participating in the ecotour taking place in the Aegadian Islands. Trekking was least appreciated in the Aegadian islands. This was also confirmed by ecotourists during focus groups. A remarkable share of respondents (62.5%) visiting Pantelleria said that they did not enjoy marine ecotoursim activities such as snorkelling due to the abundance of jelly fish.

One should also note that respondents participating in ecotours on all Italian Islands claimed that visits to archaeological sites were not of great interest. On the other hand, none of the ecotourists visiting Malta made such remarks. In the case of Pantelleria and the Pelagian Islands, 20.8% and 18.2% of respondents respectively said that the timing of the ecotour was not ideal as temperatures were too high to conduct certain excursions.

At 48 degrees of freedom and a X^2 value of 136.484, the p value is less than 0.001. The chi squared test revealed that the p value is less than the 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the activities enjoyed least and the ecotourists visiting the respective ecodestination.

Table 6.8: Activities enjoyed least by ecotourists.

Activity	Count Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Cultural visits - archaeological sites	Count	0	12	11	4	27
	Percentage	0%	40%	45.8%	36.4%	
Trekking	Count	0	10	7	2	19
	Percentage	0%	33.3%	29.2%	18.2%	
Ferry services	Count	0	12	4	0	16
	Percentage	0%	40%	16.7%	0%	
Swimming due to presence of jellyfish	Count	0	0	15	0	15
	Percentage	0%	0%	62.5%	0%	
Visit urban areas	Count	0	12	1	0	13
	Percentage	0%	40%	4.2%	0%	
Horse-riding	Count	8	0	0	0	8
	Percentage	80%	0%	0%	0%	
Enjoyed it all	Count	2	2	0	4	8
	Percentage	20%	6.7%	0%	36.4%	
Too sunny	Count	0	0	5	2	7
	Percentage	0%	0%	20.8%	18.2%	
MPA centre visit	Count	0	0	0	7	7
	Percentage	0%	0%	0%	63.6%	
Bike tour	Count	0	6	0	0	6
	Percentage	0%	20%	0%	0%	
Transfers – traffic	Count	5	0	0	0	5
	Percentage	50%	0%	0%	0%	
Lack of interpretation	Count	1	0	3	0	4
	Percentage	10%	0%	12.5%	0%	
Expensive food places	Count	0	4	0	0	4
	Percentage	0%	13.3%	0%	0%	
Too much time spent relaxing	Count	0	2	2	0	4
	Percentage	0%	6.7%	8.3%	0%	
Sailing	Count	2	0	0	1	3
	Percentage	20%	0%	0%	9.1%	
Emphasis on botany	Count	2	0	0	0	2
	Percentage	20%	0%	0%	0%	
Sponge store visit	Count	0	0	0	2	2
	Percentage	0%	0%	0%	18.2%	
Total respondents	Count	10	30	24	11	75

$X^2(48) = 136.484$, $p < 0.001$

6.7 Expectations and Satisfaction with Accommodation

Accommodation is considered as an important element of the ecotourism experience. Prior to the ecotours, a large proportion of respondents (84%) claimed that they were willing to use a more environmentally friendly accommodation during their stay even if this had to involve sharing and fewer commodities (see table A4.8 in annex 4 for a detailed overview of these results). The highest rating in this regard was obtained from respondents participating in the ecotours held in the Maltese Islands, followed by respondents visiting the Aegadian Islands. As shown in Figure 6.9, the lowest rating was obtained in the Pelagian Islands where 27% of respondents preferred a more luxurious accommodation which also provided privacy.

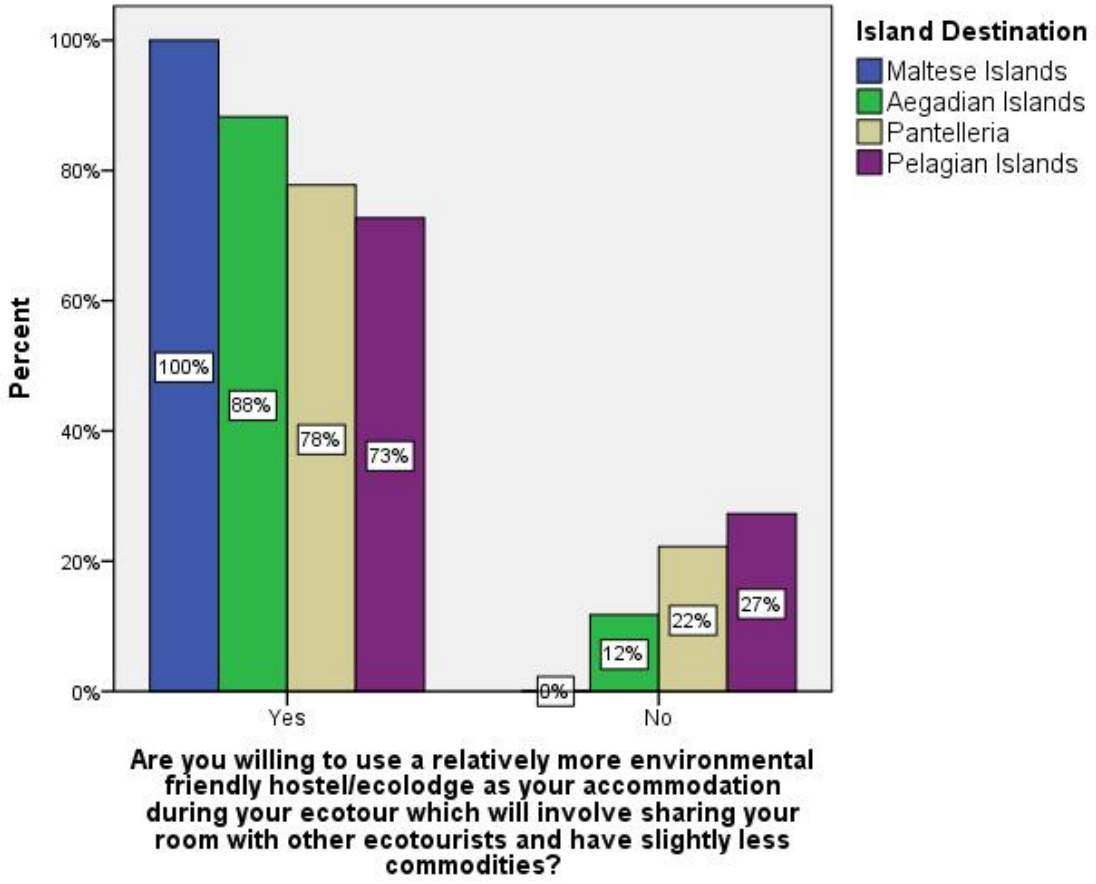

Figure 6.9: *Willingness of ecotourists to use a more environmental friendly accommodation.*

At 3 degrees of freedom and a X^2 value of 3.98, the p value is equivalent to 0.264. The chi squared test revealed that the p value exceeds the 0.05 level of significance. The null hypotheses is thus accepted confirming that the difference between percentages is insignificant. Thus there is no association between the use of an environmentally friendly/less comfortable accommodation and the ecotourists visiting the respective ecodestinations.

Following the ecotours, when ecotourists were asked about their satisfaction with accommodation, over half of respondents said that they were either satisfied or very satisfied. While 11.1% of respondents claimed to be unsatisfied, the highest satisfaction rating was obtained for accommodation in Pantelleria which consisted of the traditional dammuso owned by locals. This was confirmed by the participants of focus groups who considered their stay in the dammuso (situated in a remote area) as one of the main highlights of the ecotour. The second highest level of satisfaction was obtained for accommodation in the Pelagian Islands, a trend also confirmed by ecotourists during focus groups who expressed great satisfaction with such accommodation. Third in line came the accommodation provided in the Aegadian Islands which consisted of old converted houses/apartments owned by locals. In fact, during focus groups, ecotourists remarked that aspects of accommodation had to improve in order to target ecotourists.

Figure 6.10 shows that the lowest rate of satisfaction was recorded for accommodation provided in the Maltese Islands which consisted of hotel accommodation close to a park / camping within a park. In fact, 80% of respondents from the Maltese Islands ecotour said that they were either unsatisfied or very unsatisfied with the accommodation provided. The remaining 20% said that they were neither satisfied nor unsatisfied. Remarks reflecting such trends were made by ecotourists during focus groups. They said that camping and a five star hotel were two extremes that either did not reflect ecotourism principles or were inadequate. This is because the camping site chosen for the ecotour in Malta lacked basic commodities and infrastructure/equipment. Ecotourists also complained that rather than offering a view of natural landscapes, the area chosen had a view of an urban area and was rather noisy due to its proximity to the roads. With respect to the hotel, they remarked that parks such as the Majjistral Nature and History Park should have their own guest houses to welcome tourists. Otherwise small houses in nearby villages or small hotels / bed and breakfast places which were truly environmentally friendly could be used.

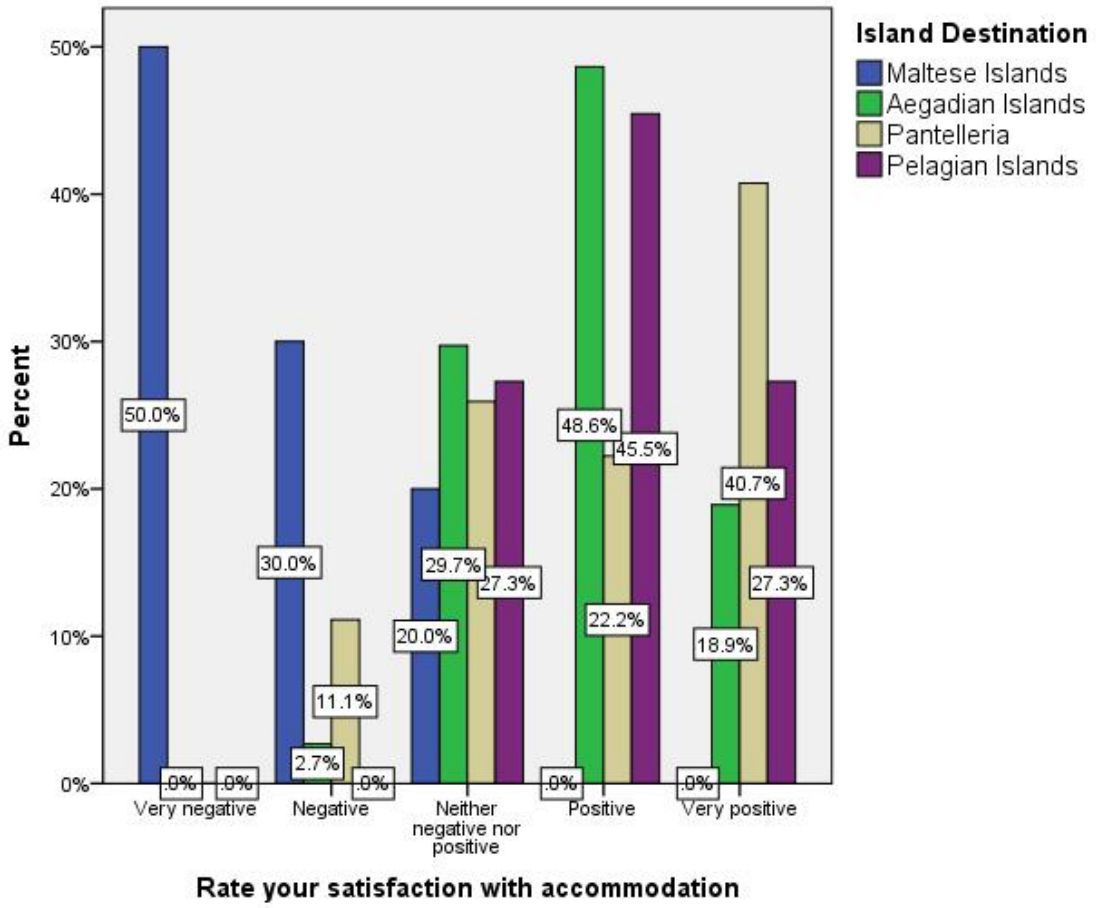

***Figure 6.10**: Satisfaction with accommodation provided during the ecotour.*

The results are summarised in table A4.9 found in annex 4. At 12 degrees of freedom and a X^2 value of 59.15, the p value is less than 0.001. The chi squared test revealed that the p value is less than the 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the satisfaction with accommodation and the ecotourists visiting the respective ecodestinations.

6.8 Participation in Previous Ecotours and Ecodestinations Visited

Figure 6.11 shows whether participants of the ecotours organised as part of the research had previously participated in other ecotours.

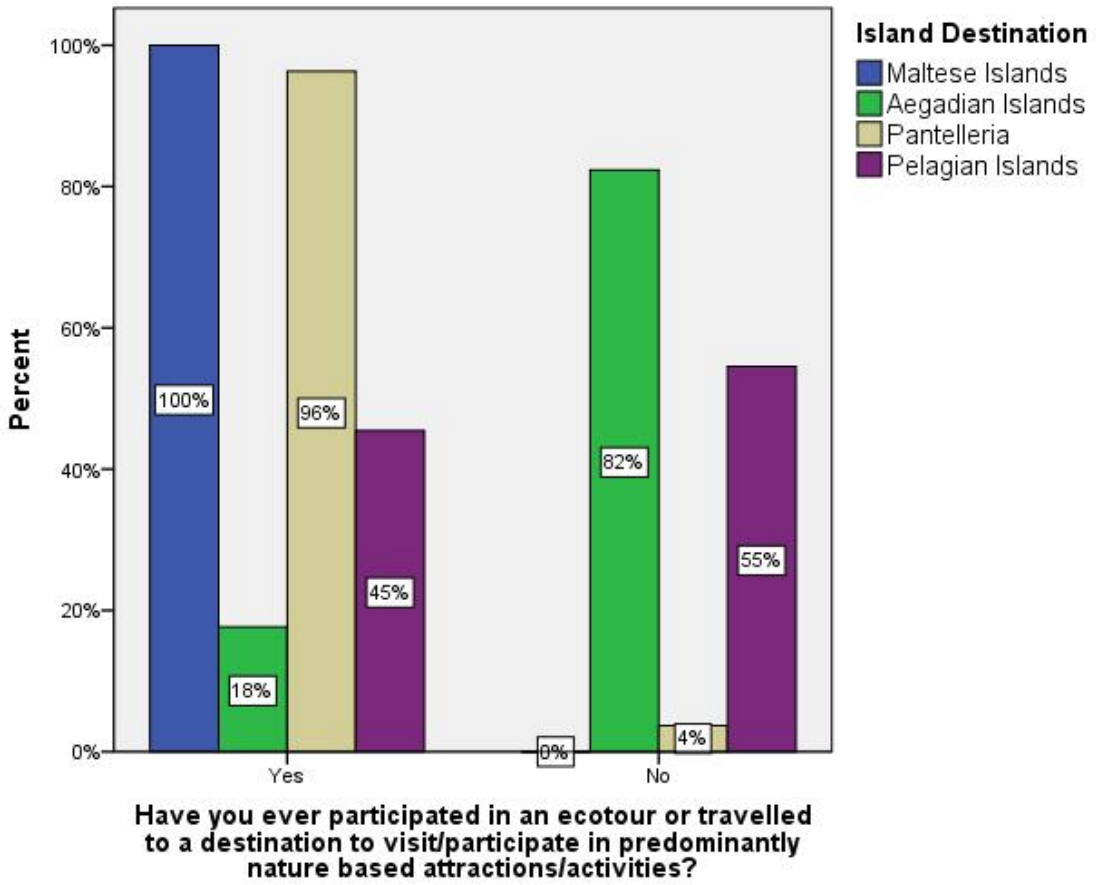

Figure 6.11: *Participation in previous ecotours.*

In the case of participants of the ecotours taking place in the Maltese Islands and Pantelleria, most of the respondents said that that had previously participated in an ecotour prior to the one they were participating in. In the case of Pantelleria, most participants (96.3%) had previously participated in another ecotour including one organised as part of the research. In the case of the Pelagian Islands and the Aegadian islands, the majority of respondents had not participated in any ecotour prior to the ecotour they were participating in. The lowest frequency of previous participation in an ecotour was recorded among participants of the ecotour taking place in the Aegadian Islands which accounted for 17.6%. One should keep in mind that this was the first in a series of four ecotours organised as part of the research. This figure explains why for most participants of this ecotour, the visit to the Aegadian Islands was the first ecotourism experience. The results also show that the participants of the ecotour held in the Maltese Islands had visited several different ecodestinations in various continents and thus had extensive experience of ecotourism. The full results are tabulated in Table A4.10 in annex 4.

At 3 degrees of freedom and a X^2 value of 46.72, the p value is less than 0.001. The chi squared test revealed that the p value is less than the 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. There is thus an association between previous participation in ecotours and the ecotourists visiting the respective ecodestinations.

As shown in Table 6.9, the ecodestination most visited by the respondents is the Aegadian Islands. This was followed by Pantelleria. The third most visited ecodestination is Costa Rica and Turkey followed by Lebanon. One should note that an ecotour to both the Aegadian Islands and Pantelleria was organised by the researcher. Several participants of the first ecotour, taking place in the Aegadian Islands, opted to participate in the next ecotour taking place on the Island of Pantelleria.

At 57 degrees of freedom and a X^2 value of 125.617, the p value is less than 0.001. The chi squared test revealed that the p value is less than the 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the ecodestinations visited before the ecotour and the ecotourists participating in the ecotours to the following respective ecodestinations.

Table 6.9: Other ecodestinations visited by ecotourists participating in ecotours organised.

Eco-destination visited	Count / Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Aegadian Islands, Italy	Count	0	0	22	5	27
	Percentage	0%	0%	95.7%	100%	
Pantelleria, Italy	Count	0	0	0	5	5
	Percentage	0%	0%	0%	100%	
Costa Rica	Count	3	0	0	0	3
	Percentage	33.3%	0%	0%	0%	
Turkey	Count	0	1	2	0	3
	Percentage	0%	16.7%	8.7%	0%	
Lebanon	Count	2	0	0	0	2
	Percentage	22.2%	0%	0%	0%	
Finland	Count	0	1	0	0	1
	Percentage	0%	16.7%	0%	0%	

Mt. Etna, Italy	Count	0	1	0	0	1
	Percentage	0%	16.7%	0%	0%	
Austria	Count	0	1	0	0	1
	Percentage	0%	16.7%	0%	0%	
Indonesia	Count	0	1	0	0	1
	Percentage	0%	16.7%	0%	0%	
Tuscany, Italy	Count	0	1	0	0	1
	Percentage	0%	16.7%	0%	0%	
Botswana	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Porquerolles, France	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Romania	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Amazon, Brazil	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Sinni, Italy	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Crete, Greece	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Karpathos, Greece	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Parco delle dune costiere, Italy	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Iceland	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Senegal	Count	1	0	0	0	1
	Percentage	11.1%	0%	0%	0%	
Total respondents	Count	9	6	23	5	43

$X^2(57) = 125.617$, $p = < 0.001$

6.9 Factors Motivating Ecotourists to Visit an Ecodestination

Friendship, the novelty of another ecodestination, the fact that the tour was predominantly nature based, a competitive price and the positive experience garnered from the previous

ecotours were the main reasons which motivated respondents to participate in more ecotours rather than just going on holiday to another destination. Other reasons declared by respondents as having motivated them to participate in the ecotours included cultural and historical excursions, adventure, trekking and cycling, the presence of beaches and volcanic phenomena, sustainable travel and the proximity of the destination to the point of departure. For a full overview of the main reasons which motivated respondents to participate in ecotours organised see Table 6.10.

An interesting aspect to note is that participation in the previous ecotour organised as part of the research was one of the main reasons that motivated participants to join the next ecotour. In fact, this aspect was claimed by 20% of respondents travelling to Pantelleria and 22% of respondents travelling to the Pelagian Islands. The fact that the trip was an ecotour / nature based was a main motivation for a higher proportion of respondents from the Maltese Islands and less the case for the ecotourists participating in ecotours held on the other ecodestinations. With 57 degrees of freedom and a X^2 value of 78.63, the p value is equivalent to 0.30. Since the p value exceeds the 0.05 level of significance, the null hypotheses is accepted confirming that the difference between percentages is insignificant. Thus there is no association between motivational factors and the ecotourists visiting the ecodestinations.

Table 6.10: Aspects that motivated ecotourists to participate in the ecotours.

Motivating aspects	Count Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Company/friends	Count	0	4	8	3	15
	Percentage	0%	16%	32%	33.3%	
Nature based / ecotours	Count	4	5	3	1	13
	Percentage	40%	20%	12%	11.1%	
New / interesting destination	Count	0	9	1	3	13
	Percentage	0%	36%	4%	33.3%	
Good price	Count	1	6	4	1	12
	Percentage	10%	24%	16%	11.1%	
Previous ecotours	Count	0	0	5	2	7
	Percentage	0%	0%	20%	22.2%	
Conserve /support the environment	Count	1	2	2	0	5
	Percentage	10%	8%	8%	0%	

Leisure	Count	1	1	2	0	4
	Percentage	10%	4%	8%	0%	
Recommendations	Count	1	0	1	2	4
	Percentage	10%	0%	4%	22.2%	
Eco-friendly (responsible travel)	Count	0	0	3	0	3
	Percentage	0%	0%	12%	0%	
Learning experience re the environment	Count	0	1	1	0	2
	Percentage	0%	4%	4%	0%	
Reliable organisors	Count	0	2	0	0	2
	Percentage	0%	8%	0%	0%	
Curiosity - new different experience	Count	0	1	1	0	2
	Percentage	0%	4%	4%	0%	
Test ecotour for business purposes	Count	2	0	0	0	2
	Percentage	20%	0%	0%	0%	
Vicinity	Count	0	1	0	0	1
	Percentage	0%	4%	0%	0%	
Sustainable travel	Count	1	0	0	0	1
	Percentage	10%	0%	0%	0%	
Visiting beaches	Count	0	0	1	0	1
	Percentage	0%	0%	4%	0%	
Volcanic related phenomena	Count	0	0	1	0	1
	Percentage	0%	0%	4%	0%	
Adventure	Count	0	0	1	0	1
	Percentage	0%	0%	4%	0%	
Trekking and cycling	Count	0	0	1	0	1
	Percentage	0%	0%	4%	0%	
Cultural and historical attractions	Count	1	0	0	0	1
	Percentage	10%	0%	0%	0%	
Total respondents	Count	10	25	25	9	69

$X^2(57) = 78.63$, $p = 0.30$

While new reasons emerged, participants of the focus group confirmed various aspects that motivated them to participate in the ecotours that had already been highlighted in previous surveys. The natural element was one of the major reasons claimed by ecotourists to have motivated them to visit and revisit the ecodestination in question. Participants of focus group B said that they participated in the ecotour as the experience gave them the opportunity to immerse themselves in nature. Participants from group C said that they visited Malta as they wanted to experience nature in the parks found across the archipelago. Participants of groups A and D claimed that whereas they always had an interest in Mediterranean islands, they never had the opportunity to visit some of them, especially those still in a pristine state in order to observe and experience their natural aspect. Participants from the same groups emphasised that whereas the geology and ecology of the islands visited is somewhat similar to that of other islands in the Mediterranean such as Malta, the other islands are less urban. The geology, sea, avifauna, fauna, flora are all a major attraction on the Aegadian islands. This, together with the possibility of taking outstanding photos of unique panoramas, were among the other main reasons that attracted the groups to revisit the islands. Commenting further on the strong natural aspect of the archipelago, one of the interviewees from group D said that the second experience on the islands was so positive that at the end of the ecotour the group considered extending their stay on the archipelago, mostly because of the natural aspects of the islands.

Participants of focus groups A and D highlighted the fact that they had never heard of the islands concerned before and thus this was a new destination for them. On a similar note, ecotourists from group C said that they participated in the ecotour because they were eager to get to know more about the Maltese Islands.

Ecotourists from groups B and D claimed that the fact that the holiday was not that expensive and the fact that it offered good value for money motivated them to participate in the ecotour. This reflects the ‘good price’ factor referred to by ecotourists in surveys conducted. Proof that the financial element plays an important role in motivating one to travel to an ecodestination was confirmed by an ecotourist from group D who claimed that whereas he participated in two ecotours organised as part of the research, he could not participate in the third ecotour to the Pelagian Islands due to financial constraints.

Ecotourists from Group B, who participated in three of the four ecotours organised as part of the research said that they participated in the second and third ecotour because the experience gained from the 'previous ecotour' was very positive. Likewise, both groups A and D claimed that the overarching reason which motivated them to revisit the Aegadian islands was the fact that they had enjoyed the first ecotour organised by the researcher, so much so that they wished to visit the islands again on their own.

Participants of focus group B visiting the Aegadian Islands for the first time remarked that they participated in the first ecotour to the Aegadian Islands as ecotourism was a new experience for them. Similarly, participants of groups A and D said that their motivation to participate in the ecotour revolved around the fact that they wanted to experience something different to the usual holiday. Furthermore, they added that the element of 'curiosity' played a prominent role in motivating them to visit the ecodestination.

The sense of community that they noted among the locals was another factor that motivated the ecotourists to return to the islands, according to participants of Group A and D. Incidentally ecotourists from group C said that they were also motivated by the interest to get to know more about the local community. Fresh air, a sense of tranquillity and peacefulness and the simple and slow lifestyle were other factors that motivated the ecotourists from groups A and D to return to the islands. The ecotourists pointed out that the islands are synonymous with serenity, possibly due to the almost complete absence of vehicles. There are few planes that fly over the islands and few boats sail by. Most shipping takes place in order to provide supplies or as a means to connect the islands to the mainland.

Ecotourists from group C said that they participated in the ecotour due to the detailed and attractive itinerary as well as for professional reasons. A safe environment was also a motivating factor for ecotourists from groups A and C. Participants of group B also referred to the desire to experience island hopping as one of the factors that motivated them to participate in the ecotours. Ecotourists from focus groups A and D said that the proximity of the ecodestination to the point of departure served as a motivation to participate in the ecotour concerned. 'Vicinity' was also referred to as a motivational factor by ecotourists through surveys.

6.10 Expectations and Fulfilment of the Ecotourist

Table 6.11 shows that the learning experience, leisure and immersion in nature were the most popular expectations among respondents participating in the four ecotours. This was followed by the expectation to visit a new interesting ecodestination and to participate in the adventure and cultural related excursions. Going to the beach, making new friends and tasting the local food were the expectations least popular with respondents.

Table 6.11 continues to show that respondents from the Maltese Islands are more attached to nature. In fact, the highest frequency of respondents (70.0%) expecting an immersion in nature were those visiting the Maltese Islands. This was followed by those travelling to the Pelagian Islands at 33.3%. Respondents participating in the ecotour taking place in the Aegadian islands and Pantelleria were the least to choose immersion in nature as one of their major expectation from the ecotour. In fact only 20% of respondents from both ecotours made reference to such an expectation. Similar trends were recorded for the expectation to travel and the expectation to gain further environmental awareness. In fact such an expectation was chosen by a relatively higher frequency of respondents travelling to the Maltese Islands.

At 42 degrees of freedom and a X^2 value of 74.28, the p value is equivalent to 0.002. The chi squared test revealed that the p value is less than 0.05 level of significance. The alternative hypotheses is accepted confirming that the difference between percentages is significant. Thus there is an association between the expectations of ecotourists and the ecotourists who visited the respective ecodestinations.

Table 6.11: Expectations of ecotourists.

Expectations	Count Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Learning experience	Count	4	16	6	5	31
	Percentage	40%	45.7%	24%	55.6%	
Leisure	Count	1	11	16	4	32
	Percentage	10%	31.4%	64%	44.4%	
Immerse in nature	Count	7	7	5	3	22
	Percentage	70%	20%	20%	33.3%	

Visit new/interesting (nature) destination	Count	0	3	5	1	9
	Percentage	0%	8.6%	20%	11.1%	
Adventure	Count	0	3	5	0	8
	Percentage	0%	8.6%	20%	0%	
Nothing	Count	0	7	0	0	7
	Percentage	0%	20%	0%	0%	
New experience (ecotourism on islands)	Count	1	3	0	2	6
	Percentage	10%	8.6%	0%	22.2%	
Cultural aspects	Count	2	2	1	0	5
	Percentage	20%	5.7%	4%	0%	
Relax/peaceful place	Count	0	2	0	3	5
	Percentage	0%	5.7%	0%	33.3%	
More environmental awareness - respecting the environment	Count	2	1	1	0	4
	Percentage	20%	2.9%	4%	0%	
Local people	Count	2	0	0	1	3
	Percentage	20%	0%	0%	11.1%	
Friendship element	Count	1	0	1	0	2
	Percentage	10%	0%	4%	0%	
Visit the beaches	Count	1	0	1	0	2
	Percentage	10%	0%	4%	0%	
See original attractions	Count	0	0	1	1	2
	Percentage	0%	0%	4%	11.1%	
Local food	Count	1	0	0	1	2
	Percentage	10%	0%	0%	11.1%	
Total respondents	Count	10	35	25	9	79

$X^2(42) = 74.28$, $p = 0.002$

83.3% of respondents who participated in the ecotours organised as part of the research said that their expectations, as identified prior to the ecotour, had been fulfilled. Figure 6.12 shows that the highest proportion of respondents who felt that their expectations had been fulfilled was recorded among participants of the ecotour taking place in the Pelagian Islands (100%) followed by those participating in the ecotour taking place in the Aegadian Islands (94.6%).

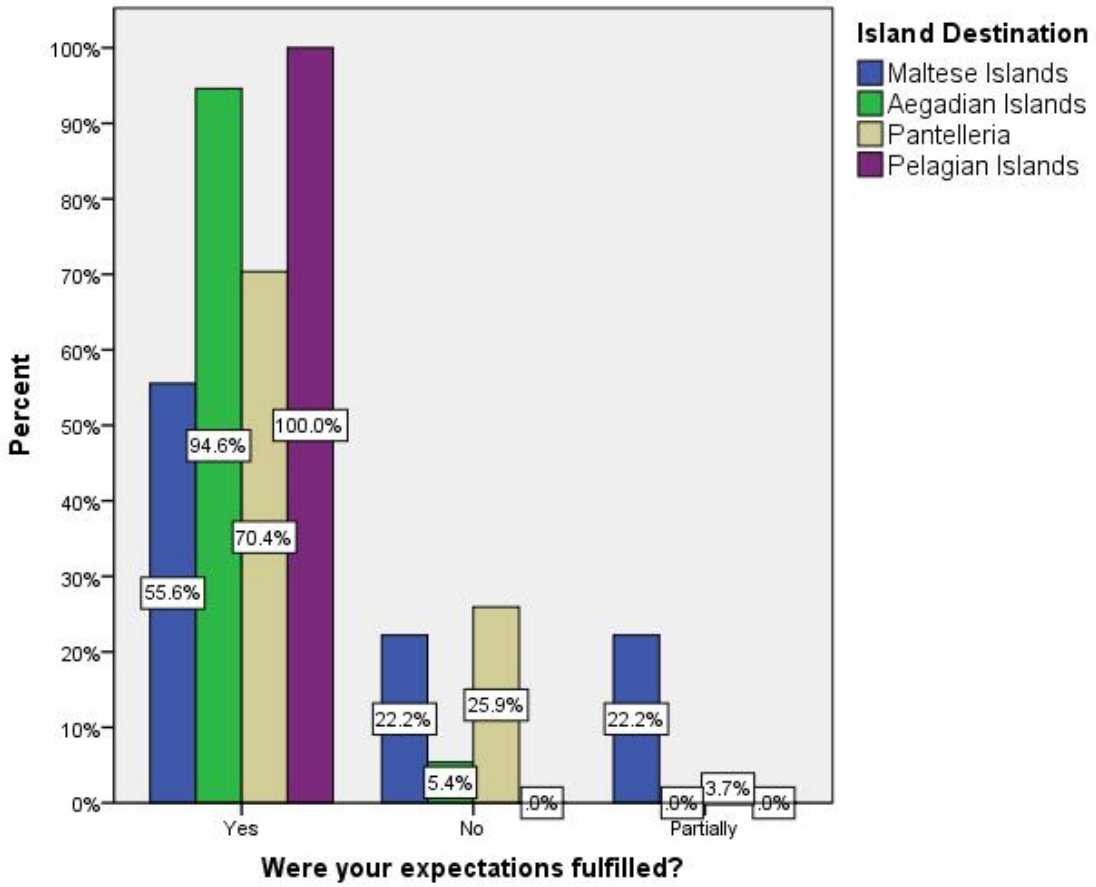

***Figure 6.12**: Fulfilment of expectation of ecotourists.*

A sense of dissatisfaction was expressed by respondents visiting the Maltese Islands. In fact 44.4% of respondents said that their expectations were either partially fulfilled or not fulfilled. A quarter of respondents visiting Pantelleria said that their expectations were not fulfilled at all. A summary of all the relevant results are available in Table A4.11 found in annex 4.

At 6 degrees of freedom and a X^2 value of 19.87, the p value is 0.003. The chi squared test revealed that the p value is less than 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between fulfilment of expectations and ecotourists visiting the respective ecodestinations.

An examination of Table 6.12 shows that the predominant reason expressed by those who felt that that the ecotour did not fulfil their expectations was related to the desire to visit more sites related to coastal and marine ecotourism during the ecotour. A lack of contact with nature, long waiting times due for transport services and the constant need to use transport services were the main reasons that bothered respondents that participated in ecotours taking place on the relatively bigger islands under study, specifically Pantelleria and Malta. This was followed by the desire for more marine ecotourism activities such as snorkelling, which at times were impeded by the presence of jelly fish. This issue was also raised by ecotourists following the ecotour held in the Maltese islands. It was argued that more emphasis needs to be placed on the marine environment and related activities.

The phenomenon of mass tourism and the fact that some aspects such as accommodation did not reflect ecotourism principles respectively affected 12.5% and 25% of respondents visiting the Maltese Islands. It is noteworthy that with respect to the Maltese Islands, in two cases, 25% of respondents claimed that their expectations were not fulfilled because the islands are too urbanised and there was not enough contact with nature.

At 22 degrees of freedom and a X^2 value of 34.753, the p value is 0.041. The chi squared test revealed that the p value is less than 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the reasons why the expectations of the ecotourists were not fulfilled and the ecotourists visiting the respective ecodestinations.

Figure 6.13 shows that the best overall rating on the whole ecotour was achieved for the ecotour held in the Pelagian Island whereby 81.8% said that the overall experience was very positive. This was followed by the ecotours held in the Aegadian Island and Pantelleria respectively. The worst rating was recorded by the Maltese Islands where only 40% gave a positive overall rating and where 40% of respondents said that their experience was neither positive nor negative. 20% rated the overall experience as negative due to a number of reasons outlined above. The relevant results are tabulated in table A4.12 found in annex 4.

At 9 degrees of freedom and a X^2 value of 38.03, the p value is 0.001. The chi squared test revealed that the p value is less than 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the rating of the overall experience and the ecotourists who participated in the ecotours held in the respective ecodestinations.

Table 6.12: Reasons why ecotourists did not fulfil their expectations.

Reasons why expectations were not fulfilled	Count Percentage	Island Destination			Total
		Maltese Islands	Aegadian Islands	Pantelleria	
Visiting more ecotourism sites / more time needed in contact with nature	Count	2	0	3	5
	Percentage	25%	0%	50%	
Too many shuttle services / travel more sustainably (walk/cycle) / long waiting times	Count	2	0	2	4
	Percentage	25%	0%	33.3%	
Would have liked to swim more / more activities in the sea / jelly fish encounters	Count	2	0	1	3
	Percentage	25%	0%	16.7%	
Some aspects such as accommodation were not in line with ecotourism	Count	2	0	0	2
	Percentage	25%	0%	0%	
More wilderness expected, area too much urbanised	Count	2	0	0	2
	Percentage	25%	0%	0%	
Too much mass tourism	Count	1	0	0	1
	Percentage	12.5%	0%	0%	
Wanted to do more trekking especially visiting mountain of Favignana	Count	0	1	0	1
	Percentage	0%	50%	0%	
Not enough food was provided	Count	0	1	0	1
	Percentage	0%	50%	0%	
Lack of cycling facilities	Count	1	0	0	1
	Percentage	12.5%	0%	0%	
Take it easier	Count	1	0	0	1
	Percentage	12.5%	0%	0%	
Total respondents	Count	8	2	6	16

$X^2(22) = 34.753$, p = 0.041

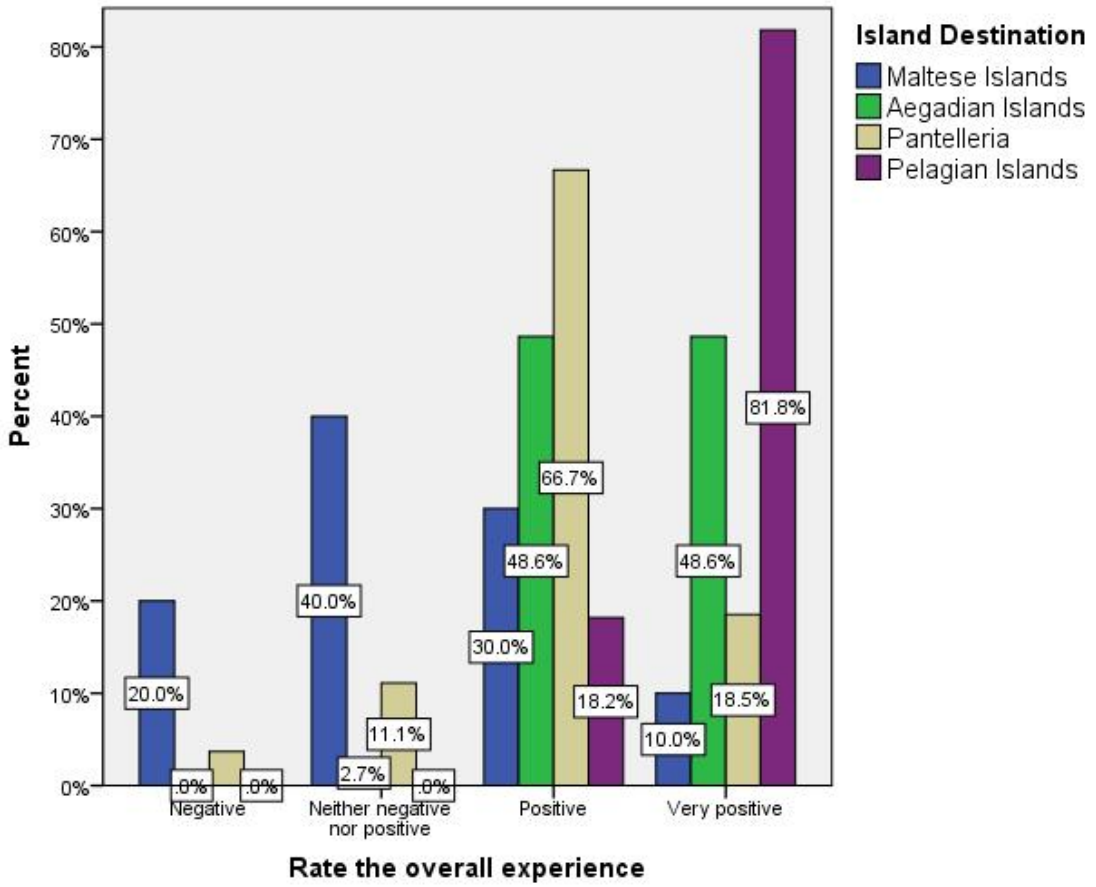

***Figure 6.13**: Rating of the overall experience during the ecotour.*

As shown in Figure 6.14, following the ecotour, the absolute majority of respondents said that they were willing to visit another ecodestination for a holiday. See full results in table A4.13 found in annex 4. With 3 degrees of freedom and a X^2 value of 2.174, the p value is equivalent to 0.537. Since the p value exceeds 0.05 level of significance, the null hypotheses is accepted confirming that the difference between percentages is insignificant. Therefore there is no association between willingness to visit another ecodestination for a holiday and the ecotourists who participated in the ecotours held in the respective ecodestinations.

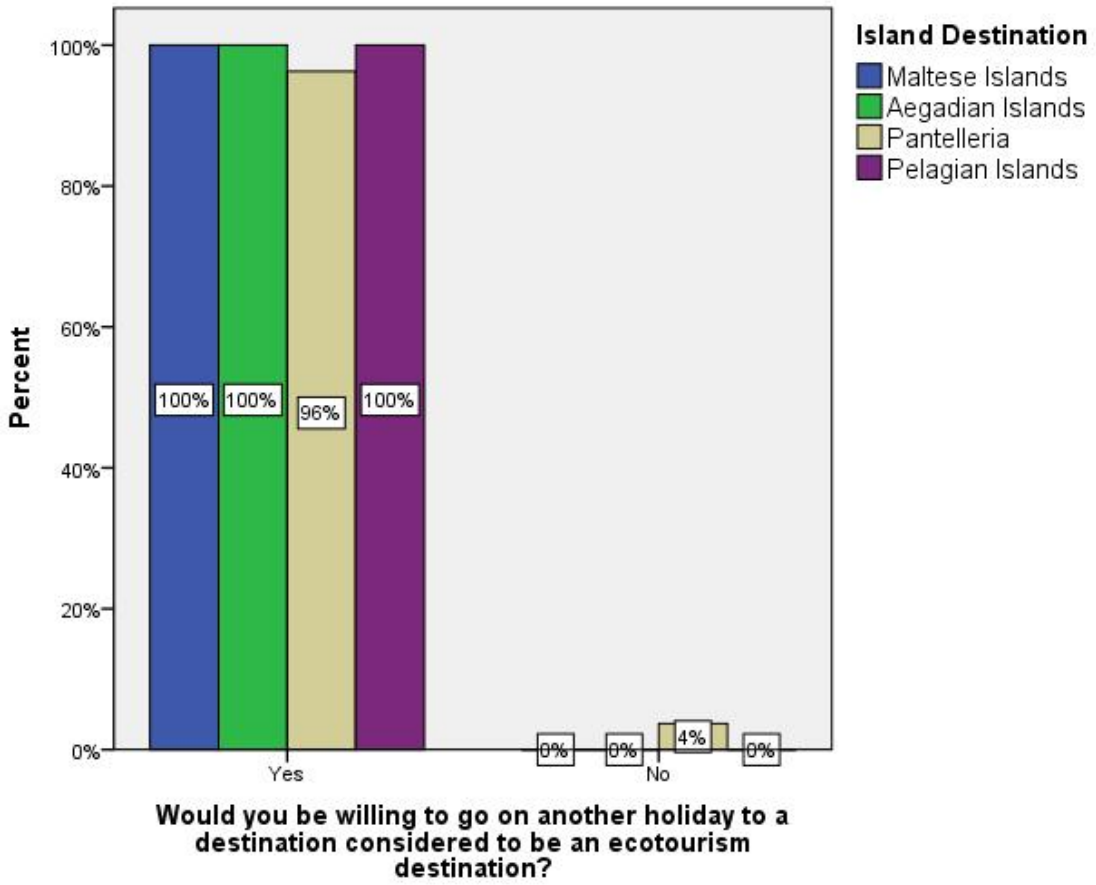

***Figure 6.14**: Willingness to go on holiday to an ecodestination.*

Figure 6.15 shows that 95.2% of respondents are willing to visit another ecotourism destination such as a central Mediterranean island in the future. All respondents from the Aegadian Islands and the Pelagian Islands are willing to make such a visit. Only 10% and 12% of respondents visiting the Maltese Islands and Pantelleria respectively claimed not to be willing to make another similar visit. See table A4.14 in annex 3 for the full results.

With 3 degrees of freedom and a X^2 value of 5.64, the p value is equivalent to 0.131. Since the p value exceeds the 0.05 level of significance, the null hypotheses is accepted confirming that the difference between percentages is insignificant. Thus there is no association between willingness to visit an ecodestination such as a central Mediterranean island and the ecotourists who participated in the ecotours held in the respective ecodestinations.

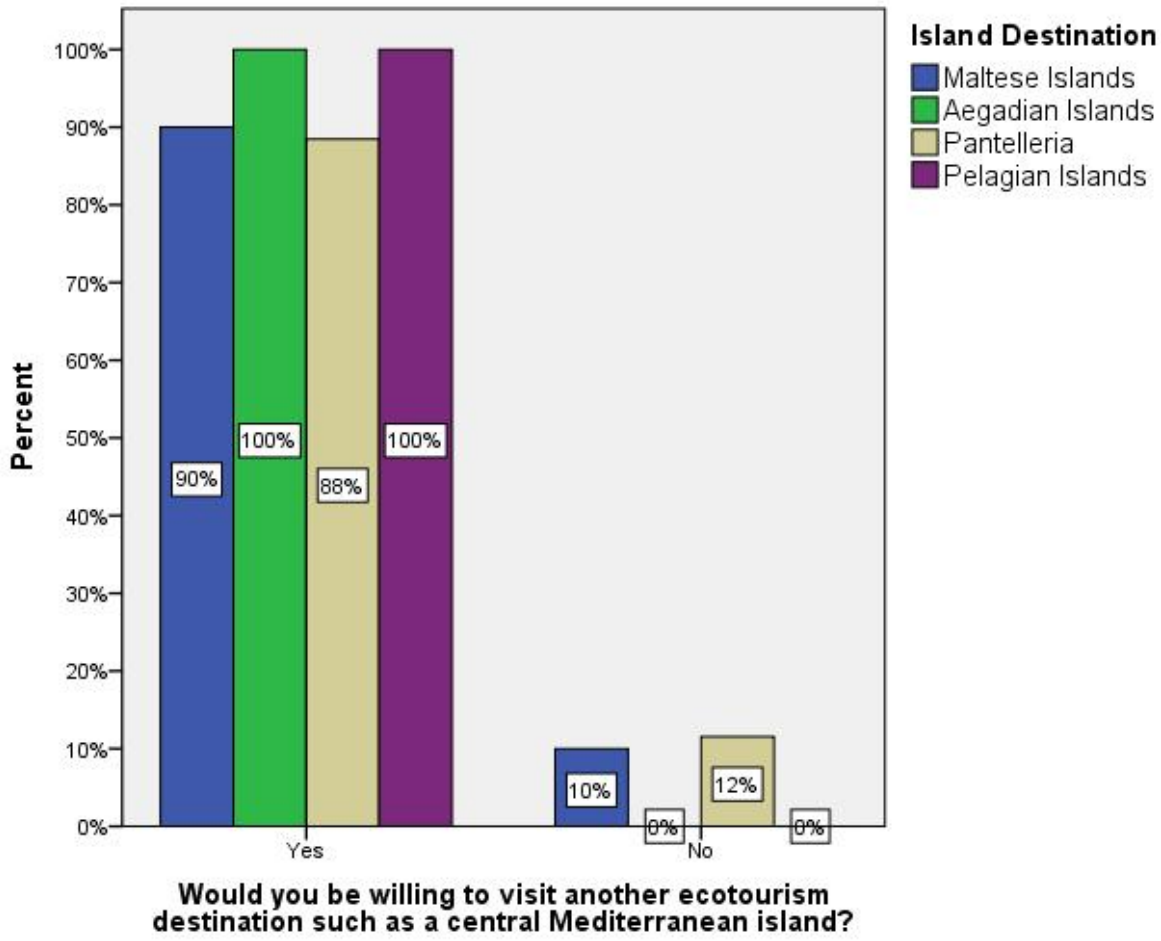

***Figure 6.15**: Willingness to visit an ecodestination such as a central Mediterranean island.*

The majority of respondents (95.35%) said that they would recommend the ecodestination they had visited to their friends for their next holiday. Figure 6.16 shows that the respondents who seemed most convinced were ecotourists who had visited the Aegadian Islands and the Pelagian Islands where all respondents confirmed that they would recommend the ecodestination to their friends. An anomaly in the results worth noting is the fact that 30% of respondents who participated in the ecotour held in the Maltese Islands said that they were not willing to do so. See Table A4.15 in annex 4 for the full results.

At 3 degrees of freedom and a X^2 value of 16.70, the p value is 0.001. The chi squared test revealed that the p value is less than 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is

an association between recommending the ecodestination to friends as their next holiday and the ecotourists who participated in the ecotours in the respective ecodestinations.

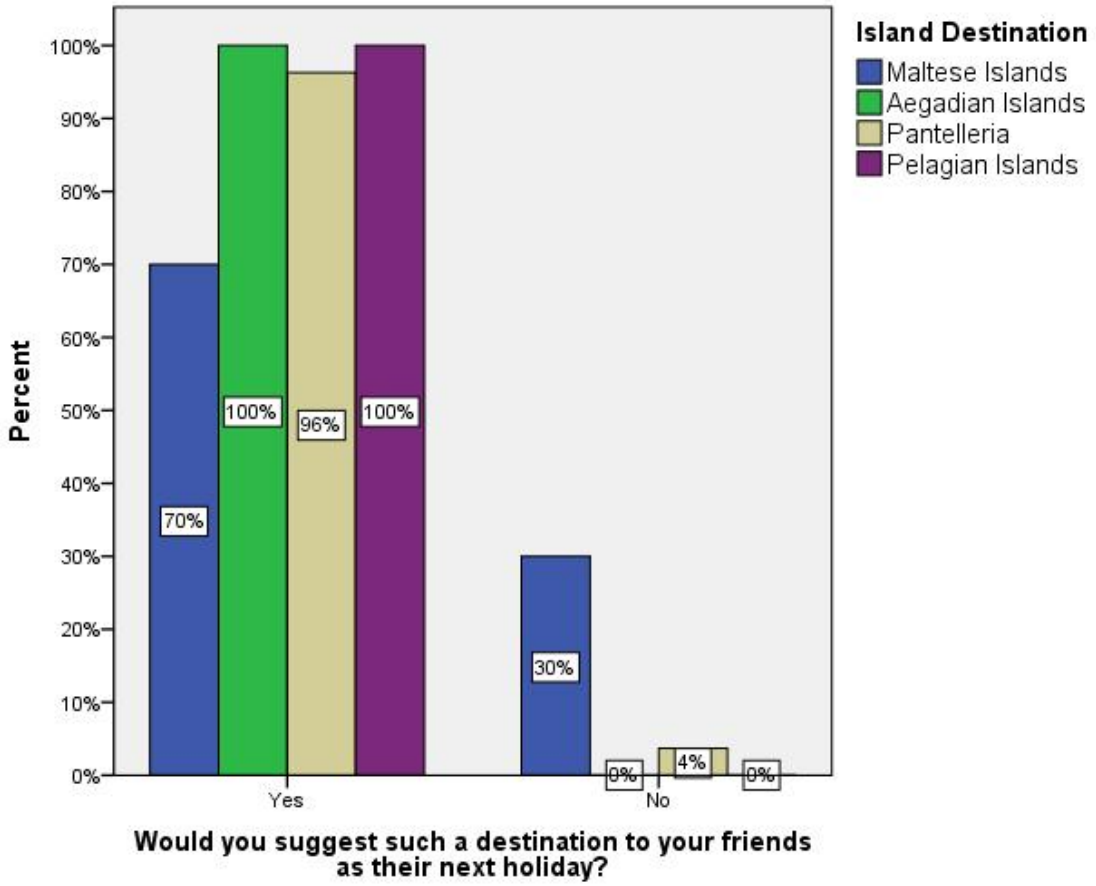

***Figure 6.16**: Recommending the ecodestination to friends as their next holiday.*

The relatively high satisfaction ratings recorded through surveys were also confirmed through focus groups and group interviews, through recommendations and willingness to participate in future ecotours or revisit the ecodestination. An ecotourist from group B remarked that his expectations during the trip to the Pelagian Islands were so fulfilled that he encouraged seven other friends to visit the islands a few days later. Similarly, participants of the focus group A also said that following the ecotour, they spoke to other people about their positive experience and encouraged them to pay a visit. Ecotourists from group B said that they would highly consider participating in any future ecotours organised whilst ecotourists from both groups A and D said that they would also consider visiting the islands again for a third time.

6.11 Spending Patterns

Ecotourists were also asked about the average total expenditure during the ecotour from the initial day of arrival to the final day of departure (excluding airfare and accommodation but including meals, transportation and excursions). Over all, the majority of respondents (46.9%) were willing to spend up to Euro 200 on ecotourism excursions. 37% of respondents, mostly representing participants who participated in the ecotour held in the Pelagian Islands (percentage wise), claimed to be willing to spend up to Euro 300 on ecotourism excursions. Only 16% of respondents said that they were willing to spend up to Euro 400 on ecotourism excursions. The results are summarised in Table A4.16 found in annex 4.

As shown in Figure 6.17, when taking into account individual archipelagos / islands, the highest frequency of respondents willing to spend the most (up to Euro 400) on ecotourism excursions were those travelling to the Maltese Islands. This accounted for 55.6% which is relatively much higher than the respective results recorded from respondents travelling to the other ecodestinations. This was followed by those travelling to the Pelagian Islands and the Island of Pantelleria. Respondents travelling to the Aegadian Islands were the least willing to spend money on ecotourism excursions with 64.7% of respondents claiming to be willing to spend less than Euro 200.

With 6 degrees of freedom and a X^2 value of 28.52, the p value is equivalent to less than 0.001. The chi squared test revealed that the p value is less than 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the amount of money one is willing to spend during ecotours and the ecotourists who participated in the ecotours in the respective ecodestinations.

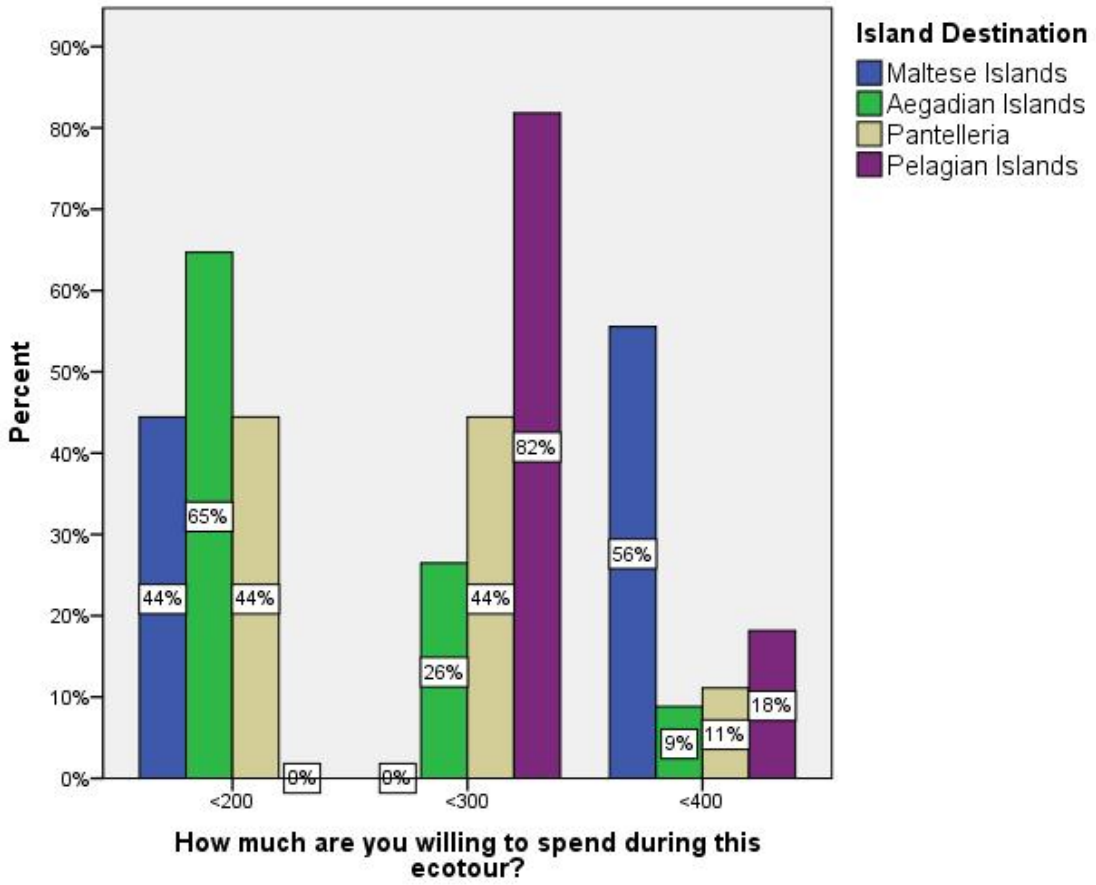

Figure 6.17: *Willingness to spend during ecotours.*

The majority of respondents (73.2%) confirmed that should they be assured that the money spent during the ecotour is supporting the socioeconomic dimension of the ecodestination and the local population, they would be willing to spend more money. The results are summarised in Table A4.17 found in annex 4.

As shown in Figure 6.18, the highest rating was obtained for the Maltese Islands, whereby all respondents confirmed that they were willing to spend more. Respondents participating in the ecotour held on the Pelagian Islands were the least willing to spend more. In fact, 45.5% of the respondents said that being aware that money spent during the ecotour is supporting the socioeconomic dimension of the ecodestination and the local population did not influence their spending patterns.

With 3 degrees of freedom and a X^2 value of 6.43, the p value is equivalent to 0.092. Since the p value exceeds 0.05 level of significance, the null hypotheses is accepted confirming that the difference between percentages is insignificant. Therefore there is no association between willingness to spend more during ecotours to support local community and the ecotourists who participated in the ecotours held in the respective ecodestinations.

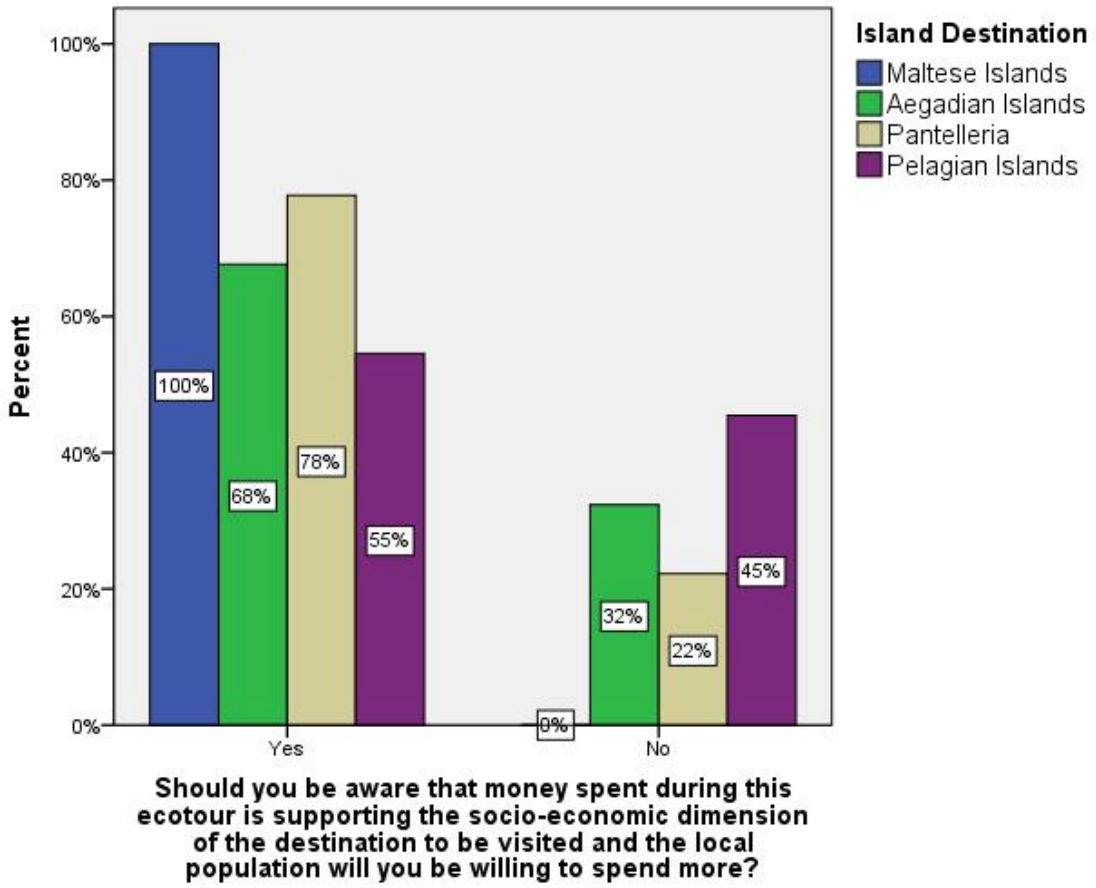

Figure 6.18: *Willingness to spend during ecotours to support local community.*

The majority of respondents (34.5%) who were willing to visit another ecodestination for their next holiday said that they were willing to spend up to Euro 300 on excursions during the next ecotour. Whereas 28.6% of respondents said they were willing to spend less than Euro 400, only 4.8% of respondents said that they were willing to spend up to Euro 500. As shown in Figure 6.19, the respondents willing to spend more were those visiting the Pelagian Islands followed by respondents visiting the Maltese Islands. On the other hand, the respondents less

willing to spend were those visiting the Aegadian Islands followed by respondents visiting the island of Pantelleria. See Table A4.18 in annex 4 for a full overview of the results.

At 12 degrees of freedom and a X^2 value of 31.87, the p value is 0.001. The chi squared test revealed that the p value is less than 0.05 level of significance. The alternative hypotheses is thus accepted confirming that the difference between percentages is significant. Thus there is an association between the amount of money one is willing to pay for the next ecotour and the ecotourists who participated in the ecotours held in the respective ecodestinations.

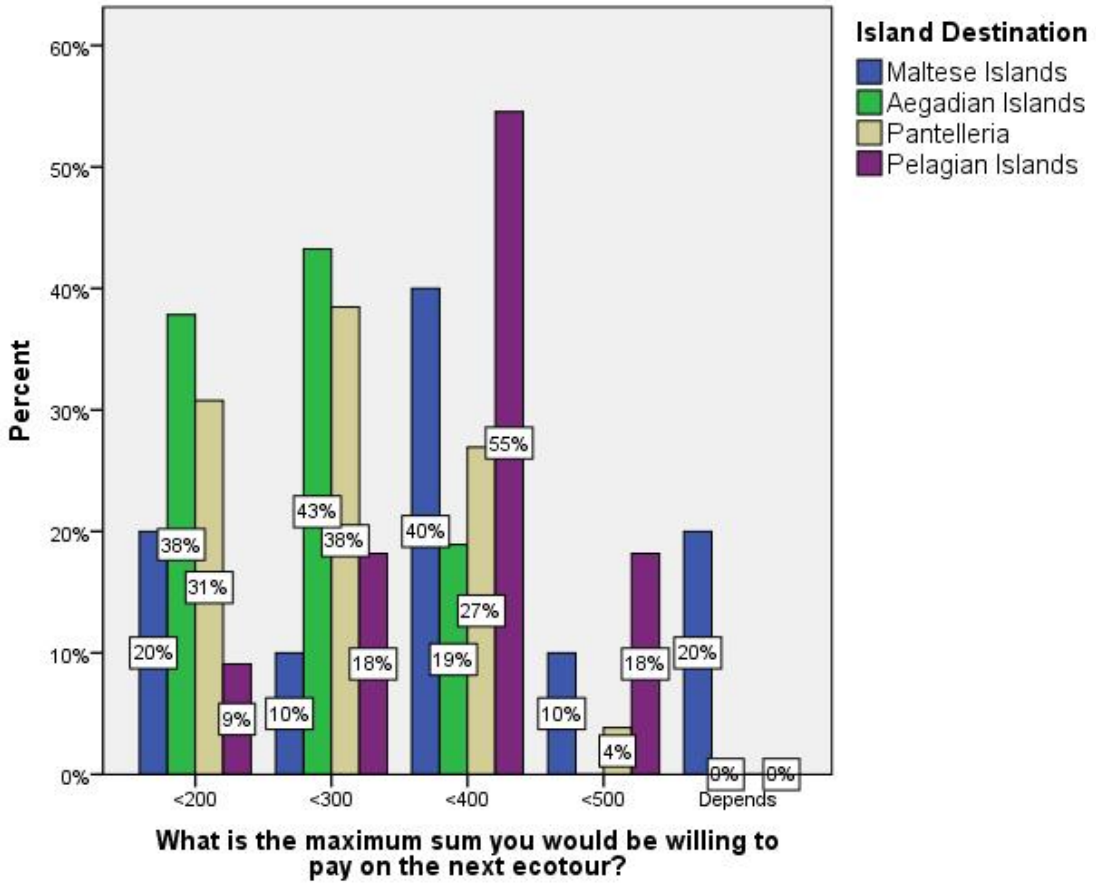

***Figure 6.19**: Money willing to pay during the next ecotour.*

Spending patterns were also investigated during interviews with stakeholders. According to operators, most tourists attracted to the islands under Italian jurisdiction are generally willing to pay more than conventional tourists. Operators in Gozo emphasised that tourists targeted had to be high end tourists, willing to spend money, contrary to the current day trippers.

Stakeholders from the Maltese islands remarked that through observations made, in most cases tourists from northern Europe such as those from the UK, Netherlands, Scandinavian countries, Germany and France along with USA and Russia are people who are willing to pay more for a good authentic service.

6.12 Organisational Aspects Preferred by Ecotourists

Table 6.13 shows that all respondents were satisfied with the relatively small group size when travelling to the ecodestinations. No further statistics were computed since 'Would you be willing to travel again in a small group?' is a constant.

Table 6.13: Satisfaction with group size during the ecotours.

Satisfaction with group size Yes / No	Count Percentage	Island Destination				Total
		Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Yes	Count	10	37	27	11	85
	Percentage	100%	100%	100%	100%	100%

Here one should also recall the findings presented in Table 6.5 which show the results obtained when respondents were asked about the elements/terms that form part of the ecotourism concept. The element 'travelling in small groups' was one of those least chosen by respondents prior to the ecotour.

Through the focus groups, it resulted that in terms of group size, all groups were manageable but according to group B a group size of about 15 to 30 ecotourists would be the ideal size. This issue was also raised by one of the interviewees from group D who claimed that one of the reasons why he returned to the Aegadian islands following the first ecotour was the fact that when he visited the islands for the first time, the group he formed part of was relatively large (over 30 participants). He thus decided to return to the islands with a few friends to enjoy a closer affinity with the natural environment and have more free time at hand to experience the ecotourism sites.

Overall, the vast majority of respondents (78.6%) were satisfied with the duration of the ecotour. The results are summarised in Table A4.19 in annex 4 and depicted in Figure 6.20. There was a large proportion of respondents visiting the Pelagian Islands (duration four nights), Aegadian

Islands (duration four nights) and Pantelleria (duration seven nights) who said that the duration of their stay was sufficient to experience the islands effectively. The most significant positive rating on the duration of the ecotour (92.6%) was achieved from respondents participating in the ecotour held on Pantelleria, but one should also keep in mind that this was the longest ecotour (duration of seven nights). Conversely, there was a larger proportion of respondents visiting the Maltese Islands (77.8%) who said that the duration of their stay in the Maltese Islands (5 nights) was insufficiently long.

At 3 degrees of freedom and a X^2 value of 22.968, the p value is less than 0.001. The chi squared test revealed that the p value is less than 0.05 level of significance. The alternative hypotheses is accepted confirming that the difference between percentages is significant. Thus there is an association between satisfaction with the duration of the ecotour and the ecotourists who participated in the ecotours held in the respective ecodestination.

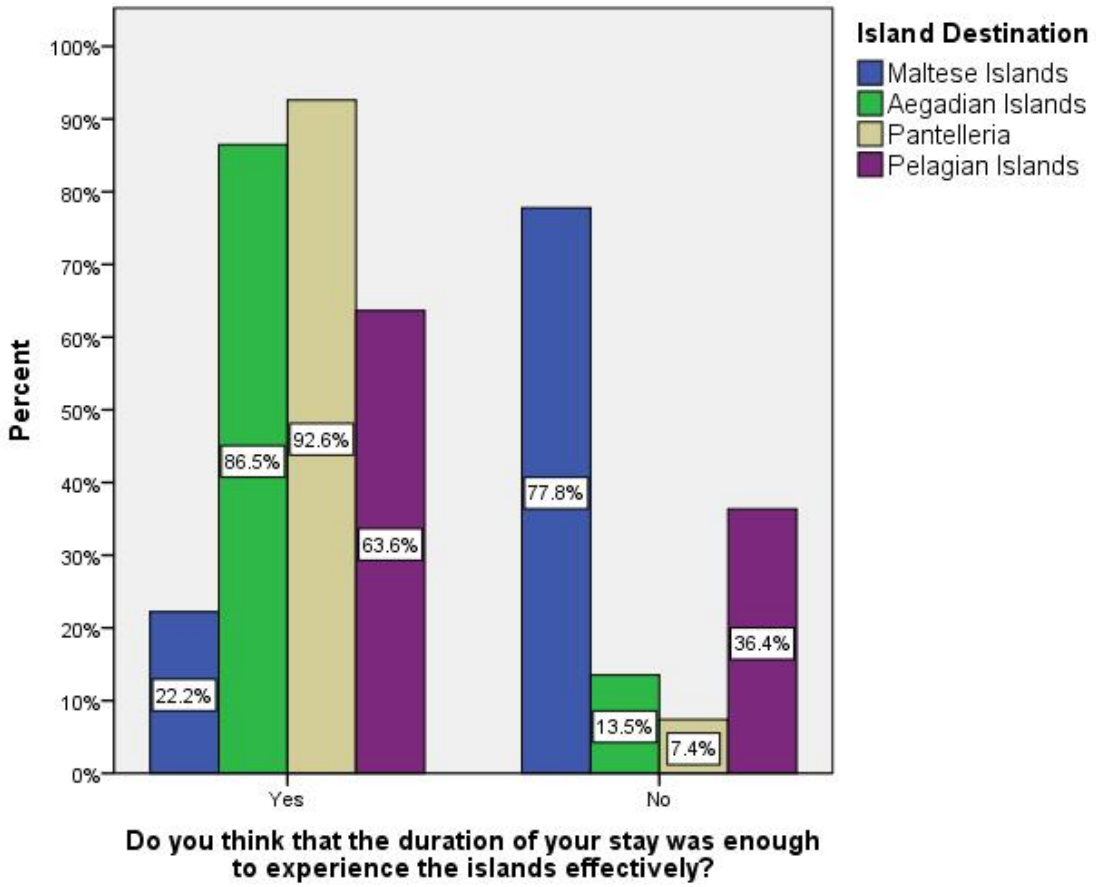

***Figure 6.20**: Opinion of ecotourists on the duration of the ecotour.*

The majority of respondents (55.6%) who claimed that the duration of the ecotour in which they participated was insufficient said that seven days would have been sufficient in terms of the duration of the ecotour. All respondents from Pantelleria and 83.3% of respondents from the Maltese Islands (who had claimed that five nights were insufficient) said that an extra night is required to experience the islands effectively in terms of ecotourism. Furthermore, a significant proportion of respondents from the Aegadian Islands (60%) and the Pelagian Islands (75%), who had claimed that four nights were insufficient, said that to experience the islands effectively in terms of ecotourism, two extra nights are required. The results are tabulated in table A4.20 in annex 4 and depicted in Figure 6.21.

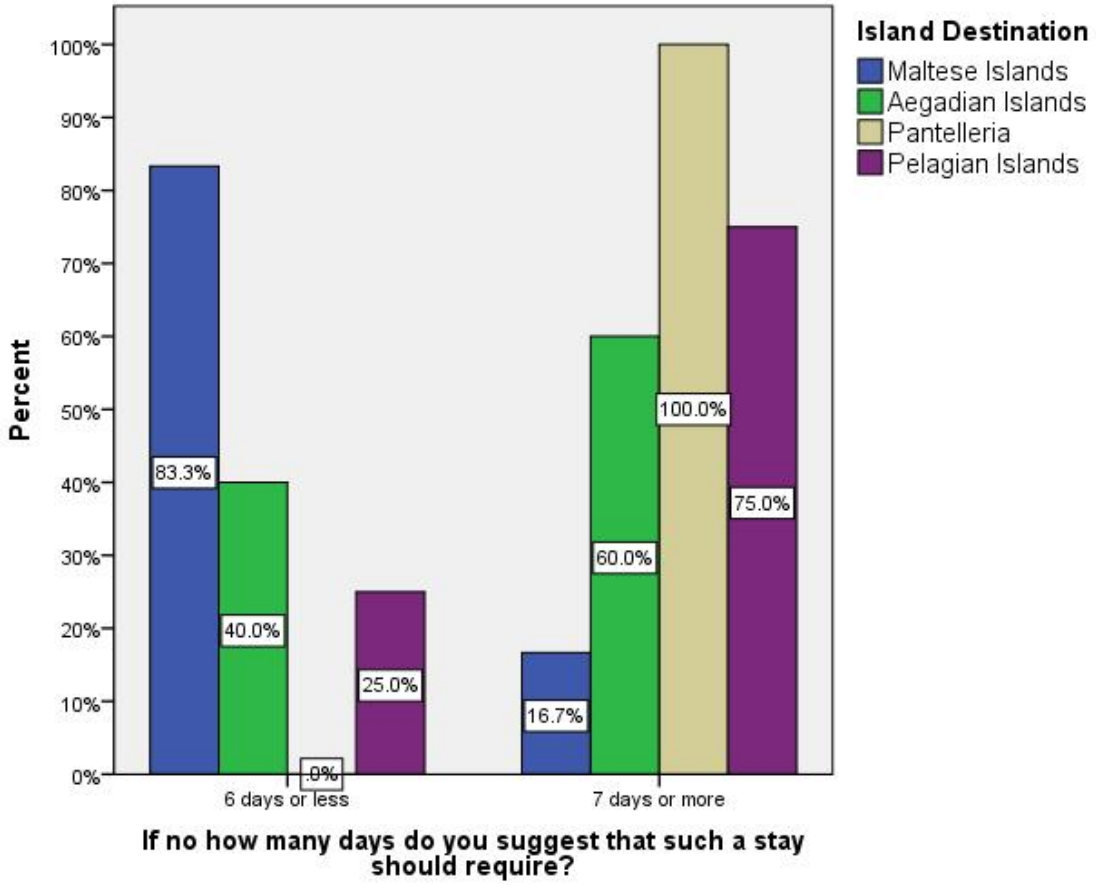

***Figure 6.21**: Ideal duration of the ecotour.*

With 3 degrees of freedom and a X^2 value of 6.73, the p value is equivalent to 0.081. Since the p value exceeds 0.05 level of significance, the null hypotheses is accepted confirming that the difference between percentages is insignificant. Thus there is no association between the ideal

duration of the ecotour and the ecotourists who participated in the ecotours held in the respective ecodestinations.

Different views were expressed by ecotourists during focus groups on the ideal duration of each ecotour. Some ecotourists said that whereas each island in the Aegadian Archipelago has its specific characteristics providing the possibility of organising different and numerous excursions on each one, it might also be interesting to prepare an itinerary for a longer period than four nights. Ecotourists who participated in three of the ecotours organised remarked that the trip to the Aegadian Islands was slightly short and instead of four nights seven nights would have been ideal to better enjoy the natural aspects of the archipelago. They also suggested that the trip to the Pelagian Islands should be at least one day longer. They remarked that the trip to Pantelleria was ideal in terms of duration (seven nights) and allowed one to enjoy excursions at the right pace rather in a hurried and stressful manner.

According to operators, several tourists attracted to the islands under Italian jurisdiction are generally flexible in terms of time, and tend to stay on the islands for a number of nights. This is because it would not be financially viable to first pay for a relatively expensive ticket to visit the island and then stay on the island for just one night. Stakeholders across the area of study said that they are more interested in long stay tourists rather than day trippers. In fact several stakeholders have argued against the organisation of one day boat excursions within MPAs found in the Aegadian Islands and the Pelagian Islands and have linked such activities with the "*mordi e fuggi*" (bite and run) model of tourism. This is because such tourists do not contribute anything to the archipelago and spend little money owing to the fact that such excursions are often all inclusive. Moreover, such excursions and type of tourism do not reflect the values of a MPA and ecotourism and have a negative impact on the environment, where, according to stakeholders, the generation of waste is greater. Moreover such tourists have a negative reputation on the islands as they create havoc, something which contrasts with the tranquillity normally associated with the islands. Such excursions are currently ongoing on smaller islands within archipelagos such as Linosa in the case of the Pelagian Islands, Marettimo and Levanzo in the case of the Aegadian Islands and Gozo and Comino in the case of the Maltese Islands. Pantelleria, being a solitary island at a distance from the mainland does not experience such problems. Policy makers also raised concern that most tourists visiting the island of Gozo were day-trippers.

6.13 Conclusion

This chapter outlined the major characteristics of the ecotourists who were attracted to participate in the ecotours and who should be targeted according to the feedback provided by stakeholders. With such information in hand, one can compare and contrast the profile of the ecotourist emerging from the research conducted with the profile of the ecotourist according to literature. Table 6.14 shows the extensive overlap and similarity between these scenarios confirming that the tourist attracted to ecotours was not a conventional tourist and that the ecotourist as a target segment, including those interested in marine ecotourism in central Mediterranean islands, exists. This implies that whereas ecotourism on central Mediterranean islands might face different challenges and is characterised by different aspects from those observed in other ecodestinations, the ecotourist is by and large identical to that of other ecodestinations. With respect to the type of ecotourist and with reference to Table 2.1, it is not straightforward to deduct if the ecotourist attracted to the ecotours is a soft or hard ecotourist as elements of both were found in the participants of the ecotours. On the other hand, in terms of the desired target, stakeholders tend to put emphasis on aspects associated with hard ecotourists. Aspects that have been disputed in literature including predominant gender and age groups of the ecotourist remain unclear. Yet it emerged that ecotourists tend to originate from urbanised areas and have a great desire to immerse in nature.

The following chapter will now take into consideration the findings of the results presented in the last two chapters and discuss them within the context of literature and other relevant research conducted in the area of study.

Table 6:14: The ecotourist according to literature, research and views of stakeholders

The ecotourist according to literature	**The ecotourist joining the ecotours**	**Target ecotourists as per stakeholders**
disagreement on predominant age group	mostly young (under 25years)	different age groups including young persons but emphasis on mature persons
disagreement on predominant gender	males slightly more predominant	
	majority come from urban areas	those living in urban areas including on gateway island
wealthy, high income, high spending	limited spending power	willing to pay
well educated with higher levels of education	well educated with higher levels of education	need to target higher education tier
more environmentally aware	majority environmentally conscious	more environmentally aware
more environmentally active	42% incidence of activity in eNGOs	
ecotourism predominantly based on sustainability, education and nature	ecotourism predominantly based on sustainability, education, nature and conservation	ecotourism predominantly based on sustainability and nature
motivated by a specific interest for nature and wildlife	motivated by a specific interest for nature, wildlife and conservation	motivated by a specific interest for nature and wildlife
origin tends to be Anglo-America, western and northern Europe, and Australia/New Zealand	origin tends to be Anglo-America, western and northern Europe, Mediterranean	origin tends to be Anglo-America, western and northern Europe, Russia
serious traveller (pre-plans trip and know what one is looking for)	prefers to have most organisational aspects prepared	
more leisure time in hand thus tending to be long staying	relatively short staying (up to 7 days)	long staying (not day trippers)

frequent traveller	several participated in other ecotours	to include also repeat visitors
drawn to tours offering personalised services	drawn to tours offering personalised services	
prefers to travel in couples or small groups	prefer relatively small groups	quality not quantity
limited commodities if hard ecotourist, physical comfort if soft ecotourist	willing to have limited commodities including basic accommodation	
exhibit high rate of satisfaction	high rate of satisfaction	
express intention to repeat visitation or to make positive word-of-mouth	several repeat visits made, express their intention to make positive word-of-mouth	
disappointment related to lack of wildlife sightings, lack of time, weather conditions, disruptive behaviour	disappointment related to not enough contact with nature – including marine environment, internal travel (traffic, waiting time, several journeys), mass tourism – lack of adherence to ecotourism principles	
major expectations include immersing in nature and learning	major expectations include immersing in nature, learning and leisure	

Chapter 7:

Discussion

Plate 7.1: *Ecotourists practising birdwatching at the Għadira Nature Reserve in Malta. Photo: Karl Agius.*

Chapter 7: Discussion

7.1 Introduction

In this chapter the results presented in the previous two chapters are discussed. The discussion is divided into six sections namely, island issues, the ecodestination, the profile of the ecotourists, marketing ecotourism, ecotourism issues and impacts and ecotourism policy. The results are discussed in the context of other studies conducted in the field of island/archipelago tourism and marine ecotourism on islands and archipelagos. When possible, results are also interpreted in relation to relevant tourism and scientific studies conducted in the area of study.

7.2 Island Issues

7.2.1 Rivalry

Three levels of rivalry were recorded across the area of study, especially in the Aegadian Islands and the Pelagian Islands. These include those within the same island, those between islands of the same archipelago and those between islands from different archipelagos. These will be further discussed throughout this chapter. A sense of rivalry and 'parochial tensions' recorded between locals and operators have been reported in literature as typical attributes of islands and archipelagos due to the contained nature of islands and competition arising from tourism (Andriotis, 2004; Baldacchino, 2000).

In the case of tensions between islands belonging to the same archipelago, a dominance/subordination relationship has been noted in all cases in the area of study (this seems more pronounced in the Pelagian Islands and the Aegadian Islands). This is evident on various fronts including promotion, governance and level of protection in ecotourism venues. Locals from the larger islands such as Lampedusa have at times also considered complaints raised by locals from Linosa on such matters as a form of jealousy due to the smaller size and inferiority of the island. Envy between the bigger and the smaller island has also been reported on the Maltese archipelago and has been associated with the success of tourism on the main island (Chaperon and Bramwell, 2011). Such phenomena of inter-island rivalry and the existence of a hierarchical system in archipelagos along with subsequent discrimination has also been acknowledged in studies on tourism within archipelagos. In such cases, rivalry and

tension is said to be greater in the case of islands which tend to experience a sense of inferiority in aspects such as tourist traffic, size of island, population size and location of the island, often felt as being peripheral in nature. This tends to result in a core-periphery relationship where irrespective of the island size, the larger island serves as a mainland to the smaller islands of the archipelago (Baldacchino, 2015a; Baldacchino and Ferreira, 2013). Keller (1987) refers to this phenomenon as the core-periphery conflict and attributes it to a situation whereby a peripheral area is controlled, managed, and at times exploited by the core.

Evidently, rivalry is having an impact on the ecotourism potential of such islands due to the negative effect it has on ecotourism promotion and services provided, notwithstanding the negative social impact as outlined in section 7.6.2. Meanwhile, whereas the matter was flagged by stakeholders on numerous occasions, this was never brought up by ecotourists who, in contrast, commented on the unity and tranquillity reigning on such islands. Furthermore, one should recall how the sense of community among the locals was cited as a factor that motivated the ecotourists to revisit the islands following the ecotours organised. This confirms that even if such an issue exists in principle, it has little impact on the ecotourists and may be solely of an internal nature.

7.2.2 Connectivity

Difficulties with accessibility are considered to be a major disadvantage for islands due to their insular character resulting from the natural marine barrier (Andriotis, 2004). Stakeholders across the area of study remarked that whereas connectivity issues also affect locals, one could not speak of ecotourism development unless adequate connectivity services are in place and relevant issues are tackled. This resonates with remarks made by Bardolet and Sheldon (2008) that travel between the islands in an archipelago is critical to their tourism development and linking the islands is an important part of the archipelago's tourism policy.

In the case of archipelagos, air and sea transport are crucial to link the islands with the mainland and with each other (Abeyratne, 1997) so as to ensure connectivity with other insular regions and tourist-generating countries (Andriotis, 2004). The hub and spoke network found across the area of study whereby the central islands have an airport and/or seaport and where access to the other islands of the archipelago is then conducted through such a 'gateway island' is typical of archipelagos (Baldacchino and Ferreira, 2013). Several limitations identified in the area of study in relation to such a means of transport are similar to issues reported in other

studies including those related to mode, price, availability and schedule (Bardolet and Sheldon, 2008) as discussed below.

The airports of Trapani, Pantelleria and Lampedusa play an important economic role due to the insularity of the islands (La Franca, Mortelliti, Salerno and Amoroso, 2004). Nevertheless these are not sufficient on their own as access to international airlines, frequency and cost of air transport play a vital role in the tourism industry (Mellor, 2003). This explains why stakeholders have raised concerns on connectivity related services. The islands under Italian jurisdiction where an airport is found lack international connections and the frequency of existing flights depends on the season. Furthermore, the islands under Italian jurisdiction also experience a problem faced by other archipelagos of uncompetitive flight prices (especially when travelling from the mainland for short distances) and no real low cost carriers (Bardolet and Sheldon, 2008). Moreover, in some of the islands under Italian jurisdiction flights to the gateway islands are also from time to time placed in jeopardy for various reasons including lack of finances and cooperation between responsible consortia. Other islands, such as that of Pantelleria, have airports of limited capacity. Several of such transportation limitations have also been identified as challenges for ecotourism development on islands (Halpenny, 2001). Whereas Malta does not face such challenges, the entire area under study faces a challenge due to the national airline which is going through difficult times with this already starting to influence the connectivity of the islands. This is more challenging in the islands under Italian jurisdiction rather than in the Maltese Islands considering that few other airlines serve the former (Rao, 2002).

Similar problems are faced with respect to the hydrofoil/ferry service in terms of schedule, frequency and price. Furthermore, the ferry boats used are generally old (some circa 40 years according to marinetraffic.com), unreliable and lack basic commodities while services are suspended from time to time due to contractual disagreements. Such issues arise since the islands are completely dependent on providers of transportation which shape their decisions in the best interest of shareholders and fail to consider the challenges faced by such islands (Conlin and Baum, 1995). Moreover, as in the case of other islands, demand for sea transport by the local inhabitants is relatively low (Andriotis, 2004). Thus demand is dependent on visitors who mostly visit the islands in the summer period. Furthermore, in some cases there is no competition between service providers due to a monopoly in the sector (Baldacchino, 2015a).

Contractual disagreements are not the only limitations that can lead to a temporary suspension of sea transport services in the area of study. The weather also plays a role in making connectivity between the islands themselves and the mainland problematic impeding ferries from reaching the islands. This is a major obstacle faced by other islands (see Bonacci *et al*., 2007) especially during the autumn and winter seasons. As reported by stakeholders as well as in literature, this can also prohibit the return of tourists to the original destination (Baldacchino and Ferreira, 2013). The lack of regularity and reliability of sea transportation systems has also been outlined by Andriotis (2004). A voyage in bad weather can also be very uncomfortable. In fact, the weather factor resulted in the travel via ferry/hydrofoil being considered the activity least enjoyed during the ecotour held in Pantelleria. In another case ecotourists were quite tense since they were not sure if the hydrofoil service would work. Therefore flexibility of the ecotourists and operators along with adequate planning including the certainty of reaching the mainland ahead of flights scheduled is a must. Since ecotourists tend to have more leisure time in hand (Fennell, 2014), such issues may be overcome.

Meanwhile smaller islands in archipelagos, such as Marettimo in the case of the Aegadian Islands and Linosa in the case of the Pelagian Islands, have, according to stakeholders, faced even greater problems of accessibility. This is because such islands face double or multiple insularity (Andriotis, 2004; Spilanis, Kizos, Vaitis and Koukourouvli, 2012). In fact stakeholders have argued that, in most cases, most tourists visit the 'gateway' rather than the smaller, more peripheral islands within the archipelago and complained about the lower frequency of crossings and heftier prices. In addition, stakeholders claim that tourists prefer to visit gateway islands rather than the peripheral smaller islands such as Marettimo and Linosa, as the latter are more difficult to reach in bad weather as they are more exposed. In fact during one of the ecotours, a hydrofoil heading to Marettimo was diverted by the Captain to Favignana as a result of bad weather. The preference of tourists to visit 'gateway islands' has also been acknowledged in literature especially during the winter period. This has been linked to the inconvenience, temporal and financial costs associated with inter-island transport which tend to be unequal within an archipelago (Baldacchino and Ferreira, 2013; Royle and Scott, 1996). It has been suggested that accessibility to smaller islands should increase in a reasonable manner to avoid detrimental effects and be geared not just specifically for tourism purposes but also towards improving the standard of living of local communities (Andriotis, 2004).

The group of islands under Italian jurisdiction have been collectively grouped along with other islands under one name - the Sicilian archipelago (Baldacchino, 2015b). Whereas there seem to be elements in common between these islands, the same cannot be said from the point of view of connectivity. Stakeholders remarked that inter-island connections within the Sicilian archipelago are lacking, seasonal or have been discontinued. Stakeholders have argued that this is crucial to make islands more attractive for visitors allowing them the opportunity to island hop as part of their tour. This concept of multi-island visits is not new and Baldacchino and Ferreira (2013) report how the Regional Government of the Azores has been promoting such a practice as a far more satisfying experience. Whereas attempts to link some Italian archipelagos have failed, and even if inter-archipelago connections are said to be unviable, this has been proved wrong by a Maltese company and a consortium in the Pelagian Islands. A new air connection between Malta and Lampedusa attracted over a thousand travellers over three months in its first year of operation (2016) while the service was successfully run again in 2017 (Unknown, 2017a). One should note that the issue of island hopping is considered by tour operators as an important marketing element. In fact the link between Lampedusa and Malta has been described by operators as an opportunity for those visiting Malta to visit another island in addition to Malta, Gozo and Comino. On the other hand, operators on Pantelleria have heavily criticised the fact that the link between Pantelleria and Linosa was discontinued arguing that this reduced the competitiveness of the island when compared to neighbouring islands which offered visitors the opportunity to visit two or more islands apart from the gateway island. Island hopping was in fact identified as one of the activities enjoyed most by ecotourists who, during focus groups, also identified such an aspect as one of the reasons that motivated them to participate in the ecotours to the Aegadian and Pelagian Islands.

Megaprojects such as the development / extension of runways, ports and other megaprojects such as tunnels, are seen by several as a means to tackle the connectivity problem and as a means to augment tourist arrivals. This has been the case in other islands when airports were expanded (Fabinyi, 2010). However, apart from the energy requirements, infrastructure has been considered in tourism studies as a contributing factor to the ecological footprint with respect to the transport component (Gossling, Borgstrom Hansson, Horstmeier and Saggel, 2002). In fact, such aforementioned projects have faced objections by a number of stakeholders on these grounds. Despite objections by civil society, some of these projects such as the airstrip in Gozo tend to resurface in public debates from time to time (Boissevain and Gatt, 2011; Camilleri, 2014).

Some stakeholders claimed that limitations in the accessibility of most of the islands under study make the islands remote and not always straightforward for ecotourists to reach, and that increased accessibility may be beneficial for both the local community and ecotourists. On the other hand, others have argued that such limitations have their benefits and can also serve as an attraction. Ankre and Nilsson (2015) argue that a lack of accessibility can be an asset for the development of tourism rather than a hindrance. In fact, the physical separation and thus the sense of isolation from the main land is a major attraction sought after for the successful vacation (Baldacchino, 2006; Baum, 1997). Remoteness is one of the elements that draws and motivates people to participate in ecotourism activities (Garrod and Wilson, 2004). Similarly, it has been argued that Lampedusa bases its successful image on its 'islandness' (Melotti *et* al., 2017). Furthermore insularity and remoteness generally ensure pristine ecosystems which serve as a major attraction on islands and facilitate ecotourism (Weaver, 2008; Zeppel, 2006). On a similar note it has been claimed that several marine ecotourism attractions owe their continued existence to the remoteness of the destination in question. The peripheral nature of such destinations ensures that species, habitats, landscapes and seascapes are protected from the negative consequences of development (Garrod and Wilson, 2004). Furthermore, limited connectivity can serve as a self-regulatory measure to control tourism flows, the quality of tourists visiting the islands and prevent the development of mass tourism that may lead to the destruction of fragile ecosystems found on islands (Butler, 1996; McElroy and de Albuquerque, 2002). In fact it has been argued that Gozo remained relatively unspoilt as it failed to attract mass tourism due to limited accessibility in the absence of an airport (Lockhart, 2002). Nevertheless, whereas remoteness and the resulting pristine environments have been commended as important prerequisites of ecotourism development on such islands, connectivity has been proven to be a major limiting factor for ecotourism development. Despite the fact that this challenge is shared by all forms of tourism on islands, efforts are needed to tackle connectivity issues, which contrary to those caused by natural phenomena such as weather conditions, can be tackled through adequate policy.

7.2.3 Governance

The inequality found in terms of governance across the area of study, especially in the Aegadian and Pelagian Islands, whereby the smaller islands within the respective archipelago, which normally have relatively small populations, are unrepresented or underrepresented, has also been recorded in other islands. As explained in section 7.1.1 a dominance/subordination relationship exists with respect to governance within archipelagos leading to a core-periphery

relationship. This implies that the larger island serves as the seat of the main government for the smaller islands of the archipelago (Baldacchino, 2015a; Baldacchino and Ferreira, 2013) something which has in fact been observed across the area of study and confirmed by operators who argued that the smaller island is dependent on the bigger island of the archipelago. Even in the case of Gozo which has a dedicated Ministry with a direct representation in the central Government, problems were still recorded. This reflects claims made by Chaperon and Bramwell (2013) that peripheral islands have less political influence. In the case of Italian archipelagos the organisation is similar to that reported by Weaver (1998) with and external core (mainland), internal core (bigger / gateway island) and a periphery (small peripheral island).

The sense of dissatisfaction reported across the area of study, especially on peripheral islands, coincides with reports in literature (see Chaperon and Bramwell, 2011; Padison, 1983). The lack of will by politicians to tackle decades old issues has been blamed on the political system. Whereas trust in the political community is subjective, one should keep in mind that in the case of archipelagos, governance is conducted through a hierarchical structure of governance and thus tourism development policies may need the blessing of higher powers such as the regional government in the case of islands under Italian jurisdiction. This is a common challenge encountered on islands (Trousdale, 1999) especially those that are not autonomous but belong to sovereign states (Apostolopoulos and Gayle, 2002). The islands under Italian jurisdiction fit this description perfectly. Most islands under Italian jurisdiction are often forgotten by centralised policy makers and given importance only for strategic terms such as military or political reasons. Lampedusa receives several dignitaries and high ranking politicians from time to time due to the migrant arrivals on the island. This scenario is commonly the case on islands, as literature attests (Baldacchino and Ferreria, 2013; Butler, 1993; Wilkinson, 1994). As reported in literature, isolation further increases the detachment between the islands and policy makers in the field of tourism (Chaperon and Bramwell, 2013). This leads to a situation whereby most peripheral islands, especially the smallest within archipelagos are governed by what Chaperon (2009) refers to as ‘remote control’. This was confirmed by stakeholders who said that central government officials rarely visit the islands. In a similar situation reported by Kennell and Chaperon (2010), existing governance structures are only worsening the core-periphery relationship and dependency.

Claims that little interest is shown by politicians in environmental and tourism issues appear to be proven right in the case of the Pealgian Islands. Remarks claiming that too much focus is put

by authorities on immigration at the expense of other challenges, including those related to tourism, echo those found in literature (O'Healy, 2016). Furthermore, central governments are, almost in all cases, except for SISs such as Malta, located away from the islands and, in most cases, have different priorities and policies to those of the local community (Andriotis, 2004). This can be observed through the different views expressed by stakeholders with respect to Gozo. Whereas several locals want to emulate Malta in terms of tourism development, several tourism actors in Malta see Gozo as the ideal ecotourism destination due to is relatively lower level of development. Such discrepancies in views between islands have also been reported in literature (Chaperon and Bramwell, 2013).

A lack of continuity between one administration and another reflects a lack of long term policies. This also impacts ecotourism related initiatives as experienced with respect to the institution of a prime ecotourism venue on Pantelleria and the near abandonment of the ecoGozo policy on Gozo. Furthermore, it proves that a level of rivalry also exists at a political level on such islands. In terms of governance, attention revolves around general tourism and island issues with little emphasis being put on ecotourism. For example, whereas the duty-free status being promoted by the islands has successfully served other destinations as an incentive for tourists to visit the islands and boost the economy (Lee, 2013), this same proposal for Pantelleria and the Pelagian Islands may not necessarily be the right policy to attract ecotourists on the islands. This is because normally ecotourists are willing to pay and who are not necessarily attracted to a destination through such measures.

Whereas Chaperon (2009) acknowledges that Gozo exhibits dependency on Malta with respect to tourism development, she argues that actors on the peripheral island of Gozo still managed to exert influence on the tourism industry and possessed "agency" despite experiencing substantial structural constraints in terms of governance. Meanwhile this was not observed in the peripheral islands under Italian jurisdiction with dependency being very strong and a major contributing factor in tourism development. This also leaves an impact on the way tourism development on peripheral islands evolves. Should the local tourism actors on such islands have views which vary from policy makers at the core, development of ecotourism might face difficulties.

7.3 Ecodestination

7.3.1 Ecotourism Venues

When taking into consideration the overall scenario, the majority of ecotourists participating in the ecotours claimed to have spent most of their time throughout the tour in contact with nature. As pointed out earlier, this is a major expectation of ecotourists as ecotourism's focus revolves around nature (Beaumont, 2011; Rogerson, 2006) and thus this can be taken as a confirmation that overall, the ecotourism venues across the area of study are adequate for ecotourist needs and desires. However, anomalous results were obtained for the Maltese Islands as the outcomes of the surveys and focus groups with participants of ecotours along with the remarks raised by stakeholders during interviews all flagged a general concern on the ecotourism venues in the Maltese Islands, especially in Malta. In fact, one should note that the lowest rating for time felt to have been spent in contact with nature was registered by participants on the ecotour taking place in the Maltese Islands. The main reason cited was the visual and anthropogenic impact due to the high level of urbanisation. This reflects concerns raised by the local population on the state of protected areas (Caruana Dingli and Galea, 2016). Here one should note that the quantitative results obtained regarding this aspect were found to be statistically significant adding further weighting to the results. This, in turn, raises further concern on the impact such a problem might have on the potential of ecotourism in the Maltese Islands since the results obtained were not due to chance. Moreover, as explained below, the quality of the ecotourism venue also had a negative impact on the level of satisfaction registered by participants of the ecotour taking place in the Maltese islands, which results were also found to be statistically significant.

Furthermore, concerns have been raised by stakeholders on the anthropogenic disturbance and that extensive parts of the coast have been developed. Such sites face a high degree of development owing to the high economic importance of coastal-based tourism on islands (Deidun, 2010) making such areas less ideal as ecotourism venues. Nevertheless academics and policy makers argue that irrespective of such challenges, one still finds ideal ecotourism venues along the coast as extensive stretches are protected and can thus serve as a major venue for ecotourism (Weaver, 2001).

A related concern raised by ecotourists, stakeholders, and academics is the limited size of venues earmarked for ecotourism as a result of habitat fragmentation. In fact, contrary to what happened in most of the other islands, stakeholders from Malta and Gozo felt the need to identify several small distant areas which can serve as ecotourism venues. One should also note that studies on ecotourism in the case of Malta have also focused on its potential within specific pockets (Salerno, 2009). The problem of habitat fragmentation on islands due to human activity has also been acknowledged in literature (Deidun, 2010). Here, one should also recall remarks made on the type of ecotourism practiced in Western Europe. Weaver (2001a) claims that due to the relatively high population density, the environment has been extensively modified by human activity and thus ecotourism activities tend to take place in relatively small natural areas. This limitation also raises logistical issues as one would have to visit multiple sites rather than concentrate on one or a few sites. This issue was in fact faced during the ecotour organised in the Maltese Islands where ecotourists complained on the need to constantly use transport and move from one place to another.

In the case of Lampedusa, where anthropogenic impact is also evident, the island has suffered less habitat fragmentation than Malta and one still finds extensive areas which are wild or have been rehabilitated which serve such purposes. Nevertheless, stakeholders, as in the case of Malta and Gozo, also felt the need to identify pockets on the island which are ideal for ecotourism. In the case of Favignana habitat fragmentation due to extensive anthropogenic activities such as quarrying in coastal areas and illegal development has been recorded. On the other hand, the issue of habitat fragmentation or size of ecotourism venues was never raised for the other smaller islands (such as Marettimo, Levanzo and Linosa) as development and the residential area is located in one specific site and the rest of the terrain is mostly wild/protected.

On a related note, a general trend has been expressed on each archipelago whereby the smaller and more peripheral island/s (Levanzo and Marettimo for the Aegadian Islands, Linosa for the Pelagian Islands and Gozo and Comino for the Maltese Islands) were considered more ideal as ecotourism venues than the main island of the respective archipelago due to the lower urban footprint and more pristine environment. This concord with the arguments raised above that insularity and remoteness can also serve as an attraction for ecotourists because they ensure a pristine environment (Garrod and Wilson, 2004; Weaver, 2008; Zeppel, 2006). This is also echoed in literature whereby ecotourism has been encouraged in the outer peripheral islands of archipelagos which are naturally richer (Halpenny, 2001) and are not dominated by mass tourism. This confirms that features associated with peripherality and which are usually

perceived to be limitations can be an advantage for sustainable tourism development on such islands (Weaver, 2008). As outlined by Weaver (2017), such findings challenge the conventional thinking linking limitations with core-periphery relationships exhibited by small islands.

The addition and extension of protected areas was also brought up by stakeholders from the Maltese Islands and Pantelleria. It is interesting to note the fact that once faced with the option between an extension of the protected areas and the *status quo*, authorities in Pantelleria opted to create a National Park despite resistance from the local community who feared the introduction of restrictions on their trades and traditions. Such resistance reflects a general trend to any increase in protected areas on the islands under Italian jurisdiction. In fact, this issue has also been faced in the Aegadian Islands where the decision for the setting up of a reserve had to be reversed by the TAR following appeals by the local community. This was accepted on the grounds that the responsible authorities had failed to take into account the interests of locals (Giambrone, 2003). Contrary to the situation in Pantelleria, authorities in Malta opted to earmark for development/regeneration areas, including those adjacent to existent protected areas, considered to be derelict. This is not surprising and in fact environmental conflicts due to the development of land are quite common in Malta (Briguglio, 2015a; Boissevain and Gatt, 2011). Whereas Maltese politics continues to be characterised by environmental conflict over the development of land, there has been a clear increase in resistance from the public and civil society (Briguglio, 2015b) while calls have been made by the public to increase protected areas (Caruana Dingli and Galea, 2016). In this regard commitments were made by the Government to increase marine protected areas in order to protect important habitats (Muscat, 2017) and in May 2018, eight additional protected areas were designated (MESDC, 2018).

Owing to the fact that protected areas by and large serve as ecotourism venues, their management is of utmost importance as one needs to decide what activities are permitted and where, set zoning, decide which stakeholders to involve, manage possible conflicts, regulate visitors, ensure safety, obtain adequate human resources and oversee all financial aspects including entrance fees (Eagles *et al*., 2002). Such aspects are all related to ecotourism and thus failure to adequately manage ecotourism sites would have an impact on the experience of the ecotourist and on the state of the protected area and/or on the local community as outlined in section 2.8. Stakeholders from the Maltese Islands remarked that most of the existing protected areas are there only on paper due to a lack of management. This is a problem faced

by several protected areas worldwide (McNeely, 1994) even if it has been argued that paper parks can still be successful in mitigating some human impact (Rodriguez and Rodriguez-Clark, 2001). Whereas some areas in the Maltese Islands are managed through different management structures which involve NGOs, active management is lacking due to a lack of human and financial resources. This echoes remarks made by Caruana Dingli and Galea (2016). Policy makers have also remarked that owing to the fragmentation of habitats and the fact that different sites are managed through different entities, management is often conducted in an uncoordinated manner. This might also reflect the territoriality approach adopted by local eNGOs, the lack of cooperation between NGOs as outlined by stakeholders and the aspect of rivalry discussed earlier. Such a situation is said to lead to a lack of resources, create conflicts and lacunae in management and fail to make a clear distinction between the regulator and the site manager (Caruana Dingli and Galea, 2016).

Whereas on the islands under Italian jurisdiction official and well organised management bodies are in place for extensive areas, these lack human resources and are dependent on regional policies. The decisions regarding these policies are taken away from the islands in question. With respect to the enforcement of protection of respective areas, such bodies are considered by some as weak and by others as too stringent depending on the stakeholder in question, where an environmentalist and a resource user often hold conflicting views. This can be explained through a study conducted in the Aegadian Islands which revealed that different stakeholder groups award different weighting to biological, economic and socio-cultural performance indicators when assessing MPA performance (Himes, 2007b). Studies looking into conservation aspects have confirmed that enforcement in the Aegadian Islands is inadequate. This is possibly the result of a lack of acceptance of enforcement by local communities. This in turn put pressure on policy makers with the end result being ‘scant effort’ by authorities patrolling the MPA. Furthermore, MPAs in Italy are usually underfunded and understaffed and this further affects their governance (Guidetti *et al*., 2008).

Whereas the importance of the involvement of stakeholders in successfully achieving a MPA has been widely discussed (Himes, 2007b), genuine stakeholder involvement seems to be lacking, especially in the case of Aegadian Islands. Through their analysis, D’Anna, Pipitone, Fernández, Garofalo and Badalamenti (2015) confirmed that the MPA set off on the wrong foot when its initial management was based on a top-down approach, hindering acceptance and participation in the management process. Himes (2003) also confirms claims by fishermen in the Aegadian Islands that they were not allowed to be involved in management. Since the

presence of MPAs can have a strong impact on the fishing industry, the success of MPAs depends partly on the attitudes of fishermen towards the management instrument (Pita, Pierce, Theodossiou and Macpherson, 2011). This lack of involvement led to bad blood between fisherman and the MPA during the initial stages characterised by wariness (Badalamenti *et al*., 2000). The general public and other stakeholders' involvement has also been limited (Guidetti *et al*., 2008). This explains current challenges faced by the MPA as such problems can also affect the success of an MPA in the long term (Himes, 2003).

The lack of integration of stakeholders is not a one-off story but quite common with regard to Italian MPAs where only a few have been able to effectively manage natural resources through the collaboration of managers and interested stakeholders (Guidetti and Claudet, 2010). The management body claims to have taken the problem of stakeholder involvement seriously. D'Anna *et al*., (2015) confirm that in recent years measures have been taken to improve stakeholder involvement in the governance of the MPA. Meanwhile, conflicts between conservationists, fishermen and tourism operators still exist (D'Anna, Fernández, Pipitone, Garofalo and Badalamenti, 2016) as discussed further in section 7.6.2.

With respect to the management of MPAs, when this is in place such as on the islands under Italian jurisdiction, relevant measures to support ecotourism are not necessarily also in place possibly having negative environmental impacts as discussed in section 7.6.1. The lack of adequate management plans that include strategies to practice sustainable ecotourism with MPAs have also been highlighted in literature (Hoyt, 2005).

Another challenge faced by several ecotourism venues in the Maltese Islands is limited accessibility either due to illegal encroachment or to a change of land use for hunting and/or trapping activity. This issue has been reported in numerous studies:

> "*Those who venture further afield into country foot-paths or open garigue often come back with hair-raising accounts of close brushes with bird trappers, farmers, hunters, exhibitionists, and surprised lovers*." (Grima, 1997:11).

The issue of the public's right to access the countryside was one of the arguments at the centre of the campaign in the run-up to the referendum against spring hunting in (Briguglio, 2015c). The problem of accessibility is a result of the fact that the Malta is one of the world's most densely populated countries with limited land resources (Markwick, 2000) making the use of

open spaces a highly contested issue (Grima, 1997). Such an issue also serves as a reminder that since land on archipelagos and islands is always in short supply, regulation of its use becomes even more critical (Bardolet and Sheldon, 2008). Whereas hunting/trapping are not the only reasons behind this problem, those practicing such activities tend to be the most problematic, according to stakeholders.

While some claimed that protected areas and parks on Pantelleria and the Aegadian Islands served as a natural attraction for tourists, none of the interviewees made this remark with regards to the Maltese Islands. The relatively lower awareness and appreciation on the potential of ecotourism venues in the Maltese Islands by the local community, when compared to other islands, has been confirmed by stakeholders. The latter remarked that such sites are barely visited as the tourism sector in the Maltese Islands is mostly geared towards mass tourism. Similar problems have been recorded on Lampedusa where stakeholders remarked that locals hardly visited protected areas. In this regard calls have been made for more awareness campaigns on the need to safeguard protected areas. Here one should note that the educational interpretative element of ecotourism is considered one of the tools to raise awareness among tourists leading to better behaviour on and off site. Unfortunately interpretation is often missing in sites which are not managed (Moghimehfar *et al*., 2014). This further sustains the argument on the need to have adequate management in ecotourism venues which also needs to target the local community.

7.3.2 Ecotourism Activities

The activities and features considered by respondents to be the most important during a trip abroad include discovery and adventure, experiencing remote and unspoilt nature, local culture, increasing their knowledge of wildlife and visiting uncrowded areas. This reflects the overlap between ecotourism and adventure tourism (Fennell, 2013) and that between ecotourism and cultural tourism (Higham and Dickey, 2007; Weaver and Lawton, 2007). With respect to the educational element, apart from being a major defining characteristic of ecotourism (Botha *et al*., 2016; Armstrong and Weiler, 2002), ecotourist market segmentation research has identified the ecotourist as a tourist who tends to travel with a motivation to learn more about wildlife (Beaumont, 2001; Burns *et al.*, 2011; Eagles and Cascagnette, 1995; Perkins and Grace, 2009). Stakeholders have also emphasised the need to target tourists seeking an educational experience. The need to practice ecotourism activities in uncrowded places has also been discussed in literature (Cardona, 2004). One should keep in mind that the major aspects that

motivate people to participate in ecotourism activities, in both terrestrial and marine environments, are the sense of being somewhere remote and of 'getting back to nature' (Garrod and Wilson, 2004; Wilson and Garrod, 2003). Furthermore nature in a pristine environment plays a vital role in the ecotourism experience (Chan and Baum, 2007). Such findings may also suggest the reason as to why the majority of respondents hailed from urban areas. Most participants eagerly wished to get away from city life and enjoy the serenity of a natural environment. Here one should also note that stakeholders have also emphasised on the need to target tourists seeking to immerse themselves in nature which, as discussed earlier, reflects a major principle of ecotourism (Weaver and Lawton, 2007).

In general, major ecotourism activities featured among the most favourite activities. These included trekking, excursions related to the volcanic phenomena and the boat tour. One should note that most of these activities were held either along/close to the coast or in marine environments. Furthermore, as per ecotourism principles, none of such activities were consumptive in nature. Activities which overlapped with other forms of tourism such as adventure (including horse riding and cycling) and cultural tourism featured mid-table of the list of the most enjoyed activities. Stakeholders also identified tourists interested in specific ecotourism related activities, with specific reference to trekking, as ideal target ecotourists. This reflects studies of Mehmetoglu (2007) and Lemelin *et al*. (2008) who profiled ecotourists on the basis of the ecotourism activities they chose. Emphasis was also put on those interested in volunteering. This is a possibility considering the growth of volunteering in ecotourism (Brown and Morrison, 2003; Fennell and Weaver, 2005; Galley and Clifton, 2004).

Taking into consideration individual ecodestinations, the results obtained through focus groups and surveys mostly complemented each other. In the case of the Aegadian Islands, the top favourite excursions were primarily trekking and the boat tour along with cycling and caving. In the case of the Pelagian Islands, the boat tour, cycling and snorkelling along with activities revolving with turtle conservation were the most popular. The accommodation experience in the dammuso, trekking and horse-riding were the favourite activities cited in the case of Pantelleria along with volcanic phenomena related activities. In the case of the latter one should note that over recent years there has been a rapid rise in interest in geological landscapes (McKeever and Zouros, 2005). Consequently, the number of visitors to geologically and geomorphologically interesting sites has increased considerably, especially in Europe (Farsani, Coelho and Costa, 2012). Such excursions, also known as geo-trails, include natural sites of geological

significance (Newsome, Dowling and Leung, 2012). Pantelleria is an ideal location for such activities.

In the Maltese Islands, the boat tour, horse-riding and time spent with farmers were the most enjoyed along with guided walks, snorkelling and cultural excursions. In a previous, study trekking, scuba diving and birdwatching had been identified as the top ecotourism activities in Malta (Mallia, 2013). Whereas scuba diving could not be referred to in this study as it was not practiced, ecotourists referred to another marine ecotourism activity – snorkelling. Trekking made the list in both studies confirming its potential along Malta's coastline and other spots. With respect to bird watching one should keep in mind that few species were observed during the ecotour since the activity was not conducted at the right time of the day. This might explain why this activity was not a favourite among ecotourists participating in the ecotour held in the Maltese Islands

In general, the results show that coastal and/or marine ecotourism activities featured among the favourite activities held during the ecotours in the Maltese Islands, the Pelagian Islands and the Aegadian Islands. In the case of Pantelleria, the favourite activities had to do with coastal/terrestrial environments which suggests a relatively lower potential of this island in the field of marine ecotourism even if other opportunities such as underwater trails exist and other marine/coastal activities have been identified by stakeholders during interviews. One should point out that locals from Pantelleria remarked that whereas the full potential of the sea is not being used in terms of ecotourism the island has further potential for ecotourism in terrestrial settings. The potential to practice ecotourism on volcanic islands and the focus on terrestrial ecosystems was also confirmed by Weaver (1993). The fact that such inferences were found to be statistically significant confirm the potential to practice a myriad of main ecotourism activities along with overlapping activities in the area of study. The fact that overlapping activities receive less attention by ecotourists also confirms that the persons attracted to participate in ecotours has specific interests.

Several important aspects were outlined by respondents when questioned about the activities they enjoyed least. A major challenge in the Maltese Islands is traffic and when planning a programme efforts must be made to reduce traveling time from one site to another as far as possible. In the case of the Aegadian Islands, the hydrofoil service between one island and another and between islands and mainland was a bone of contention among ecotourists. One should point out that the hydrofoil was used in a period when the sea was rough and thus this is

a challenge that should also be taken into consideration as the sea can be rough throughout any period of the year. This further sustains remarks discussed earlier that the lack of reliable accessibility and bad weather can deter ecotourists from visiting such islands. Too much trekking did not go down well with ecotourists and thus better planning to reduce trekking over long distances should be made. Whereas, as mentioned earlier, jellyfish populations can be considered as an attraction for ecotourists (Doyle, Hays, Harrod and Houghton, 2014) it has been claimed by participants of the ecotour in Pantelleria that due to jellyfish blooms one could not practice snorkelling. In the Pelagian Islands the visit to the MPA centre was considered to be the least interesting activity. One can say that ecotourists preferred more activities out in the field which are truly nature based and that the level of interpretation might not have been adequate possibly due to a language barrier.

Whereas the association between ecotourism and culture is widely recognised (Higham and Dickey, 2007) visits to archaeological sites were on the whole identified as the least interesting for ecotourists. One should also note that survey respondents participating in ecotours on all islands under Italian jurisdiction claimed that visits to archaeological sites were not of great interest due to the absence of interpretation and guiding services. On the other hand, ecotourists visiting Malta and who participated in the focus group commended the overlap between natural and cultural aspects during excursions and emphasised the need to give the cultural dimension its due importance in any ecotourism programme organised in the Maltese Islands.

The meeting with farmers and the tasting of local products was highlighted as one of the activities most enjoyed by participants of the ecotour held in the Maltese Islands. Meanwhile participants of the focus group remarked that whereas the overlap may exist, agriculture related activities should not be the focus of the ecotour. Whereas agriculture has also been strongly linked with ecotourism (Bagdonis, Hand, Larson, Sanborn and Bruening, 2009), this concept is opposed by Moskwa (2010) on grounds of education and conservation efforts. In addition, on several occasions during interviews, stakeholders, namely operators, made reference to agritourism as a niche that is equivalent to ecotourism. This reflects the aforementioned point on the lack of knowledge as to what ecotourism is and that emphasis needs to be made to keep the natural aspect as the focus of ecotourism excursions. This implies that the overlap of the two has been at times confused with similarity between the two. This is not limited to the Maltese Islands as ecotourism has been consistently confused with a number of near synonyms (Weaver, 2008).

Participants of focus group who joined the ecotour held in the Maltese Islands remarked that more emphasis needs to be put on activities in the marine environment as too much prominence was being given to the terrestrial aspect. Similar remarks on the potential of the sea on the Pelagian and Aegadian Islands for the practice marine eoctourism activities were outlined by stakeholders, including ecotourisrts. This reflects a scenario whereby operators do not give due consideration to the marine environment a resource for ecotourism.

It was remarked that too much emphasis was placed on the botanic aspect rather than the faunistic aspect during the ecotours. This is a reflection of the huge plant biodiversity with approximately circa 500 plant species found on small islands such as Levanzo and Marettimo (Gianguzzi, Scuderi and Pasta, 2006; Romano and Gianguzzi, 2006) and the relatively impoverished fauna found across the area of study. The problem was further highlighted in the case of the Maltese Islands where ecotourists barely noticed any fauna in the sites visited, save for birds at the Nature Reserve at Għadira and the fresh water crab at Baħrija Valley, with the first being an inner coastal environment while the second is terrestrial. The fact that the Maltese Islands have an impoverished fauna was also raised by academics from the field of natural sciences during interviews, listing this as a limitation for the development of ecotourism in the Maltese Islands. Yet, although the archipelago is characterised by a small land area, a limited number of habitat types and an intense anthropogenic impact, the islands are nevertheless rich in terms of faunal species. In fact whereas the Maltese Islands are considered to be impoverished in terms of fauna, in reality the archipelago is home to a remarkable number of over 3000 species of animals including endemic species (Schembri, 1993). This has also been acknowledged by Baldacchino (2015a) who argues that whereas the range of species (biodiversity) on the islands may be restricted, a larger portion of species are likely to be endemic – unique to that island or to a number of islands, such as *Podarcis filfolensis*, the lacertid lizard endemic to the Maltese and Pelagian archipelago (where it is also found on Linosa and Lampione) (Scalera *et al*., 2004). As remarked by stakeholders during interviews, the potential of endemic species across the area of study is being overlooked. It has been pointed out by stakeholders such as ecoguides and naturalists that flagship charismatic species which are relatively large and attractive are mostly lacking and that the fauna present within the area of study might not be much of interest. Yet one should keep in mind that various specialised ecotourism excursions to observe specific species including microfauna have also been reported in literature (Harvey Lemelin, 2007; Wollenberg *et al.*, 2011) and this is thus an opportunity which is being overlooked and underestimated. This could possibly be due to a failure to engage knowledgeable ecoguides who can offer interpretation in the field.

There have also been attempts to include a number of activities such as pescatourism, snorkelling and diving within fish farms as well as visits to private collections of preserved specimens in ecotourism tours. This reflects attempts to expand the remits of ecotourism. Nevertheless, this raises questions as the general approach has always been to exclude activities which involve living organisms kept in captivity from the field of ecotourism (Weaver and Lawton, 2007). Ecotourists themselves did in fact raise concerns about a visit to a sponge fishing store remarking that this should not be included in the ecotourism programme, something which also confirms that the tourists attracted to ecotours largely abide by ecotourism principles.

Whereas one may argue that ecotourists should be willing to face challenging weather conditions as most ecotourism activity is conducted outdoors in a natural setting, discussions on ideal weather conditions to practice ecotourism are not new in tourism and ecotourism (Aniah, Eja, Otu and Ushie, 2009). Weather conditions have also been cited to be among the aspects that lead to a disappointing ecotourism experience (Lawton, 2012; Muloin, 1998). In fact, the time of year when excursions are held has also been identified as a factor that operators need to fine-tune in order to be successful and ensure maximum satisfaction to ecotourists. In the case of Pantelleria and the Pelagian Islands, 20.8% and 18.2% of survey respondents respectively said that the timing of the ecotour was not ideal as the temperatures were too high to conduct certain excursions. In both cases the ecotours were held between June and July. Whereas it was argued that the climate on the islands under study permitted ecotourism to be practiced almost all year round, lower temperatures were identified by both participants of focus groups and stakeholders interviewed to be better for ecotourism activities along the coast such as trekking. In this regard, the off peak season, excluding the period between December and February, was earmarked as an ideal period to practice ecotourism. This is currently not the case with the consequent seasonality as discussed in section 7.6.2.

On the other hand, during a focus group meeting, ecotourists who visited Pantelleria and the Pelagian Islands remarked that the fact that several activities took place close to the coast or in marine environments eased the problem and that more emphasis needs to be put on marine ecotourism activities throughout the summer period. Controversial arguments raised in literature on the overlap between mass tourism/3S activities and soft ecotourism (Johnson 2006; Sharpley, 2006; Weaver, 2008) also featured in focus groups. Participants argued that soft ecotourists might prefer higher temperatures so as to be able to swim and conduct coastal and marine related excursions such as snorkelling.

Such observations imply that within marine and coastal settings one can practice various marine ecotourism activities throughout a substantial period of the year as it is possible to adapt according to the season and weather. For example, trekking, boat tours and bird watching can be organised off season whereas snorkelling, diving and the observation of marine fauna can be organised during the warmer months. Such arguments are congruent with remarks made by participants of focus groups and the stakeholders interviewed on the need to correlate specific excursions with the particular season they would be most enjoyable. This implies that ecotourism packages with the right components in terms of ecotourism activities need to be designed for the specific period, something which operators in the area of study are not yet organised enough to offer, and which, as a result, is negatively affecting the satisfaction ratings of ecotourists with respect to the product being offered.

7.3.3 Ecotourism Services

A major issue with respect to ecotourism services is the fact that several operators cease to operate off-season due to the various reasons outlined in section 5.3.3.1. According to stakeholders from the area of study, this affects ecotourists arriving off-season who are in need of services which are not available during such periods. The challenges for businesses to provide services all year round have also been reported in the field of ecotourism (Warren and Taylor, 1994). In fact a major weakness for the sustainability of ecotourism development is its seasonality (Sayyed, Mansoori and Jaybhaye, 2013). Yet small ecotourism businesses can adapt to seasonal fluctuations by offering a diversity of products and services depending on the season (Silva and McDill, 2004). Whereas this has also been suggested by stakeholders, it is absent in the area of study and consequently creating a viscous circle. This also explains why occupational multiplicity is common in the area of study. This is especially the case on the small peripheral islands of archipelagos, a characteristic which has also been reported from islands pursuing the development of ecotourism (Slinger-Friedman, 2009).

Seasonality in the demand for services also means that minimum investment is made in the services provided. Furthermore, since the use of services is highly seasonal, providers only stock a limited amount of material needed to run excursions as these are mostly used in the peak season. As a result even relatively small sized groups, irrespective of the season in question, at times cannot be catered for, especially in the case of the smaller islands in the area of study. The issue of connectivity and weather has already been raised. This also has an impact on the provision of food and other products which fail to arrive on the relevant island in

bad weather. Whereas ecotourists seek to eat local food, the exchange of products between islands within the same archipelago is hindered in such circumstances consequently impacting the provision of services for ecotourists.

A lack of language proficiency does not only influence interpretation as explained below, but also the availability of services. Such an issue was earmarked not only by stakeholders through interviews but also by the participants of ecotours during the focus groups. A language barrier acts as a limiting factor for the local community in providing a service, limiting their participation in ecotourism development (Chengcai, Linsheng and Shengkui, 2012). It also negatively impacts the ecotourists themselves (Gray and Campbell, 2007) as it affects communication between clients and staff. As a result, this has an impact on the compliance with instructions such as how to use equipment or how to behave in the environment in which the activity is taking place (Page and Dowling, 2002). Training is thus necessary since investment in human capital is considered to be crucial for service quality (Bardolet and Sheldon, 2008).

Stakeholders have also remarked that there is a distinct lack of ecotourism packages available in the area of study. This is a result of a lack of cooperation between operators, especially those operating in the field of ecotourism. As one can note, here the aforementioned issue of rivalry resurfaces. This time it is between competing local operators. Rivalry is so strong in the peak season that operators fail to share overbookings at the expense of failing to provide a service to ecotourists. Similar '*network barriers*' which affect the expected partnership among operators have also been reported in literature and have been considered as barriers to ecotourism development in an area (Silva and McDill, 2004). This also explains the lack of ecotourism packages found in the area of study. Similarly, Weaver, Glenn and Rounds (1996) argue that the lack of packages is due to the lack of organisation among operators and that, in turn, this meant that ecotourists are less aware of other ecotourism opportunities found in the area. Such circumstances negatively affect the experience of ecotourists and reduce the likelihood of them reengaging in ecotourism activities. This lack of ecotourism packages has also been linked to the fact that most islands are far more geared for mass tourism. As reported by Weaver (2001a), the few ecotourism services in the area of study have developed in response to a specific need. In most cases this was to protect the environment, especially in the case of the Maltese Islands, or to fill a void or to offer ecotourism services on an occasional basis. In this regard, more creativity, innovation and entrepreneurship should be encouraged. This necessitates education and training especially when it comes to nature related and authentic experiences (Wilson, 1996).

Ecotourists and locals have also expressed concern on the fluctuation of prices. The cost of general goods tends to increase during the peak season as retailers see the arrival of tourists as an opportunity to make up for the lack of sales in the off-peak season. This naturally impacts both tourists and locals. It has been argued by locals and operators that the cost of general goods and of energy supplies tends to be higher on their islands than on the mainland. In fact, several residents from Favignana, the most visited island in the Aegadian Islands, spend the off peak season on the mainland rather than on the island due to the '*reckless general rise of prices associated with tourism*' which drastically affects the budgets of families (Peronaci and Luciani, 2015:10). This is not an anomaly found solely in the area of study. General retail goods and energy supplies on islands have been found to be more expensive than in neighbouring countries. Food and beverages prices have been found to be 10% higher on islands when compared to prices on the mainland. When it comes to fuel, prices have been found to be remarkably much more expensive on islands. With respect to goods, one should keep in mind that most island communities do not produce enough to meet local demands and are almost fully dependent on imports to meet consumer demands. This is more specifically the case when it comes to energy supplies. As a result, the necessity for transport becomes an important element.

The price differences between islands and the mainland have been attributed to transport with the latter considered as a barrier for the integration of island and mainland economies due to costs, monopoly and reliability issues. These problems tend to be amplified where an island is part of an archipelago. Another factor identified as a precursor to higher prices on islands is higher stockholding costs primarily due to the possibility of interrupted shipments in case of bad weather or disputes as discussed earlier. In the case of fuel stockholding, costs are further raised as a result of safety and other requirements. Last but not least, restricted competition due to small markets which cannot sustain rigorous competition can also lead to higher prices and to a classic situation of local monopoly (Armstrong, Johnes, Johnes and MacBean, 1993; Armstrong and Read, 2003). Price fluctuations have also been linked with second home tourism (Marjavaara, 2008). Such issues of price fluctuations require attention as it has also been reported to be a top concern for visitors in other archipelagos (Bardolet and Sheldon, 2008). In this context, it is being argued that ecotourism activity all year round can reduce seasonality which may, in turn, reduce the need to increase prices as a constant demand will be secured. However, this may also lead to price fluctuation to be extended beyond the peak season to the detriment of the local community as further explained below in terms of socio-economic impacts.

Monopoly of services encountered across the area of study revolved around connectivity and other auxiliary services needed by ecotourists. However monopoly can also leave an impact on strict ecotourism services due to lack of competitive market forces, resulting from absence of economies of scale. In fact competition was mostly limited to trekking tours in Malta, boat tours in the Aegadian Islands and diving/snorkelling on Lampedusa. Therefore ecotourism services might be irregular, expensive and of dubious quality leading to green washing. On some islands there is no competition due to natural factors such as their size or existing policies such as limited development possible. One example is provision of accommodation on Comino. Furthermore, even if ecotourism enterprises tend to be micro-businesses and family run, the merger and consolidation effect can still take place including by a big/single player possibly coming from outside the island thus dictating the niche. This can be further encouraged if positive trends are observed and the industry shows optimistic signs. In fact, on several islands such as Levanzo and Lampedusa foreign operators in the field of trekking and diving have already started to tap in the niche.

Another problem with the ecotourism services provided is the lack of standards and certification which impacts the quality of excursions. In the case of the Pelagian Islands some operators claim to offer ecotourism services but eventually fail to abide by ecotourism principles. One such example is the case where wildlife is approached within MPAs during excursions where the encounter takes place in such proximity to the animals that it results in undue stress for them. The problem of self-acclaimed ecotourism enterprises that fail to achieve the minimum standards required to qualify as ecotourism is not new and has also been faced in other islands where marine ecotourism is practiced (Hoyt, 2005). In this regard, it has been shown that ecocertification procedures need to be extended beyond accommodation facilities and should cater for all other services and excursions offered. Furthermore, constant audits on operators who have acquired labels are required to ensure that the standards committed to are respected.

With respect to accommodation, before the ecotour, 84% of respondents claimed that they were willing to use a more environmental friendly accommodation during ecotours even if this had to include sharing and fewer commodities. This reflects the characteristic features of the ecolodge which describe it as being small in size, an environmentally sustainable operation (Gardner, 2001) and offering basic comfort (Fennell, 2007). Those most satisfied with the accommodation were participants of the ecotour held in Pantelleria. This was confirmed through both surveys and focus groups. This attests that the '*dammuso*', a traditional dwelling with various environmental friendly features formerly used for agricultural and animal husbandry purposes

and which has been converted and adapted by the local community for accommodation purposes (Tudisca *et al*., 2011), can play an important role as an ecolodge in the ecotourism experience. Stakeholders have also remarked on the potential of the '*dammuso*' to serve as an ecolodge when interviewed. One should note that whereas such structures are dominant on the island of Pantelleria, one also finds a number of '*dammusi*' on Lampedusa which have also been adapted for accommodation purposes. Houses/apartments owned by the local community in the Pelagian and Aegadian Islands were also considered to be acceptable as accommodation for ecotourists. This opens economic opportunities for local communities (Kwan *et al*., 2010). Yet stakeholders have argued that the humidity in the houses often made their usage inadequate especially in winter. In fact the lack of income all year round meant that little investment could be made in such structures as they were only used throughout a short season, an issue which can be tackled if seasonality is reduced.

Whereas according to Weaver (2008) the majority of ecotourists usually stay in conventional hotels which are situated close to protected areas, this does not mean that such accommodation is considered to be superior to the ecolodge by ecotourists. Participants of the ecotour held in the Maltese Islands were not satisfied with their stay in a hotel adjacent to a marine and terrestrial protected area, even if this hotel had acquired an ecolabel, as it did not reflect the principles of ecotourism including that of providing basic comfort, being small in size and environmentally sustainable. On the other hand, camping was also considered to be an inadequate option due to the complete absence of even minimal services. In this regard the recommendations of stakeholders who also suggested different options as ideal ecolodges including existing hostels within natural parks and existing dwellings in rural areas, need to be noted. Whereas camping was found to be inadequate by participants of the ecotour held in Malta, ecotourists who participated in the ecotour held in the Aegadian Islands and stakeholders from the archipelago have also recommended the need to have fully operational camping sites on all the islands of the archipelago. This might also be related to the age factor. Younger ecotourists were willing to be more adventurous with accommodation including sleeping in tents whereas older ecotourists seem to have expected basic amenities. The results obtained with respect to the ecotourists' preferences on accommodation were found to be statistically significant making the '*dammuso*' the ideal equivalent of the ecolodge. On the other hand, more needs to be done in the Maltese Islands and the potential of farmhouses and restored buildings in rural areas needs to be evaluated as accommodation provided also had an impact on the satisfaction rating of the ecotour held in the Maltese Islands, as explained below. Results on the latter were also found to be statistically significant increasing concern on the issue.

As already discussed above, the educational element is as an important aspect as well as an expectation during ecotours. One way of achieving this is through interpretation. Even if interpretation has been associated with several benefits such as better behaviour of ecotourists on site by being more sensitive to the environment (Weaver and Lawton, 2007; Moghimehfar *et al*., 2014) and even if various interpretation methods outlined by Botha *et al*., (2016) have been noted in the area of study, respondents of focus group meetings and surveys argued that ecotourism venues in the area of study lack interpretation or that not enough interpretation was offered during the ecotours organised. As expected, this turned out to be a problem as tourists do ask and expect information on the natural heritage when participating in a tour (Mifsud, 2017).

In some cases, interpretation was present but not adequate due to a lack of substance and knowledge. This was particularly expressed by participants of ecotours with respect to excursions such as horse-riding and boat tours. It has also been argued that whereas interpretation should include a scientific element it should not be academic in nature and should focus on a wide array of subjects rather than focusing too much on botanical aspects, such as in the case of the ecotour taking place in the Maltese Islands. This challenge has also been reported in literature where it has been argued that due to the possibility that ecotourists are well informed, the guide should have wide knowledge on various relevant topics (Mitchell, 1992).

The use of guides is a common means of interpretation during ecotours (Bustam *et al*., 2012; Zeppel, 2008). Whereas ecoguides are available across the area of study, these are rather limited in number. This might explain the lack of interpretation available in the area of study. Furthermore, several ecoguides are self-acclaimed and lack the various skills required to do the job. In this regard, training is required. The latter is instrumental as it is considered to be an important precursor for ecotourism development (Periera, 2005). Moreover some lack the necessary licences. In some cases, such as on the islands under Italian jurisdiction, there is also a lack of enforcement. This is not the case in the Maltese islands. A language barrier has been identified as a major problem in Italian territory as ecoguides lack knowledge of various languages. This is a challenge identified in other ecodestinations. In such situations more training in foreign languages, particularly English, has been recommended (Jacobson and Robles, 1992). This is instrumental as a language barrier can also serve as a limitation for the local community to participate in ecotourism (Chengcai *et al*., 2012).

A major problem with interpretation has to do with policy and regulation. As explained in section 5.3.3.6, whereas in the islands under Italian jurisdiction one finds a distinction between ecoguides and tourist guides, such structures are absent in Malta. This acts as a tremendous impact and limitation on the niche. Furthermore, only as of recently did tourist guide courses start to incorporate classes on the natural heritage of the Maltese Islands to improve the environmental knowledge and awareness of tour guides. This was done in a practical manner through the development of a prototype ecotour for tourists in the Maltese Islands. Nevertheless, this initiative was limited to one study unit. Furthermore, there is still room for improvement such as training guides to positively influence tourists in terms of their behaviour towards the environment (Mifsud, 2017). Similar problems such as the absence of nature guides and lack of professional training have also been faced by other ecotourism destinations in Mediterranean Islands in Greece (Skanavis and Giannoulis, 2009). This requires action as the lack of skills needed to operate in the ecotourism sector such as nature guiding has been identified as a challenge faced by islands when it comes to ecotourism development (Halpenny, 2001).

Soft/primary interpretation which includes interpretation centres have been identified as important elements for ecotourism interpretation (Kuo, 2002; Stewart *et al*., 1998). Whereas one already finds a number of such centres across the area of study it has been stressed that no new buildings should be developed in the name of ecotourism. As outlined above, it is interesting to note that respondents from the ecotour taking place in the Pelagian Islands claimed that the least interesting activity during the ecotour was a visit to the MPA interpretation centre. This does not resonate with findings in literature whereby it was claimed that interpretation plays an important role to reach visitor's expectations and to facilitate the satisfaction of tourists (Ballantyne *et al*., 2011; Moscardo, 1998; Sarlat *et al*., 2013; Saayman, 2009; Weaver and Lawton, 2007). As explained, this might be due to the fact that the interpretation offered was not adequate, possibly due to a language barrier.

Ecotourists have argued that interpretive signs are limited, tend to focus on one particular aspect such as historical ones and are not well maintained especially once they are weathered or vandalised. This is a limitation as these serve as an important tool for enhancing visitor knowledge and understanding during a natural area experience (Hughes and Morrison-Saunders, 2002). With respect to signage, whereas these are limited across the area of study, care should be taken in their installation as these can become a visual nuisance especially when they weather and there is a lack of maintenance.

A number of self-guided resources including those commonly referred to in ecotourism as guidebooks (Bustam *et al*., 2012; Green, 2013; Zeppel, 2008) have been identified across the area of study. As of recently there has also been a push for other digital resources such as eBooks (in the Maltese Islands) and mobile applications (in the Pelagian Islands and Maltese Islands). It would be more ideal to take this route in terms of interpretation, especially in the context of lack of synergy between different entities which install various informative and directional signs, at times within the same areas producing a visual nuisance. Yet, in the Italian islands, most of these resources are in Italian (save for those related to natural and archaeological marine trails on Pantelleria), once again introducing a language barrier. Information points across the area of study are missing, abandoned or not geared for ecotourism, at times due to rivalry related issues. This further shows a lack of preparation to cater for ecotourists.

Whereas as mentioned above, lack of health services implies that several service providers move to main land semi-permanently in case of certain life events, the absence of such services also leaves an impact on ecotourism. Several ecotourism activities are held outdoors and involve various levels of risk. On Linosa one finds a nurse stationed on the island however on the most peripheral and small islands such as Levanzo and Marettimo there are no health services available. On other islands such as Lampedusa and Pantelleria hospitals are rather limited. Thus, in case of emergency ecotourists would need to be ferried/airlifted elsewhere for proper treatment.

7.4 Profile of the Ecotourists

As already outlined through the various results recorded and further discussed below, one can say that the participants of the ecotours resembled ecotourists. Tourists visiting several islands in the area of study, especially the smaller islands under Italian jurisdiction, have also been described by stakeholders in such a way that reflects several attributes of ecotourists reported in literature. Furthermore, stakeholders have shown understanding of the profile of ecotourists and have expressed interest in attracting this segment.

7.4.1 Demographic Characteristics of the Ecotourists

Operators in Gozo have argued the need to target tourists who are mature as they tend to appreciate nature more. This reflects claims of an increased appreciation of nature based

events with age (Kruger *et al*., 2013). This may also be the reason why stakeholders from the islands under Italian jurisdiction claimed that most tourists visiting the islands are mature. Nevertheless, this may also be due to the traditional marketing strategies adopted which targets that age group only as discussed later. The results which were found to be statistically significant show that most ecotourists attracted to the ecotours were relatively young, confirming that even such a cluster, mostly overlooked by stakeholders, can be potentially targeted for ecotourism. With respect to gender no clear results were obtained. These results reflect trends reported in literature as outlined in section 2.6.1 whereby there is a lack of agreement among researchers on whether any particular gender tends to be predominant among ecotourists.

Stakeholders across the area of study expressed the need to target and attract international tourists including tourists from northern Europe, Germany, France, the Netherlands, Scandinavian countries, United Kingdom, United States of America and Russia throughout the whole year ideally. Incidentally, most ecotourists who participated in the ecotours originated from such countries, with others originating from the Mediterranean region. This reflects the findings of studies based on geographical segmentation that placed Anglo-America along with western and northern Europe among the top origins of ecotourists (Eagles and Higgins, 1998). However this may also be due to the fact that promotion conducted by operators/NGOs focused mostly on such markets.

Most tourists visiting the islands under study, excluding Malta during the peak season, are domestic tourists who are considered to be less interested in natural and cultural aspects and more focused on leisure which does not reflect the attributes of ecotourists. This can be attributed to a number of reasons including limited marketing efforts focusing on national markets as well as a distinct lack of international flights.

7.4.2 Environmental Awareness

The majority of ecotour respondents considered themselves to be environmentally conscious and a big portion of respondents (42%) claimed to be affiliated to an eNGO. This reflects studies conducted on the profile of ecotourists which found ecotourists to be more environmentally aware and active than other consumers (Luo and Deng, 2008; Rawles and Parsons, 2004; Weaver and Lawton, 2002). This also concords with studies that found ecotourists to possess an environmental ethic and to behave more responsibly with respect to the environment (Balantine and Eagles, 1994; Thompson and Barton, 1994).

7.4.3 Knowledge on Ecotourism

Whereas there have been cases reported in literature whereby ecotourists lacked knowledge about ecotourism (Wurzinger and Johansson, 2006), most respondents (91.6%) were aware of the term ecotourism and could relate the term to components of ecotourism such as nature-based, the educational element, conservation and sustainability (economic, social and environmental) as identified in the extensive reviews of ecotourism components conducted by Fennell (2001), Higham and Lück (2002) and Donohoe and Needham (2006). A high proportion of respondents said that they think that ecotourism is likely to be important or very important in the future with the highest proportion coming from the participants of the ecotour held in the Maltese Islands. This confirms that attributes of the participants of the ecotours, especially those participating in the ecotour held in the Maltese Islands, matched those of ecotourists as described in literature.

7.4.4 Ecotourists and Contact with Nature

A relatively high proportion of ecotour respondents claimed to be influenced by the presence of protected areas, natural reserves or any form of conservation issue when choosing their holiday/travel destination. This is no surprise as most ecotourism activities take place in protected areas (Weaver and Lawton, 2007) which tend to have ecotourism related characteristics such as outstanding natural attractions (Weaver, 2006). These play a vital role in the ecotourism experience (Chan and Baum, 2007). With respect to conservation one should note that various attempts to define ecotourism both in terrestrial and marine environments refer to its vital role in conservation (Fennell, 2001; Sakellariadou, 2014). Others have remarked that, most likely, ecotourists aim to support the environment and the wildlife by participating in conservation initiatives (Balantine and Eagles, 1994; Thompson and Barton, 1994). This further confirms that the participants of the ecotours reflected attributes of ecotourists as described in literature.

7.4.5 Travel Patterns

Ecotourists tend to be frequent travellers (Wilson and Garrod, 2003). This may explain why the majority of respondents had already participated in a previous ecotour. As deducted from questions answered (including full awareness of ecotourism, being the most environmentally aware, expressing highest level of willingness to stay in a basic accommodation reflecting

ecotourism principles, being affiliated to eNGOs, being the most influenced by a natural setting when going on holiday and recording the highest expectation to immerse in nature) the characteristics of the participants of the ecotour held in the Maltese Islands may indicate that these participants are regular ecotourists and explains why most of them had already participated in a previous ecotour. A big portion of participants who participated in the first ecotour (Aegadian Islands) participated in the second one (Pantelleria) and this explains why most of the respondents participating in the Pantelleria ecotour said that that had already participated in an ecotour. The results obtained were found to be statistically significant and this may thus also imply a sense of satisfaction in previous ecotourism experiences, encouraging the ecotourists to participate in other ecotours, some of which were organised as part of this research as further discussed below.

7.4.6 Motivations and Expectations

The fact that the ecotour was predominantly nature based was a major aspect that motivated participants to join. This reflects the fact that ecotourists tend to travel so as to seek, experience and observe nature (Beaumont, 2001; Burns *et al*., 2011; Eagles and Cascagnette, 1995; Perkins and Grace, 2009) as they tend to be motivated by a specific interests in nature and wildlife (Weaver, 2008; Weaver and Lawton, 2007). This also explains why immersing in nature was registered among the most popular expectations among respondents participating in the four ecotours. Another popular expectation was the learning experience. This supports the findings of Balantine and Eagles (1994) who identified the educational element as an important expectation of those participating in ecotourism activities. As discussed earlier in the literature review, motivations and expectations clearly overlap. The fact that going to the beach, making new friends and tasting local food were the expectations least popular with respondents and the fact that the results obtained were found to be statistically significant goes to show the nature of the participants and their interest in practicing ecotourism rather than just enjoying a leisure vacation.

Some operators pointed out that there are several repeat visitors who are visiting Malta on an annual basis and thus wanted to explore other aspects of the island with which they have not yet become familiar, including the natural aspect. In fact, a case study on ecotourism in the Maltese Islands has identified ecotourism as a possible instrument to complement the general tourism product by offering a diversified tourism experience in the Maltese Islands (Parlato Trigona, 2002).

7.4.7 Satisfaction and Repurchase

The ecodestination most visited by participants of the study was the Aegadian Islands followed by Pantelleria. These results are remarkable as ecotours in both destinations were organised as part of the research and results were found to be statistically significant. In this regard one should point out that there was no other ecotour organised following the ecotour held in the Pelagian Islands and thus no answers could feature this destination. In the case of the Maltese Islands, the destination is underrepresented, as overall, most participants of the ecotours hailed from the Maltese Islands and thus could not refer to this destination in their answers. Meanwhile, whereas stakeholders remarked that domestic ecotourists should not be overlooked as several Maltese visit the sister island of the archipelago to escape the urban character of Malta, none of the ecotourists participating in the ecotour considered Gozo or Comino as an ecoestination even though both destinations are characterised by domestic tourism.

An interesting aspect to note is that the positive experience garnered from the participation in a previous ecotour organised as part of the research was one of the main reasons that motivated participants to participate in the ecotours. In fact this aspect was claimed by 20% of respondents travelling to Pantelleria (second ecotour organised) and 22% of respondents travelling to the Pelagian Islands (fourth ecotour organised). One should also note that 94.6% of respondents from the ecotour held in the Aegadian Islands (first ecotour organised) felt that their expectations were fulfilled. This led to a domino effect. In fact, 53.5% (23 ecotourists) of those participating in this ecotour participated in the second ecotour held on the Island of Pantelleria. 18.5% of those who participated in the second ecotour also participated in the ecotour held on the Pelagian Islands. 8% of the overall participants (66) participated in the ecotours held on the Aegadian Islands, the Pelagian Islands and Pantelleria.

This confirms that the visitor satisfaction was high and that the ecotourism experience met the expectations of the consumer with the expected value for money leading to the ‘repurchase’ of the ecotourism product (Higham and Lück, 2007; Murphy *et al*., 2000). The high level of satisfaction can also be confirmed by repeat visitors (Bardolet and Sheldon, 2008) who, following the ecotours, revisited the ecodestination with other friends who had not joined the ecotours organised as part of the research in order to once again experience the ecodestination. Such findings are supported by the fact that the absolute majority of respondents confirmed that they were willing to participate in another ecotour during their following holiday. Furthermore, according to the statistically significant results obtained, 95.2%

of respondents said they were willing to visit another ecotourism destination such as a central Mediterranean island in the future, confirming that such islands had adequate venues and attractions ideal for ecotourism (Fletcher and Fletcher, 2003).

A high level of satisfaction was registered among respondents of the ecotours. In fact, 83.3% said that their expectation as identified prior to the ecotour had been fulfilled. This reflects the general trends of high satisfaction among ecotourists reported in literature (Fletcher and Fletcher, 2003). When asked about the motivation to participate in the ecotour a high proportion of participants claimed to have heeded a recommendation from friends. Moreover, 95.35% of respondents also said that they would suggest the ecodestination they had visited to their friends for their next holiday, something which further confirms the satisfaction of participants due to the 'recommendation' aspect which is linked to ecotourist satisfaction (Murphy *et al*., 2000).

A remarkable observation is the fact that 44.4% of participants of the ecotour held in the Maltese Islands expressed a sense of dissatisfaction due to a lack of adequate accommodation. In fact, the overall satisfaction of ecotourists is related to the provision of excellent service (Tian-Cole *et al*., 2002) which seems to have been lacking in this case. The urban nature of the Maltese Islands and the limited time spent in contact with nature accounted for 50% of respondents who claimed that their expectations were not fulfilled. This reflects studies which attributed the satisfaction of ecotourists to the quality of the venues and attractions (Fletcher and Fletcher, 2003) and to interaction with wildlife (Lawton, 2012), aspects that seem to have been not fully provided during this particular ecotour, as explained above.

The possible overlap between ecotourism and mass tourism has been acknowledged, including in the case of coastal and marine ecotourism activities (Johnson, 2006; Kontogeorgopoulos, 2004; Weaver, 2006). Meanwhile, even if ecotourism has been considered as a tool to green mass tourism in Malta by transferring the fundamental sustainable principles of the former to the latter (Parlato Trigona, 2002), participants of the ecotour held in the Maltese Islands felt that the island was far too geared for mass tourism. This contradicts the concept of ecotourism being a form of tourism that targets small groups (Kerr, 1992) and which is considered to be a sub-set of alternative tourism (Boyd, 2000; Fennell, 2003). Mass tourism also brings in the ecotourism experience practices in various sectors, including waste management and utilisation of resources, which do not reflect the principles of ecotourism. In fact 30% of respondents who participated in the ecotour held in the Maltese Islands said that they were not willing to suggest

the ecodestination to their friends for their next holiday. The lack of willingness to make a recommendation to visit the island shows that the experience failed to meet the expectation of the ecotourists (Murphy *et al*., 2000). The problem seems to be the destination itself rather than the concept, as only 10% of respondents visiting the Maltese Islands claimed not to be interested in visiting another ecotourism destination such as a central Mediterranean island, in the future. This lack of satisfaction can also be linked to the nature of the ecotourists themselves who, as discussed earlier, were the ecotourists that matched the core principles of ecotourism most, thus possibly being hard ecotourists with relatively different and higher expectations than other ecotourists. This also suggest the question as to whether the Maltese Islands truly have the potential to cater for the hard ecotourist. This issue has also been raised by academics who remarked that Malta could not serve as an ecodestination for the "*true specialist*".

A relatively high proportion of lack of satisfaction was also reported by respondents from Pantelleria. In this case, the lack of satisfaction was linked with the need to use transport to move around due to the dimension of the island, something which brought the issue of some waiting time. The issue with transport was also faced in Malta and in this case, calls have been made to reduce the transit time from one site to another of the island and to improve the programme organisation. One should note that such problems were never mentioned for the smaller islands where one could move around on foot or by bicycle. A lack of satisfaction was also linked to the presence of jellyfish blooms. The problem of jellyfish outbreaks and its consequences on tourism, particularly in the Mediterranean, is a pertinent one and has already drawn the attention of researchers even if limited quantitative data is available (Nunes *et al*., 2015). On the other hand jellyfish populations have also served as an attraction for ecotourists (Doyle *et al*., 2014). Results on levels of satisfaction among ecotourists following the ecotours were found to be statistically significant and thus this further questions the potential of ecotourism in the Maltese Island. Furthermore, one should note that the lowest rate of satisfaction was expressed on the two largest islands in the area of study (Malta and Pantelleria) indicating that the size factor can hold challenges for ecotourism that are avoided in smaller, less populated and more pristine islands.

7.4.8 Spending Patterns

Spending patterns and willingness to pay was another aspect used by both the researcher and stakeholders to profile the ecotourist. Emphasis was made by stakeholders, especially those on

the islands under Italian jurisdiction, to attract international tourists rather than domestic tourists as the former are willing to pay more. Such remarks concord with claims made in literature where it has been argued that domestic tourists tend to spend less than international tourists (Kastenholz, 2005; Saayman and Saayman, 2006; Wood, Glasson, Carlsen and Hopkins, 2006). The highest average total expenditure budget was recorded for participants of the ecotours held in the Maltese Islands. This was followed by participants of the ecotour held in the Pelagian islands. Studies have described the ecotourist as wealthy (Fennell, 2009) with a high income (Mowforth and Munt, 1998; Page and Dowling, 2002) and high spending (Fennell, 2009; Wilson and Garrod, 2003) thus further suggesting that ecotourists participating in the ecotour held in the Maltese Islands fitted perfectly in the profile of ecotourists. Such presumptions are also backed by the fact that the results obtained were found to be statistically significant.

Participants of the other ecotours, especially on the Aegadian Islands and Pantelleria were the less willing to spend. One should note that these participants were mostly students and thus, as one would expect, these have a smaller budget to spend. Meanwhile university travel groups and individuals who are well-educated should not be overlooked as they have been identified as target groups for ecotourism (Fennell, 2014; Higgins, 2001; Nee and Beckmann, 2011; Page and Dowling, 2002; Wight, 2001). Almost the same trends, which were also found to be statistically significant, were observed through questions post the ecotour. The respondents most willing to spend money were those visiting the Pelagian Islands followed by respondents visiting the Maltese Islands. On the other hand, the respondents less willing to spend money were those visiting the Aegadian Islands followed by respondents visiting the island of Pantelleria. Taking this into account one can say that participants travelling to the Maltese Islands once again reflected the findings of ecotourists' profiles reported in literature. The fact that 73.2% of respondents confirmed that they were willing to spend more to support the local community of the ecodestination reflects ecotourism attributes and that such an activity may also have a positive economic impact on the local community (Hoyt, 2001). Furthermore, benefits to locals have been identified as a major component of ecotourism in over 85 ecotourism definitions as referred to in international literature (Fennell, 2001).

7.4.9 Organisational Aspects

The absolute majority of respondents were satisfied with the group size which ranged between eleven and forty-three participants. According to Kerr, (1992), ecotourism should not be geared towards the masses, but towards smaller groups of discerning visitors. Similar reports in

literature refer to the fact that ecotourists prefer to travel in small groups (Wilson and Garrod, 2003), that ecotourism should be practiced in small groups (Page and Dowling; 2002) and that big ecotourism is rare (Buckley, 2003). Having a small group or executing a maximum group size is not only a means to fulfil sustainability by reducing environmental impact (Bustam *et al*., 2012), but also provides one with more flexibility and thus be in a position to satisfy the demands of visitors (Green, 2013). In fact, this happened during the ecotours organised and maybe also explains the high level of satisfaction registered among participants and the remarkable degree of repurchase of consequent ecotours. One should also note that stakeholders have strongly argued against the visits of large chartered boats which bring to the islands big groups of *circa* a hundred tourists at one go. This reflects findings of research conducted by D'Anna *et al*. (2016). One should also note that some repeat visitors returned to the Aegadian islands to experience ecotourism in a smaller group. The group size of this ecotour was the largest. This implies that smaller group sizes are preferred for ecotourism activity.

According to stakeholders, especially those from the islands under Italian jurisdiction, most tourists visiting the islands are flexible with time and tend to stay on the islands for a number of nights. As discussed earlier, the need to be flexible arises from the possibility of ending up being stuck on the islands due to bad weather (Andriotis, 2004; Baldacchino and Ferreira, 2013). The need to stay for a relatively long period on the islands also arises from the fact that according to stakeholders interviewed, ecotours organised and literature (see Table 6.14), ecotourists can also originate from destinations which are relatively far away including USA and hence it would make no sense to visit such islands for just few days considering the time, money and effort made to get to the ecodestination. With respect to survey respondents, 78.6% were satisfied with the duration of the ecotours which ranged between four and seven nights. The highest rating of satisfaction was achieved for the longer ecotours and the difference was found to be statistically significant. These findings are in line with literature that considers ecotourists to have more leisure time at hand thus tending to be long staying (Fennell, 2014; Page and Dowling, 2002; Pires, Garla and Carvalho, 2016). In fact, among those ecotourists who claimed not to be satisfied with the duration of the ecotour some said that the ecotour should have lasted up to 8 nights. Moreover, stakeholders across the area of study, excluding the gateway islands Malta, Lampedusa and Pantelleria (which serve as the mainland to other islands), have expressed disapproval at the presence of day trippers who normally arrive through all-inclusive large chartered boats. These have been termed on the Italian islands as "*mordi e fuggi*" (bite and run) tourists due to the negative impact such tourism has and the little

(if any) positive impact on the local community. Identical strong negative opinions against activity revolving around large charter boats have also been flagged by stakeholders in studies conducted within the MPA of the Aegadian Islands as these are considered to have an impact on the environment through waste, noise and disturbance of marine biota along the coast and in sensitive habitats such as the coastal caves at Marettimo. A negative economic impact has also been reported by the local community as the small boat rentals normally run by locals from the Aegadian Islands face stiff competition from the large charter boats based in Trapani (D'Anna *et al*., 2016). This also reflects the desire of stakeholders to attract longer lasting tourists, and tourists that tend to spend more for the benefit of the local community were both aspects are considered to be important criteria for ecotourists (Hoyt, 2001). This also reflects studies conducted in the field of ecotourism that found that day trippers are more likely to spend less than visitors such as ecotourists who tend to stay in a destination overnight, highlighting the need to entice visitors to stay in the region (Jones, Wood, Catlin and Norman, 2009).

7.5 Marketing Ecotourism

There is an ever increasing interest to visit pristine, genuine and remote locations (Butler, 2002). Natural attractions such as protected areas are considered to be an important aspect that should be given prominence in marketing strategies as they attract ecotourists (Ferreira and Harmse, 2014; Ryel and Grass, 1991). Meanwhile, there is a general opinion expressed by various stakeholders that the islands under study and their natural resources are not receiving the due marketing to promote the ecotourism experience. Management bodies and other entities tend to focus their work on protection whereas promotion is side-lined. In fact several respondents of surveys and participants of focus groups claimed they had barely ever heard of the islands under study, especially the islands under Italian jurisdiction, and they got to know about them either through their first visit or through word of mouth after the recommendation of a previous visitor. Furthermore, promotion of some of these islands depends on media mentions when VIPs either pay a visit or buy a residence there. This is especially the case in Pantelleria where the presence of celebrities has served as a determinant factor for the discovery of the island (Tudisca *et al*., 2011). Whereas in the Maltese Islands a good budget is invested in marketing the archipelago, this mostly revolves on separate aspects of the tourism product rather than on ecotourism. Most ecotourism related promotion is done not out of policy but due to the personal interest taken by officials. On the other hand, in the islands under Italian jurisdiction, public funding is lacking and any initiatives taken are minimal. This also implies that most marketing is done in the Italian territory. This explains why domestic tourism remains the

major market for tourism on the islands which possibly also contributes to seasonality. The need to target the right niche of tourists to attract ecotourists to the islands has been rightly pointed out by stakeholders across the area of study even if little studies have been conducted in this regard.

Marketing by private operators is also limited due to the relatively small enterprises that lack the necessary funding, a problem faced by the marine ecotourism sector thus barring such enterprises from reaching the marketplace effectively (Cater, 2003). Whereas joint marketing strategies have been reported in literature as a solution to such a problem (Buckley, 2009; Page and Dowling, 2002; Wearing and Neil, 2009), such practices have only been encountered on the islands of Pantelleria and Lampedusa. On the other hand, there is little cooperation between operators as stakeholders identified stiff competition as a result of the rivalry found on the islands. This problem has also been outlined by Weaver *et al*. (1996) who reported that ecotourism operators rarely worked together for marketing purposes. However, in the case of small islands this can also be the result of the limited entrepreneurial pool making it difficult to promote the sector jointly as reported by d'Hauteserre (2006).

Market segmentation gives one the necessary knowledge to target the appropriate market (Beaumont, 2011). Whereas operators have commented extensively on the profile of the ecotourists to be marketed, this is based on experience rather than on analytical studies of the market and profile of the ecotourists. As a result, inadequate budgets are used and efforts made fail to reach the most promising markets (Lynch and Robinson, 1998). Whilst various media have been used to promote the ecotourism activity on the islands under study which coincide with those reported in literature, such as documentaries (Buckley, 2009; Kusler, 1991), in most cases these do not reflect new marketing trends and according to stakeholders, fail to reach the entire market. In fact, whereas the internet has been identified as a useful tool to target ecotourist markets (Donohoe and Needham, 2008), stakeholders argue that little promotion is undertaken online. One reason is that online marketing requires a hefty investment and is not straightforward considering the stiff competition online (McKercher, 1998; Page and Dowling, 2002). On the other hand, there is a relatively good presence of ecotourism operators on social media such as Facebook and Instagram. This reflects new trends in ecotourism marketing as outlined by Dowling (2013) and Torres *et al*., (2013). The use of drones to market ecotourism activities as outlined by King (2014) has also been introduced especially on Lampedusa and Pantelleria. Meanwhile such efforts remain rather limited in terms of quality and budget. This might explain why, according to stakeholders, most tourists who visit the islands are either

domestic tourists or mature people, even if the latter have been identified as a major component of the ecotourism market.

Claims made by local stakeholders that immigration is creating an image problem for ecotourism on the island of the Pelagian islands, especially Lampedusa, were experienced by the researcher when marketing the ecotour. Some participants who joined the first two ecotours refused to join the ecotour held in the Pelagian Islands due to the connotation the island has with immigration. The constant reference made to immigration by the media when referring to the Pelagian Islands, as confirmed by Melotti *et al*., (2017) and the disproportionate presence of military and police forces on the islands have been considered by local stakeholders as a threat to attracting ecotourists. This perfectly resonates with findings made by O'Healy (2016) who argues that both factors strengthen the link between immigration and the islands. Proof of the problem with immigration and its link to Lampedusa lies in the fact that a travel agency promoting a new service linking Malta and Lampedusa emphasised that the immigration problem was a "problem of the past". This, however backfired as it caused an uproar by human rights NGOs (Martin, 2016). Nevertheless, the Pelagian Islands remain sought-after tourist destinations for discerning travellers enticed by the appeal of the islands' 'remote' location, crystal clear waters and unspoiled beaches (O'Healy, 2016). Claims made by stakeholders that migration has also left its benefits have also been echoed in literature. In this regard it has been claimed that the image of Lampedusa as an "*island of peace*" has begun to have an influence on its tourism which is developing beyond 3S tourism to a more responsible form of tourism, more precisely to a niche attentive to nature and cultural landscapes (Melotti *et al*., 2017). Whereas as explained in section 5.4, immigration has also led to benefits in terms of bringing to the islands a new niche of tourism, operators working in the field of ecotourism said that they were negatively impacted, something which was also confirmed in the press (Kirby, 2016).

Bardolet and Sheldon (2008:914) argue that "*in archipelagos, the potential for both collaboration and competition between the islands of the same archipelago often occurs*." This is very much relevant to the marketing of the archipelagos. Across the three archipelagos under study, claims have been made that there exists a hierarchy when it comes to promotion and marketing with the dominant islands receiving most or absolute attention at the expense of smaller island/s within the same archipelago. This is also evident in mobile tourism promotion applications which tend to side-line the smaller islands. This reflects the concept of domination and subordination within archipelagos whereby one finds power inequality in the presentation and behaviour of one island with respect to other islands within the same archipelago (Baldacchino and Ferreria,

2013). Such inequalities in terms of promotion have also been reported in literature. Chaperon and Bramwell (2013) report how tourism actors from Gozo outlined the limited promotional efforts experienced by peripheral islands with brochures having a disproportionate focus on Malta.

With reference to Bardolet and Sheldon's remarks on the possibility of collaboration, there has been an appeal by various stakeholders for brand consolidation and thus the need to promote the territory rather than promoting one island at a time as each island had something different to offer which could prove to be an added value for the visitor. This aspect of differentiation between islands in terms of marketing has also been discussed in literature by Baldacchino (2015a) on the basis that different islands within an archipelago are depicted as being diverse and complimentary destinations and thus it is a must to visit all islands to obtain the full experience of the archipelago.

The concept of "island hopping" has in fact been promoted within archipelagos as an opportunity to experience the different characteristics of the islands (Bahamas Promotion, 2010). In this regard one should note that island hopping featured as one of the most enjoyed activities during the ecotours and as a factor that motivated tourists to participate in the ecotours. Nevertheless efforts to sell the diversity of islands within archipelagos have not always been successful (Baldacchino and Ferreira, 2013). The central Mediterranean islands perspective and what such islands have to offer in differences in terms of natural resources is currently being overlooked in marketing strategies.

In the case of some small islands, promotion revolves around one major attraction such as the privately managed Grotta del Genovese on Levanzo, yet this has been described as favouritism by the management by local authorities. Such strategies have been criticised on the basis that they depict the island as one with limited natural attractions. The lack of awareness of the various ecotourism excursions available has also been faced in other archipelagos to the extent that tourists become aware of such possibilities once on the island itself (Pires *et al*., 2016).

Whereas ecolabels have been used by ecotourism enterprises worldwide for promotion purposes and to gain a competitive advantage in the marketplace (Buckley, 2001; Weaver and Lawton, 2007), few enterprises across the area of study make use of such labels save for a handful of enterprises in the Aegadian Islands and the Maltese Islands. In such cases labels are mostly obtained for accommodation structures. On the other hand, stakeholders such as

academics, NGOs and policy makers have pointed out that ecotourism is at times used by operators as a marketing ploy to greenwash, raising the concern that this may also negatively affect the sector.

Such a challenge is not new to the sector and is the result of a lack of understanding of the term (Page and Dowling, 2002) and part of a strategy to capture a larger market (Goodwin, 1995) especially in small islands whose economies depend heavily on a short tourism season. Thus expanding the market is a must to make the most out of it. Indeed such a problem has been considered to negatively influence the niche (Fennell, 1995) and thus needs to be tackled. In this regard the necessity of introducing sound ecocertification and enforcement is paramount.

7.6 Issues and Impacts Faced by and Resulting from Ecotourism

7.6.1 Environmental Issues and Impacts

The lack of cleanliness on some of the islands such as Lampedusa and Favignana has been regarded as a major concern. Furthermore, even if initiatives have been taken to mitigate the consumption of plastics, problems still exist with waste management owing to the limited space and infrastructure on the islands, especially when the tourist flow increases in the peak season. This is a challenge normally faced by remote areas which generally do not have the necessary infrastructure to treat waste generated through tourism. This may pose a number of threats including ground water contamination and fires that impact ecosystems (Buckley, 2009; Weaver, 2008) especially if the number of visitors exceeds the threshold (Sakellariadou, 2014). On the other hand, ecotourists themselves have raised their concern on the waste problem. Ecotourists that participated in the ecotour held in the Maltese Islands appealed for disposables not to be used whereas ecotour operators on Lampedusa appealed to tourists not to discard any waste, including cigarette butts, in the sea. Such small gestures confirm the nature of ecotourists and ecotourism operators and how attracting such an activity in the area of study would have less impact due to waste when compared to mass tourism. Nonetheless, one should keep in mind that studies have shown that there is no significant difference in pro-environmental behaviour between ecotourists and other tourists (Beaumont, 2011).

Related to this issue is the problem of illegal dumping. Even if several services to collect waste are available at no cost, the problem persists, especially on Malta Gozo, Lampedusa and Pantelleria. In the case of Malta the problem is even bigger as it includes dumping of inert waste and debris which is not always straightforward to recover. This problem has long been recognised yet enforcement and awareness campaigns have not been fully successful. As a result of the ongoing illegal dumping of building debris, extensive stretches of the country's limited terrain have been ruined or obliterated (Boissevain and Gatt, 2011). Furthermore, a lot of metals are also discarded in the countryside especially in the Maltese Islands and Lampedusa raising the alert of several locals on the impact this may have on the environment. Such practices are a threat to ecotourism as such grounds become disturbed ruining stretches of wild areas and further limiting venues for ecotourism.

Whereas the introduction of MPAs has offered protection for coastal and marine environments, studies have shown that even marine areas subject to various levels of protection can be affected by man-made contaminants (Allison, Lubchenco and Carr, 1998; Terlizzi, Delos, Garaventa, Faimali and Geraci, 2004). In fact, in the case of the Aegadian Islands the areas mostly contaminated included those close to sewage outlets (Bonacci *et al*., 2007). The lack of sewage treatment in some of the Italian Islands has raised concerns especially due to the presence of the MPAs. Furthermore, this threatens an important resource on which the livelihood of several ecotourism related operators depends especially those in the diving and snorkelling sector.

Stakeholders have argued that most of the small islands under study, like most small islands, have the potential to become perfect places to demonstrate new clean technologies and new pathways for sustainable development. Yet, excluding the Maltese archipelago, the rest of the islands under study, like several other islands, rely on fossil fuel imports for their power generation, mostly through diesel generators, a high polluting and cost intensive way of generating power. Furthermore, prices are impacted by the fluctuations in the price of oil. This hampers both life and the economy of the islands. Such problems can be targeted through the introduction of renewable energy technologies based on wind, tidal, geothermal and solar technologies that would not be affected by such fluctuations and assure a sustainable supply of power to the islands (Blechinger, Seguin, Cader, Bertheau and Breyer, 2014; Bockris and Veziroglu, 2007; Chen, Duic, Alves and da Graça Carvalho, 2007; Krajačić, Martins, Busuttil, Duić and da Graça Carvalho, 2008).

Yet, with the exception of the Maltese Islands, there has been a distinct lack of incentives for the public and private sector to invest in this sector. The main reasons are the concerns that have been raised on the visual impact of the infrastructure needed to make use of alternative sources of energy. This is the case on Lampedusa. Due to this reason in some cases the regulations in place also set limitations on the installation of infrastructure to generate energy through alternative resources, such as in Pantelleria. This is a challenge as such policies do not reflect the sustainability aspect embraced by ecotourism and might also influence choices made by ecotourists who, as outlined earlier, seek accommodation structures that are environmentally friendly in terms of energy as well.

The waters surrounding the island of Pantelleria have experienced intensive fishing activity (Picchetti *et al*., 2010). Due to a lack of enforcement, illegal trawling also takes place close to the shore, heavily impacting the coastal area. Such activity is normally practiced by fishermen from other regions and hence the necessity of implementing an MPA was highlighted on several occasions by local fishermen as this would allow only local fishermen to fish in the area. The problem of illegal trawling is not only limited to Pantelleria. In the case of the Aegadian Islands, a buffer zone (termed zone D) was created to permit trawling by local fishermen, yet illegal trawling still takes place within the MPA having a detrimental impact on coastal habitats, especially on seagrass meadows.

This has been attributed to a lack of enforcement which is itself a result of a lack of both human and financial resources (D'Anna *et al*., 2016). In the case of the Pelagian Islands, on which archipelago beaches serve as hatching grounds for sea turtles, fishing activity also has an impact on marine life due to the accidental by-catch of sea turtles in fishing gear such as bottom trawlers, set nets and long lines (Casale, 2011). The problem is amplified owing to the great abundance of fish (among the highest in the Mediterranean Sea) in the sea off Lampedusa which attracts trawlers from the mainland of other Mediterranean countries to the area (La Manna *et al*., 2013). Such practices have an impact on ecotourism venues and wildlife within them and thus also influences ecotourism activity.

Stakeholders have expressed concern on the impact of aquaculture on ecotourism. This concern is not new. NGOs have, in the past, expressed concern on the environmental threat of aquaculture. Diving clubs have also warned on the possible impact of aquaculture on the seabed yet their claims have been mostly ignored and there has been a steady increase in farms even if these pose a threat to the environment and tourism (Boissevain, 2004). Concerns

on the environmental impact of aquaculture and the consequences on marine ecotourism in island marine habitats have also been raised (Cater, 2003). It has been pointed out that fish farming can cause a visual impact in rural coastal environments, considerable marine pollution while escapes can disrupt the natural ecology of the area (Cater and Cater, 2011), impacts which can all negatively influence ecotourism. Meanwhile the recent incidents with slime in Malta, which have been referred to during interviews, are an eye-opener on how this sector can have an impact on ecotourism, especially in the case of activities taking place close to the shore such as rock pooling or in marine activities such as snorkelling.

Stakeholders have also expressed concern on the presence and rise of alien species, specifically in marine environments, as they can compete with indigenous species and also have an impact on ecotourism. The alien crab *Percnon gibbesi* found abundantly on Linosa has been claimed to interact negatively with the native crabs, in particular with *Pachygrapsus marmoratus*, partially occupying its ecological niche (Raineri and Savini, 2010). Other invasive species can occupy 'empty niches' with a case in point being *Siganus luridus* (dusky spinefoot) which has also been observed on Linosa by snorkelers in shallow water (Azzurro and Andaloro, 2004). Several alien species have been consistently recorded in the area of study. Some fourteen alien species have been recorded within the MPA of the Aegadian Islands (Mannino *et al.*, 2016). However this seems to have little impact on the ecotourism experience due to a lack of knowledge or sightings of the alien species. However knowledge of the existence of alien species in natural areas may lead to negative impacts including a decrease in visits to such areas (Koichi *et al*., 2012). This also confirms that, as outlined by Cater and Cater (2007), marine ecotourism can be impacted by transboundary issues which develop in other regions but which have an impact elsewhere. As outlined in section 2.8.1, the general public needs to be encouraged to assist in monitoring the levels of such species.

Concerns have also been raised on pollutants, including those deriving from agriculture activity, which end up in coastal and marine habitats. This is a major problem in the Maltese Islands and has a drastic impact on wildlife. For instance, fertiliser and pesticide contaminated runoff from fields are said to have played a role in the depletion of the threatened fish *Aphanius Fasciatus* within a protected area close to the coast in Malta (Zammit Mangion, Deidun, Vassallo Agius and Magri, 2011). In the case of Pantelleria, concerns on pollution have been raised in the eventuality of an oil spill. The strait of Sicily has lately become a centre of attraction for oil rigging. Further oil exploration and rigging is expected by companies due to easy-going national drilling regulations and advantageous tax rates for oil extraction. Academics and

representatives of eNGOs have also warned authorities that an oil spill here could have catastrophic consequences and that may put several important biodiversity hot spots in danger (Margottini, 2011). Such accidents are not unusual. The Jessica spill at the Galapagos Islands in 2001 which had a severe environmental impact on the highly sought after ecotourism destination is one such example (Hoyman and McCall, 2013). Stakeholders from Pantelleria, especially NGOs, have also expressed disappointment at the fact that a referendum that offered the opportunity to stop drilling activity was lost. Attempts have also been made to tackle such a challenge through the institution of an MPA. In this regard proposals have been put forward by local stakeholders to protect not only the coastal area, but also an area to the north of the island known as '*Banco di Pantelleria*' along with the area in between (Picchetti *et al*., 2010) in order to minimise drilling activity.

It will come as no surprise that hunting and trapping is a major concern for most stakeholders. A study conducted by Mallia (2013) found that hunting and trapping were serving as a deterrent for the ecotourists visiting the Maltese Islands. One should note that none of the ecotourists complained about any hunting activity however this might be due to the fact that the hunting period and prime hunting areas were avoided for such excursions. On the other hand, hunters and trappers have offered their hideouts and to share their knowledge on ornithology to assist in bird watching, something which contrasts with the antagonistic attitude usually associated with hunters and trappers vis-à-vis tourists. Whereas very strict rules are in place in the islands under Italian jurisdiction being studied, enforcement has been relaxed in the Maltese Islands possibly due to the influence of the lobbies with Malta's main political parties (Briguglio, 2014). In fact, whereas in the Maltese islands the hunting period has been extended at the Majjistral nature and History Park, the hunting period on the Italian islands is more restricted than on mainland Sicily (Unknown, 2017b).

The problem with development (including that conducted in an illegal manner) has been raised by various stakeholders in the Maltese Islands. This does not solely reflect the opinion of stakeholders interviewed. The extensive development taking place in the countryside is also a major environmental concern for the people of Malta (Caruana Dingli and Galea, 2016). This is also due to Malta's recent drive to increase agritourism leading to changes in ODZ policy (Sansone, 2014) even if academics have argued that one cannot compete with close by destinations such as Sicily and that taking such a route was thus only harming the environment. Whereas hunters and trappers have been put under the spotlight for their environmental impact and possible impact on ecotourism, they also raised their concerns about development when

interviewed. In fact hunters and trappers have, in the past, argued against extensive developments such as golf courses that reduce access to open areas in the countryside (Markwick, 2000). This is because, over the years, Malta has experienced a "*frenetic building boom*" and this has consumed a significant proportion of the countryside. Construction related activity such as the development of quarries and concrete ready mix plants has led to extensive stretches of the country's limited terrain to be eaten up or obliterated (Boissevain and Gatt, 2011). The impact has not been limited to the countryside. Over the years the foreshore, which has been identified by stakeholders, as an important venue to conduct ecotourism activities, has experienced increasing pressure as a result of the rise of mass tourism which in return has had an impact on the landscape of Malta (Boissevain, 2004). As a result, building development and urbanization have altered Malta's landscape (Zammit, 2009). Over-development and the related impacts have also been reported to be a major concern for visitors in other archipelagos (Bardolet and Sheldon, 2008).

Impacts on the environment and wildlife can also develop as a result of activity at times associated with ecotourism. One specific case refers to excursions organised on Lampedusa to observe wildlife out at sea. Such excursions which serve as a major economic activity for the local community have led to environmental issues as close encounters with wildlife causes disturbance as outlined in literature and emphasised by stakeholders. Furthermore, the increased and intense traffic of boats during the summer period (especially between May and October) leads to collisions with turtles (Prazzi, Nicolini, Piovano and Giacoma, 2010). This also causes disturbance to the bottlenose dolphin (*Tursiops truncatus*) which in return causes their displacement from coastal areas (La Manna *et al*., 2013; La Manna *et al*., 2014). This itself becomes a detriment for ecotourism in terms of wildlife sightings. Uncontrolled anchoring can also be detrimental to the seabed (Sakellariadou, 2014) but such issues has been tackled through permanent anchorage sites installed in a number of MPAs across the area of study which are managed (Donati, 2017).

In some cases local operators have intentionally disregarded management guidelines in protest. Minor cases whereby locals behave unethically or do not conform to regulations in front of ecotourists is not unusual (Goodfellow, 2013) and can be the result of a lack of acceptance of protection or a lack of awareness. With respect to the latter one should keep in mind that nature is not always considered to be a positive aspect and is at times considered as the enemy of tourism (Baldacchino, 2006).

Of all modes of transport used to travel to a destination, air travel is the most environmentally harmful in terms of climate change (Folke, Østrup and Gössling, 2006). This is crucial in the context of marine ecotourism as, in most cases, related settings are found in remote areas and require ecotourists to travel long distances leading to a higher carbon footprint and contributing further to climate change (Sakellariadou, 2014). This is even more relevant in the area of study considering the origin of the target ecotourists outlined in Table 6.14 and the distance that needs to be travelled. Peeters and Schouten (2006) have recommended focusing marketing efforts on markets closer to the destination to reduce the impact of tourism. In this regard one should keep in mind that the islands forming part of the ecotourism hub being proposed are all close to each other and thus the distance to travel from one island to another is relatively short having less of an impact. On the other hand, whereas several hydrofoils are relatively new, ferry boats used are rather old, some having over 40 years according to marinetraffic.com thus also contributing towards further pollution.

On the other hand, the ecological footprint for local transport at a destination tends to be relatively low, generally below 4% (Patterson, Niccolucci and Bastianoni, 2007; Peeters and Schouten; 2006). Yet, concerns have been raised by ecotourists on the mode of transport used at the destination rather than those to reach the destination. This was especially the case in the Maltese Islands where a lot of shuttle services were used from one site to another using cars and vans that run on fossil fuels. Traffic was also a further concern in this regard even if this is said to encourage tourists to use alternative modes of transport (Dallen, 2007). Stakeholders have also argued that some of the islands such as Gozo have too many cars for their size. Furthermore, there is too much exhaust originating from cars across the archipelago as a whole. In the small islands, the major modes of transport are on foot or by bicycle, and are thus sustainable. Yet, once the size of the island exceeds a certain threshold, such as in the case of Malta and Pantelleria, the distance to travel becomes relatively greater and thus one would have to rely on other modes of transport. Furthermore, both infrastructure and the quantity of cars on the roads make it unsafe for cycling. To aggravate the situation, in most islands in the area of study public transport is not adequate and needs to be improved in terms of frequency and punctuality. Improving public transport and encouraging its use is a must to facilitate tourists' choices towards a more energy efficient travel mode (Becken, 2003). Whereas as recommended by ecotourists conducting activities close to the accommodation and better planning can reduce traveling at the destination, longer trips, which also reflect the usual habits of ecotourists (Fennell, 2014), may also minimise impact as this implies less time pressure on

when transport is needed and making the tour more environmentally friendly. This has in fact been identified as the focus of sustainability strategies (Peeters and Schouten; 2006).

Whereas presence of military infrastructure across the area of study did not raise concerns on the impact of ecotourism, a minor exception was encountered on Lampedusa. Locals raised concerns on the installation of three radars within the protected areas on Lampedusa due to health reasons. Concerns amongst individuals opposing such project was not only raised on the basis of the impact this left on the health of the local community but also due to the possible impact left on avifauna resulting from electromagnetic force (Mazzeo, 2017). In the long term, these radars may leave an impact on ecotourism due to impact on avifauna and due to bad marketing resulting from the various articles found on the matter online.

7.6.2 Socio-economic Issues and Impacts

With respect to taxes, such as the introduction of an ecotax and similar instruments which might be beneficial for the ecotourism sector, these have often been the subject of a political controversy, with one example occurring in the Maltese Islands. Such a problem has also been recorded on other islands (Anderson, 2009). On the other hand, the discussion of such a tax has not raised any eyebrows on Pantelleria and the Pelagian Islands where stakeholders and locals seem to see it as an opportunity to generate funds to tackle existing local and tourism related challenges. In the context of the financial challenges faced by operators due to the imposed licensing fees, standards required and the limited niche, the proposal to provide financial support has been pushed forward by stakeholders across the area of study. Such an appeal has also been made by stakeholders to enable them to be in a position to invest in ecotourism infrastructure. This has also received attention in literature and financial issues have in fact been identified as one of the aspects most likely to influence the likelihood of success of operators in the ecotourism sector (Silva and McDill, 2004) and as a challenge to ecotourism development (Halpenny, 2001).

Stakeholders have argued that competition to provide a service influences the relationship between locals even if tension tends to disappear in the winter period when unity is restored among local operators. This confirms the social impact of tourism and ecotourism activity on the local community. This can be explained by the fact that whereas the impact of tourism is evident on all communities, the impact may be more profound in the case of contained communities such as those found on islands, where everybody knows everyone and their whereabouts

including where they work and their political affiliations. In such cases when contact is made with the outside world, several negative effects arise (Andriotis, 2004). The competition for tourism has led to a bad relationship between the largest island of the Aegadian Islands and the neighbouring smallest island Levanzo with late-night youth gatherings in the village ending with chants that manifest hatred towards anything related to Favignana. This is instigated by the dominance of the latter in various aspects, including tourism. On a similar note, Baldacchino and Ferreira (2013) refer to sayings that have also developed within the Azores that reflect inter-island rivalry.

Seasonality also has an impact on the local community as tourism also influences the employment period which tends to be seasonal in nature (Silva and McDill, 2004). The issue is even more pronounced on smaller islands of archipelagos where the tourism season is even shorter. Such a severe imbalance mirrors studies in other archipelagos (Bardolet and Sheldon, 2008). Whereas in response to the seasonality of tourism some might prefer intensive work for a couple of months (Vogiatzakis *et al*., 2008) ecotourism is seen not only as an opportunity to create jobs but also as a chance to extend the employment period. One such option is by providing the relevant services to ecotourists such as interpretation (Ham and Weiler, 2000).

During the winter period some of the Islands, like the Aegadian Islands, face depopulation (Peronaci and Luciani, 2015). This is related to the cost of living previously discussed and due to the lack of certain services such as education and health services and the lack of jobs due to the seasonal nature of tourism. Thus, locals prefer to move semi-permanently to the mainland. Depopulation in general has also been linked with the demand for second homes. Owing to the attractive nature of the destinations during the summer period, the islands are visited by several tourists who, over the years, have acquired a second home. As a result, the prices of property have escalated as property is in short supply (in part owing to the restricted development boundaries) but there is a huge demand from foreigners and locals, especially youths, leading to a scenario which is identical to that found in other archipelagos (Bardolet and Sheldon, 2008). Second home buyers have at times outcompeted local demand and displaced the permanent population. This issue has also been discussed by Marjavaara (2008) who argues that depopulation in archipelagos cannot be solely linked to such factors. This has an impact on the local community but also on ecotourists due to the lack of accommodation available. In any case, depopulation creates a viscous circle that has an effect on ecotourism operators and ecotourists.

Butler (1994) distinguished between natural and institutionalised seasonality. Marine ecotourism is said to be able to tackle both. In the case of natural seasonality, which is influenced by climate, this can be easily overcome in the area of study, as the climate of the islands makes such seasonality less pronounced. Furthermore, the peak of certain activities such as bird watching do not fall in the traditional tourism season while the season of the ecotourism activity such as dolphin watching extends well beyond the tourism season. In the case of institutionalised seasonality which originates due to lifestyle such as work and education commitments one should keep in mind that ecotourism tends to attract older tourists, whose holidays are not tied by work or school holidays (Garrod and Wilson, 2004). Whereas ecotourism has been touted as a possible antidote for seasonality and as an opportunity to create jobs all year round, it has also been argued that ecotourism is characterised by seasonality (Sayyed *et al*., 2013) and thus it might not necessarily be the answer to such a challenge.

Whereas protected areas should be seen as beneficial for local economies and communities, in several cases this is not understood or viewed as such by local communities (McNeely, 1994). In fact, according to stakeholders, protection in the name of conservation, tourism and ecotourism has had a negative impact on the local community. In the case of hunters, protection and enforcement have been seen as a restriction on local traditions. In the case of small islands such as Marettimo and Linosa, locals and operators argue that zonation introduced to ensure protection has an impact on their economic activity due to limited tourist activity permitted within certain areas. This continues to add to the various disadvantages, such as double insularity, already being faced in attracting tourists. In the Aegadian Islands the zone with the highest level of protection is situated in the area of the smallest and most distant island from the mainland within the archipelago. Whereas the situation has been eased in recent years (D'Anna *et al*., 2016), there are still a lot of limitations in place and the zoning system has not yet been accepted by the entire community. As a result the issue of rivalry between the island with most protection and the island with least protection has become a pertinent issue of discussion. This reflects the aforementioned domination/subordination relationship found between islands within the same archipelago (Baldacchino and Ferreria, 2013). This once again confirms the strong core-periphery relationship that exists in the Aegadian and Pelagian Islands.

In Pantelleria, the institution of the MPA was at first met with hostility. Himes (2003) argues that this reflects a normal trend and can affect whether the MPA will be a success or not. Arguments on zonation are among the issues holding back the institution of the MPA due to a fear of the

introduction of (further) restrictions for apnoea within specific areas. Resistance also exists from amateur fishermen who do not want any restrictions whatsoever. This attitude results from the fact that the development of archaeological underwater trails have prohibited them from activity in five specific areas and they do not want to experience more of the same restrictions. These antagonisms are regularly met, especially on whether to give priority to conservation or fisheries management. In fact, studies on zonation of MPAs in southern Europe have called for more dialogue between stakeholders such as scientists, managers and fishermen so that they can better understand the benefits of MPAs (Mangi and Austen, 2008). The need to take into consideration cultural factors, apart from socio-economic factors, in all decisions made regarding MPAs, from initial planning phase to the day to day management, has also been recognised as an integral component in the management of an MPA (Himes, 2003). Failure to do so will result in poor local consensus and hostility (Badalamenti *et al.*, 2000).

On the other hand, professional fishermen are in favour of the formation of an MPA as they understand the benefits including the exclusive fishing rights for local fishermen along with new income opportunities through tourism. Stakeholders argue that this is owed to work undertaken by civil society. In fact, initiatives taken such as discussions with stakeholders and the formation of a working group with representatives of all stakeholders to serve as a link with the institutions have resulted in a proposal on the formation of an MPA devised through a bottom up approach while taking into consideration local traditions (Rampini, 2016). Furthermore, divers such as those from Pantelleria and the Pelagian Islands have noticed a surge in tourists including those interested in the natural environment as a result of the direct/indirect protection of marine resources and have thus felt the direct economic benefits of protection and management. This confirms that only when stakeholders understand the need and benefits of an MPA will support within the community increase (Russ and Alcala, 1999).

Whereas tourism and ecotourism are considered by most stakeholders, including locals, as an opportunity to improve the quality of life on the islands, there are locals from the Islands of Pantelleria and Gozo who have raised concern on the impact of reducing seasonality and increasing tourism all year round. Whereas some have argued that on the islands the whole economy revolves around tourism and that the few who have no links to tourism are not hesitant about tourism, this seems to not be the case. This is due to price fluctuation, traffic, noise and crowdedness that impacts the life of locals, issues that have also been raised by Aguiló and Rosselló (2005) when studying host community perceptions and which can be augmented by more tourism, such as ecotourism. In fact throughout the study the issue of a carrying capacity

was brought up several times on the grounds of a socio-economic dimension. Due to conventional tourism experienced on the island, the issue of visitor carrying capacity (VCC) in relation to the environmental impact in coastal and marine areas on the island of Comino was also raised several times during interviews with stakeholders. The problem has also been acknowledged by the ERA which commissioned a study on the carrying capacity of Comino and asked for relevant mitigation and management measures to be recommended to ensure sustainable tourism practices on the island and visitor satisfaction (ERA, 2017c). The issue of carrying capacity and its importance has in fact also been discussed in previous studies of marine ecotourism on islands (Hoyt, 2005). In this regard it has also been argued that apart from the ecological component and the aesthetical component (the level beyond which overcrowding causes visitor satisfaction to fall), the socio-cultural component which takes into account the negative impact on the local community and its culture should also be considered (Cooper *et al*., 1998).

7.7 Ecotourism Policy

The lack of specific ecotourism policy in the area of study is evident. One should note the lack of ecotourism policy is synonymous with archipelagos in the Mediterranean and in some cases it was concern raised by tourists that instigated policies related to ecotourism (Bardolet and Sheldon, 2008). The absence of a specific policy for ecotourism has led to a one size fits all approach whereby general tourism policy is adopted for more small niches such as ecotourism. This is especially the case in the Maltese Islands where the tourism sector is well regulated and enforcement is in place, thus creating barriers for ecotourism development. Yet, at times, claims made of excessive licensing fees and other obligations have been contradicted by authorities while recent changes to ease the burden on operators are still unknown to some of them. The islands under Italian jurisdiction, especially the most peripheral islands, have been less impacted by such an issue due to the lack of enforcement in place.

Remarks by locals and operators that policy makers on the Aegadian Islands lack vision with respect to tourism policy seem to be partly unfair as claims by policy makers from the Aegadian Islands that various initiatives are being taken at policy level to promote sustainable tourism including ecotourism were proven to be right. Whereas a number of policy documents which also include recommendations have been prepared, mostly on the initiative of third parties, these have gained the support of the local government. These include a policy document based on stakeholder involvement which promotes trekking, cycling and canoeing in the Aegadian

Islands (Guerra, 2015). A report by the European Economic and Social Committee (EESC) also touched on several issues related to ecotourism including energy, transport, the environment, protection of marine resources, governance and tourism development and has presented several recommendations in each field (EESC, 2017).

In the case of the Pelagian Islands a strategic plan for the sustainable development of the archipelago (which had to serve as a pilot project for sister islands in the Sicilian archipelago) was prepared by the Ministry for Economic development in collaboration with the regional government, the local government and the University IUAV of Venice. The plan explains how tourism on the islands can be dimensioned to revolve around the sustainable use of natural resources. The plan also calls for the introduction of ecocertification for ecotourism and nature related tours, attractions and hospitality and dedicates a section on the principles of standards and ecotourism. The plan also refers to ecotourism (Longhi *et al*., 2006). However, other than that, as rightly outlined by stakeholders, there is little, if any, input in terms of policy save for the Natura 2000 management plans which also refer to the management of sites and visitors (Nicolini *et al*., 2008).

In the case of Pantelleria policy has looked into the synergy between sustainable tourism, which is a natural vocation on the island, and agriculture activity, something which has been emphasised on by stakeholders, including locals. Reference is made to various instruments and frameworks including the Natura 2000 network and the National Park which have been introduced to safeguard the natural resources of the islands. Nevertheless, these have been mostly considered by the local community as instruments that pose restrictions. The approach adopted is one calling for protection to embrace economic activity including agriculture. Therefore, according to the local government, such protected areas need to be managed in an integrated manner with agricultural terrain which also plays an important role in the landscape of the island. Furthermore, any tourism activity should give due importance to agriculture and agricultural products (Comune di Pantelleria, 2009). This is possible in terms of ecotourism due to the aforementioned overlap between the two.

The absence and the dire need to develop an ecotourism policy for the Maltese Islands has also been outlined in previous studies (Agius, 2011). The fact that most activity occurs underground will not make such a feat straightforward due to a lack of knowledge on its operation and economic impact. Meanwhile, even if at times this has been done indirectly, there has been an evident increase in the attention given to ecotourism and related aspects in terms of tourism

policy in the Maltese Islands (Agius *et al.*, 2017). The environment has been identified as a key element of the Maltese Islands tourism product while the term ecotourism has been referred to in various national tourism policy documents. Ecotourism has also been mentioned in the ecoGozo action plan and Gozo has been considered to be a distinct ecodestination. In the case of Gozo, policies have foreseen the growth of ecotourism. Tourism policies with respect to ecotourism have emphasised on the need of gaining sustainability in a holistic manner across all tourism related aspects, on the need to implement carrying capacity recommendations and the need to improve cooperation between different authorities including those responsible for environmental enforcement and tourism.

Ecotourism has also been considered by all tourism policy documents published as an ideal niche to tackle seasonality and as an alternative to mass tourism. Endemic flora and fauna and MPAs have been earmarked as ideal attractions for ecotourism. In the case of marine resources, emphasis has been made on protection and the need of interpretation. Ideal sites for ecotourism have been identified, including coastal and protected areas, yet issues with accessibility have been expressed. Ecotourism activities that can be practiced in the archipelago according to tourism policies include trekking, diving, bird watching, nature photography and cycling. Concerns on environmental degradation and the need for enforcement have also been outlined. Policy documents have also acknowledged the rise in environmental awareness and on the need to target this niche market which tends to be more considerate of the environment (MTA, 2002; MiTC, 2007; MTCE, 2012; MGOZ, 2012, MT, 2015).

Claims by policy makers that ecotourism can never become a major sector of tourism on a national level but can serve to strengthen the tourism product resonate with claims made in other studies. In fact, a case study on ecotourism in the Maltese Islands has identified ecotourism as a possible instrument to complement the general tourism product by offering a diversified tourism experience in the Maltese Islands (Parlato Trigona, 2002). A major concern with respect to policy is the lack of synergy between successive administrations especially in Malta as this leads to a situation where any ecotourism related initiatives are side-lined and relevant policy is sent back to the drawing board. This also reflects the attitude of rivalry that exists on islands. One classic example is how the ecoGozo policy was almost completely abandoned once a new administration took office in 2013. NGOs have complained about a lack of involvement in policy development, especially in the Maltese Islands. In this regard it is

crucial for governmental authorities to involve all stakeholders from all sectors and from all islands in decision making processes for ecotourism planning to be successful (Canavan, 2014; Sheehan and Ritchie, 2005).

Bureaucracy has been singled out as a major challenge for tourism development on the islands. For example the practice of pescatourism in the Aegadian Islands is riddled with intricate bureaucracy to obtain authorisation, an issue which has also been reported in other studies (D'Anna *et al*., 2016). Bureaucracy and corrupt practices referred to by stakeholders have also been listed among the ten top challenges faced by sustainable tourism on islands (Graci and Dodds, 2010).

Whereas as previously discussed, the overlap between mass tourism/3S activities and soft ecotourism has been discussed in literature (Sharpley, 2006; Weaver, 2008), stakeholders claim that most of the islands under study, including Levanzo, Marettimo, Linosa and Pantelleria fail to attract mass tourists but this is mostly due to natural selection based on a couple of factors that discourage the arrival of mass tourists rather than as a result of policy and any measures taken. Such factors include a limited carrying capacity resulting from limited number of beds, a lack/limited number of beaches and additional expenses to reach the islands. The latter in fact causes mass tourists to primarily visit the gateway island within the archipelagos (Baldacchino and Ferreira, 2013) such as Malta, Favignana and Lampedusa. This further confirms the lack of ecotourism policy.

7.8 Conclusion

This chapter has analysed and discussed the findings of the results and outlined various strengths, weaknesses, opportunities and threats being faced across the area of study with respect to the potential of ecotourism in developing into a recognisable tourism product. Such factors are summarised in Table 7.1.

Table 7.1: Strengths, weaknesses, opportunities and threats for ecotourism development in the area of study.

Factors	Strengths	Weaknesses	Opportunities	Threats
Rivalry		inter-island rivalry and tensions within society due to tourism activity		⁾ excessive competition between operators deterring ecotourists
Connectivity	⁾ remote destinations ⁾ pristine environments secured ⁾ natural selection of tourists ⁾ island hopping possible ⁾ airport present on gateway islands	⁾ lack of international and real low cost flights ⁾ uncomfortable and inadequate when using old ferry boats ⁾ expensive especially for small and remote islands ⁾ limited availability in terms of schedule for smaller islands	⁾ option of increasing further inter-island connections	⁾ development with the excuse to improve connectivity ⁾ unsecure connectivity due to weather and contractual disputes
Governance		⁾ decisions concerning ecotourism taken off smaller islands ⁾ multiple levels of governance ⁾ policy makers face several challenges to govern on small islands		⁾ little interest in the environment and related tourism ⁾ lack of continuity between consecutive administrations

Ecotourism venues	⁾several protected areas ⁾smaller islands with more pristine sites	⁾limited size of venues causing logistical issues	⁾extension of protected areas including MPAs	⁾lack of adequate or no / fragmented management ⁾anthropic disturbance including in buffer zones ⁾lack of acceptance of protected areas ⁾limited accessibility
Ecotourism activities	⁾various ecotourism activities can be practiced ⁾rich biodiversity ⁾presence of endemic species ⁾climate ideal to practice ecotourism activities almost all year round	⁾several marine ecotourism activities being overlooked	⁾opportunity to develop further ecotourism activities ⁾possibility to overlap with culture, adventure and agritourism	⁾impoverished fauna, limited charismatic species ⁾lack of understanding of ecotourism ⁾attempts to expand remit of ecotourism ⁾might be difficult to satisfy true specialist

Services	⁾various ecotourism services already offered ⁾some ecolodges reflecting ecotourism principles already in place ⁾presence of various interpretation centres ⁾self-guided resources available ⁾Some consortia offering ecotourism services established	⁾services unavailable all year round ⁾lack of packages ⁾lack of innovation / entrepreneurship ⁾limited interpretative and directional signs ⁾services geared for mass tourism ⁾lack of cooperation between operators ⁾limited public transport / green modes of transport on some islands	⁾development of further ecotourism services possible ⁾ample knowledge in tourism sector making it easy to adapt to ecotourism	⁾quality of services questionable / greenwashing ⁾language barrier between operators/guides and ecotourists ⁾price fluctuations - ecotourists seen as cash cows ⁾lack of adequate interpretation / absence of nature guides

Ecotourists / tourists	⁾operators understanding of ecotourists' profile ⁾willing to spend more ⁾interested in supporting conservation ⁾prefer to travel in small groups - less impact on the environment and local community ⁾long staying - positive impact on economy			⁾day trippers and chartered boats
Marketing	⁾word of mouth strong with ecotourists	⁾not enough marketing of natural resources ⁾limited funding for marketing ⁾marketing focused on domestic tourists ⁾ focus on traditional means of marketing ⁾emphasis on few ecotourism aspects in marketing ⁾some islands side-lined from promotion	⁾collaboration between operators to market ecotourism services ⁾brand consolidation promoting archipelagos and the central Mediterranean rather than islands offering more to ecotourists	⁾no analytical studies on market segmentation ⁾undeclared activity and lack of support of marketing campaigns from some operators ⁾image problems of some islands such as immigration on Lampedusa

Environmental impacts	⁾ Ecotourists sensible to the environment	⁾ lack of cleanliness, waste separation and related incentives ⁾ intensive fishing and trawling ⁾ presence of alien species ⁾ hunting and trapping ⁾ lack of awareness among operators ⁾ air travel and local travel	⁾ rely solely or mostly on clean energy sources	⁾ illegal dumping ⁾ impact of ecotourism activity on wildlife behaviour ⁾ aquaculture ⁾ over-development ⁾ agriculture run-off

Socio-economic issues	⁾ presence / consideration of an ecotax to support ecotourism initiatives ⁾ benefits for professional fishermen and local operators lead to increased drive in favour of protection	⁾ lack of financial incentives for ecotourism development ⁾ limits general tourism activity in certain zones ⁾ lack of entrance fees to sustain ecotourism venues	⁾ job opportunities for locals ⁾ can tackle seasonality and boost local economy	⁾ price fluctuations impact local communities ⁾ disturbing habits of local community and local culture (hunters / apnoea enthusiasts / amateur fishermen / lack of tranquillity) ⁾ relationship between local operators affected in peak season ⁾ depopulation during off season ⁾ demand for second homes
Ecotourism policy	⁾ initiatives related to ecotourism policy across the area of study	⁾ lack of ecotourism policy ⁾ lack of vision of policy makers ⁾ lack of synergy between ecotourism and related policy		⁾ one size fits all approach ⁾ policy compiled in a top bottom approach ⁾ bureaucracy ⁾ corruption ⁾ no carrying capacity studies

Chapter 8:

Conclusion

Plate 8.1: *The Greater Flamingo (Phoenicopterus roseus), a frequent visitor on the island of Pantelleria, home to 261 bird species (Corso, Penna, Gustin, Maiorano and Ferrandes, 2012). Photo: Karl Agius.*

Chapter 8: Conclusion

8.1 Introduction

The main conclusions of the study are presented in this chapter. These are followed by a series of recommendations, several of which were suggested by stakeholders themselves. These are crucial for policy and decision makers to push the ecotourism sector forward and mitigate existing challenges as identified by stakeholders. The chapter continues with an overview of how this research contributed to the existing knowledge on ecotourism in the context of marine and coastal environments within islands located in the center of the Mediterranean Sea. The lacunae of academic knowledge in the sector are identified and further research on the matter is suggested. The chapter concludes with a critical evaluation of the study outlining any limitations.

8.2 Major Conclusions

Taking into account the research questions presented in section 1.5 which related to (1) the ecotourism potential of central Mediterranean islands, (2) the relevant socio-economic and environmental impacts, (3) the possibility of the central Mediterranean islands serving as an ecotourism hub, (4) the potential of tackling seasonality through ecotourism and (5) policy actions required to develop ecotourism, a number of conclusions can be reached.

8.2.1 The Ecotourism Potential of Central Mediterranean Islands

This study has shown that the potential of marine ecotourism in the central Mediterranean Islands is a reality despite the fact that it is limited, scattered and faces several challenges. The major characteristics of this particular tourism activity in this region are as follows.

A) Ecotourism potential is linked to island size and ecotourist satisfaction

A general trend has been observed whereby the smaller islands forming part of an archipelago are considered more ideal to serve as ecodestinations when compared to the gateway / bigger island of the respective archipelago. This is due to their **remote nature**, **partial absence** or **limited dimension of mass tourism**, lower level of development, **pristine environments** and a **lower level of anthropogenic impact** as a result of lower population densities and absence of big industries. Therefore, Linosa, Marettimo, Levanzo and Comino are considered to have higher ecotourism potential. In fact, by and large, activities undertaken on the smaller islands within an archipelago, were considered to be the activities enjoyed most throughout the ecotours.

On the other hand, ecotourism venues on bigger islands are relatively small and dispersed due to habitat fragmentation. In fact, in the case of archipelagos, bigger islands such as Malta, Favignana and Lampedusa have been found to have less ecotourism potential and are likely to fail to fulfil the expectations of ecotourists. Yet such islands can still play a role in supporting the ecotourism experience especially since they are at times gateway islands. The size factor also leads to a number of detrimental factors. These include travelling from one area to another with the related logistical difficulties, undesired experiences such as traffic and the respective carbon footprint. This is especially the case on islands where habitats have been extensively fragmented due to human impact. Such impacts, which include development in the case of Malta or agricultural activity in the case of Pantelleria, have led to a situation whereby the remaining patches of wild areas which have the potential to serve as ecotourism venues are relatively small and dispersed all over the islands mostly in coastal areas.

Failure to please ecotourists on bigger islands becomes more visible when taking into consideration the “true specialists” also known as hard ecotourists. From the results of this study, one can conclude that ecotourists participating in the ecotour taking place in the Maltese Islands were hard ecotourists. Furthermore, the anomalous results reflect warnings made by the academics interviewed, that Malta is not ideal to serve as an ecotourism destination for hard ecotourists. This resonates with the remarks of ecotourists themselves that “*Malta is not the Amazon and one should be aware of and expect a different form of wilderness*”. Hence, bigger islands are not ideal ecodestinations for hard ecotourists. However, the results do not support remarks made in literature that argue that Malta can never serve as an ecodestination (Lockhart, 2002).

This study confirms that there is a series of nested core-periphery relationships as outlined by Weaver (1998). Garrod and Wilson (2004) reported that marine ecotourism has been preferred over conventional forms of tourism as a solution for peripheral coastal areas in the EU's Atlantic periphery. This also applies for the central Mediterranean peripheral islands where owing to the characteristics associated with peripherality, marine ecotourism is naturally the ideal tourism product on the most peripheral islands and the one most likely to be successful and bring positive socio-economic and environmental impacts. The more peripheral the island is in all its aspects, the higher the ecotourism potential. This study joins that of Weaver (2017) in challenging the conventional thinking linking limitations with core-periphery relationships exhibited by small islands (Weaver, 2017).

Taking into consideration island size and the various parameters presented in Table 3.1 along with the results of the study including various ecotourism aspects comprising demand side and supply side, one can argue that there are four different levels of ecotourism potential. Malta occupies an extreme position as a dense island 'city state' with the lowest level of ecotourism potential. At the other end of the scale one finds the islands of Levanzo, Marettimo, Linosa and Comino with the highest level of ecotourism potential. A third batch of islands include Pantelleria, Favignana and Lampedusa which have slightly lower ecotourism potential than the former. Gozo occupies an intermediate position in the middle of the scale thus serving as a 'tipping point' in ecotourism potential as well as ecotourism experience.

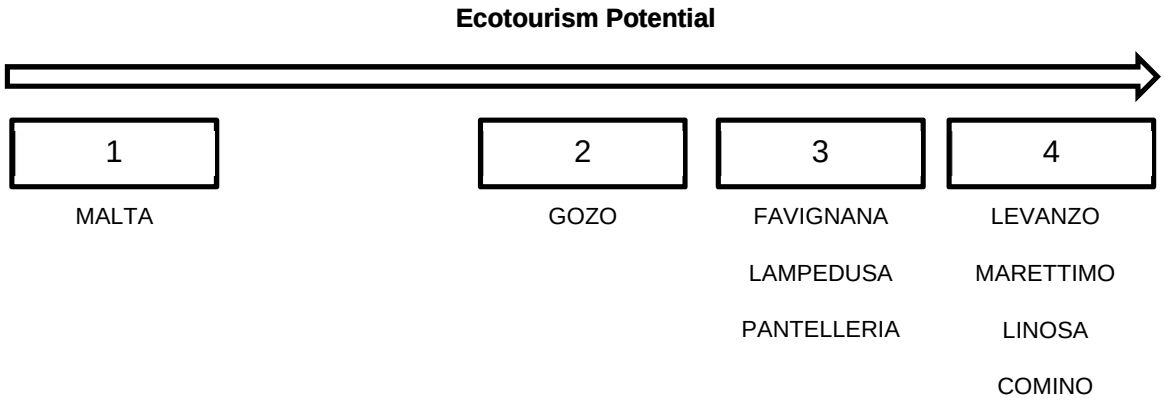

***Figure 8.1**: Scale of the ecotourism potential of central Mediterranean Islands.*

B) Marine ecotourism is the ideal ecotourism product on most central Mediterranean islands

Due to a number of factors, one can conclude that marine ecotourism is the ideal ecotourism product on most islands in the area of study. This is because the islands, especially the smallest representations such as Levanzo, Marettimo, Linosa and Comino have a limited terrestrial area compared to the extensive marine area. This is also relevant in the case on bigger islands such as Malta where as a result of habitat fragmentation, the few remaining protected areas are by and large pockets along the coast. The coast also offers various habitats from cliffs, sand beaches, dunes, clay slopes and coastal garigue with their associated flora and fauna. Furthermore all islands save for Pantelleria (which still has five zones which are well protected owing to the presence of archeologic artefacts) have extensive marine protected areas which at times runs into multiples of the terrestrial area being protected. Islands also have a high rate of coast to land with easy access between coast and interior thus presenting an extensive area to practise marine ecotourism. Last but not least, in most islands terrestrial charismatic species are rather limited. One finds more diversity and abundance of charismatic species in marine environments including tuna, dolphins, whales, birds, turtles and seals. More environmental awareness and measures to reverse negative environmental impacts have also started to bear fruit with the return of charismatic species such as the turtle in Malta and the seal in Marettimo.

This drive towards marine ecotourism is also supported by several existing services in the field of marine ecotourism and other services that can be adapted to cater for this activity. Further support to this approach can be confirmed by the fact that the most favorite activities handpicked by ecotourists were those conducted along the coast or in marine settings. Furthermore ecotourists suggested to focus more activity in coastal and marine areas. Meanwhile marine ecotourism in the region is still in its infancy. Therefore, rather than being characterized by a number of well-developed sub-sectors of marine ecotourism, such as diving, as in other established ecotourism destinations, a general approach is adopted whereby various marine ecotourism activities are practised.

8.2.2 The Ecotourism Hub

C) The central Mediterranean region as an ecotourism hub offers an ecotourism product that goes beyond the current ecotourism on offer

As outlined in section 1.3, the perceived benefit of inter-regional partnership between islands in literature has mostly been associated with increased competitiveness. Yet, in the context of this study island hopping and the need to visit all the islands in an archipelago and other close-by islands is associated with the real distinctiveness of the islands as referred to in literature (see Briguglio and Kisanga, 2004; Vogiatzakis *et al*., 2008). Owing to the various characteristics of the islands, including those in the same archipelago, such as their different geomorphology, the resultant different activities permitted and the presence of different wildlife, it truly becomes relevant and necessary to visit as many islands as possible to obtain a holistic marine ecotourism experience. Furthermore, this study proposes that the central Mediterranean region offers **an ecotourism product that goes beyond the current ecotourism on offer** giving one the possibility to visit a group of distinct islands in what can become **an established marine ecotourism hub**, supported by the **presence of several MPAs** and **ongoing commitments to increase such protected areas**. This is also supported by the fact that such islands are close to each other and thus, what is considered as one of the greatest impacts of ecotourism, the carbon footprint, is also reduced in terms of travel.

With respect to Pantelleria, which is a solitary island, stakeholders have argued that the absence of a link with other small islands is a detriment in terms of competition with other destinations. Yet, even if ecotourists who participated in three of the four ecotours organised considered island hopping to be one of the factors that motivated them to participate in the ecotours, none of the ecotourists claimed that the absence of another island affected the level of satisfaction of the ecotour. Meanwhile, island hopping was considered as one of the activities enjoyed most by ecotourists visiting the Aegadian Islands. This implies that whereas the possibility to visit other islands is an added value to the ecotourists, at the same time it does not seem to be considered as a limitation. This may also be the case since the island is indirectly connected with the Aegadian archipelago via Trapani giving one the opportunity to visit three other islands. In fact, such a service is already being offered by an ecotourism operator. This further supports the concept that the central Mediterranean islands can serve as an ecotourism hub.

D) Ecotourism is an innovative tourism product offer in mature tourism destinations

The islands in the central Mediterranean region are at different stages of the tourism cycle. All the islands have gone through the exploration and involvement stage (see Butler, 2006) and tourism activity dominates the local economy, at least throughout a particular period of the year. Whereas in the case of the bigger and gateway islands, mass tourism dominates the tourism product, in the smaller and more remote islands, owing to various factors outlined in section 5.6, tourism is by nature more likely to be nature based tourism such as ecotourism. Nevertheless, due to a lack of policy and organisation this is not the case and thus, in most cases, such islands manage to attract only a few tourists in the peak season, consequently experiencing seasonality.

On the gateway islands such as Malta, Lampedusa and Favignana, which are the largest islands of their respective archipelago, ecotourism can serve as **an innovative tourism product offer in a mature tourism destination** and influence the existing tourism product making it more sustainable and possibly also enriching it. In both scenarios, this can be done through the overlap between ecotourism and mass tourism. As discussed in literature and confirmed in this research, this is possible especially in the case of marine ecotourism as certain activities are of interest for both segments of tourists. This also gives such islands the opportunity to attract the soft ecotourist thus minimizing mass tourism impact, tackling seasonality (where it exists) and increasing the benefits to the local community all year round, provided that resulting negative impacts originating from ecotourism or related measures are mitigated as further discussed in section 8.2.3 below.

8.2.3 Major Opportunities and Challenges for Marine Ecotourism to flourish in Central Mediterranean Islands

E) The possibility to immerse in different habitats and experience a rich biodiversity (including endemic species), in a confined area, all year round is a major opportunity

Various opportunities and challenges have been identified by stakeholders and ecotourists who participated in the ecotours as outlined in Chapters 5 and 6 and discussed in Chapter 7. The possibility to immerse in different habitats and environments on different islands is the major opportunity offered by the central Mediterranean region. Even if currently overlooked, this opportunity

is further strengthened by the rich biodiversity found in the area of study and the endemic nature of several species making ecotourism activities such as the observation of wildlife on such islands unique. Furthermore, one can practise various ecotourism activities both in coastal and marine environments in sites which are relatively close to each other increasing the competitiveness of the ecotourism product and the satisfaction of ecotourists.

F) Connectivity is the major challenge on smaller islands whereas overdevelopment and resulting habitat fragmentation are the major issues on the larger islands

With respect to major challenges, habitat fragmentation due to anthropic impact is a major limitation on larger islands especially on the densely populated island of Malta, whereas with smaller islands connectivity challenges dominate. Furthermore, since the area of study is not synonymous with ecotourism, there is a lack of services, including important ecotourism ones such as those related with interpretation. There is also a lack of packages including tailor-made packages to cater for different ecotourists and in different weather conditions and seasons and limited knowledge on the product. In the case of the islands under Italian jurisdiction, the language barrier is also a serious limitation especially in terms of interpretation. The image of the islands is also associated with other forms of tourism such as mass tourism and regional challenges such as immigration in the case of Lampedusa. As a result, such islands fail or find it challenging to attract ecotourists.

Various policies taken by authorities including those favoring over-development at times contradict ecotourism policy. An extensive list of negative environmental impacts threaten the potential of ecotourism especially in the Maltese Islands. Whereas a lot of emphasis has been placed on hunting and trapping, possibly due to the referendum on spring hunting in the midst of the research, and even if hunters and trappers have also contributed to their fair share of impact in wild areas through various illegalities, overdevelopment and human impact have been identified as the major challenge for ecotourism on main islands, especially Malta. The success of ecotourism in the area of study also faces the challenge of gaining the acceptance of the local community. This is because the lifestyle of the local community can be negatively impacted through a cultural, social and economic scenario as a direct result of the unintended negative impacts resulting from ecotourism. Yet, if ecotourism manages to improve the lifestyle of the local communities, it will naturally obtain the backing of the inhabitants.

G) One size fits all approach in terms of policy mostly impacts SISs

Whereas across the entire area of study, stakeholders have argued that the one size fits all approach impacts ecotourism development, such policies mostly impact SISs such as Malta where the governance structure experiences less hierarchies and levels of governance and is consequently more efficient. As a result, enforcement in the field of tourism is stringent in the case of the Maltese Islands and it is not easy for operators to avoid or escape their obligations. On the other hand, in the islands under Italian jurisdiction, especially the smaller islands of the archipelagos, enforcement is mostly absent and thus ecotourism activity which may not necessarily fulfil all obligations, such as guiding by unlicensed persons, can still take place.

8.2.4 Seasonality and Socio-cultural, Economic and Environmental Issues

Across the area of study, tourism has either almost substituted traditional economic activities or has become a dominant economic sector. However, this has not necessarily brought the expected welfare to the local communities and the respective islands. Excluding Malta, tourism is highly seasonal and has also caused various negative environmental and socio-economic impacts.

H) Ecotourism can alleviate seasonality

Through the results obtained one can conclude that ecotourism can offer an opportunity for such islands in order for them to depend less on domestic tourism or 3S tourism which is the dominant tourism product on several islands in the area of study, thus extending the tourism season, reducing seasonality and therefore providing work throughout the year. This is because marine ecotourism can overcome both natural and institutionalized seasonality. Should adequate organization and mentoring be in place to develop the ecotourism sector further, ecotourism also has the potential to create new job opportunities for the local community and reduce the reliance on economic activities that have an adverse impact on the environment. This is because several ecotourism activities already being practised on the islands and other potential activities can be practised off-season to extend beyond the major tourism season. The potential of ecotourism to be practised off-season is confirmed by an ecotour which took place in February and a visit by repeat visitors in April on the Aegadian Islands. Both the ecotour and the follow up visit were successful with the basic services required being

available. One expects that once the demand becomes stable, challenges such as the seasonal availability of some services will be overcome as operators will see the potential of further income and extend their period of operation. The positive impact left on the local economy was evident as observed by the researcher and the ecotourists themselves, and thus this can further boost interest in the sector and obtain the backing of the local community. Furthermore, due to the fact that it is naturally practised in coastal and marine settings, marine ecotourism can also be undertaken in the warmer season which is currently dominated by 3S tourism and can thus substitute, or enrich the existing tourism product.

I) Ecotourism can mitigate the consequences of subordination faced by smaller islands

Considering that, as explained earlier, ecotourism has greater potential on smaller islands, its development on such islands can alleviate the dominance/subordination relationship that exists on various levels between the islands of the same archipelago. In several cases discrimination between local communities is rife. Ecotourism development can also help locals reap the advantages of the extensive protection found on some islands and naturally engage them as guardians of such venues rather than escalating the opposition due to the impact on their livelihood or culture. However ecotourism, as explained in literature, is not a panacea and tensions between operators competing for the limited demand was evident on the Aegadian Islands confirming that ecotourism can escalate the rivalry that already exists on the islands. However, provided that adequate demand is in place, such a challenge will become less influential on the sector.

J) The ecotourism hub concept can tackle economic and socio-cultural impacts faced by local communities

It is worth mentioning that activity between islands in the area of study has been traced to prehistoric times. Seafaring seems to have been a booming activity at that time as obsidian from Pantelleria was found on Lampedusa and Malta (Camps, 1986; Farr, 2010). Furthermore records confirm that ties between the various islands in the area of study date back to the period when Malta was ruled by the Order of St. John mostly due to corsairing (Ganado, 2013; Gauci, 2016). Attempts have also been made in the past to make Lampedusa part of the Maltese Islands (Zerafa 2011) and more recently a proposal for Malta to reach out to the island of Pantelleria was made (Sansone, 2018). In this regard, as also outlined by operators and investors, ecotourism can serve as a means to revitalize such pre-

existing links and also to indirectly tackle socio-economic necessities that small archipelagos and islands under Italian jurisdiction lack, due to their limited resources and weak structure in terms of governance, for the benefit of the local communities. These include issues related to travel, health and education to which the local communities of the islands under Italian jurisdiction have limited accessibility.

8.2.5 Recommendations on Policy Actions Required to Further Develop Marine Ecotourism in Central Mediterranean Islands

In this section a series of recommendations are being presented with the intent to make ecotourism a more recognisable sustainable tourism activity in the Mediterranean region. Several of these recommendations have been proposed by stakeholders, including locals, whereas others are being presented by the researcher in reaction to challenges outlined by stakeholders.

Connectivity and transport

1. A fast ferry (hydrofoil) service between Malta and Gozo needs to be introduced to discourage the use of cars on Gozo.
2. The ferry service between the mainland and the islands of Pantelleria and the Pelagian islands needs to improve through well-equipped and efficient ferry boats to meet the expected standards and reduce the voyage time.
3. A long term plan needs to be devised to avoid the suspension of services between the islands because of contractual disagreements between the regional government and private operators. This is especially necessary when operators have a monopoly on the service such as the operator linking the islands of Lampedusa and Linosa.
4. In the case of Pantelleria and Lampedusa, international flights with competitive prices need to be introduced, especially in the off peak season, to tackle seasonality.
5. Flights to Birgi airport in Trapani, which serves as a connecting airport to the entire area of study, need to be secured.
6. Inter-island connections run by the private sector, such as that between Malta and Lampedusa, need to be encouraged and extended throughout the year. Furthermore, other inter-island connections need to be reintroduced or considered.

7. National airlines need to ensure connectivity between the gateway islands and important European markets from where ecotourists may originate.

Ecotourism venues

1. When possible, protected areas need to be extended to counteract habitat fragmentation rather than favouring further development adjacent to such areas.
2. Both financial and human resources need to be provided for the management bodies of protected areas in the area of study, especially in the Maltese Islands, in order to permit adequate management.
3. All stakeholders, including the local community, need to be involved in management practices.
4. Protected areas need to be developed in a bottom up approach through the involvement of locals and stakeholders as early as the planning stages.
5. Where lacking, zones need to be established in protected areas, especially in the case of MPAs. The right balance between the protection of wildlife and the livelihood of the local community needs to be found.
6. Accessibility issues within natural sites in the Maltese Islands need to be tackled.

Ecotourism activities

1. Further ecotourism activities that can be practised in the area of study need to be identified.
2. An itinerary for the different seasons, taking into account the different weather conditions, needs to be designed. A proposed itinerary is presented in Annex 2.
3. Necessary measures, including certification, need to be introduced to ensure that the expected standards are reached and that ethical considerations are given due attention when prasticing ecotourism activities.
4. Ecotourism itineraries should give prominence to sustainable activities run by local operators and which support local trades and customs.
5. Ecotourism activities should focus on coastal and marine environments and the right emphasis needs to be made on charismatic fauna species.

Ecotourism services

1. Operators should be incentivised to offer ecotourism services all year round possibly through tax cuts that compensate running costs off-season.
2. Public transport and infrastructure needs to be improved.
3. Cooperatives and associations need to be introduced to be in a position to offer packages for ecotourists.
4. There is a need to mediate between operators and service providers in order to overcome excessive rivalry as this may also paint a negative picture for tourists.
5. Along with the current tourist guides, ecoguides should be introduced in the Maltese Islands. More training related to ecotourism along with language proficiency courses should be offered to guides across the area of study.
6. Signage needs to be improved across the area of study. When possible unobtrusive media such as eBooks and mobile applications should be given priority.
7. It must be ensured that information points function accordingly and personnel are well trained to provide ecotourism related information.
8. Ecocertfication should be extended to ecotourism services to avoid greenwashing and ensure that expected standards are met.
9. Start-ups should be incentivised to invest in the niche and to extend existing ecotourism services.
10. The restoration and conversion of existing buildings (especially those within protected areas) should be encouraged in order for them to be used for interpretation and accommodation purposes.

Profile of the ecotourists

1. Studies need to be undertaken, especially in the islands under Italian jurisdiction, to further understand the profile of the ecotourist visiting the area of study. This will also enable effective marketing and the planning of ecotourism activities.

Marketing

1. Due attention should be given to smaller islands in terms of marketing as, at times, these are more pristine and thus more adequate for ecotourism.
2. When it comes to promotion, more prominence needs to be given to the natural resources and the presence of protected areas rather than focusing on 3S features as the former influences ecotourists when choosing the destination to be visited.
3. Marketing efforts should be extended in the international media to overcome the current reliance on the domestic market.
4. Efforts need to be made through the adequate promotion to facilitate the arrival of long stay tourists who are willing to pay and eager to participate in ecotourism related excursions.
5. New media technologies, including social media, should be used to reach out to different clusters of people and expose the true image and ecotourism potential of the islands.
6. The management bodies of protected areas, including MPAs, should be encouraged to promote ecotourism within such sites and not to focus solely on conservation.
7. The concept of the central Mediterranean as an ecotourism hub and thus the option to visit more than one island throughout an ecotour should be well promoted and collaboration between the different islands and authorities should be sought and strengthened.

Environmental impacts

1. A general clean up needs to be organised across the area of study especially in the Maltese Islands and Lampedusa.
2. Law enforcement with respect to illegal dumping and other activities leading to environmental degradation needs to be bolder.
3. In the case of the islands under Italian jurisdiction, especially where MPAs are present, sewage treatment facilities need to be introduced/become functional.
4. Incentives through financial assistance and better regulation need to be in place to facilitate the use of alternative energy on the islands under Italian jurisdiction.
5. Expansion of the aquaculture industry needs to be kept at a minimum and the relocation of existing pens further ashore needs to be completed and monitored.
6. Trawling in non-designated areas, particularly close to the coast, should be duly prohibited, especially on Pantelleria. Efforts should be made to clamp down on any activity conducted by unregistered non-resident fishermen who do not have permission to fish in such areas.

7. Illegal development, the urbanisation of green areas and other development on pristine terrain in the name of tourism needs to be halted and ODZ designated land needs to be duly valued.
8. Further enforcement is required, especially in the Maltese Islands, to ensure that hunting and trapping practices abide by the regulations in place and also to ensure the safety of ecotourists.
9. Efforts need to be made by national authorities to stop the spread of invasive alien species, especially in marine environments, even if such a challenge requires a global effort, including abiding by international conventions.
10. Planning and evaluation processes of megaprojects in the area of study such as tunnels and airstrips need to give due attention to the environmental impact these may have on the islands as well as the impact these might have on the ecotourism appeal of the islands.
11. More awareness needs to be raised among locals on the benefits of protected areas in terms of ecotourism.

Socio-economic impacts

1. Socio-economic considerations need to be taken when establishing various levels of protection and when creating management zones. The local community needs to be incentivised to better reap the benefits of such parks and protected areas through new means of income such as through ecotourism.
2. Ecotourism needs to be further encouraged in the off peak season to increase job opportunities and income in this period allowing the local community to live on the island all year round and reduce the need to move to the mainland in the off peak season.
3. The prices of goods and services need to be monitored and mechanisms need to be introduced so as to ensure that fluctuations introduced in an attempt to make more income from tourism do not impact the local community.
4. Further amenities needed by both tourists and the local communities need to be introduced through the initiative of local authorities and the private sector. This is crucial to incentivise not only locals to stay on the islands but also to facilitate the arrival of tourists on the islands in the off peak season.

Governance and policy

1. Ecotourism needs to be given importance in national tourism policies and plans to encourage its development in the area of study.
2. Bureaucracy should be reduced to incentivise more operators to offer services within the niche.
3. More stringent enforcement needs to be introduced to clamp down on illegalities, including ecotourism activity run in an underground manner, which may negatively impact the sector.
4. Authorities need to give due attention to the tourism related necessities of smaller islands, including connectivity and promotion. Small islands and their residents also need to be shown greater respect and attention.
5. Governmental entities, especially those in the field of tourism and the environment, need to liaise further together.
6. There needs to be clarification, through policy, on the role NGOs should play in the sector including in providing ecotourism related services that compete with those offered by private operators.
7. Mentoring and financial support should be offered to start-ups to encourage investment in new areas of ecotourism.
8. Financial incentives such as tax breaks for ecotourism operators need to be considered in order to counteract the disadvantages faced as a result of the condition of islandness.
9. Issues related to the niche such as the introduction of an ecotax and fees should not be politicised and consensus needs to be reached by all active political bodies.
10. Measures such as the introduction of tax breaks and ecotax should be coupled with enforcement of authorities and tax policies favoring compliance.

8.3 Contribution to Knowledge

Recalling the fact that ecotourism has different attributes depending on the **geographical and cultural context** (Buckley, 2013; Cater, 2006; Conway and Cawley, 2016; Fennell, 2001; Okech, 2012; Weaver, 2008) and that limited research has been conducted on the matter in the area of study, as outlined in section 1.3, it is worth shedding light on the attributes of ecotourism in the area of study. From the research conducted one concludes that consensus exists on the fact that ecotourism in the central Mediterranean region is based on the established principles of ecotourism and is therefore

nature based, sustainable and educational. Emphasis has also been placed on conservation. This can be explained by the tremendous impact of human activity on the fragile environments found on islands and because, on some islands, the environment is rapidly being obliterated. This is possibly leading to the annihilation of the remaining ecotourism potential of these islands unless concrete action is taken soon. Ecotourism on such islands has also been depicted as one which is influenced by local traditions or socio-economic activities such as agriculture in the case of Malta, Pantelleria and Linosa and fisheries in the case of the other islands under Italian jurisdiction such as Lampedusa, Marettimo and Favignana with various stakeholders referring to overlaps between ecotourism and agritourism / pescatourism. As per ecotourism in other destinations, at times the rich culture of some islands such as Malta has also been considered as a small but valid component of ecotourism when duly curated.

Even if coastal and marine settings are rich in biodiversity and offer tremendous opportunities to practise marine ecotourism, such resources are mostly overlooked in larger islands such as Malta and Pantelleria with most ecotourism activity and emphasis being placed on terrestrial habitats. This is mostly due to the perception that such islands are more inclined towards other forms of traditional tourism and thus the coastal and marine environments are targeted for other forms of tourism such as 3S and nautical tourism. On the other hand, the smaller islands with limited terrain and limited economic opportunities tend to place more importance on their coastal and marine environments. Owing to this and other factors explained previously in section 8.2.1, such as a more pristine environment, marine ecotourism is considered to be more viable on the smaller islands in the area of study with the larger islands playing a role in supporting the product.

Whereas different destinations are said to attract different ecotourists (Page and Dowling, 2002), as outlined by Table 6.14 the ecotourist attracted to the area of study was by and large similar to the ecotourist as described in literature. Yet, ecotourism venues, such as stretches of the foreshore, tend to be highly influenced by human impact. This plays a detrimental role in ecotourism. This is especially the case in the Maltese Islands due to the relatively high population density. This implies that the expected natural element is different from that perceived or that seen in other renowned ecotourism destinations. As a result, attracting and fully satisfying the “true specialist” or the hard ecotourist might be challenging, especially on the gateway islands such as Malta and Lampedusa. This is also the case because irrespective of the rich biodiversity, large terrestrial charismatic species are limited or difficult to observe either due to their shy behavior, limited distribution or limited numbers. As a result,

conversely to what normally happens elsewhere, ecotourism targets in the region include smaller, less charismatic species such as the fresh water crab and the weasel or the introduced deer on Marettimo. Meanwhile, whereas according to Garrod and Wilson (2004) the strict competition in the ecotourism market makes it challenging to attract repeat visitors, the ecotourists participating in the ecotours became attached to some of the ecodestinations. Such endearment to the sites and local communities meant the ecotourists who participated in the ecotours revisited the ecodestinations with other friends. This, along with the relative high rate of overall satisfaction of ecotourists who participated in the ecotours, confirms the potential of ecotourism in the region.

Marine ecotourism in the central Mediterranean region is also deeply influenced by a myriad of issues and factors related to islands/archipelagos that, even when not directly related to ecotourism, have a direct impact on its potential and its possibility to be practised on such islands. Furthermore, as with marine ecotourism in other destinations, the reliance on global tourism activity in various aspects such as connectivity poses a major risk for its success as outlined by Garrod and Wilson (2004). Moreover, as outlined by Cater and Cater (2007) several transboundary issues including marine pollution due to plastics, presence of invasive alien species and aquaculture all influence ecotourism.

To date, island hopping has been said to be well established among yachters and cruise ship passengers (Baldacchino and Ferreira, 2015). However, this study has shown that island hopping can also be manifested in the form of marine ecotourism provided that the core principles of ecotourism are reflected in the entire ecotourism experience including travel, services and activities held. This is based on distinctive features, opportunities presented and ecotourism potential of each island which exist including the different habitats and geology and different activities that can be practised throughout different seasons. In fact, ecotourists chose different activities when asked about the activities enjoyed most during the ecotours as outlined in section 6.6. Therefore, as in the case of island hopping and archipelago tourism, marine ecotourism in central Mediterranean islands is also based on complementarity. Thus, it is necessary to visit various islands especially the smallest and most peripheral of archipelagos to obtain the full marine ecotourism experience. Meanwhile the challenge remains to carve out ecotourism from coastal and marine areas, some of which already under stress from existing multiple users due to fishing, swimming, hospitality, industrial activity, presence of ports, ferry services and pleasure craft among others. These all pose pressure on the finite coastal area that is hard pressed with use conflicts especially in the case of islands grouped in levels 1-3 in Figure 8.1. Seasonality can be a blessing in disguise for the area to recuperate from the

intense pressure during the summer months. It can also be considered as an opportunity since the lack of crowds and resulting lack of activity throughout the majority of the year in coastal and marine areas can offer an opportunity for such a sustainable product to thrive and develop.

Crucial to island hopping is also the provision of ecotourism services and packages which involve a number of islands. Even if this study has confirmed through ecotours that there is indeed a market for such a niche, packages and services are mostly lacking. In fact the researcher encountered only one operator offering ecotours on numerous islands including Pantelleria, the Aegadian Islands and the Aeolian Islands, with the latter not included in the area of study. Connectivity is also crucial for island hopping as an ecotourism activity to take place. However this should not be done at the expense of the same environment and coastal/marine settings where marine ecotourism is to be practised. It is more an issue of sustaining existing services or reintroducing discontinued services which linked islands in the past.

Owing to the very small size of most of the islands in the area of study, especially those found in the periphery of archipelagos, island hopping is a must. This is because such islands cannot be sole destinations on their own. However in connection with other islands, they can become attractive also to ecotourists who travel to the region from long distances and thus competitive with other ecodestinations. This also facilitates the possibility to ecotourists to customise the length of the ecotrip according to the desire of the ecotourist and possibly extend their stay on islands.

A challenge for island hopping in the region is the fact that islands involved do not form part of the same jurisdiction and at times crisis can lead to disputes between the countries involved as in the case of Malta and Lampedusa (Italy) on immigration. This may also complicate joint marketing strategies required to promote the region as authorities from different countries need to be involved. Political instability in the southern Mediterranean region may also hinder the image of the region. Therefore, island hopping in the region to practise marine ecotourism is also dependent on external factors which are beyond the control of the industry. Island hopping can work both ways and it may escalate rivalry leading to antagonism between the islands most visited and those which will fail to attract ecotourists.

According to Garrod and Wilson (2004) there is little knowledge on the appropriateness of marine ecotourism as a strategy for tourism development in peripheral areas. This study has continued to

add knowledge to this aspect confirming that marine ecotourism has great potential especially in the most peripheral areas. However, as indicated in the recommendations, marine ecotourism on its own cannot address the entire problems faced by coastal peripheral areas such as connectivity issues mentioned above. However, an appropriate strategy revolving around marine ecotourism can be instrumental to reach such an objective.

8.4 Further Research

Whereas this research has established the potential of ecotourism in the central Mediterranean region through practical means, i.e. through the implementation of ecotours, further research is required to understand this field and the implications of this activity in the region. The main areas of further research that have emerged from this research are described below.

Economic studies need to be undertaken to better understand the economic impact such a niche may have on the islands under study, the resulting impact on the standard of living of the local communities and the funding generated for management of the venues of ecotourism. This is especially crucial as socio-economic considerations might motivate increased interest in ecotourism and encourage policy makers to take concrete actions to boost the niche. Such economic studies are even more relevant in the context of the fact that the United Nations Educational, Scientific and Cultural Organization (UNESCO) declared the years between 2021 and 2030 as the **Decade of Ocean Science for Sustainable Development** which objectives include the support of the development of the ocean economy through analyses of economic and social benefits from sustainable use of marine resources (UNESCO, 2017).

Further research is required on the **profile of the ecotourist** being attracted and major attractions being sought to further target relevant sectors and to ensure the adequate management and protection of relevant natural resources.

Studies also need to be undertaken to **highlight sustainable activities** for every season. These are currently being overlooked, especially those that can be practised in marine and coastal settings. A **stocktaking exercise of ecotourism related services** including those related to accommodation, local travel and local organic food needs to be undertaken to develop them and promote them further

and be offered to ecotourists as part of the ecotourism package. Furthermore, one needs to **bring to light relevant green initiatives** such as the recent introduction of White Flag Certification in Malta (White Flag, 2017) which are also sought after by ecotourists when choosing an ecodestination.

Further studies need to be undertaken on **connectivity issues** including their economic feasibility and how best to link the islands in the centre of the Mediterranean to encourage further investment by the private sector. This is crucial for ecotourism activity to develop further and to promote and strengthen the concept of the ecotourism hub in the central Mediterranean region. Moreover, ecotours which involve itineraries incorporating more than one archipelago need to be tested to further develop the idea of the central Mediterranean region as a hub for marine ecotourism and to study the potential of ecotours based on islands from different archipelagos.

Research in the field of ethics with respect to ecotourism also needs to be undertaken to study the impact of existing and future ecotourism excursions and activities on the natural resources in the area of study, including the wildlife found in coastal and marine environments. This is particularly pertinent with regards to endemic and endangered species. This is currently being overlooked and as a result the natural resources that are part of the ecotourism potential of the islands in the area under study risk being jeopardized.

8.5 Limitations of the Study

This study was also characterized by some limitations, as explained below. Firstly, a **vertical study** whereby a number of ecotours are organised in the same destination throughout the six year research period might have been beneficial to identify more trends and give the researcher the possibility to fine-tune the itinerary and compare the satisfaction rates. This could have also given the researcher the opportunity to further study the seasonal impact on the overall organisation of the ecotour. Yet this was not possible due to limited temporal and financial resources. Nevertheless, the ecotours were held throughout different months, with some being held off-season and thus one could still study the seasonality aspect to a certain extent. Furthermore, the researcher relied on the assistance of third parties including NGOs and operators in the organization of the ecotours with whom the programme had to be agreed and coordinated. As a result **not all the aspects of the ecotours necessarily mirrored the ecotourism principles** that the researcher wished to be reflected. As a

result this led to a scenario whereby issues that might have not fully satisfied the ecotourists or which failed to give the right impression to the participants were incorporated in the ecotour thus impacting the outcome of the results. One example is the accommodation provided during the ecotour held in the Maltese Islands.

Whereas, as discussed earlier, direct marketing is a common practice in ecotourism, the age group and origin of the participants was skewed owing to the limited resources available in order to recruit participants, a matter which relied on the efforts of the third parties involved. Yet as outlined in section 7.4.8, educated people and university groups are also a target group for ecotourism and, if anything, this helped to outline that this target group should not be overlooked when promoting ecotourism in this region.

8.6 Conclusion

This study has shown that whereas islands in the Mediterranean are normally associated with 3S tourism, there is strong potential for the development of marine ecotourism in central Mediterranean Islands. Should adequate policy measures be taken, this can alleviate seasonality on small islands and make tourism on established destinations more sustainable and innovative, alleviating environmental issues faced by islands and the socio-economic impacts experienced by local communities, especially on small islands.

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***Plate 9.1**: A loggerhead sea turtle (Caretta caretta) nesting site being monitored by volunteers of the NGO Legambiente on Rabbit Beach, a protected area on Lampedusa frequented by several tourists throughout the summer period. Photo: Karl Agius.*

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Annex 1

Designations Across the Area of Study

Table A1.1: Terrestrial sites in the Maltese Islands forming part of the Natura 2000 network.

Site code	Name of site	Type of site	Area of site (ha)
MT0000001	L-Inħawi ta' Għajn Barrani	SPA	54.56
MT0000002	L-Inħawi ta' Pembroke	SPA	96.75
MT0000003	Il-Ballut tal-Wardija	SPA	20.37
MT0000004	Il-Maqluba (limiti tal-Qrendi)	SPA	2.62
MT0000005	L-Inħawi tar-Ramla	SPA	7.42
MT0000006	Is-Simar (limiti ta' San Pawl il-Baħar)	SPA / SCI	58.38
MT0000007	Is-Salini	SPA	23.67
MT0000008	L-Għadira s-Safra	SPA	1.54
MT0000009	L-Inħawi tar-Ramla tat-Torri u tal-Irdum tal-Madonna	SPA / SCI	74.91
MT0000010	Ix-Xagħra tal-Kortin	SPA	12.61
MT0000011	Għar Dalam	SPA	0.17
MT0000012	Wied il-Miżieb	SPA	24.66
MT0000013	Iċ-Ċittadella	SPA	2.07
MT0000014	Il-Ballut ta' Marsaxlokk	SPA	23.3
MT0000015	L-Inħawi tal-Għadira	SPA / SCI	97.74
MT0000016	Filfla u l-Gżejjer ta' Madwarha	SPA / SCI	6.58
MT0000017	Kemmuna u l-Gżejjer ta' Madwarha	SPA / SCI	294.66
MT0000018	L-Inħawi tal-Buskett u tal-Girgenti	SPA / SCI	244.71
MT0000019	L-Inħawi tad-Dwejra u tal-Qawra, inkluż Ħaġret il-Ġeneral	SPA	86.93
MT0000020	L-Inħawi tax-Xlendi u tal-Wied tal-Kantra	SPA	296.3
MT0000021	L-Inħawi tal-Imġiebaħ u tal-Miġnuna	SPA	176.4
MT0000022	Il-Gżejjer ta' San Pawl (Selmunett)	SPA	10.75
MT0000023	Il-Magħluq tal-Baħar ta' Marsaskala	SPA	4.42
MT0000024	Rdumijiet ta' Malta: Ir-Ramla taċ-Ċirkewwa sal-Ponta ta' Bengħisa	SPA	2317.25
MT0000025	L-Għar tal-Iburdan u l-Inħawi tal-Madwar	SPA	69.13
MT0000026	Il-Qortin tal-Magun u l-Qortin il-Kbir	SPA	53.49
MT0000027	Rdumijiet ta' Għawdex: Ta' Ċenċ	SPA	15.2

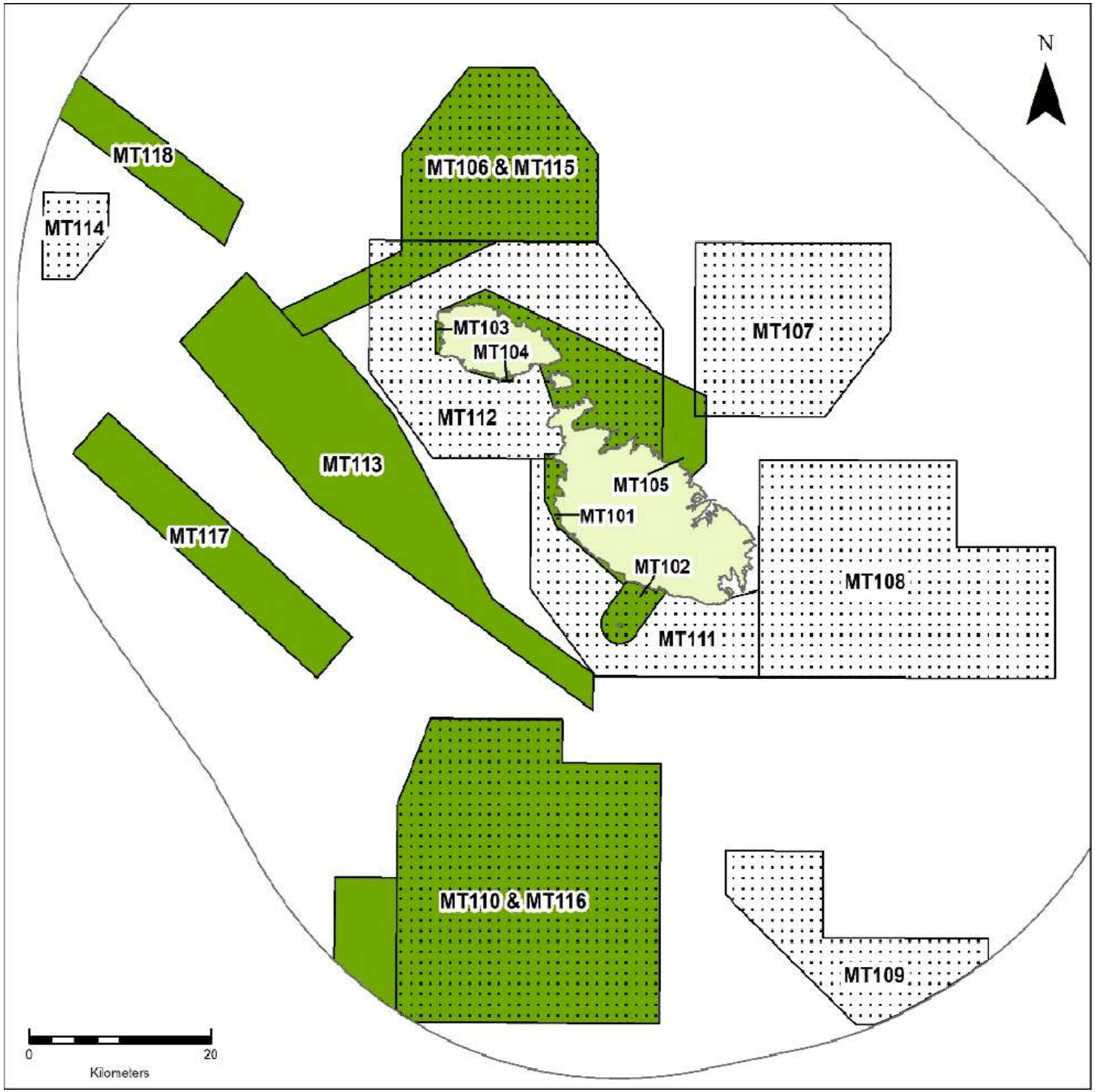
MT0000028	Rdumijiet ta’ Għawdex: Id-Dawra tas-Sanap sa tal-Ħajt	SPA	29.7
MT0000029	Rdumijiet ta’ Għawdex: Il-Ponta ta’ Ħarrux sal-Bajja tax-Xlendi	SPA	57.23
MT0000030	Rdumijiet ta’ Għawdex: Il-Ponta ta’ San Dimitri sal-Ponta ta’ Ħarrux	SPA	64.07
MT0000031	Rdumijiet ta’ Malta: Ix-Xaqqa sa Wied Moqbol	SPA	139.8
MT0000032	Rdumijiet ta’ Malta: Ras il-Pellegrin sax-Xaqqa	SPA	378.45
MT0000033	Rdumijiet ta’ Malta: Wied Moqbol sal-Ponta ta’ Bengħisa	SPA	55.2
MT0000034	L-Inħawi ta’ Ta’ Ċenċ	SPA	140,22
		Total area	1884,36

Sources: ERA (2017a); EUR-Lex, 2015.

Table A1.2: SPAs and SACs marine sites in the Maltese Islands.

Site code	Name of site	Designation	Area of SCI (ha)
MT0000101	Żona fil-Baħar Bejn Rdum Majjiesa u Ras ir-Raheb	SAC	848.72
MT0000102	Żona fil-Baħar fl-Inħawi ta' Għar Lapsi u ta' Filfla	SAC	2450.51
MT0000103	Żona fil-Baħar fl-Inħawi tad-Dwejra (Għawdex)	SAC	228.61
MT0000104	Żona fil-Baħar fl-Inħawi ta' Mġarr ix-Xini (Għawdex)	SAC	30.56
MT0000105	Żona fil-Baħar fil-Grigal ta' Malta	SAC	15519.4
MT0000106	Il-Baħar tat-Tramuntana	SPA/SAC	31920
MT0000107	Il-Baħar tal-Grigal	SPA	35190
MT0000108	Il-Baħar tal-Lvant	SPA	62550
MT0000109	Il-Baħar tax-Xlokk	SPA	21930
MT00001010	Il-Baħar tan-Nofsinhar	SPA/SAC	83540
MT00001011	Il-Baħar tal-Lbiċ	SPA	25630
MT00001012	Il-Baħar ta madwar Għawdex	SPA	55670
MT00001013	Il-Baħar tal-Punent	SAC	23100
MT00001014	Il-Baħar tal-Majjistral	SPA	5592
		Total area	856156

Sources: ERA, 2017a; ERA, 2018; EUR-Lex, 2015.

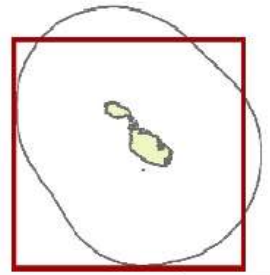


Environment & Resources Authority
Hexagon House, Spencer Hill, Marsa, MRS 1441, Malta
T | +356 2292 3500 W | era.org.mt

Marine Protected Areas within Malta's Fisheries Management Zone

Legend

- Special Protected Areas
- Special Areas of Conservation



May 2018

Table A1.3: Sites in the Aegadian Islands forming part of the Natura 2000 network.

Site code	Name of site	Designation	Area of site (ha)
ITA010002	Isola di Marettimo	SAC	1111
ITA010003	Isola di Levanzo	SAC	552
ITA010004	Isola di Favignana	SAC	1832
ITA010024	Fondali dell'Arcipelago delle Isole Egadi	SAC	54281
ITA010027	Arcipelago delle Egadi - area marina e terrestre	SPA	48259

Source: EUR-Lex, 2015.

Table A1.4: Sites in the Pelagian Islands forming part of the Natura 2000 network.

Site code	Name of Site	Designation	Area of site (ha)
ITA040001	Isola di Linosa	SCI	435
ITA040002	Isola di Lampedusa e Lampione	SCI	1406
ITA040013	Arcipelago delle Pelagie - area marina e terrestre	SPA	12725
ITA040014	Fondali delle Isole Pelagie	SCI	4085

Source: EUR-Lex, 2015.

Table A1.5: Sites in Pantelleria forming part of the Natura 2000 network.

Site code	Name of site	Designation	Area of site (ha)
ITA010019	Isola di Pantelleria: Montagna Grande e Monte Gibele	SAC	3099
ITA010020	Isola di Pantelleria — Area Costiera, Falesie e Bagno dell'Acqua	SAC	3402
ITA010030	Isola di Pantelleria e area marine circostante	SPA	15762

Sources: EUR-Lex, 2015; Gazzetta Ufficiale della Repubblica Italiana, 2016.

Annex 2

Programmes of Ecotours

Ecotour to the Aegadian Islands

5th – 9th February 2014

Wednesday 5th February

7:05 Departure from Malta International Airport
7:55 Arrival at Trapani Birgi Airport
8:00 Transfer from Trapani Birgi Airport to Port
8:55 Hydrofoil from Favignana to Levanzo
9:30 Arrival at Levanzo
11:00 Visit to Grotta del Genovese
15:00 Trekking to Capo Grosso and Torre Saracena (bird watching, interacting with locals and flower gazing)
20:00 Dinner

Thursday 6th February

9:00 Trekking Zona Faraglione
11:30 Departure
12:00 Arrival in Favignana
13:30 Cycling along coastal pathways - visit to Cave di Tufo (Bue Marino)
17:00 Visit office of the MPA
18:30 Shopping Local Products at Casa del Tonno
20:00 Dinner

Friday 7th February

9:00 Sand Dunes at Spiagga Praia anchors
10:00 Visit at Ex-stabilimento Florio
11:30 Visit at Palazzo Florio
12:30 Hydrofoil from Favignana to Marettimo
13:30 Arrival at Marettimo
14:00 Trekking to Case Romane Complex (Roman Fortification and Byzantine Church)
18:00 Visit to Museo del Mare and audio-visual talk on Marettimo
20:00 Dinner

Saturday 8th February

9:00 Trekking to Punta Troia and visit to the Seal observatory centre

11:00 Boat tour to visit the caves

12:30 Hydrofoil from Marettimo to Trapani

14:00 Visit Riserva naturale integrale Saline di Trapani e Paceco (Bird watching)

16:00 Trapani Salt Pans and Salt Museum

17:00 Free time to visit Trapani centre and port

20:00 Dinner

Sunday 9th February

7:00 Transfer from accommodation to Airport

8:00 Arrival at Birgi Airport

9:05 Departure from Birgi Airport

9:55 Arrival at Malta International Airport

Ecotour to Pantelleria

2nd – 9th July 2014

Wednesday 2nd July

15:55 Departure Malta

16:45 Arrival Trapani

17:30 Transfer

18:00 Arrival at Trapani port

22:30 Regroup and distribute tickets

23:00 Departure to Pantelleria by ferryboat

Thursday 3rd July

6:00 Arrival at Pantelleria

6:15 Transfer to dammuso

9:00 Visit to Gadir (underwater archaeological site and volcanic phenomena)

12:00 Visit Lago Specchio di Venere (bird watching, volcanic phenomena and observation of flora and fauna)

Friday 4th July

9:00 Visit the Tombe Byzantine - Gibbiuna

10:00 Visit Stele di Rekhale

11:00 Trekking at Fossa del Rosso e Favare

13:00 Trekking to Sauna Grotta di Benikula

15:00 Free time

Saturday 5th July

9:00 Snorkelling at Arco dell'Elefante,

11:00 Visit Museo Volcanico

15:00 Visit Acropolis

Sunday 6th July

9:00 Day tour to Montagna Grande

11:00 Visit Grotta del Briganti

13:00 Trekking

16:00 Horse riding

Monday 7th July

10:00 Visit Sesi e Muro Alto,

12:00 Visit Sataria (snorkelling and volcanic phenomena)

15:00 Visit Grotta del Freddo and Giardino Pantesco

Tuesday 8th July

9:00 Trekking at Khiaggiar

10:00 Visit Scauri

12:00 Pantelleria centro (Chiesa, Castello)

16:10 Departure to Trapani

18:40 Arrival at Trapani

Wednesday 9th July

8:30 Breakfast

9:00 Visit Erice

12:00 Return to Trapani

12:30 Departure to airport

14:40 Departure to Malta

15:30 Arrival Malta

Ecotour to the Malta Islands

5th – 10th October 2015

Monday 5th October

Arrivals

18:00 Meeting at Majjistral Nature and History Park Visitors Centre

19:00 Transfer to accommodation and settling in

20:00 Transfer to Mġarr

20:30 Dinner at Ta' Wistin Local Cuisine

22:00 Transfer to accommodation

Tuesday 6th October

8:00 Breakfast at accommodation

9:00 Discussion re accommodation conditions

9:30 Transfer to Gaia Foundation on foot

10:00 Visit to Gaia Foundation Tree and Plant Centre

12:00 Discussion re accommodation conditions

12:30 Transfer to Manikata on foot

13:00 Lunch at Manikata Farmers

14:30 Transfer on foot to stables

15:00 Horse Riding at Majjistral Park

17:00 Guided walk at Għajn Tuffieħa

18:00 Free time

20:00 Transfer to Dingli

20:00 Dinner at Dar il-Bniet Local Cuisine

22:00 Transfer to accommodation

Wednesday 7th October

8:00 Breakfast at accommodation

9:00 Transfer to Mellieħa

9:30 Guided visit at Tunnara Museum

10:30 Guided visit at Għadira Nature Reserve

12:00 Transfer to Ċirkewwa by Van and shuttle to Comino by Boat

12:30 Lunch
13:00 Guided walk on Comino
16:30 Transfer to Malta by boat and to campsite by van
17:30 Free time for swimming
19:00 Transfer to Mosta
20:00 Dinner at Ta' Marija
22:00 Transfer to accommodation

Thursday 8th October

8:00 Breakfast at Campsite
9:00 Minivan to Ċirkewwa and Ferry to Gozo
10:30 Transfer to Dwejra (visit at Natura 2000 site Interpretation Centre, Boat tour of cliffs and inland sea and visit to Marine Educational Centre
13:30 Transfer to Marsalforn
14:00 Lunch at Ta' Mena Estates
15:30 Transfer to Xwejni Bay
15:45 Snorkeling at Xwejni Bay
16:30 Transfer to Ta Sannap Cliffs Guided Walk
20:00 Transfer to Victoria, walk and dinner at Ta' Rikardu
22:00 Van to Mġarr, Ferry to Malta and return to camp site via van

Friday 9th October

8:00 Breakfast at accommodation
09:15 Transfer Baħrija
10:00 Walk in Baħrija Valley and visit at Baħrija Oasis permaculture farm
12:30 Transfer by bus to Għar Dalam
13:30 Visit at Għar Dalam
14:30 Transfer to Għar Lapsi
16:30 Transfer to Malquba doline
16:45 Maqluba guided tour with Timothy Tabone
18:00 Transfer to Campsite
19:30 Transfer to Senglea
20:30 Dinner at Senglea local cuisine

Saturday 10th October

8:00 Breakfast

9:00 Swimming/snorkelling at the beach

12:00 Checkout

13:00 Transfer to Ħaġar Qim

13:30 Lunch at Ħaġar Qim local cuisine

14:30 Visit to Ħaġar Qim Temples and Musuem and Walk in the area

16:30 Transfer to Wied iż-Żurrieq

16:45 Boat tour to Blue Grotto and nearby caves

18:15 Transfer to Airport

Ecotour to the Pelagian Islands

3rd – 7th July 2016

Sunday 3rd July

15:00 Departure to Lampedusa

15.35 Arrival in Lampedusa

16:00 Transfer to accommodation

17:00 Visit old and new Port of Lampedusa and centre

18.00 Visit Museo Archeologico delle Pelagie

Monday 4th July

07.30 Departure from Lampedusa

08.30 Arrival at Linosa (trekking, cycling and snorkelling)

16:00 Visit Marine Turtles Rescue Center of Linosa

17:30 Meet locals and buy local products

18.15 Departure from Linosa

19.15 Arrival at Lampedusa

Tuesday 5th July

9.00 Visit the Marine Protected Area Centre

11.00 Visit Riserva Naturale Orientata - guided walk by Legambiente

13.00 Snorkel at Spiagga del Coniglio

17:00 Tour around the coastal areas of the island

19.00 Event: Malta - Lampedusa - nel mare che unisce hosted by Archivio Storico Lampedusa

Wednesday 6th July

10:00 Visit Centro Soccorso e Cura Tartarughe Marine di Lampedusa

12: 00 Visit Il Santuario della Madonna di Porto Salvo

13.00 Visit Porta d'Europa

14:00 Boat tour around the island of Lampedusa with guided snorkelling at Vallone dell'Acqua

Thursday 7th July

9.00 Visit sponge workshop and trade store

11:00 Free time

14:30 Transfer to airport

16:30 Departure to Malta

17.00 Arrival in Malta

Proposed Ecotour in central Mediterranean islands

Duration: 10 days (off season – example October / November / February / March)

Day 1 – Aegadian Islands (Levanzo)

Stay in an apartment owned by the locals

Trekking and flower gazing

Visit Grotta del Genovese

Picking of fungi and eating with locals

Day 2 – Aegadian Islands (Favignana)

Stay in an apartment owned by the locals

Cycling round the island along the coast

Visit office and meet the management of the MPA

Observe Vermetid reefs and marine flora along the coast (rock pooling)

Visit Ex-stabilimento Florio (tuna industry and archaeological interpretation centre)

Wild life watching (tuna, turtles, dolphins)

Day 3 – Aegadian Islands (Marettimo)

Stay in an apartment owned by the locals

Trekking to the mountain (wild life watching including deer and birds)

Visit the caves via a traditional fishing vessel

Visit Monk Seal observatory centre

Days 4 & 5 – Pantelleria

Stay at a dammuso

Visit Lago Specchio di Venere (bird watching, observe flora, fauna and volcanic phenomena)

Trekking on Montagna Grande and visit Grotta del Briganti

Visit volcanic museum

Snorkelling at Nikà (warm water all year round)

Trekking and natural sauna at Grotta di Benikula

Diving at underwater archaeological trail at Gadir

Day 6 – Maltese Islands (Malta)

Stay at Nature Trust hostel – Xrobb l-Għaġin

Bird watching at Għadira Nature Reserve

Volunteer at Gaia Foundation

Eat at Manikata with farmers

Trekking at Majjistral Nature and History Park

Visit Magħlaq valley, coastal caves and quaternary deposits

Day 7 – Maltese Islands (Gozo)

Stay at a farmhouse

Trekking at Ta' Sannap Cliffs

Visit Dwejra (boat tour and visit marine educational centre)

Trekking along a valley leading to the sea (Wied tal-Lunzjata and Wied ix-Xlendi – target fresh water crab)

Visit Sand Dunes at Ramla l-Ħamra

Bird watching at Ta' Ċenċ (target cory shearwater)

Day 8 – Maltese Islands (Comino)

Trekking along the coast of Comino (target various endemic species)

Visit Santa Marija Tower

Day 9 – Pelagian Islands (Lampedusa)

Stay at a dammuso

Volunteer plastic clean-up

Visit MPA centre

Trekking to Spiagga del Coniglio

Boat tour (wildlife watching) and snorkelling at Vallone dell'Acqua

Day 10 – Pelagian Islands (Linosa)

Stay at a traditional small dwelling with the locals

Visit Marine rescue centre

Trekking along remnants of volcanic craters

Boat tour around the island of Linosa

Meet farmers to buy local products

Annex 3

Research Instruments Guidelines

Focus groups check list

- Profile of ecotourists and environmental consciousness
- Important elements of ecotourism
- Contact with nature during ecotours
- Views of ecotourists on accommodation
- Views on activities and excursions in which one participated
- Environmental and socio-economic impacts noted during the ecotours.
- Views on the organisational aspects (including group size and duration of ecotours)
- Views on services provided and if these reflected ecotourism principles especially with respect to interpretation (including signage and tourist information).
- Motivational aspects to participate in the ecotour/s
- Recommendation aspects leading to encouraging others to join on an ecotour in the area under study
- Overall level of satisfaction
- Connectivity and transport on the islands
- Promotion of the ecodestinations (awareness)
- The ecotourism potential of central Mediterranean islands

Interviews check list

- Aspects characteristic to the tourism sector on the islands
- Challenges being faced by tourism sector and ecotourism on the islands
- Opportunities for the ecotourism sector to develop on the islands under study
- Relationship between local community and between islands of the same archipelago
- Venues ideal to practice ecotourism
- What role can coastal and marine environments on the island play in ecotourism?
- Role of MPAs or protected areas in ecotourism activities
- What was the reaction of locals to the establishment of the MPA/PA and did this change over time?
- Ecotourism activities that can be practiced, current practices
- Availability of ecotourism services and standards
- Promotion and image of the islands under study
- Satisfaction with promotional efforts conducted by the relevant authorities
- Profile of tourists/ecotourists visiting the islands
- Environmental issues and socio-economic issues arising from ecotourism activity
- Possible impacts on the islands and respective communities
- How willing are stakeholders concerned in playing a key role in this form of activity and what are their views?
- Would locals find any problem with changes in current tourism trends?
- Policy actions in place and those needed for ecotourism to become a recognizable sustainable tourism activity in the central Mediterranean islands
- Governance issues
- General recommendations (If you had to take action on a specific challenge or problem what would you do?)
- What are the opportunities and challenges for such activity to flourish?
- Potential for ecotourism in central Mediterranean islands
- Can the central Mediterranean islands collectively serve as a hub to promote marine ecotourism in the region?
- Can ecotourism serve as a means to tackle the seasonality?

PhD Thesis Questionnaire on the Potential of Ecotourism in Central Mediterranean Islands

Dear Participant,

My name is Karl Agius and I am a student within the Institute of Tourism, Travel and Culture at the University of Malta currently reading for my PhD research on the potential of ecotourism in central Mediterranean Islands.

Please understand that your participation in this survey is voluntary and you have the right not to participate in this survey without consequences. All information collected will be treated confidentially and used for research purposes only. You have the right to refuse to answer particular questions by leaving them blank. You are free to cease from replying to this questionnaire once you start filling it in.

The data collected through this questionnaire will be analysed to provide information to my research. Your participation represents an essential contribution for my thesis.

The completion of the questionnaire will take you approximately 10 minutes.

By answering the following questions, you indicate that you have read and understood the description of the study and agree to participate.

Thank you for completing this survey!

Karl Agius
PhD Student

Description of the study

This research studies the ecotourism potential of central Mediterranean Islands including the Aegadian Islands, the Pelagic Islands, the Maltese Islands and Pantelleria with reference to marine ecotourism and activities taking place close to the coast. The idea is to offer a product which links these islands together. The ecotourists will benefit from the various eco-related attractions, activities and events taking place in a nature based background surrounded by a strong marine influence. The Mediterranean attracts several tourists especially during the summer months leaving great impact on the environment of this region. Ecotourism is a form of alternative tourism that seeks to attract a more sustainable form of tourism to the islands which supports the local population and environmental initiatives taking place on the islands. This form of tourism aims to attract tourists all year round and not just in the peak summer months whilst offering tourists the opportunity to learn and contribute towards the socio-economic development of the islands. The study is composed of 4 pillars, study visits to study the potential of ecotourism, the organisation of ecotours to obtain the opinion of ecotourists, stakeholder involvement, and a socio economic analysis that such tourism may leave on the islands and the inhabitants.

Survey – Before Visit

A. Profile of the 'ecotourist' and socio-economic questions

1. What is your Gender? (mark with an x)

Male _____ (1) Female _____ (2)

2. What is your age group? (mark with an x)

18-25 _____ (1)
26-35 _____ (2)
36-45 _____ (3)
46-55 _____ (4)
56-65 _____ (5)
66-75 _____ (6)
76+ _____ (7)

3. I usually travel: (mark with an x)

___ alone (1)
___ with one other person (2)
___ as a family (3)
___ as a group of people other than your family, approximate size of group ___ (4)

4. What is the highest form of education that you have completed? (mark with an x)

Primary School ___ (1)
Secondary School ___ (12)
Vocational Education ___ (3)
Post-Secondary ___ (4)
University graduate ___ (5)

5. What is your current employment status?

Employed Full Time ___ (1)
Employed Part-Time ___ (2)
Not Employed ___ (3)
Self Employed ___ (4)
Student ___ (5)
Retired ___ (6)

6. What was your previous employment/profession?

_____

7. What is your current profession _____

8. What is your current gross annual household income in Euro? (mark with an x)

___<10,000 (1) ___ <20,000 (2) ___<30,000 (3) ___<40,000 (4) ___<50,000 (5)

9. Do you live in an urban or rural area? (mark with an x)

Urban ___ (1)
Rural ___ (2)

10. Are you affiliated (member or just a follower) to a local or international NGO (mark with an x)

Yes___ (1) NO ___ (2)

11. What degree do you consider yourself to behave in an environmentally conscious way? (mark with an x)

Very much ( ) (1) Quite a lot ( ) (2) A little ( ) (3) Not much ( ) (4)

12. During the last year how many times have you been abroad?

____

13. Does the existence of Marine Protected Areas (MPAs), natural reserves, protected land or any form of conservation issue influence your choice of a holiday/travel destination? (mark with an x)

Yes___ (1) NO ___ (2)

14. What type of accommodation do you usually use when you go abroad? (mark with an x)

___ Hotel (1)
___ Hostel (2)
___ Camping (3)
___ Friends or Relatives (4)
___ Local village accommodation (5)
___ Other (Please specify) _____ (6)

15. What is the duration of your last holiday? (mark with an x)

___ 1-3 days (1)
___ 4-7 days (2)
___ 8-10 days (3)
___ 10-14 days (4)
___ More than 15 days (5)

16. How much approximately did you spend during the last holiday, not inclusive of flights (i.e. just on accommodation, internal travel, food and excursions? (mark with an x)

____100 euros (1)
_____200 euros (2)
_____300 euros (3)
_____400 euros (4)
_____500 euros (5)
_____>500 euros (6)

17. Which activities and features are important for you during a trip abroad? (multiple choices possible)

___ Relaxation and fulfilment (1)
___ Visiting un-crowded destinations (2)
___ Shopping facilities (3)
___ Experiencing remote and unspoiled nature (4)
___ Increasing knowledge of wildlife (5)
___ Exciting night life (6)
___ Interacting with native people (7)
___ Discovery and adventure (8)
___ Local culture (9)
___ Supporting economic benefits to local communities (10)
___ See unusual plants and animals (11)
___ Availability of clubs & pubs (12)
___ Friendly natives (13)
___ Comfortable transportation (14)

___ Supporting economic benefits to local communities (15)
___ Experience nature and beauty scenery (16)
___ Increasing confidence through challenging activities (17)

18. How are your holidays organised? (mark with an x)
Independently via the internet ( ) (1)
My friends booked for me ( ) (2)
Non-profit group organized tours ( ) (3)
Tour Operator/Travel ( ) (4)

B. Eco-lodging questions

19. Please specify the importance of the ecotourism accommodation attributes (one or more)

1 is very important
2 is important
3 is not very important
4 is not important at all

Factors	**1**	**2**	**3**	**4**
Quality of food				
Price				
Design				
Cultural trips				
Security				
Availability of nature trips				
Hygiene				
Staff friendliness				
Guided tours				
Availability of local food				
Recycling facilities				
Sustainability (ex: reduced light bulbs power, water wastage)				
Value for money				
Activities available (Hiking, Birds watching, wildlife, etc.)				
Bed size				
Availability of online reviews				
Air conditioned rooms				

20. When choosing the accommodation type what is more important?
1 is very important
2 is important
3 is not very important
4 is not important at all
Other (Please Specify):

Factors	**1**	**2**	**3**	**4**
Price				
Location				
Facilities				
Star Rating				
Room				
Size				
Green incentives (ex: use of green energy, water saving, electricity saving)				
Professional Eco Labelling				
Other				

21. Which of these criteria indicates that an accommodation is eco-friendly? Please pick one or more.

___ Asking for green feedback from customers (1)
___ Provide facilities for customers with mobility impairment (2)
___ Provide comprehensive information on natural and cultural heritage (3)
___ Plant any type of trees (4)
___ Provide more choices of food (5)
___ Green Energy tariff (6)
___ Use of solar panels and alternative sources of energy (7)
___ Wash dishes and clothes by hand (8)
___ Informing guests of public transport options (9)
___ Radiant Heating (10)

C. Ecotourism questions

22. Have you ever heard of the term ecotourism?
Yes___ (1) NO ___ (2)

22a) If yes, what do you understand by this term?
_____
_____

22b) If No, what do you assume that such term means?
_____
_____

23. Which of these elements do you think that form part of the ecotourism concept?

___ nature based tour (1)
___ educational (2)
___ leisure (3)
___ cultural and historical excursions (4)
___ responsible travel (5)
___ supporting protected areas (6)
___ conservation (7)
___ adventure (8)
___ wellbeing of local population (9)
___ takes place in protected areas (10)
___ minimal environmental impact (11)
___ travelling in small groups (12)
___ volunteering (13)

24. Have you ever participated in an ecotour or travelled to a destination to visit/participate in predominately nature based attractions/activities?

Yes___ (1) NO ___ (2)

24a) If yes to which destination/s

_____

25. What motivated you to participate in this ecotour rather than going on a holiday in another destination?

_____
_____

26. How much are you willing to spend during this ecotour?

<200 _____ (1) <300 _____ (2) <400 _____ (3) < 500 _____ (4)

27. Should you be aware that money spent during this ecotour is supporting the socioeconomic dimension of the destination to be visited and the local population will you be willing to spend more?

Yes___ (1) NO ___ (2)

28. Are you willing to use a relatively more environmental friendly hostel/ecolodge as your accommodation during your ecotour which will involve sharing your room with other ecotourists and have slightly less commodities?

Yes___ (1) NO ___ (2)

29. What are your main expectations from this ecotour?

_____
_____

Survey – after visit

1. Now that you have participated in an ecotour, how would you define ecotourism?

_____
_____

2. How do you define an ecotourist?

_____
_____

3. Will you be willing to travel again in a small group?

Yes___ (1) NO ___ (2)

4. Do you think that 4 days were enough to conduct the ecotour effectively?

Yes___ (1) NO ___ (2)

5. If no on how many days do you suggest that such ecotour should be operated?

_____

6. Were your expectations fulfilled? (mark with an x)

Yes___ (1) NO ___ (2)

6a) If no why?

_____
_____

7. What proportion of your holiday is spent on contact with nature? (mark with an x)
   All of it ( ) (1) Most of it ( ) (2) Some of it ( ) (3) Not a lot of it ( ) (4) Almost none ( ) (5)

8. Which activity did you enjoy most during this ecotour and why?

_____
_____

9. Which activity did you enjoy least during this ecotour and why?

_____
_____

10. Rate the overall experience (1 negative – 5 positive)

__1 __2 __3 __4 __5

11. Rate your satisfaction with accommodation (1 least satisfied – 5 most satisfied)

__1 __2 __3 __4 __5

12. Would you be willing to participate in another ecotour?

Yes___ (1) NO ___ (2)

12a) If no why?

_____

13. If yes, what is the maximum sum you would be willing to pay on the next ecotour?

<200 _____ (1) <300 _____ (2) <400 _____ (3) < 500 _____ (4)

14. Would you be willing to participate in another ecotour which incorporates a number of islands in the centre of the Mediterranean including the Aegadian Islands, Pantelleria, the Pelagic Islands and the Maltese islands?

Yes___ (1) NO ___ (2)

15. Would you suggest such an ecotour to your friends as their next holiday?

Yes___ (1) NO ___ (2)

15a) If no why?

_____

16. How important do you think eco-tourism is likely to be for the future? (Please mark with an x)

Very important ( ) (1) Important ( ) (2) Quite important ( ) (3) Not very ( ) (4) None at all ( ) (5)

17. Please justify your answer and add anything else you would like to about ecotourism.

_____

_____

END

Annex 4

Statistical Procedures and Tables

Procedure adopted to conduct the chi squared test via SPSS

Raw data and graphs are available in electronic version. They can be obtained from Dr. N. Theuma / Prof. A. Deidun.

Single responses

Analyse

Descriptive statistics

Cross tabs

Island → column

Question → row

Statistics chi square

Continue

If $p = 0$, $p < 0.001$

Graphs

Graphs

Legacy dialogue

Bar

Clustered

Define

Bar represent → % of cases

Define cluster by → Islands

Category axis → Variable

Ok

Multiple response

Analyse

Multiple response

Define variable sets

Select of q in variable set

Click categories

Range 1-100

Name q

Click Add

Click Close

Analyse

Multiple response

Cross tabs

Row → Q

Column → Island

Define range: 1-4

Options column: %

Continue

Ok

Take table only

To get p value

Go to staggered date

Analyse

Descriptive statistics

Cross tab

Row → Q8

Column → Island

Stat chi square

Continue

Cells column → %

Continue

Ok

P value available

Table A4.1: Affiliation of participants to an eNGO.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Are you affiliated to a local or international eNGO?	Yes	Count	6	10	16	3	35
		Percentage	60.0%	29.4%	59.3%	27.3%	42.7%
	No	Count	4	24	11	8	47
		Percentage	40.0%	70.6%	40.7%	72.7%	57.3%
Total		Count	10	34	27	11	82
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 7.77$, $p = 0.051$

Table A4.2: Environmental consciousness of the ecotourists.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
To what degree do you consider yourself to behave in an environmentally conscious way?	Very much	Count	5	9	5	1	20
		Percentage	50.0%	26.5%	18.5%	9.1%	24.4%
	Quite a lot	Count	4	21	19	9	53
		Percentage	40.0%	61.8%	70.4%	81.8%	64.6%
	A little	Count	1	4	3	1	9
		Percentage	10.0%	11.8%	11.1%	9.1%	11.0%
Total		Count	10	34	27	11	82
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(6) = 5.87$, $p = 0.438$

Table A4.3: Knowledge of the term ecotourism.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Have you ever heard of the term Ecotourism?	Yes	Count	10	31	26	9	76
		Percentage	100.0%	88.6%	96.3%	81.8%	91.6%
	No	Count	0	4	1	2	7
		Percentage	0.0%	11.4%	3.7%	18.2%	8.4%
Total		Count	10	35	27	11	83
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 3.46$, $p = 0.326$

Table A4.4: Likeliness that ecotourism will be important in the future.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
How important do you think ecotourism is likely to be in the future?	Very important	Count	5	16	10	4	35
		Percentage	50.0%	43.2%	37.0%	36.4%	41.2%
	Important	Count	4	19	11	6	40
		Percentage	40.0%	51.4%	40.7%	54.5%	47.1%
	Quite important	Count	1	2	5	0	8
		Percentage	10.0%	5.4%	18.5%	0.0%	9.4%
	Slightly important	Count	0	0	1	1	2
		Percentage	0.0%	0.0%	3.7%	9.1%	2.4%
Total		Count	10	37	27	11	85
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(9) = 8.50$, $p = 0.485$

Table A4.5: Percentage of respondents living in an urban and rural area.

			Island Destination				Total
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Do you live in an urban or rural area?	Urban	Count	7	23	16	3	49
		Percentage	70.0%	67.6%	59.3%	27.3%	59.8%
	Rural	Count	3	11	11	8	33
		Percentage	30.0%	32.4%	40.7%	72.7%	40.2%
Total		Count	10	34	27	11	82
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 6.15$, $p = 0.105$

Table A4.6: Presence of protected areas and conservation initiatives and their influence on choice of ecodestination.

			Island Destination				Total
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	
Does the presence of protected areas, natural reserves or any form of conservation issue influence your choice of a holiday/travel destination?	Yes	Count	9	20	17	4	50
		Percentage	90.0%	57.1%	63.0%	36.4%	60.2%
	No	Count	1	15	10	7	33
		Percentage	10.0%	42.9%	37.0%	63.6%	39.8%
Total		Count	10	35	27	11	83
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 6.54$, $p = 0.088$

A4.7: Time spent in contact with nature.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
What proportion of your holiday is spent in contact with nature?	All of it	Count	1	8	5	0	14
		Percentage	10.0%	21.6%	19.2%	0.0%	16.7%
	Most of it	Count	5	29	21	11	66
		Percentage	50.0%	78.4%	80.8%	100.0%	78.6%
	Some of it	Count	3	0	0	0	3
		Percentage	30.0%	0.0%	0.0%	0.0%	3.6%
	Not a lot of it	Count	1	0	0	0	1
		Percentage	10.0%	0.0%	0.0%	0.0%	1.2%
Total		Count	10	37	26	11	84
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(9) = 34.05$, $p < 0.001$

Table A4.8: Willingness of ecotourists to use a more environmental friendly accommodation.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Are you willing to use a relatively more environmental friendly hostel/ecolodge as your accommodation during your ecotour which will involve sharing your room with other ecotourists and have slightly less commodities?	Yes	Count	9	30	21	8	68
		Percentage	100.0%	88.2%	77.8%	72.7%	84.0%
	No	Count	0	4	6	3	13
		Percentage	0.0%	11.8%	22.2%	27.3%	16.0%
Total		Count	9	34	27	11	81
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 3.98$, $p = 0.264$

Table A4.9: Satisfaction with accommodation provided during ecotours.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Rate your satisfaction with accommodation	Very negative	Count	5	0	0	0	5
		Percentage	50.0%	0.0%	0.0%	0.0%	5.9%
	Negative	Count	3	1	3	0	7
		Percentage	30.0%	2.7%	11.1%	0.0%	8.2%
	Neither negative nor positive	Count	2	11	7	3	23
		Percentage	20.0%	29.7%	25.9%	27.3%	27.1%
	Positive	Count	0	18	6	5	29
		Percentage	0.0%	48.6%	22.2%	45.5%	34.1%
	Very positive	Count	0	7	11	3	21
		Percentage	0.0%	18.9%	40.7%	27.3%	24.7%
Total		Count	10	37	27	11	85
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(12) = 59.15$, $p < 0.001$

Table A4.10: Participation in previous ecotours.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Have you ever participated in an ecotour or travelled to a destination to visit/participate in predominantly nature based attractions/activities	Yes	Count	10	6	26	5	47
		Percentage	100.0%	17.6%	96.3%	45.5%	57.3%
	No	Count	0	28	1	6	35
		Percentage	0.0%	82.4%	3.7%	54.5%	42.7%
Total		Count	10	34	27	11	82
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 46.72$, $p < 0.001$

Table A4:11: Fulfilment of expectations of ecotourists.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Were your expectations fulfilled?	Yes	Count	5	35	19	11	70
		Percentage	55.6%	94.6%	70.4%	100.0%	83.3%
	No	Count	2	2	7	0	11
		Percentage	22.2%	5.4%	25.9%	0.0%	13.1%
	Partially	Count	2	0	1	0	3
		Percentage	22.2%	0.0%	3.7%	0.0%	3.6%
Total		Count	9	37	27	11	84
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(6) = 19.87$, $p = 0.003$

Table A4.12: Rating of overall experience during the ecotour.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Rate the overall experience	Negative	Count	2	0	1	0	3
		Percentage	20.0%	0.0%	3.7%	0.0%	3.5%
	Neither negative nor positive	Count	4	1	3	0	8
		Percentage	40.0%	2.7%	11.1%	0.0%	9.4%
	Positive	Count	3	18	18	2	41
		Percentage	30.0%	48.6%	66.7%	18.2%	48.2%
	Very positive	Count	1	18	5	9	33
		Percentage	10.0%	48.6%	18.5%	81.8%	38.8%
Total		Count	10	37	27	11	85
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(9) = 38.03$, $p < 0.001$

Table A4.13: Willingness to go on holiday to an ecodestination.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Would you be willing to go on another holiday to a destination considered to be an ecotourism destination?	Yes	Count	10	37	26	11	84
		Percentage	100.0%	100.0%	96.3%	100.0%	98.8%
	No	Count	0	0	1	0	1
		Percentage	0.0%	0.0%	3.7%	0.0%	1.2%
Total		Count	10	37	27	11	85
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 2.174$, $p = 0.537$

Table A4.14: Willingness to visit an ecodestination such as a central Mediterranean islands.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Would you be willing to visit another ecotourism destination such as a central Mediterranean island?	Yes	Count	9	37	23	11	80
		Percentage	90.0%	100.0%	88.5%	100.0%	95.2%
	No	Count	1	0	3	0	4
		Percentage	10.0%	0.0%	11.5%	0.0%	4.8%
Total		Count	10	37	26	11	84
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 5.64$, $p = 0.131$

Table A4.15: Recommending ecodestination to friends as their next holiday.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Would you suggest such a destination to your friends as their next holiday?	Yes	Count	7	37	26	11	81
		Percentage	70.0%	100.0%	96.3%	100.0%	95.3%
	No	Count	3	0	1	0	4
		Percentage	30.0%	0.0%	3.7%	0.0%	4.7%
Total		Count	10	37	27	11	85
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 16.70$, $p = 0.001$

Table A4.16: Willingness to spend during ecotours.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
How much are you willing to spend during this ecotour?	<200	Count	4	22	12	0	38
		Percentage	44.4%	64.7%	44.4%	0.0%	46.9%
	<300	Count	0	9	12	9	30
		Percentage	0.0%	26.5%	44.4%	81.8%	37.0%
	<400	Count	5	3	3	2	13
		Percentage	55.6%	8.8%	11.1%	18.2%	16.0%
Total		Count	9	34	27	11	81
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(6) = 28.52$, $p < 0.001$

Table A4.17: Willingness to spend during ecotours to support local community.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Should you be aware that money spent during this ecotour is supporting the socioeconomic dimension of the destination to be visited and the local population will you be willing to spend more?	Yes	Count	10	23	21	6	60
		Percentage	100.0%	67.6%	77.8%	54.5%	73.2%
	No	Count	0	11	6	5	22
		Percentage	0.0%	32.4%	22.2%	45.5%	26.8%
Total		Count	10	34	27	11	82
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 6.43$, $p = 0.092$

Table A4.18: Money willing to pay during the next ecotour.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
If yes, what is the maximum sum you would be willing to pay on the next ecotour?	<200	Count	2	14	8	1	25
		Percentage	20.0%	37.8%	30.8%	9.1%	29.8%
	<300	Count	1	16	10	2	29
		Percentage	10.0%	43.2%	38.5%	18.2%	34.5%
	<400	Count	4	7	7	6	24
		Percentage	40.0%	18.9%	26.9%	54.5%	28.6%
	<500	Count	1	0	1	2	4
		Percentage	10.0%	0.0%	3.8%	18.2%	4.8%
	Depends	Count	2	0	0	0	2
		Percentage	20.0%	0.0%	0.0%	0.0%	2.4%
Total		Count	10	37	26	11	84
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(12) = 31.87$, $p = 0.001$

Table A4.19: Opinion of ecotourists on the duration of the ecotour.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
Do you think that the duration of your stay was enough to experience the islands effectively?	Yes	Count	2	32	25	7	66
		Percentage	22.2%	86.5%	92.6%	63.6%	78.6%
	No	Count	7	5	2	4	18
		Percentage	77.8%	13.5%	7.4%	36.4%	21.4%
Total		Count	9	37	27	11	84
		Percentage	100.0%	100.0%	100.0%	100.0%	100.0%

$X^2(3) = 22.96$, $p < 0.001$

Table A4.20: Ideal duration of ecotour.

			Island Destination				
			Maltese Islands	Aegadian Islands	Pantelleria	Pelagian Islands	Total
If no how many days do you suggest that such a stay should require?	6 days or Less	Count	5	2	0	1	8
		Percentage	83.3%	40.0%	0.0%	25.0%	44.4%
	7 days or more	Count	1	3	3	3	10
		Percentage	16.7%	60.0%	100.0%	75.0%	55.6%
		Percentage	6	5	3	4	18
Total		Count	10	100.0%	100.0%	100.0%	100.0%
		Percentage	100.0%	5	2	0	1

$X^2(3) = 6.73$, $p = 0.081$

Annex 5

Research Ethics

UNIVERSITY OF MALTA

UNIVERSITY RESEARCH ETHICS COMMITTEE

Check list to be included with UREC proposal form

Please make sure to tick **ALL** the items. Incomplete forms will not be accepted.

		YES	NOT APP.
1a.	**Recruitment letter / Information sheet for subjects, in English**	✓	
1b.	**Recruitment letter / Information sheet for subjects, in Maltese** and in Italian	✓	
2a	**Consent form, in English, signed by supervisor, and including your contact details** and in Italian	✓	
2b	**Consent form, in Maltese, signed by supervisor, and including your contact details**	✓	
3a	**In the case of children or other vulnerable groups, consent forms for parents/ guardians, in English**		✓
3b	**In the case of children or other vulnerable groups, consent forms for parents/ guardians, in Maltese**		✓
4a	**Tests, questionnaires, interview or focus group questions, etc, in English**	✓	
4b	**Tests, questionnaires, interview or focus group questions, etc, in Maltese**		✓
5a	**Other institutional approval *for access to subjects*: Health Division, Directorate for Quality and Standards in Education, Department of Public Health, Curia...**		✓
5b	**Other institutional approval *for access to data*: Registrar, Data Protection Officer Health Division/Hospital, Directorate for Quality and Standards in Education, Department of Public Health…**		✓
5c	**Approval from person *directly responsible for subjects*: Medical Consultants, Nursing Officers, Head of School…**		✓

Received by Faculty office on	
Discussed by Faculty Research Ethics Committee on	
Discussed by university Research Ethics Committee on	

UNIVERSITY OF MALTA

Request for Approval of Human Subjects Research

Please type. Handwritten forms will not be accepted

You may follow this format on separate sheets or use additional pages if necessary.

FROM: *(name, address for correspondence)* Karl Agius 42, Tower Street, Qrendi QRD 1257	PROJECT TITLE: Assessing the Ecotourism potential of Central Mediterranean Islands with a case study on coastal ecotourism.
TELEPHONE: +356 99309841	
E-MAIL agiuskarl@gmail.com	
COURSE AND YEAR: PhD 3rd Year	
DURATION OF ENTIRE PROJECT: from 2012 to 2018	FACULTY SUPERVISOR'S NAME: Dr. Nadia Theuma - tutor Prof. Alan Deidun - co-tutor

ANTICIPATED FUNDING SOURCE: MGSS
(include grant or contract number if known)

1. Please give a brief summary of the purpose of the research, in non-technical language.

The aim of the research is to study the ecotourism potential of central Mediterranean islands. Ecotourism is based on three main principles: 1) it is nature based, 2) it involves element of interpretation, 3) it is beneficial from the social, economic and environmental aspect. The islands under study are the Maltese Islands, the Pelagic Islands (Lampedusa and Linosa), Pantelleria and the Aegadian Islands (Favignana, Levanzo and Marettimo). The study will assess the current state of ecotourism activity on the islands, identify any potential there is for this sector to grow along with opportunities and challenges being faced. It will come up with a series of proposals for policymakers to take into consideration. The research is based on two main methods, informal in-depth interviews with stakeholders (Ecotourists, NGOs, Locals, Operators or Governmental Agencies) and the organisation of ecotours (ecotourism trips in the islands under study) in the islands under study.

2. Give details of procedures that relate to subjects' participation

(a) How are subjects recruited? What inducement is offered? *(Append copy of letter or advertisement or poster, if any.)*

In the case of informal and non-recorded interviews subjects are recruited following a stakeholder identification exercise whereby individuals, organisations and entities that are considered to be Ecotourists, NGOs, Locals, Operators or Governmental Agencies that somehow are related to ecotourism are approached via email, over the phone or through direct contact to contribute in the study. All participants are 18+. Refer to answer 3 for further precautions taken.

In the case of ecotours subjects are recruited by the NGO organising the event or by the tour operator involved. They are informed that this trip will also support a PhD research on ecotourism and those willing can contribute in the research by providing photographs of the trip, fill in questionnaires (see attached) and participate in interviews (see checklist attached). The inducement is a promise of an authentic holiday at a good price. All promotion and administration is handled by the NGOs or the operator whereas the researcher collects data.

(b) Salient characteristics of subjects—number who will participate, age range, sex, institutional affiliation, other special criteria:

Number who will participate: 300
Institutional Affiliation: Operators, Ecotourists, Governmental Agencies, NGOs, Locals
Age Range: 18+ - 80
Sex: LGBT, Female, Male

(c) Describe how permission has been obtained from cooperating institution(s)—school, hospital, organization, prison, or other relevant organization. *(Append letters.)* Is the approval of another Research Ethics Committee required?

The head of the NGO and respective executive, Director of the Enterprise, Ecotourist or the relevant top person of the authority is contacted. In most cases it is this person who is involved in the research. A meeting is also held to discuss the matter, to provide all information and answer any questions and decide the way forward accordingly.

There is no need of approval from another Research Ethics Committee.

(d) What do subjects do, or what is done to them, or what information is gathered? (Append copies of instructions or tests or questionnaires.) How many times will observations, tests, etc., be conducted? How long will their participation take?

A) Stakeholder Involvement
Following recruitment and obtaining consent, the subjects are asked a number of 'questions' and they are encouraged to give their feedback. The style adopted as per Veal, A.J. (2006) - Research Methods for Leisure and Tourism: A Practical Guide involves the minimum amount of involvement of the researcher. The role of the researcher is to encourage the subject to express his/her opinion on the matter. In fact rather than questions a 'checklist of topics' is used (see attached). The interview is not recorded and the researcher takes notes of matters discussed. Participation will take 30mins - 45 mins depending on the availability of the subject. If need be the subject might be asked for a second interview to clarify any points or to delve deeper into a specific point. Following the interview a summary of the discussion is prepared. The identity of the subject is kept confidential and the document is given a code and assigned to a stakeholder class (example NGO).

B) Ecotours
-Subjects will join the ecotour organised by the NGO or operator and follow a programme drafted by the researcher and approved by the NGO or operator. Representatives of the NGO or operator are present during the trip. All expenses are covered by the ecotourists and all finances, administration and responsibilities are handled by the NGO/Operator. The tourists are covered by their own insurance and/or that of the NGO/Operator. The researcher is present during the briefing session delivered before the trip and introduces himself, his research and what the programme will involve.
-A self-administered questionnaire which takes 20 mins to fill in is circulated before and after the trip (See attached). This is anonymous, it involves an introduction explaining what the study is what it involves and what the research will be used for. Subjects are reminded that they fill in the form on a voluntary basis and that they can cease from filling in the survey whenever they want.
-Following the trip subjects willing to do so are reminded to submit photos taken during the trip to be used for Visually Employed Photography (this is communicated before the trip starts). The photos are eventually classified into services, nature related, conventional tourism

(e) Which of the following data categories are collected? Please indicate 'Yes' or 'No'.

Data that reveals – race or ethnic origin	No
political opinions	No
religious or philosophical beliefs	No
trade union memberships	No
health	No
sex life	No
genetic information	No

3. How do you explain the research to subjects and obtain their informed consent to participate? (If in writing, append a copy of consent form.) If subjects are minors, mentally infirm, or otherwise not legally competent to consent to participation, how is their assent obtained and from whom is proxy consent obtained? How is it made clear to subjects that they can quit the study at any time?

The subjects first get an invitation via email or over the phone (same content of email is read) or viva voce which introduces the research, the researcher and the terms and conditions of the research (what data will be collected, how it will be analysed and used). A consent form is eventually provided in the relevant language. Minors are not involved in the research. During the introduction the researcher explains to the subject again all the relevant information also informing him to feel free not to answer any specific question, to quit the interview whenever she/he likes and the approximate duration of the interview. When asking for photos or to fill in surveys, subjects are told to do so only if they are willing. They are given information on how the photos will be analysed and assured confidentiality.

4 .Do subjects risk *any* harm—physical, psychological, legal, social—by participating in the research? Are the risks necessary? What safeguards do you take to minimize the risks?

During the research, subjects may divulge information on tax avoidance or about not abiding to regulations and working without relevant licenses. However the interviews will not be recorded and names of subjects will not be divulged. All interviews will be kept confidential and the researcher will not divulge who said what. Therefore the subjects will not face any legal harm.

The research may also lead to situations whereby one stakeholder or one operator criticizes other stakeholders and operators working in the sector. Since the interviews will be kept confidential no 'social harm' is expected.

5. Are subjects deliberately deceived in *any* way? If so, what is the nature of the deception? Is it likely to be significant to subjects? Is there any other way to conduct the research that would not involve deception, and, if so, why have you not chosen that alternative? What explanation for the deception do you give to subjects following their participation?

Subjects are in no way deceived. They are informed about the aim of the research and what the final aim of the researcher is.

6. How will participation in this research benefit subjects? If subjects will be "debriefed" or receive information about the research project following its conclusion, how do you ensure the educational value of the process? *(Include copies of any debriefing or educational materials)*

Challenges being faced by the various stakeholders will be studied and relevant proposals will be presented in the thesis which will eventually be presented to policy makers and decision makers in the field.

When possible (some interviewees will not be interested or the researcher will not keep contact, case in point random ecotourists interviewed) a copy of the study will be made available.

The study will also serve as an opportunity for stakeholders to look into how the sector can be improved and to look at their challenges from a holistic perspective thus putting them into a better position to analyse their problems and opportunities.

TERMS AND CONDITIONS FOR APPROVAL IN TERMS OF THE DATA PROTECTION ACT

- Personal data shall only be collected and processed for the specific research purpose.
- The data shall be adequate, relevant and not excessive in relation to the processing purpose.
- All reasonable measures shall be taken to ensure the correctness of personal data.
- Personal data shall not be disclosed to third parties and may only be required by the University or the supervisor for verification purposes. All necessary measures shall be implemented to ensure confidentiality and, where possible, data shall be anonymised.
- Unless otherwise authorised by the University Research Ethics Committee, the researcher shall obtain the consent from the data subject (respondent) and provide him with the following information: The researcher's identity and habitual residence, the purpose of processing and the recipients to whom personal data may be disclosed. The data subject shall also be informed about his rights to access, rectify, and where applicable erase the data concerning him.

I, the undersigned hereby undertake to abide by the terms and conditions for approval as attached to this application.

I, the undersigned, also give my consent to the University of Malta's Research Ethics Committee to process my personal data for the purpose of evaluating my request and other matters related to this application. I also understand that, I can request in writing a copy of my personal information. I shall also request rectification, blocking or erasure of such personal data that has not been processed in accordance with the Act.

Signature:

APPLICANT'S SIGNATURE: *I hereby declare that I will not start my research on human subjects before UREC approval* DATE	FACULTY SUPERVISOR'S SIGNATURE I have reviewed this completed application and I am satisfied with the adequacy of the proposed research design and the measures proposed for the protection of human subjects. DATE

Return the completed application to your faculty Research Ethics Committee

To be completed by Faculty Research Ethics Committee

We have examined the above proposal and advise

Acceptance **Refusal** **Conditional acceptance**

For the following reason/s:

Signature Date

To be completed by University Research Ethics Committee

We have examined the above proposal and grant

Acceptance **Refusal** **Conditional acceptance**

For the following reason/s:

Signature Date

Date: XX/XX/201X

Subject: Interview on ecotourism – PhD Research

To whom it may concern.

Allow me to introduce myself. I am Karl Agius a student from the University of Malta currently conducting my PhD research on the ecotourism potential of Central Mediterranean Islands including the Maltese Islands (Malta, Gozo and Comino), the Aegadian Islands (Favignana, Levanzo and Marettimo) the Pelagic Islands (Lampedusa and Linosa) and the Island of Pantelleria.

The aim of the study is to study the ecotourism potential of the islands, identify challenges and opportunities and propose relevant recommendations which will eventually also passed on to the relevant authorities for their consideration.

In the context of this academic study I am conducting a series of interviews with stakeholders including locals, tourists, operators, service providers, NGOs, politicians, policy makers and governmental agencies to reach the aforementioned aims and make the relevant proposals on the subject being studied.

In the light of this I am sending you this *email/message/letter* (changed accordingly) to kindly ask you if you are willing to participate in this interview. The interview will take between 30 and 45 minutes depending on your availability. The interview will be held at a venue suitable for you and at an agreed date and time. The interview will not be recorded but the researcher will be taking notes of what would be discussed during the interview. All content will be kept confidential and names of interviewees will not be divulged to the public. Names will be substituted by codes and transcripts will not be made public but available for the scrutiny of University of Malta authorities. Content of the research will be used solely for academic purposes and to propose recommendations to relevant authorities.

This research is being conducted under the supervision of Dr. Nadia Theuma (tutor) [nadia.theuma@um.edu.mt] and Prof. Alan Deidun (co-tutor) [alan.deidun@um.edu.mt] under the auspices of the University of Malta.

Should you need further information do not hesitate to contact me via email or through a phone call/message.

I look forward to hear from you.

Best regards

Karl Agius
PhD Candidate, University of Malta
karl.agius.05@um.edu.mt
+356 99309841

Data: XX / XX / 201X

Suġġett: Intervista fuq l-ekoturiżmu – Riċerka tad-dottorat

Lil min tikkonċerna.

Ippermettili li nintroduċu lili nnifsi. Jien Karl Agius student mill-Università ta' Malta u bħalissa qed nagħmel riċerka tad-Dottorat fuq il-potenzjal tal-ekoturiżmu fil-gżejjer ċentrali tal-Mediterran inklużi l-gżejjer Maltin (Malta, Għawdex u Kemmuna), il-Gżejjer Egadi (Favignana, Levanzo u Marettimo) Il-Gżejjer Pelagie (Lampedusa u Linosa) u l-Gżira ta' Pantellerija.

L-għan tar-riċerka huwa li jkun studjat l-potenzjal tal-ekoturiżmu f'dawn il-gżejjer, jkunu identifikati l-isfidi u l-opportunitajiet u jkunu proposti rakkomandazzjonijiet relevanti li eventwalment se ikunu wkoll ippreżentati lill-awtoritajiet rilevanti għall-konsiderazzjoni tagħhom.

Fil-kuntest ta' dan l-istudju akkademiku qed inwettaq serje ta' intervisti mal-partijiet konċernati fosthom nies tal-lokal, turisti, operaturi, fornituri ta' servizzi varji, għaqdiet mhux governattivi, politiċi, dawk li jfasslu l-politika u l-aġenziji governattivi sabiex nilħaq l-għanijiet hawn fuq imsemmija u sabiex nagħmel il-proposti rilevanti dwar is-suġġett li qed jkun studjat.

Fid-dawl ta' dan qiegħed nibgħatlek din l-email/messaġġ /ittra (mibdula skond il-bżonn) biex ġentilment nistaqsik jekk inti hux lest/a li tipparteċipa f'din l-intervista. L-intervista tieħu bejn 30 u 45 minuta skont id-disponibbiltà tiegħek. L-intervista se ssir f'post adattat għalik u f'data u f'ħin miftiehem. L-intervista mhux se tiġi rrekordjata iżda r-riċerkatur se jieħu noti ta' dak li jkun qed jiġi diskuss waqt l-intervista. Il-kontenut kollu tal-intervista ser jinżamm kunfidenzjali u l-ismijiet tal-persuni intervistati mhux se jiġu żvelati lill-pubbliku. L-ismijiet se jiġu sostitwiti minn kodiċi u t-traskrizzjonijiet mhux se jkunu pubbliċi iżda disponibbli għall-iskrutinju tal-awtoritajiet tal-Università ta' Malta. Il-kontenut tar-riċerka se tintuża biss għal skopijiet akkademiċi u biex ikunu proposti rakkomandazzjonijiet lill-awtoritajiet rilevanti.

Din ir-riċerka qed titwettaq taħt is-superviżjoni ta' Dr Nadia Theuma (tutur) [nadia.theuma@um.edu.mt] u Prof. Alan Deidun (ko-tutur) [alan.deidun@um.edu.mt] taħt il-patroċinju tal-Università ta' Malta.

Jekk inti teħtieġ aktar informazzjoni, tidddejjaq xejn tagħmel kuntatt miegħi permezz ta' email jew permezz ta' telefonata jew messaġġ.

Nħares 'l quddiem sabiex nisma' minn għandek.

Inselli għalik

Karl Agius
Student tad-dottorat, Università ta 'Malta
karl.agius.05@um.edu.mt
+356 99309841

Data: XX / XX / 201X

Oggetto: Intervista su ecoturismo - Dottorato di Ricerca

Per chi è coinvolto.

Mi permetta di presentarmi. Sono Karl Agius, uno studente presso l'Università di Malta, sto conducendo la mia ricerca di dottorato sul potenziale dell'ecoturismo delle Isole centrali mediterranee tra cui le isole maltesi (Malta, Gozo e Comino), le isole Egadi (Favignana, Levanzo e Marettimo) le isole Pelagie (Lampedusa e Linosa) e l'isola di Pantelleria.

Lo scopo dello studio è quello di studiare il potenziale ecoturismo delle isole, individuare le sfide e le opportunità e proporre le raccomandazioni del caso che alla fine verranno anche trasmesse alle autorità competenti per la loro considerazione.

Nel contesto di questo studio accademico sto conducendo una serie di interviste con le parti interessate compresi i locali, turisti, operatori, fornitori di servizi, organizzazioni non governative, i politici, i responsabili politici e le agenzie governative per il raggiungimento degli obiettivi di cui sopra per poi fare le relative proposte in materia in fase di studio.

Alla luce di quanto scritto Vi mando questa e-mail / messaggio / lettera (cambiato di conseguenza) per chiedere gentilmente se siete disposti a partecipare a questa intervista. Il colloquio durerà tra i 30 e i 45 minuti a seconda della disponibilità. Il colloquio si svolgerà in un luogo comodo per Voi e ad una data e all'ora convenute. L'intervista non verrà registrata ma il ricercatore prenderà appunti di quello che verrà discusso durante l'intervista. Tutti i contenuti saranno tenuti riservati ed i nomi degli intervistati non saranno divulgati al pubblico. I nomi saranno sostituiti da codici e le trascrizioni non saranno rese pubbliche, ma disponibili per il controllo delle autorità dall'Università di Malta. I contenuti della ricerca saranno utilizzati esclusivamente per fini accademici e per proporre raccomandazioni alle autorità competenti.

Questa ricerca viene condotta sotto la supervisione del Dr. Nadia Theuma (tutor) [nadia.theuma@um.edu.mt] e del Prof. Alan Deidun (co-tutor) [alan.deidun@um.edu.mt] sotto gli auspici dell'Università di Malta.

Se avete bisogno di ulteriori informazioni, non esitate a contattarmi via e-mail o attraverso un telefono cellulare chiamata / messaggio.

Rimango in attesa di un Vostro gentile riscontro sperando di sentirVi presto.

Cordiali saluti,

Karl Agius
Studente di Dottorato, Università di Malta
karl.agius.05@um.edu.mt
+356 99309841

EN

Consent Form

I, the undersigned (the interviewee) accept and give my consent for Karl Agius (the researcher) to take notes in writing of what is being said during an interview as part of his PhD research entitled ‘Assessing the Ecotourism potential of Central Mediterranean Islands with a case study on coastal ecotourism’, conducted under the auspices of the University of Malta. I am aware that the name of the interviewee will not be divulged to the public and will be substituted by a code which does not divulge the name of the interviewee. The content of the interview will not be made public but will be made available for the scrutiny by University of Malta authorities. I am also aware and giving consent to the researcher to make use of the content of the interview for academic purposes and to make relevant recommendations to the relevant authorities.

Name and Surname of interviewee: _____

Signature: _____

Date: _____

Place: _____

Approved by:

Dr. Nadia Theuma (Tutor): _____

MT

Formola ta’ Kunsens

Jien/a, hawn taħt firmatarju (l-intervistat) naċċetta u nagħti l-kunsens tiegħi lil Karl Agius (ir-riċerkatur) li jieħu noti bil-miktub ta’ dak li jkun intqal waqt intervista miegħi bħala parti mir-riċerka tad-dottorat tiegħu bit-titlu "Evalwazzjoni tal-potenzjal tal-Ekoturiżmu fil-Gżejjer Ċentrali tal-Mediterran b’każ ta’ studju dwar l-ekoturiżmu kostali" taħt l-awspiċi tal-Università ta’ Malta. Jien/a konxju/a li l-isem tal-intervistat mhux se jiġi żvelatat lill-pubbliku u se jiġi sostitwit minn kodiċi li ma jiżvelax l-isem tal-intervistat. Il-kontenut tal-intervista mhux se jsir pubbliku, iżda ser ikun disponibbli għall-iskrutinju tal-awtoritajiet tal-Università ta’ Malta. Jiena konxju/a wkoll u nagħti l-kunsens lir-riċerkatur biex jagħmel użu mill-kontenut tal-intervista għal skopijiet akkademiċi u biex jagħmel rakkomandazzjonijiet rilevanti lill-awtoritajiet ikkonċernati.

Isem u Kunjom tal-intervistat: _____

Firma: _____

Data: _____

Post: _____

Approvat minn:

Dr. Nadia Theuma (Tutur): _____

IT

Modulo di consenso

Io sottoscritto (l'intervistato) accetto e do il mio consenso a Karl Agius (il ricercatore) per prendere appunti per iscritto di ciò che viene detto durante l'intervista, come parte della sua ricerca di dottorato intitolata 'La valutazione del potenziale dell' Ecoturismo nelle Isole centrali del Mediterraneo con un caso di studio sull' ecoturismo costiero'', condotto sotto gli auspici dell'Università di Malta. Sono consapevole che il nome dell'intervistato non sarà divulgato al pubblico e sarà sostituito da un codice proprio per non divulgare il nome dell'intervistato. Il contenuto del colloquio non sarà reso pubblico, ma sarà messo a disposizione per l'esame da parte dell'autorità dell'Università di Malta. Sono anche consapevole e do il consenso al ricercatore di fare uso del contenuto del colloquio per fini accademici e di fare le raccomandazioni necessarie alle autorità competenti.

Nome e Cognome dell'intervistato: _____

Firma: _____

Data: _____

Luogo: _____

Approvato da:

Dr. Nadia Theuma (Tutor): _____

Check list of topics for the interview

- Is there any potential for ecotourism in central Mediterranean islands?
- What ecotourism activities can take place on the island?
- What initiatives have been taken and what policies have been adopted to support this sector?
- What role can coastal and marine environments on the island play in such tourism niche?
- What role has the MPA or PA played/can it play in ecotourism activities?
- What was the reaction of locals to the establishment of the MPA/PA and did this change over time?
- What are the opportunities and challenges for such activity to flourish?
- If you had to take action on a specific challenge or problem what would you do?
- What socio-economic and environmental impact has/can ecotourism activity left/leave on the islands and respective inhabitants?
- Would locals find any problem with changes in current tourism trends?
- How willing are stakeholders concerned in playing a key role in this form of activity and what are their views?
- What actions need to be taken by policy and decision makers for ecotourism to serve as a driving force for the economy of these sites whilst respecting the social, cultural and environmental settings?
- Can the islands in question serve together as a regional hub to promote coastal and marine ecotourism in central Mediterranean islands?
- Can ecotourism be used as a key to attract not just domestic tourists but also international tourists throughout the year and to tackle the seasonality issue by increasing inbound tourism in the shoulder months?
- Are you satisfied with promotional efforts conducted by the relevant authorities?

NB: As per Veal (2006) this is a list of questions to guide the researcher throughout the interview. The researcher will use his skills and experience to apply the relevant questions to the relevant stakeholder and seek clarification and further depth as necessary on particular topics depending on the way the interview develops.

PhD Thesis Questionnaire on the Potential of Ecotourism in Central Mediterranean Islands

Dear Participant,

My name is Karl Agius and I am a student within the Institute of Tourism, Travel and Culture at the University of Malta currently reading for my PhD research on the potential of ecotourism in central Mediterranean Islands.

Please understand that your participation in this survey is voluntary and you have the right not to participate in this survey without consequences. All information collected will be treated confidentially and used for research purposes only. You have the right to refuse to answer particular questions by leaving them blank. You are free to cease from replying to this questionnaire once you start filling it in.

The data collected through this questionnaire will be analysed to provide information to my research. Your participation represents an essential contribution for my thesis.

The completion of the questionnaire will take you approximately 10 minutes.

By answering the following questions, you indicate that you have read and understood the description of the study and agree to participate.

Thank you for completing this survey!

Karl Agius
PhD Student

Description of the study

This research studies the ecotourism potential of central Mediterranean Islands including the Aegadian Islands, the Pelagic Islands, the Maltese Islands and Pantelleria with reference to marine ecotourism and activities taking place close to the coast. The idea is to offer a product which links these islands together. The ecotourists will benefit from the various eco-related attractions, activities and events taking place in a nature based background surrounded by a strong marine influence. The Mediterranean attracts several tourists especially during the summer months leaving great impact on the environment of this region. Ecotourism is a form of alternative tourism that seeks to attract a more sustainable form of tourism to the islands which supports the local population and environmental initiatives taking place on the islands. This form of tourism aims to attract tourists all year round and not just in the peak summer months whilst offering tourists the opportunity to learn and contribute towards the socio-economic development of the islands. The study is composed of 4 pillars, study visits to study the potential of ecotourism, the organisation of ecotours to obtain the opinion of ecotourists, stakeholder involvement, and a socio economic analysis that such tourism may leave on the islands and the inhabitants.

Survey – Before Visit

A. Profile of the 'ecotourist' and socio-economic questions

1. What is your Gender? (mark with an x)

Male _____ (1) Female _____ (2)

2. What is your age group? (mark with an x)

18-25 _____ (1)
26-35 _____ (2)
36-45 _____ (3)
46-55 _____ (4)
56-65 _____ (5)
66-75 _____ (6)
76+ _____ (7)

3. I usually travel: (mark with an x)

___ alone (1)
___ with one other person (2)
___ as a family (3)
___ as a group of people other than your family, approximate size of group ___ (4)

4. What is the highest form of education that you have completed? (mark with an x)

Primary School ___ (1)
Secondary School ___ (12)
Vocational Education ___ (3)
Post-Secondary ___ (4)
University graduate ___ (5)

5. What is your current employment status?

Employed Full Time ___ (1)
Employed Part-Time ___ (2)
Not Employed ___ (3)
Self Employed ___ (4)
Student ___ (5)
Retired ___ (6)

6. What was your previous employment/profession?

_____

7. What is your current profession _____

8. What is your current gross annual household income in Euro? (mark with an x)

___<10,000 (1) ___ <20,000 (2) ___<30,000 (3) ___<40,000 (4) ___<50,000 (5)

9. Do you live in an urban or rural area? (mark with an x)

Urban ___ (1)
Rural ___ (2)

10. Are you affiliated (member or just a follower) to a local or international NGO (mark with an x)

Yes___ (1) NO ___ (2)

11. What degree do you consider yourself to behave in an environmentally conscious way? (mark with an x)

Very much ( ) (1) Quite a lot ( ) (2) A little ( ) (3) Not much ( ) (4)

12. During the last year how many times have you been abroad?

____

13. Does the existence of Marine Protected Areas (MPAs), natural reserves, protected land or any form of conservation issue influence your choice of a holiday/travel destination? (mark with an x)

Yes___ (1) NO ___ (2)

14. What type of accommodation do you usually use when you go abroad? (mark with an x)

___ Hotel (1)
___ Hostel (2)
___ Camping (3)
___ Friends or Relatives (4)
___ Local village accommodation (5)
___ Other (Please specify) _____ (6)

15. What is the duration of your last holiday? (mark with an x)

___ 1-3 days (1)
___ 4-7 days (2)
___ 8-10 days (3)
___ 10-14 days (4)
___ More than 15 days (5)

16. How much approximately did you spend during the last holiday, not inclusive of flights (i.e. just on accommodation, internal travel, food and excursions? (mark with an x)

____100 euros (1)
_____200 euros (2)
_____300 euros (3)
_____400 euros (4)
_____500 euros (5)
_____>500 euros (6)

17. Which activities and features are important for you during a trip abroad? (multiple choices possible)

___ Relaxation and fulfilment (1)
___ Visiting un-crowded destinations (2)
___ Shopping facilities (3)
___ Experiencing remote and unspoiled nature (4)
___ Increasing knowledge of wildlife (5)
___ Exciting night life (6)
___ Interacting with native people (7)
___ Discovery and adventure (8)
___ Local culture (9)
___ Supporting economic benefits to local communities (10)
___ See unusual plants and animals (11)
___ Availability of clubs & pubs (12)
___ Friendly natives (13)
___ Comfortable transportation (14)

___ Supporting economic benefits to local communities (15)
___ Experience nature and beauty scenery (16)
___ Increasing confidence through challenging activities (17)

18. How are your holidays organised? (mark with an x)
    Independently via the internet ( ) (1)

My friends booked for me ( ) (2)
Non-profit group organized tours ( ) (3)
Tour Operator/Travel ( ) (4)

B. Eco-lodging questions

19. Please specify the importance of the ecotourism accommodation attributes (one or more)

1 is very important
2 is important
3 is not very important
4 is not important at all

Factors	**1**	**2**	**3**	**4**
Quality of food				
Price				
Design				
Cultural trips				
Security				
Availability of nature trips				
Hygiene				
Staff friendliness				
Guided tours				
Availability of local food				
Recycling facilities				
Sustainability (ex: reduced light bulbs power, water wastage)				
Value for money				
Activities available (Hiking, Birds watching, wildlife, etc.)				
Bed size				
Availability of online reviews				
Air conditioned rooms				

20. When choosing the accommodation type what is more important?
1 is very important
2 is important
3 is not very important
4 is not important at all
Other (Please Specify):

Factors	**1**	**2**	**3**	**4**
Price				
Location				
Facilities				
Star Rating				
Room				
Size				
Green incentives (ex: use of green energy, water saving, electricity saving)				
Professional Eco Labelling				
Other				

21. Which of these criteria indicates that an accommodation is eco-friendly? Please pick one or more.

___ Asking for green feedback from customers (1)
___ Provide facilities for customers with mobility impairment (2)
___ Provide comprehensive information on natural and cultural heritage (3)
___ Plant any type of trees (4)
___ Provide more choices of food (5)
___ Green Energy tariff (6)
___ Use of solar panels and alternative sources of energy (7)
___ Wash dishes and clothes by hand (8)
___ Informing guests of public transport options (9)
___ Radiant Heating (10)

C. Ecotourism questions

22. Have you ever heard of the term ecotourism?
Yes___ (1) NO ___ (2)

22a) If yes, what do you understand by this term?

_____
_____

22b) If No, what do you assume that such term means?

_____
_____

23. Which of these elements do you think that form part of the ecotourism concept?

___ nature based tour (1)
___ educational (2)
___ leisure (3)
___ cultural and historical excursions (4)
___ responsible travel (5)
___ supporting protected areas (6)
___ conservation (7)
___ adventure (8)
___ wellbeing of local population (9)
___ takes place in protected areas (10)
___ minimal environmental impact (11)
___ travelling in small groups (12)
___ volunteering (13)

24. Have you ever participated in an ecotour or travelled to a destination to visit/participate in predominately nature based attractions/activities?

Yes___ (1) NO ___ (2)

24a) If yes to which destination/s

_____

25. What motivated you to participate in this ecotour rather than going on a holiday in another destination?

_____
_____

26. How much are you willing to spend during this ecotour?

<200 _____ (1) <300 _____ (2) <400 _____ (3) < 500 _____ (4)

27. Should you be aware that money spent during this ecotour is supporting the socioeconomic dimension of the destination to be visited and the local population will you be willing to spend more?

Yes___ (1) NO ___ (2)

28. Are you willing to use a relatively more environmental friendly hostel/ecolodge as your accommodation during your ecotour which will involve sharing your room with other ecotourists and have slightly less commodities?

Yes___ (1) NO ___ (2)

29. What are your main expectations from this ecotour?

_____
_____

Survey – after visit

1. Now that you have participated in an ecotour, how would you define ecotourism?

_____

_____

2. How do you define an ecotourist?

_____

_____

3. Will you be willing to travel again in a small group?

Yes___ (1) NO ___ (2)

4. Do you think that 4 days were enough to conduct the ecotour effectively?

Yes___ (1) NO ___ (2)

5. If no on how many days do you suggest that such ecotour should be operated?

_____

6. Were your expectations fulfilled? (mark with an x)

Yes___ (1) NO ___ (2)

6a) If no why?

_____

_____

7. What proportion of your holiday is spent on contact with nature? (mark with an x)
   All of it ( ) (1) Most of it ( ) (2) Some of it ( ) (3) Not a lot of it ( ) (4) Almost none ( ) (5)

8. Which activity did you enjoy most during this ecotour and why?

_____

_____

9. Which activity did you enjoy least during this ecotour and why?

_____

_____

10. Rate the overall experience (1 negative – 5 positive)

__1 __2 __3 __4 __5

11. Rate your satisfaction with accommodation (1 least satisfied – 5 most satisfied)

__1 __2 __3 __4 __5

12. Would you be willing to participate in another ecotour?

Yes___ (1) NO ___ (2)

12a) If no why?

_____

13. If yes, what is the maximum sum you would be willing to pay on the next ecotour?

<200 _____ (1) <300 _____ (2) <400 _____ (3) < 500 _____ (4)

14. Would you be willing to participate in another ecotour which incorporates a number of islands in the centre of the Mediterranean including the Aegadian Islands, Pantelleria, the Pelagic Islands and the Maltese islands?

Yes___ (1) NO ___ (2)

15. Would you suggest such an ecotour to your friends as their next holiday?

Yes___ (1) NO ___ (2)

15a) If no why?

_____

16. How important do you think eco-tourism is likely to be for the future? (Please mark with an x)

Very important ( ) (1) Important ( ) (2) Quite important ( ) (3) Not very ( ) (4) None at all ( ) (5)

17. Please justify your answer and add anything else you would like to about ecotourism.

_____

_____

END

Date: XX/XX/201X

Subject: Request for photos – PhD Research

To whom it may concern.

Allow me to introduce myself. I am Karl Agius a student from the University of Malta currently conducting my PhD research on the ecotourism potential of Central Mediterranean Islands including the Maltese Islands (Malta, Gozo and Comino), the Aegadian Islands (Favignana, Levanzo and Marettimo) the Pelagic Islands (Lampedusa and Linosa) and the Island of Pantelleria.

The aim of the study is to study the ecotourism potential of the islands, identify challenges and opportunities and propose relevant recommendations which will eventually also passed on to the relevant authorities for their consideration.

In the context of this academic study I am conducting analysis of photos taken during ecotours. The method known as Visually Employed Photography (VEP) involves the analysis and classification of photos taken by tourists and provided to the researcher at their discretion.

In the light of this I am sending you this *email/message/letter* (changed accordingly) to kindly ask you if you are willing to make available photos that will be taken during the ecotours (specify which, date, organisor etc…). The photos will be kept confidential and names of participants will not be divulged to the public. Names will be substituted by codes and will not be made public but will be made available for the scrutiny of University of Malta authorities. Content of the research will be used solely for academic purposes and to propose recommendations to relevant authorities. The photos taken by the participant and made available to the researcher will be deleted once the study is completed. The photos will be passed on to the researcher in the means decided by the participant. This can be completed via external hard disk, USB drive, SD Card or as it deems fit by the participant.

This research is being conducted under the supervision of Dr. Nadia Theuma (tutor) [nadia.theuma@um.edu.mt] and Prof. Alan Deidun (co-tutor) [alan.deidun@um.edu.mt] under the auspices of the University of Malta.

Should you need further information do not hesitate to contact me via email or through a phone call/message.

I look forward to hear from you.

Best regards

Karl Agius
PhD Candidate, University of Malta
karl.agius.05@um.edu.mt
+356 99309841

EN

Consent Form

I, the undersigned (the participant) accept and give my consent for Karl Agius (the researcher) to analyse and classify the photos taken during the ecotour (add date, venue, organisor) as part of his PhD research entitled 'Assessing the Ecotourism potential of Central Mediterranean Islands with a case study on coastal ecotourism', conducted under the auspices of the University of Malta. I am aware that the name of the participant will not be divulged to the public and will be substituted by a code which does not divulge the name of the participant. The photos will not be made public but will be made available for the scrutiny by University of Malta authorities. The Photos shall be deleted once the study is completed. I am also aware and giving consent to the researcher to make use of the outcomes of the analysis also known as Visually Employed Photography (VEP) for academic purposes and to make relevant recommendations to the relevant authorities.

Name and Surname of participant: _____

Signature: _____

Date: _____

Place: _____

Approved by:

Dr. Nadia Theuma (Tutor): _____

Annex 6

Papers and Articles

PhD Colloquium Programme

Wednesday (morning) 16th July 2014

Understanding the research process - current issues and challenges

9.00 Introduction by Prof. Andrew Jones

9.15 Presentations by research students and discussion
Session chaired by Prof. Andrew Jones

Phd Students Presentations;

1. Lara Dean
2. James Sultana
3. Dane Munro
4. Sandy Whitwam
5. John Ebejer

10.30 Coffee Break

11.00 Presentations by research students and discussion
Session chaired by Dr. Nadia Theuma

Phd Students Presentations;

6. Giuseppina Cardia
7. Glen Farrugia
8. Julian Zarb
9. Valeria Pica
10. Karl Agius

The ecotourism potential of central Mediterranean islands

Ecotourism has received much attention over the past decades. Several scientific papers (over 400) and reports have been published. This scenario cannot be extrapolated to Malta or other central Mediterranean islands where debate on such field has been lacking. Whereas debate on ecotourism has been going on for a long time, stakeholders have failed to agree on a specific definition of ecotourism. On the other hand there is agreement that ecotourism is predominantly nature based, visitor interactions with attractions should be focused on learning or education and that experience and product management should follow principles and practices associated with ecological, socio cultural and economic sustainability.

Noting the lack of knowledge in this field with respect to central Mediterranean islands, this research investigates the ecotourism potential of central Mediterranean islands including the Maltese islands of Gozo and Comino, the Aegadian Islands (Favignana, Levanzo and Marettimo), Pantelleria and the Pelagic Islands (Lampedusa and Linosa) with a case study on marine ecotourism, ecotourism taking place in marine and coastal environments.

In most cases these islands are perceived to be Sand, Sea and Sun destinations and tourism revolves around the summer months. Ecotourism with specific reference to marine ecotourism can serve as an instrument to attract tourists throughout the entire year, alleviate the anthropogenic pressure from the summer months, support the environment and provide financial income for the locals.

Study visits to all islands were organised to identify any ecotourism related activity / practices and determine the potential of these islands to host ecotourists and if ecotourism activity can be further generated. Several activities related to coastal ecotourism have been identified including diving, coastal trekking, the presence of educational centres (museums) related to marine/coastal environment and controlled and supervised boat tours in Marine Protected Areas (MPAs). Cultural attractions (which are also considered to be an integral part of the ecotourism experience) are also abundant close to the coast and serve as an added component to the package.

Ecotours were also organised and surveys were conducted before and after each visit. Focus groups were also held during the visit. Almost the entire group was travelling on an ecotour for the first time. One key outcome of such ecotour was the fact that 70% of ecotourists accepted the offer to participate in a second ecotour. Such ecotours have also been used to possibly build a profile for the ecotourist and compare findings with literature.

Ecotourism incorporates responsibility by various stakeholders. For this reason consultation with key stakeholders in the field including governmental entities, Non-Governmental Organisations (NGOs), residents, tour operators and academics is currently being undertaken. Such consultation process will be useful to develop policy required to implement and empower such tourism on these islands.

Due to its role in the economic sector tourism has the potential of significantly contribute to sustainable development. Therefore too compliment the aforementioned research components, the study will be also looking into the socio-economic aspect of ecotourism activity on such islands.

Karl Agius

THE POTENTIAL OF COASTAL ECOTOURISM IN CENTRAL MEDITERRANEAN ISLANDS: A CASE STUDY FROM THE AEGADIAN ARCHIPELAGO

Karl Agius [1]*, Nadia Theuma [1] and Alan Deidun [1]
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Abstract
The study aims at identifying the challenges hindering the success of coastal ecotourism within a central Mediterranean archipelago - the Aegadian one, off the western coast of Sicily - and at identifying good practices in an attempt to propose a tourism model that addresses the environmental and socio-economic challenges of this archipelago. 4 study visits and 40 interviews with various coastal tourism stakeholders were carried out between October 2012 and October 2015. Whereas numerous challenges to coastal ecotourism have been identified, a number of success stories have been recorded, which confirm that should adequate policies be implemented and necessary actions taken, coastal ecotourism can serve as an alternative to the characteristic seasonal and mass tourism pattern currently dominating this archipelago.

Keywords: Coastal management, Islands, Marine parks, Mediterranean Sea

Introduction
Coastal ecotourism is a form of responsible travel to coastal and/or marine settings for environmental conservation, improvement of natural resources and to support the well-being on the local communities. It encompasses a myriad of activities including nature photography, visiting cultural and heritage sites, cycling, snorkelling, scuba diving, kayaking, canoeing and bird watching (Sakellariadou, 2014). Other activities include rock pooling, walking on coastal footpaths and observing marine mega-fauna such as dolphins and seals (Garrod and Wilson, 2003).

Methodology
The Aegadian archipelago is located to the west of the city of Trapani at the western-most point of Sicily (see Figure 1). It includes 3 inhabited islands Favignana, Levanzo and Marettimo, and is characterised by the largest Marine Protected Area (MPA) in Italy and the second largest MPA in the Mediterranean (Himes, 2007). 4 study visits were carried out on the 3 islands between October 2012 and October 2015 and relevant observations were made on any coastal ecotourism-related activity taking place within the archipelago. During the same period 40 informal and in-depth interviews were held with all stakeholders including local people, non-governmental organisations (NGOs), politicians and governmental agencies, operators, academics and tourists. Content analysis was then carried out to identify the challenges faced by and success stories from the coastal ecotourism sector in the archipelago.

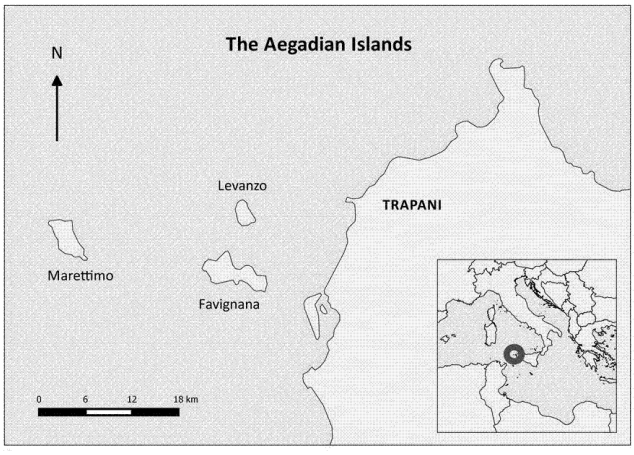

Fig. 1. Location of the Aegadian Islands off the western coast of Sicily.

Results and discussion
Challenges to coastal ecotourism include island connectivity issues due to bad weather and regular disputes between regional government and service providers, lack of ecotourism services all year round due to insufficient numbers of tourists and the seasonal working lifestyle preferred by service providers, green washing due to lack of true ecotourism understanding, emphasis on provision of mass tourism services, lack of awareness among locals and operators of the full ecotouristic potential of the islands during the off-peak seasons, failure by locals and fishermen to see the MPA as an exploitable resource that could sustain their income through ancillary tourism activities possibly due to bureaucracy at license-application stage, lack of mentoring and financing for new coastal ecotourism ventures and lack of interest by politicians in coastal ecotourism. Lack of holistic planning, disproportionate attention dedicated to the largest island within the archipelago (Favignana), coupled with lack of collegiality within the archipelago and stiff competition between operators on the same islands hinder the development of an ecotourism package for ecotourists. Lack of promotion and marketing of the Aegadian Islands as a coastal ecotourism destination and lack of (multi-lingual) interpretation/signage along with the language barrier were considered to limit the destination to domestic tourism. Last but not least, illegal dumping, lack of cleanliness in certain coastal areas as well as the discharge of raw untreated sewage in nearby shores are considered to be other main challenges.

Success stories included 2 projects which saw the involvement of the municipality of the Aegadian Islands and the management body of the MPA. The first project was spearheaded by the agency ENEA and included the introduction of an ecolabel, restoration of *Posidonia oceanica* meadows and the publication of two guide books for underwater excursions leading to a 7% increase in tourism on the islands. The second project was managed by the consortium Vivilitalia and included a broad stakeholder analysis to assess current nature-based tourism practices and propose new strategies. Within this context four cycling itineraries have been developed along the coast of Favignana. The NGO 'Quelli della Farfalla – C.P.A.C Marrobbio' based in Favignana has been involved in cleaning and maintaining the coastal area between Cala Rossa and Bue Marino and proposed the prohibition of vehicular access in the zone and the introduction of bike stations. New ecotourism services have stemmed throughout the archipelago and include guided coastal walks followed by tasting of local products, snorkelling excursions combined with coastal cycling tours, selling of souvenirs produced from flotsam and donkey rides through pathways along the coast which are constantly maintained by the local forest rangers. The day-to-day of the archipelago's MPA is partially self-supported through administrative fees for licenses required by service providers to conduct an activity within the precincts of the MPA. This income is being used within the domains of conservation, monitoring and for the general upkeep of the archipelago's MPA.

References
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Island Tourism: Economic and Labour Market Implications

UNIVERSITY OF MALTA
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RETI – the Network of Island Universities

18-19 November 2016 *(Symposium)* and 21-22 November 2016 *(School)*

Venue: University of Malta Valletta Campus, St Paul Street, Valletta

SYMPOSIUM ABSTRACTS

Challenges of Coastal & Marine Eco-Tourism in small central Mediterranean islands

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ABSTRACT

Most central Mediterranean islands have, over the past decades, evolved from economies based largely on fisheries and agriculture to ones that mostly depend on tourism. This has left an impact on the relevant societies in economic terms and has led to changes in the lifestyle of the respective communities.

Various tourism stakeholders, including policy makers and operators, in these islands have been slowly but steadily shifting their attention from '3S' tourism to other, higher value, tourism products. Owing to the high level of biodiversity and level of protection, including the presence of Marine Protected Areas (MPAs), one such product that such destinations can offer is coastal and marine ecotourism.

Such a niche industry can leave a positive economic impact on the islands throughout the entire year and offer jobs to locals all year round, something that '3S' tourism is currently failing to ensure. However, there are still various challenges that need to be overcome for such a niche to establish itself on such islands. One of these is to move from a tourism industry that is more quality than quantity driven. The second is to carve out eco-tourism services from island coastal regions that can already be under serious stress from existing multiple users (artisanal fishing, recreation, swimming, hospitality, industrial activity (such as ship-repair and yacht yards), ports, ferry services, pleasure craft, cruise ships, etc.)

The comparative study examines a number of small central Mediterranean islands, all parts of the 'Sicilian archipelago': the Maltese Islands (Malta, Gozo and Comino), the Pelagian Islands (Lampedusa and Linosa), the Aegadian Islands (Favignana, Levanzo and Marettimo) and Pantelleria. It seeks to explore which of these have the potential to become coastal and marine ecotourism destinations. Over 175 interviews were held on the islands under study with relevant stakeholders. The research has shown that, should adequate policies be adopted and a number of measures are implemented, coastal and marine ecotourism can leave a positive economic impact on these small islands and their communities.

Keywords: central Mediterranean islands, tourism, coastal and marine ecotourism, marine protected areas.

Proceedings of the Thirteenth International MEDCOAST Congress on Coastal and Marine Sciences, Engineering, Management and Conservation, MEDCOAST 2017, 31 October – 04 November 2017, Mellieha, Malta, E. Özhan (Editor)

The State of Ecotourism Development in the Maltese Archipelago

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Abstract

Whereas tourism in the Maltese Islands has been characterised by mass tourism, there has been a drive to promote a number of niches case in point ecotourism. Fifteen years have passed since the formal attempt to kick-start ecotourism in the Maltese Islands. In the light of this milestone, interviews with a wide range of stakeholders and analysis of tourism policies were conducted to investigate the development of the niche within the archipelago. Whereas continuous efforts have been recorded confirming development of the niche, other existent challenges that hinder ecotourism development have been outlined by stakeholders.

Introduction

Located in the centre of the Mediterranean Sea, the Maltese Archipelago consists of three main islands Malta, Gozo and Comino and other uninhabited islands (Schembri, 1993). With a population of over 434,000 inhabitants (NSO, 2016), Malta is one of the most densely populated states. This coupled with its small dimension has led to intense environmental pressures especially along the foreshore where most touristic development has taken place (Boissevain, 2004).

Tourism is a major economic industry on the archipelago (Cassar *et al.*, 2008). Despite almost two million tourists visiting the Maltese Islands by plane or by cruise ship by the end of 2016, leaving considerable economic returns in the archipelago (NSO, 2017) and with trends foreseeing further growth in tourist arrivals (OECD, 2016), concerns have been raised on the sustainability and impacts of this industry (Bramwell, 2003). Whereas mainstream mass tourism has dominated the national tourism scene (Dodds, 2007) with sandy beaches being heavily sought after by tourists (Deidun *et al.*, 2003), over the years, a number of touristic niches have developed in the Maltese Islands (MTA, 2016). These niches are generally seen as an ideal alternative to mass tourism due to the environment and socio-economic benefits that such responsible activity may bring. One such niche is that of ecotourism (in its various forms including coastal and marine ecotourism) based on three principles: nature-based, environmental, social/cultural and financial sustainability and the interpretation element (Weaver and Lawton, 2007). It encompasses a myriad of activities including nature photography, visiting cultural and heritage sites, cycling, snorkelling, scuba diving, kayaking, canoeing, bird watching (Sakellariadou, 2014), rock pooling, walking on coastal footpaths and observing marine mega-fauna such as whales and dolphins (Garrod and Wilson, 2003).

One wouldn't be too presumptuous to say that coastal and marine ecotourism was one of the initial excursions when tourism started to develop in Malta. A major initial tourism activity revolved around boat tours to coastal cliffs and caves to the so called 'Blue Grotto', an excursion which has nowadays become a top listing (number 30 of 356) of things to do in Malta on Trip Advisor (Trip Advisor, 2017). Evidently the natural environment of the Maltese Islands, had at least in the past, a lot to offer and was a major attraction in the beginning of tourism in Malta.

Kick-starting ecotourism in Malta

The United Nations (UN) declared 2002 as the International Year of Ecotourism (IYE) (UNEP/WTO, 2002). The Government of Malta decided to participate wholeheartedly in the initiative. Ahead of the IYE a co-ordinating committee was set up by the Ministry for Tourism in Malta to decide on the activities to be undertaken throughout the year. Following this, an inter-ministerial committee was set up to implement a programme of activities (DOI, 2001; UNWTO, 2017) with the aim of making the Maltese countryside more attractive, conserving and maintaining cultural assets, strengthen law enforcement and raising more awareness. Activities and initiatives included the clearing of seabed from debris, the removal of metal drums and abandoned vehicles from fields, removal of weeds from the bastions, school visits to historical places, distribution of informative material to school children on the World

Day for the Environment, featuring a monthly article on ecotourism sites in Malta on Air Malta's Inflight magazine and tree plantations by families (Times of Malta, 2002). Malta also participated in the World Ecotourism Summit (DOI, 2002). Furthermore the Malta Tourism Authority (MTA) launched the national ecolabel focusing on sustainability of accommodation structures (Magri, 2015). Moreover the countryside walks project was also launched in 2002. Eight countryside walks were developed, four in Malta and four in Gozo several of which encompassed both coastal and inland areas. A series of publications serving as guidebooks for such countryside walks were published by governmental entities. (MTA, 2005). MTA also supported other complimentary initiatives taken by eNGOs such the publication of ecological guidebooks (Camilleri *et al.*, 2003). As part of the IYE initiatives, a survey was also carried out to map and determine the extent and the status of the marine habitat type dominated by *Posidonia oceanica* meadows which effort eventually led to the establishment of the first Marine Protected Area (MPA) in the Maltese Islands (Government of Malta, 2004).

Fifteen years have passed since the UN declared 2002 as the IYE, which as pointed above saw a formal attempt to kick-start the development of the niche in the Maltese Islands; yet, questions remain on the potential of the niche to thrive in the archipelago and on concrete initiatives taken in the sector. It is thus apt to evaluate the development of ecotourism in the Maltese Islands over the past years and to identify challenges hindering its development.

Methods

Analysis of the national tourism policies published over the past fifteen years was conducted to evaluate the development of the ecotourism niche in the Maltese Islands. Furthermore, seventy-nine in-depth interviews were held between July 2015 and August 2016 with various stakeholders to obtain a wide understanding on the development, and current state of the niche. Challenges hindering further development were also identified. As per Holden (2008) and Orams (1999) stakeholders consulted included academics with an interest in the respective fields, non-governmental organisations (NGOs) with a remit related to the natural and cultural environment, governmental entities and policy makers, affected locals (including inhabitants and land owners) and resources users (including operators and tourists). The two sub types (expert and snowball sampling) of the strategic informant sampling technique (a non-probability sampling technique) were then used to recruit interviewees (Finn *et al.*, 2000).

Interviews were held face to face and lasted between thirty to sixty minutes. In two cases two persons were present for the interview. Interviews were kept semi-structured to allow one to delve more into the subject through supplementary questions (Veal, 2006). A checklist of topics was used to ensure that relevant topics are covered (Wearing *et al.*, 2002). Issues tackled included policy development, management of ecotourism sites (notably marine and terrestrial protected areas) and enforcement. Rather than audio recording the interviews, notes were taken during and after the interviews to ensure anonymity of respondents and not to deter their participation. A summary note was prepared following each interview. As in the case of most qualitative ecotourism research, data collected was analysed manually through coding, sorting and

by looking for dominant themes (Backman and Morais, 2001). An open coding approach as suggested by Beck and Manuel (2008) was employed to ensure that due attention was given not only to expected but also to other emerging themes. Eventually the content was summarised omitting repetitive information.

Results

Ecotourism policy and planning

Whereas ecotourism policy has been considered to be limited (Agius, 2011), over the years there has been an evident increase in the attention given to ecotourism and related aspects in terms of tourism policy. The attempt of the Government of Malta to push forward ecotourism is said to be a reaction to the significant impact of conventional tourism on the environment (Tesch, 2014) especially in a scenario where the environment has been identified as a key element of the Maltese Islands tourism product (MiTC, 2007). The niche seems to have gained further attention in recent years reflecting new trends in travel across Europe. The term ecotourism per se has been referred to in the 2002, 2012 and the 2015 national tourism policy documents and in the EcoGozo action plan. At times ecotourism is referred to indirectly through other ecotourism related activities which are at times considered as separate niches including diving and trekking but recent policies also differentiate ecotourism from agritourism, rural tourism and adventure tourism. Ample reference has been made to ecotourism with respect to Gozo which is considered to be a distinct ecodestination (MTCE, 2012; MT, 2015). A separate rural tourism policy to present the holistic potential of a number of related niches including ecotourism has also been proposed (MTCE, 2012). It has also been acknowledged that studies on its potential in Gozo are also limited (MGOZ, 2012). Stakeholders feel that even if policy has made reference to ecotourism and plans for its development have been made, there has been a lot of talk and little action. Whereas through the IYE interest in the niche has augmented, according to NGOs the IYE initiative was just a political stunt. Others argued that it is futile for policy to give due attention to the niche unless there is adequate interest in the niche from relevant stakeholders including operators.

Furthermore, policies tend to be short-termed with a lifespan of maximum five years reflecting the mandate of a government, an issue which has also been outlined by Dodds (2007). This implies that there is lack of continuity especially when there is a change in administration. Changes in administration can also lead to change in priorities. In 2013 a change in government led to a situation whereby the Ministry for Tourism, Culture and the Environment which was pushing forward ecotourism was split. The policy of EcoGozo which featured several aspects directly related to ecotourism was also put on the back burner. Yet this does not mean that ecotourism was completely side-lined.

Sustainability: the wider perspective

Both the policy documents and stakeholders have outlined the need to obtain sustainability not just in terms of tourism but also within other aspects which are related to it. The 2002 tourism policy document speaks about the need to encourage

environmentally-friendly practices, the 2007 tourism policy outlines the need of achieving sustainability and the 2012 policy argues that sustainability in tourism should be obtained in a holistic manner across various aspects including transport, accommodation, catering facilities, attractions and by encouraging key players such as retailers to do their part as these were issues that all have a say to attract the ecotourists to the Maltese archipelago, something that has also been reiterated by stakeholders.

The issue of implementing a carrying capacity was often raised by stakeholders as they feel that there is a constant aim to increase the number of tourists ignoring the issue sustainability. The need to translate into action the carrying capacity studies conducted has already been emphasised (Dodds, 2007; MiTC, 2007). This issue is also relevant for the island of Comino - a Natura 2000 site which is heavily impacted by mass tourism and in fact studies on the matter have been commissioned (ERA, 2017).

Lack of cooperation and incompatibility with policies

Whereas it has been acknowledged that the work of different Ministries, including those related to the environment and Gozo, impact tourism and ecotourism (MiTC, 2007), stakeholders have expressed concern that little progress has been recorded in terms of cooperation and the effectiveness of inter-ministerial committees has been questioned. The need for different departments within MTA to communicate better and for MTA to coordinate better with other governmental entities such as entities responsible for environmental enforcement has long been acknowledged (Dodds, 2007; MTA, 2002). For instance NGOs, local government and different Ministries fail to liaise with each other when it comes to overlapping projects such as development of country side walks.

According to stakeholders the lack of cooperation between different entities at times leads to incompatibility between policies. Such argument is also raised by Lockhart (2002:213) who argues that the incompatibility between policies that aim to attract higher quality tourism and the realities of the islands such as the aim to increase tourist arrivals explains why "*Malta is not and cannot become an ecotourism destination*". On the other hand in a rare scenario the amalgamation of the Tourism and the Environment Ministry in 2008 led to an attempt to complement policies in both areas so as to contribute towards each other (MTCE, 2012).

Bureaucracy and regulation

Whereas tourism policy has outlined the need to reduce bureaucracy (MiTC, 2007) stakeholders have noticed little change since then and have argued that bureaucracy disheartens investment in such a small niche. Furthermore one could not have a one size fits all regulation mechanism whereby regulation for mass tourism applies to small niches such as ecotourism in terms of licensing for excursions and guiding. Yet authorities have argued that regulation and enforcement is required to safeguard the interest of consumers and the niche. Operators that do not have relevant licenses or do not abide to existing regulation may jeopardise safety of ecotourists (if they lack an insurance policy) or fail to provide a high quality experience (if they lack a licence to operate an excursion and/or offer guiding services).

Ecotourism as a tool to strengthen the tourism sector in Malta

All policy documents published between 2002 and 2015 outline how particular niche markets including diving, walking tours and ecotourism can be practiced in the off peak season and that with the right planning and incentives, such niches can grow to attract the relevant market segment thus reducing seasonality and widen the length of stay of tourists on both islands apart from serving as an alternative to mass tourism (MTA, 2002; MiTC, 2007; MTCE, 2012; MT, 2015). Policies have also identified ecotourism as a possible instrument to complement the general tourism product by offering a diversified tourism experience in the Maltese Islands (Parlato Trigona, 2014).

Endemicity and wildlife as an ecotourism attraction

Whereas policy documents rarely refer to wildlife save for underwater wildlife, the 2007 policy document argues that beyond conservation, endemic flora and fauna have the potential to serve as a tourism attraction and that conservation could also be obtained by raising awareness of the visitor. Whereas some academics have argued that the Maltese Islands have an impoverished fauna, stakeholders have argued that even if the archipelago can't boast of big charismatic species, one still finds a rich biodiversity of flora and fauna including several endemic species found solely on the archipelago which can serve as an attraction for the ecotourists visiting the archipelago (Sciberras, 2008).

Marine resources

Although reference to marine life and environment received attention in early tourism policy documents due to diving, the 2007 and 2012 policy documents refer to richness of the seabed of the Maltese archipelago and acknowledge the need to protect the marine environment through the introduction of blue flag beaches, clamping down spear-fishing, elimination of sewage outflows, relocation of fish farms and introduction of MPAs as sites to practice tourism. Whereas most of such measures have been implemented and even if the number of MPAs increased over the years, stakeholders argued that management has remained scant. Both policies also refer to the need to offer relevant interpretation for such resources to serve as an added value for tourists (MiTC, 2007; MTCE, 2012) something which is currently quite lacking.

Sites for ecotourism: management and accessibility

The 2007 policy document differentiates between urban and rural areas on the basis of population density and outside development zone (ODZ) terrain. The rural areas include northern, western and south eastern Malta along with Gozo and Comino, areas that coincide with those earmarked by stakeholders as ideal sites where one can practice ecotourism. In fact stakeholders argued that whereas the Maltese Islands are limited in size one still finds various locations (both terrestrial and marine) including protected areas (e.g. Natura 2000 sites) with a large potential for ecotourism. The 2007 and 2012 Policy documents also refer to coastal and protected areas and their potential for tourism.

Whereas the 2012 policy document also emphasises on the need to prepare management plans for MPAs and Natura 200 sites to provide adequate protection and management, and even if some of these plans have been completed, stakeholders have argued that the same sites are generally bereft of any effective management and implementation frameworks, mainly due to a lack of financial and human resources and as a result end up being paper parks. At times this is also the result of fragmentation in terms of management and the absence of competent structures leading to lack of standards. Also relevant is the fact that effective enforcement is generally lacking at these sites due to the lack of political willingness to adopt bold decisions in this regard an issue also raised by Dodds (2007). The need of proper enforcement in such areas has been acknowledged (MiTC, 2007). Stakeholders have also argued that the potential of such sites is at times overlooked and development due to conventional tourism supersedes the option to extend dimension of such protected areas.

The 2007 tourism policy clearly outlines a major problem for those interested in countryside walks due to limited accessibility of the countryside and the need to remove illegalities including structures placed by squatters which block and/or restrict pathways as this may lead to environmental impacts and conflicts with the local community including farmers. The issue has also been constantly brought up by stakeholders during interviews who argued that due to illegalities of squatters, hunters and trappers even indicative pathways on publications had been shunned from wild areas to tarmac paved pathways. Such issues need to be tackled also in the light of the fact that extension of such walks including some along the coast have been proposed (MiTC, 2007; MGOZ, 2012).

Gozo - an ecodestination

The unique characteristics such as the open countryside, unspoilt nature and the scenic coastline and underwater have been earmarked as the major strengths of the Gozo touristic product (MTA, 2002; MiTC, 2007). In fact more recently emphasis in ecotourism plans and various tourism policies has been made on the need to preserve the environment and market the island as an ecoisland on the basis of its natural and pristine characteristics. Some have argued that Gozo has for the past years been branded as an ecoisland but this was not out of policy but more of a personal initiative of some officials. Yet MTA documents proof that branding Gozo as en ecoisland has been at least on paper since 2001 (MTA, 2001). Nevertheless other policy makers have argued that recent initiatives to promote Gozo as an ecodestination such as Ecogozo were merely a green washing exercise.

The need for tourism in Gozo to shift from conventional tourism to ecotourism has been also considered to be a 'natural vocation' even if it is currently 'under explored' possibly due to the fact that little information is provided on the matter by the tourism industry in Gozo. Meanwhile the 2012 policy document hints that ecotourism is more relevant to Gozo than Malta (MTCE, 2012; MGOZ, 2012).

Environmental issues

Various tourism policies have referred to the need to preserve the environment due to its important role in the tourism product. Among the issues raised by stakeholders one finds hunting and trapping, pollution of seawater due to aquaculture,

pollution of fresh water due to agriculture, fly tipping and illegal dumping most of which identified by the 2007 tourism policy as a major concern for tourists. Illegal development and proposals for megaprojects in coastal environments including air/seaports and hotels also seems to be a worrying factor for stakeholders. Stakeholders have argued that law enforcement is lacking and protection of the environment is only on paper. Various policy documents have also remarked on the need to need to strictly enforce environmental legislation (MTA, 2002) as the environment is an important element of the tourism product. It has also been argued that tourism projects should not jeopardise this resource (MiTC, 2007). Stakeholders also argued that enforcement is also needed with respect to ecotourism excursions as these may leave an impact on widllife such as in the case of close encounters.

Incentivising the niche

Stakeholders have emphasised on the need to incentivise more operators to develop or work in the niche through financial means and by implementing less stringent regulation. To date few operators are working in this field. In most cases operators have developed in response to an environmental cause (e.g. to save the area known as Ta'Ċenċ in Gozo or to safeguard an area which was earmarked to be developed into a golf course). The vacuum has also been filled in by eNGOs but this has created rifts with operators who regard them as unfair competition as they are exempt from legal requirements of companies even if this is not always the case and even if they too face the same regime of regulations. This issue is also confirmed by Lew (2011) who argues that few operators are taking advantage of the natural landscapes found on the islands to offer ecotourism excursions.

Continuity

There have been elements of continuity in terms of ecotourism policy and initiatives. The ecolabel managed by the MTA introduced in 2002 has since then been further developed through reviews conducted in 2008 and 2012 to focus on sustainability criteria and is to date still operational. Today the ecolabel has also been extended to accommodation structures other than hotels such as farmhouses in Gozo (Magri, 2015). The series of articles on ecotourism published on the inflight magazine of the national airline, AirMalta in 2002 were discontinued but one still finds regular articles on ecotourism excursions and ideal venues to practice such excursions in this magazine thus also promoting the green aspect of the archipelago to inbound tourists. The countryside walks developed were unfortunately not maintained over the years and abandoned. Yet the concept was overhauled recently through the Malta goes rural project. The walks were amended, relevant infrastructure including directional signage, information signage and resting areas were installed. The relevant guidebooks were also updated and published in various languages. The Ministry for Gozo has also revamped the walks in Gozo and published new guidebooks. There has also been recent policy initiatives such as conferences organised on the way forward for ecotourism both in Malta and Gozo (Brincat, 2015; MGOZ, 2015). Other international academic conferences which also focused on ecotourism have also been organised in the Maltese Islands (Micallef *et* al., 2006). Malta also participated in the Mediterranean Experience of Eco-Tourism (MEET) project helping a specific park to develop an ecotourism package.

Ecotourism in Malta: the situation today

Whereas the archipelago is considered as an atypical ecotourism destination (Parlato Trigona, 2002) and even if ecotourism makes a minute part of the local tourism industry it has a lot to offer to nature lovers and is filled with several attractions both on land and especially in sea making it easy for one to create a diverse nature-themed itinerary. In terms of activities one can engage in trekking, rock climbing, diving, bird watching, nature photography, cycling, volunteerism in coastal and marine conservation areas, kayaking, agritourism experiences, visiting cultural heritage sites and horse riding. At times emphasis has been made that certain activities, case in point diving and trekking, can be better practiced in Gozo rather than in Malta. Both stakeholders and policy documents have pointed out on the need to improve synchrony between ecotourism and overlapping niches to satisfy expectations of ecotourists such as in the case of diving, an ecotourism activity which is currently being marketed mostly as a sports activity (Lew, 2011; MGOZ, 2012). One can travel green by sailing, walking or using public transport; sleep green by using an accommodation that holds the local ecolabel; and eat green by consuming local organic products (Lew, 2011). Stakeholders pointed out that whereas various activities and excursions are possible, and even if various green services are available, the absence of packages obscures the potential of the niche in the archipelago.

Conclusions

Since the IYE, Malta has gone a long way to promote ecotourism with the niche gaining more ground in national tourism policy documents especially in areas focusing on the island of Gozo. Most initiatives taken in 2002 have also been further developed and strengthened. Whereas both policy documents and stakeholders have identified a number of challenges, a number of initiatives have been taken by both governmental entities, NGOs and the private sector giving one the option to practice ecotourism in the Maltese islands. One concludes that given the right incentives, there is still room for such niche to develop further within the archipelago owing to the natural terrestrial and marine resources which even if heavily fragmented are still of interest to ecotourists.

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Abstract

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THE ACCOUNTANT

Tourism and the Environment: The Missing Link

Karl Agius and Prof. Alan Deidun | Summer 2017, Features

Tourism has over the years developed into a major sector of the Maltese Economy. Most tourism activity has revolved around conventional Sand, Sun and Sea (3S) tourism with sandy beaches being highly sought after. Yet new trends in Europe and across the globe and the desire to travel green and visit remote and pristine environments have led to the development of new niches which are nature based or nature related.

The link between tourism and the environment is not new in the Maltese Islands. One would not be too presumptuous to say that the environment was a major element that kicked off tourism in Malta. The latter started to develop in the 1950s at a time when the island served as a military base. Several from the United Kingdom (UK) used to visit their relatives on duty on the island whereas others who served on the islands used to return with their families. Within villages, local fishermen marketed tours on board their traditional boats among such tourists. The excursion to the 'Blue Grotto', nowadays a top listing (number 30 of 356) of things to do in Malta on Trip Advisor, included visiting the caves found in the south-eastern part of the island, an area characterised by several interesting geological formations which are not easily accessible by land. Evidently, in the past, the natural environment of the Maltese Islands, had a lot to offer and was a major attraction. In fact, as early as in 1969, a country code for the Maltese Islands was already prepared by the then Natural History Society of Malta providing tips to visitors on how to respect wildlife when visiting the country side.

Unfortunately over the years coastal development has impacted the environment. This has led to habitat fragmentation and most sites ideal for environmental tourists have become restricted to small areas. Yet according to the Environment and Resources Authority (ERA), over 28.5% (89.5 km2) of the Maltese islands is protected due to one designation or another. Included in this number one finds 13.1% of land area forming part of the EU wide Natura 2000 network. Over the years the number of Marine Protected Areas (MPAs) have also increased considerably and nowadays 29.9% of Maltese waters (3,487 km2) have been designated as MPAs. Whereas Ecotourism is not limited to protected areas, such sites are fundamental for those interested in this niche. However most of these sites lack management, enforcement, interpretation and other necessities for tourism to flourish.

Tourism in Malta has reached almost 2 million in 2016. The flow of tourists coupled with the high population density of the Maltese Islands has raised concerns and discussions on carrying capacity, especially in areas that are environmentally sensitive. A case in point are the masses of people visiting Comino and Blue Lagoon during the summer period, which has led to a carrying capacity study by ERA. Ecotourism in Malta faces a number of challenges including the lack of site management, lack of site accessibility due to squatters and other illegal activities, lack of interpretation services which is currently limited to countryside walks and lack of nature based packages to mention a few. Apart from development, other impacts include illegal hunting and trapping, aquaculture, illegal dumping and pollution of fresh water due to agricultural activity.

On a positive note the tourist industry per se has also become more environmentally conscious over the years. As part of the International Year of Ecotourism initiatives, in 2002, the national Ecolabel, was introduced and is now being administered by the Malta Tourism Authority (MTA). Since then this has been developed further to reflect global sustainable tourism principles. This ensures that environmentally aware tourists can also sleep green in Malta in one of the accredited hotels or in one of the accredited farmhouses in Gozo. In recent years, a Life+ project spearheaded by the Malta Business Bureau (MBB) has incentivised various hotels and accommodation structures to take necessary measures to reduce water consumption.

National Tourism Policies published over the past 15 years have increasingly given due importance to the environment as a key aspect of the tourism product. Gozo has also been earmarked as an eco-destination. If due attention has been given to this element in practice, remains a question to be answered mostly due to lack of political will.

Other several initiatives have been taken over the years to complement tourism and the environment. For instance, through the project PANACEA a MPA information centre was opened in Dwejra, Gozo to serve as an interpretation centre on the marine environment of the area which might be of great interest to divers and those willing to practice snorkelling. The Majjistral Nature and History Park has participated in the Mediterranean Experience of Eco-Tourism (MEET) and received advice and training on how to offer ecotourism packages to tourists interested in nature-based tourism, embracing

interpretation and sustainability. An underwater trail has also been developed in the area, though this requires maintenance. The environmental Non-Governmental Organisation Nature Trust opened a hostel at the Xrobb l-Ghagin Park and provides guided excursions within the park. A number of other nature walks have also been developed such as those at Hagar Qim and Imnajdra. The countryside walks developed in 2002, in both Malta and Gozo have been revamped through the 'Malta goes Rural project'. Such walks have proved to be very popular with tourists especially due to the multilingual guidebooks prepared. There has been an increase in centres including aquaria, zoos and bird parks, which provide new opportunities for tourists interested in the environment. Yet these have also raised ethical concerns among the true nature-based tourists on the bases of captivity.

Malta has a long way yet to go if it truly wants to attract nature-based tourism. Note should be taken of other similar central Mediterranean islands who have promoted this kind of tourism. For instance, the Spiaggia dei Conigli in Lampedusa is under strict management, limiting the number of tourists, umbrellas and activities on the beach in view of the fact that it is a yearly nesting site for the Loggerhead Turtle. Locally, good initiatives have also been taken such as at Golden Bay in Malta and Santa Marija Bay in Comino.

A true culture change is the only way forward and what one hopes for. Should the right incentives be taken the Maltese Archipelago has the potential to use this as an opportunity to attract more sustainable tourism, generate funds to manage environmentally sensitive and protected areas and also offer new opportunities including green jobs to the local community.

About Karl Agius and Prof. Alan Deidun

Karl Agius is a scientist with a passion for traveling. He is currently studying for a PhD degree on the ecotourism potential in central Mediterranean Islands with the University of Malta.

Prof. Alan Deidun is a marine biologist engaged within the Department of Geosciences of the University of Malta, a Fellow of the Royal Society of Biology and a Director of the IOI (International Ocean Institute) Training Centre.

Annex 7

Plates

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Note: All photos in this annex have been taken by the researcher during visits made in the area of study between 2012 and 2018.