

# Profile of Sustainability in some Mediterranean tourism destinations



## Case study of Castelsardo in Sardinia (Italy)

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Final version

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## Abbreviations list

RAS: Regione Autonoma della Sardegna (Autonomous Region of Sardinia)

ISTAT: Istituto Nazionale di Statistica (National Institute of Statistics)

CRENoS: Centro Ricerche Economiche Nord Sud (Centre For North South Economic Research)

# I. Description of the destination, and the national and local contexts

## 1. Introduction

Within the framework of the Blue Plan project regarding Mediterranean sustainable destinations, the Region of Sardinia has been invited to participate. The municipalities of Cabras and Castelsardo have been selected as representative pilot destinations in the field of tourism offer in Sardinia. Furthermore, Castelsardo and Cabras are part of the CAMP – Italy project promoted by PAP/RAC and coordinated at regional level by the “Conservatoria delle Coste” regional agency.

The main objective within the Blue Plan research project is to define the so-called “Tourism Sustainability Profile” through the evaluation of the economic, ecological and social footprint assessment of tourism in the selected areas.

The general aim of the Blue Plan is firstly to identify how tourism benefits from local populations, directly and indirectly, in the respect of the local socio-ecosystem. Secondly, it aims at collecting the most successful practices around the Mediterranean coastal destinations to use them as models to be replied in other destinations.

With this purpose, the two destinations have been studied and their sustainability performances assessed.

## 2. The destination of Castelsardo

The Municipality of Castelsardo is undoubtedly one of the most important towns in the north-western coast of Sardinia. The city is situated in the Anglona territory, on a spur of rock with a sheer cliff into the sea that laps the gulf. The territory faces onto the gulf of Asinara and is naturally characterized by evocative coasts due to the constant alternation of beaches and rocky areas.

The natural and cultural resources of Castelsardo are the main attractions of the town: historic architecture, handicrafts, wine and gastronomic traditions, beaches and ocean depths, itineraries in woodlands shrubs and natural parks.

### 2.1. Historical profile

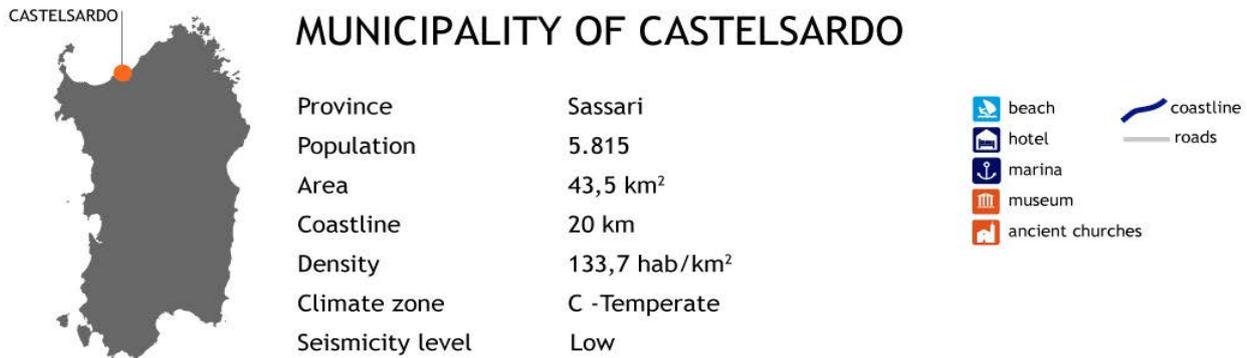
Tradition tells that the territory has been inhabited since the early Palaeolithic, as the finds found in the area of Perfugas prove, but archaeological wealth also resides in the numerous Domus de Janas. In addition, the Nuragic culture is testified by numerous monuments.

The town of Castelsardo was founded by the Doria family around 1100. The fortification walls were built in the same era along with the castle. The medieval castle, the ancient walls and the Aragonese bell tower of the Cathedral of Sant’Antonio Abate have kept their ancient charm for over seven centuries perched on the top of spectacular sheer trachyte cliffs. That’s why the town was awarded in the 15th century the title of Città Regia (Royal City) by the Crown of Aragona together with other six important Sardinian towns (Sassari, Alghero, Bosa, Oristano, Iglesias and Cagliari).

Episcopal headquarters from 1503 to 1839, Castelsardo offers visitors a breathtaking route through the network of streets and paths of the village, laid out on the promontory, and which culminates with the dominating presence of the castle.

Castelsardo’s craftwork is also known all over the world. It is mainly characterized by the use of the dwarf pan palm, whose leaves are used to make distinctive baskets. Various museums (especially the “Museo dell’intreccio Mediterraneo”) show this art works by hosting different expositions.

Figure 1 - Municipality of Castelsardo



Graphic elaboration: authors

## 2.2. What to see in Castelsardo

Few towns have proven themselves as able as Castelsardo has, of valuing their historic and cultural heritage, in terms of dynamism and enjoyment by visitors.

With the National Association of Italian Municipalities (ANCI), Castelsardo entered into the association “The Most Beautiful Villages in Italy” that groups together the most interesting medieval Italian villages.

Castelsardo is also integrated in many international nets as a Historic Mediterranean Town and it takes also part in the “Village Terraneo”, an international association that gather the most well-preserved and picturesque historic town centers.

Castelsardo has a number of important monuments:

- the medieval **Doria Castle** and the **Spanish Bastion Walls**;
- the **Diocesan Museum**;
- the **Cathedral of St. Antonio Abate** and the **Aragonese Bell Tower**;
- the **Museo dell’Intreccio Mediterraneo** (Mediterranean Basket Weaving Museum);

- the sacred well **Temple of Predio Canopoli**;
- the famous **Roccia dell'Elefante** (Elephant Rock), a natural sculpture in trachyte rock, made by wind and rain, that recalls the form of the large mammal, inside which the sepulchral burrows were dug.

Not far from Castelsardo:

- the ancient church **“Nostra Signora di Tergu”** (11<sup>th</sup> century), in reddish trachyte and white limestone;
- **Santa Maria Maddalena**, in Chiaramonti;
- **San Pietro delle Immagini**, in Bulzi;
- **San Giorgio**, in Perfugas.

Thanks to its fantastic monuments, the town was awarded in the 15th century as Città Regia (Royal City) by the Crown of Aragona together with other six important Sardinian towns (Sassari, Alghero, Bosa, Oristano, Iglesias and Cagliari).

### 2.3. Tradition and religion

Among the local customs, the traditions connected to the Holy Week are the most important and picturesque. Particularly relevant, and among the most ancient in Sardinia, is the “Easter procession of Lunissanti”, a sacred event celebrated on the Easter Monday performing the Passion of Christ. Each station (there are ten living mysteries that parade in the procession) is emphasized by the exciting and ancient choral polyphonies. On the Friday, Jesus is taken down from the Cross with another performance (Su Scravamentu). The Feast of the Assumption of the Blessed Virgin Mary, the 15<sup>th</sup> of August, is celebrated with procession and fireworks.

Throughout the year, the main areas and the little squares of the medieval town are set for cultural events and theatrical shows, the climax among which is celebrated the New Year’s Eve with traditional fireworks, displays and performances.

## II. Tourism as a driving force

### 1. Introduction

The tourism sector acts as a driving force for economic development of Mediterranean coastal destinations by contributing to the following primary objectives: the generation of income, employment opportunities and acquiring foreign exchange earnings. Tourism expenditures and the export related goods and services generate income for the host economy and in turn kindle the investment required to finance growth in other economic sectors. Thus, national and local governments, like Castelsardo, can earn their revenue by imposing tax on the prime products and services demanded by the tourists. To reach these objectives and to maximize local socio-economical revenues, without depleting natural resources, local governance agents must define and implement proper and effective sustainable development strategies.

### 2. The tourism approach

As one of the main touristic sites of north Sardinia, Castelsardo can offer his guests various types of accommodations and different kinds of facilities, oriented to business and leisure. The Meeting Hall recently refurbished inside the Castle and supplied with 180 seats, the Harbor, able to accommodate around 800 berths in its fully equipped marina, and the sport centers are all good examples.

Hotels and B&B are mostly concentrated around the old town centre and integrated with the traditional architecture. Environmental and landscape impacts are very low.

The wild landscapes and unspoiled areas, with white sand natural beaches and cliffs, give visitors the choice whether to go sailing, diving, windsurfing, trekking, biking, relaxing, and discovering nature. This natural aspect is probably the main force attracting constantly a rising number of tourists from April till October in all installations available.

Tourists are also offered a high level of gastronomic culture, specializing in numerous fish and seafood dishes. Amongst them: fish soup, red mullet, sea bass in Vernaccia wine and much more.

### 3. The tourism data

#### 3.1. The offer

Castelsardo offers different types and categories of accommodations, mainly standard rating. Nowadays, Castelsardo can host around 2.000 visitors a day. The majority of sleeping accommodations are in hotels (1.246) while B&Bs in the territory have a sleeping accommodation capacity of 135 people, which is 7% of the study area.

Among no-hotels accommodations, there are 24 Bed and Breakfasts and one youth hostel. These typologies of accommodations are a good offer for young tourists who don't want to spend much money to sleep in Castelsardo.

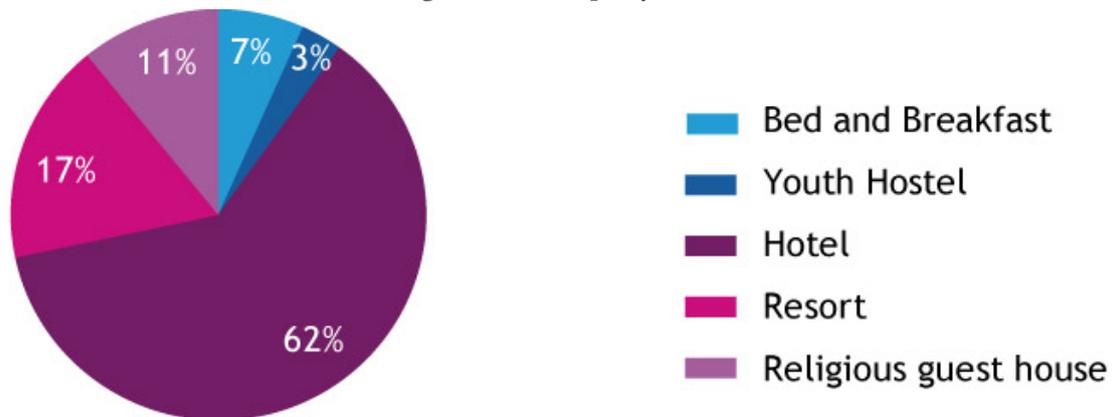
Table 1 – Accommodation capacity 2010

	Hotel	Religious guest house	Youth Hostel	Bed & Breakfast	Resort	Total
Number of structures	13	2	1	24	1	42
Number of beds	1.246	220	65	135	351	1.882

Source: RAS

As we can see from the Figure 2, the highest percentage regarding the accommodation capacity is related to hotels, which reaches 62%.

Figure 2 –Beds' capacity, 2010



Source: RAS – Graphic elaboration: authors

In the last years, the Municipality of Castelsardo has made an effort to give a high value to the old town center, transforming ancient ecclesiastic buildings in luxury hotels to respond to an improving demand of high quality services and to attract more sophisticated visitors than the average of the area.

### 3.2. Information and activities

In Castelsardo a “Pro Loco”, an Info Point for young people and two travel agencies attend tourists’ needs giving them all necessary information to organize a trip and find a service.

Moreover, all operators working in the main attractions of the city also attend visitors with information and organized visit like: Doria Castle; Palazzo la Loggia; Domus de Janas; Mura Megalitiche; Nuraghe Spighia; Terme Romane; Mediterranean Basketry Museum; Hall X; Museum of Sacred Art by the “Maestro of Castelsardo”; the Bishop’s Palace; Antico Seminario; Cattedrale Sant’Antonio Abate; Chiesa di Santa Maria; Seminario Vescovile di Ampurias and the Episcopio.

Castelsardo is a very popular nautical centre, having well equipped marina located near the town centre. Local tour operators offer tourists the possibility to enjoy the beautiful sea and its seafloor, as one of the most impressive in the Mediterranean. Many diving centers organize activities such as recreational diving, snorkelling, environmental education and guided diving excursions in the Asinara Marine Protected Area. Due to the National Park, the area is also an ideal place for sailing and windsurfing and, just a short distance far from the Asinara island, the harbor with its 800 berths offer whoever docks in the marina the very latest in facilities, equipment and qualified assistance personnel: refueling, shipyard, launching and haulage with a travel lift and mechanical assistance, mooring assistance, market, bars and a variety of other commercial activities.

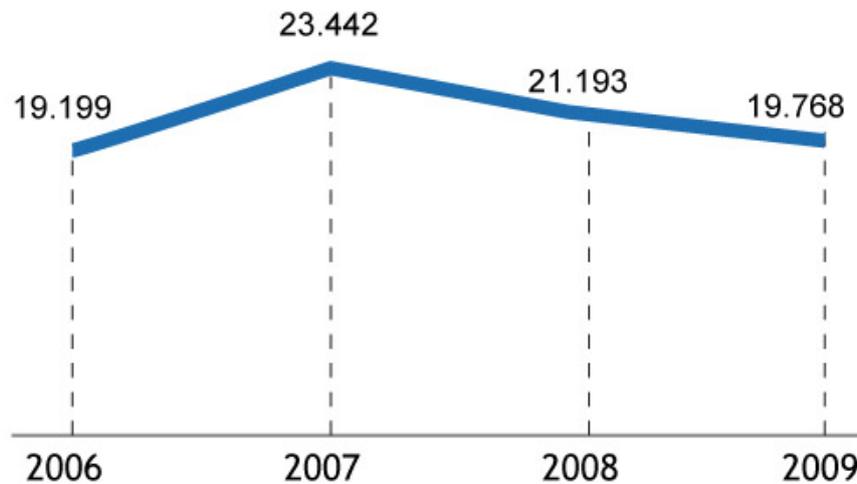
Sport facilities include numerous basketball, volleyball, tennis and football courts, as well as various other outdoor sports, organized mainly by three private societies able to fulfill different kind of demands.

In the city, tourists can easily find tour operators specialized in incoming tourism: Viaggi TUI, Thomas Cook, La Meriva, Dìdisì, Avitur Tour Operator, Sardegna.com, Isolaverde Tour Operator, Sweet Sardinia, Vagaitaly Tour Operator.

### 3.3. The demand

Castelsardo has registered a general improvement of visitors in the last 4 years, achieving an arrival increase of 10% that reached the best moment in 2007, when more than 23.400 visitors had been received in town and in August the occupancy rate of all hotels was around 57%.

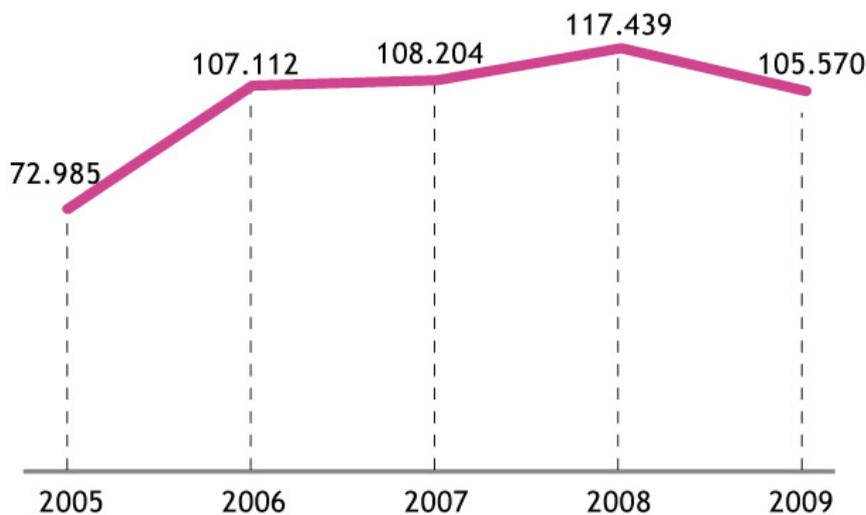
Figure 3 – Total number of arrivals, 2006-2009



Source: Municipality – Graphic elaboration: authors

Overnights had an increase as well, passing from 72.985 in 2005 to 105.570 in 2009.

Figure 4 – Total overnights, 2005-2009



Source: Municipality – Graphic elaboration: authors

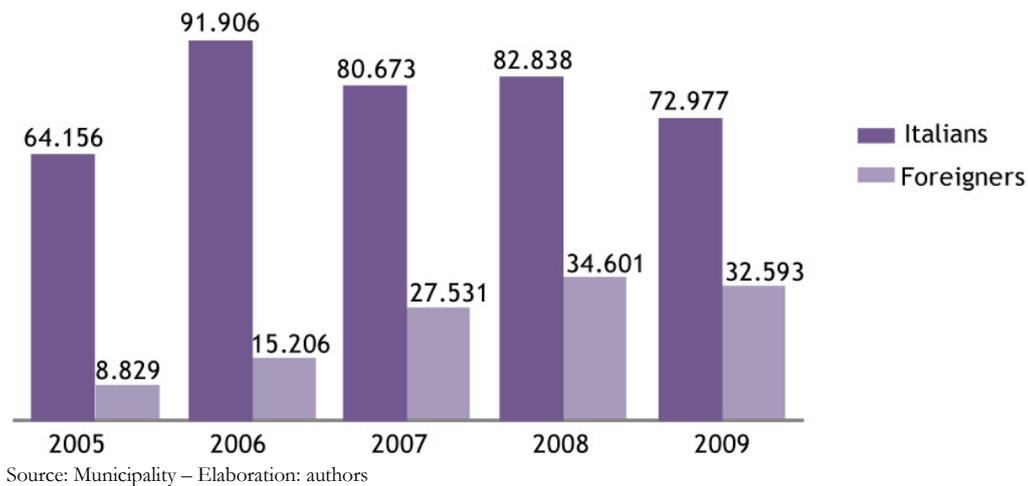
It's interesting to notice how 2006 represents the peak for Castelsardo, with a huge improvement in overnights from the previous year that achieved an increase of 47% in both national and foreign overnights. This great raise was due, above all, to the new information technologies adopted in 2006 from the Municipality. In fact, they improved their data collection system through the usage of electronic databases. Probably, the presence of new low cost connections and the increase of foreign tourists helped to reach this percentage.

However, from 2006 to 2009 the presence of foreigners has constantly risen, passing from 15 thousand overnights in 2006 to 32 in 2009, reaching in 2008 his climax with 36.601, which means 29% of the total overnights.

The international crisis had serious consequences on the Italian tourism industry, in both inbound and outbound sectors. Italian hotel chains have already reported fewer bed nights during the first months of 2009, a trend likely to continue into the first half of the forecast period.

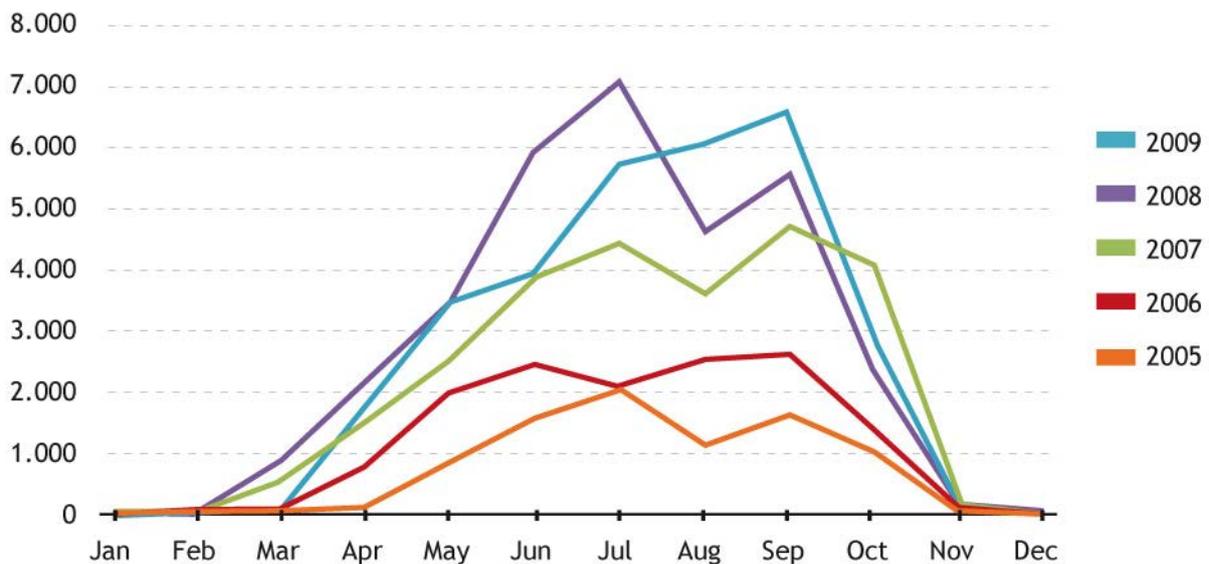
This means that also in Castelsardo the relevant 10% of overnights decrease registered in 2009 can be related to the overall international tourism crisis.

Figure 5 – Italian and foreign tourists' overnights, 2005-2009



Most Italian visitors choose the month of August to travel to Castelsardo, which registered, in the last years, the highest number of nights spent in all sleeping accommodations. Just in 2005 and 2009, July outnumbered August month in overnights. On the contrary, foreigners generally prefer September for their vacations and just in 2005 and 2008 they came in Castelsardo earlier, already in July. Both Italian and foreign tourists dislike winter months, especially January and December, even if in 2007 local installations registered a great increase in December overnights and a total amount of tourists, which exceeded the 1.600 tourists.

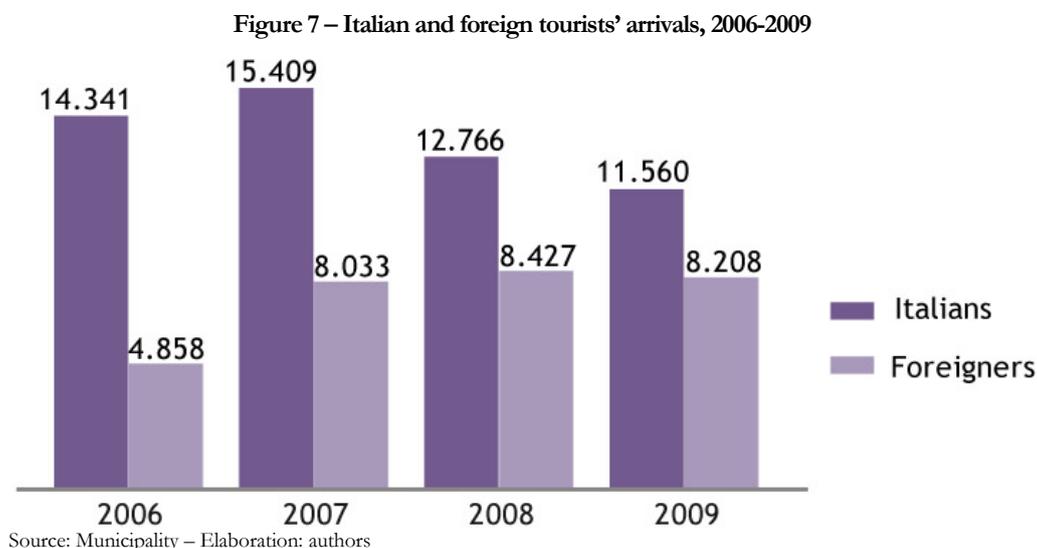
Figure 6 – Foreign tourists' overnights per months, 2005-2009



It is also interesting to note how the seasonality has changed in a few years. In fact, while in 2005 the months of April and October could both be considered for Italian visitors as the beginning and end of the touristic period, in 2007 foreign tourists just began to travel in that period of the year. This change produced an overnights increase in Castelsardo that almost doubled, if compared to the same period of the previous year.

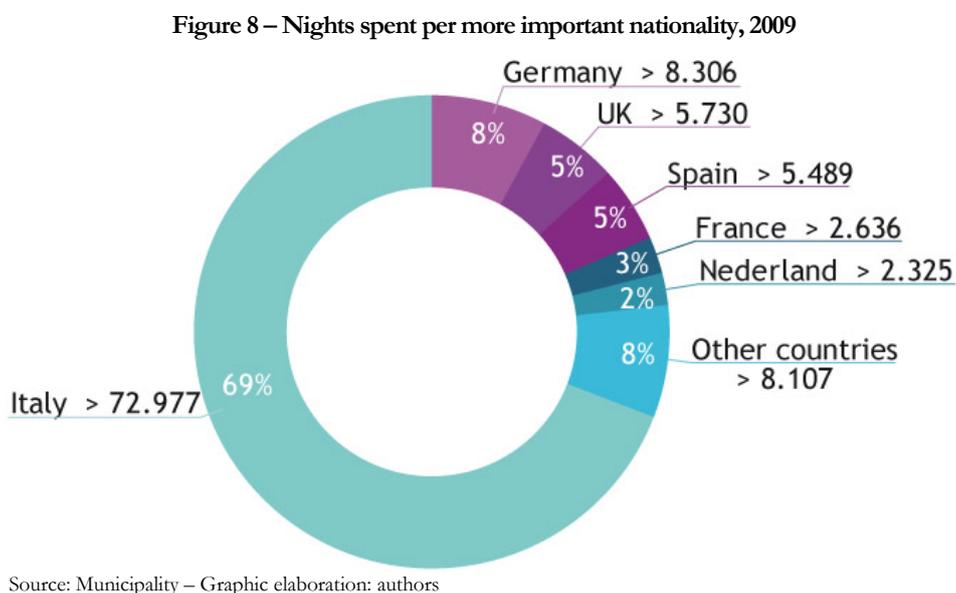
Anyway, it has to be considered how the trend demand is influenced by bank holidays, public holidays, school holidays, elections, religious celebrations and observances affecting the tourism business. The incredible outreach of March 2008 can be explained, for example, by Easter Holidays that made the season begin one month earlier.

Figure 7 shows that natives' arrivals decreased from 2006 to 2009, except for a pick reached in 2007 (15.409). The arrivals of foreigners almost doubled between 2006 and 2007, and registered a constant trend until 2009.



Regarding tourists nationality, Castelsardo traditionally attracts mainly Italians and they represent the highest percentage in overnights. However, foreign are recently gaining ground.

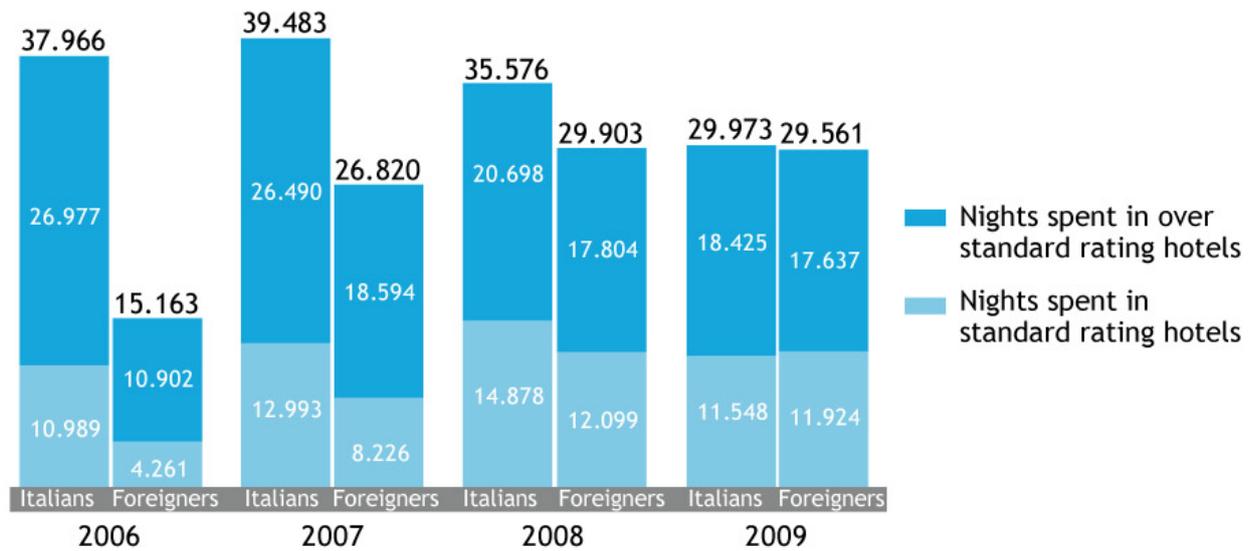
Foreign travelers have passed from 12% in 2005 to 31% in 2009 of the total number of Castelsardo overnights. German tourists are on the top, followed by British and Spanish.



### 3.4. Nights spent in Hotels

According to statistic data in the last years tourists from Italy and abroad chose to spend their holidays in over standard rating hotels. The total percentage of overnights in high standard rating hotels registered, in fact, an occupancy increase of 77%. This raise was especially due to the choice of foreign travellers who overnight in luxury hotels instead of any other kind of accommodation. The graph shows that in 2006 the percentage of nights spent in standard hotels was 29%, while in 2009 it reached 39%, for both Italian and foreign tourists.

Figure 9 – Nights spent in Hotels by Italian and foreign tourists, 2006-2008

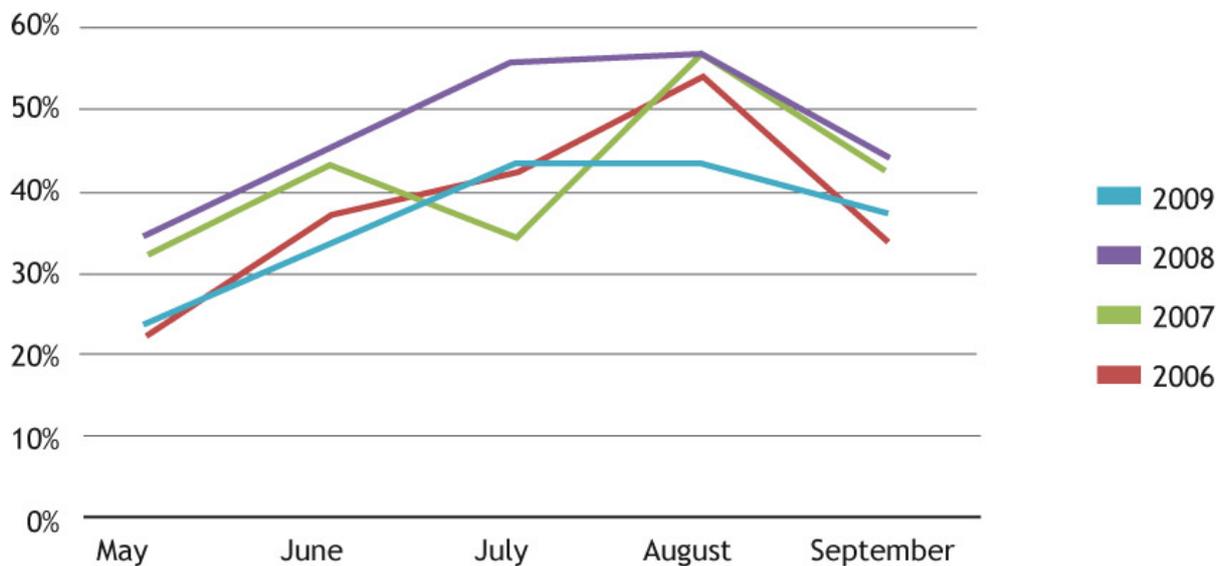


Source: Municipality

### 3.5. The occupancy rate

Speaking about occupancy rate, we can see an increase in the touristic season up to 7 months and an improvement of the efficiency of all sleeping accommodations, especially from 2006 to 2008 in the 5 central months, from May till September.

Figure 10 – Occupancy rate, 2006-2009



Source: Municipality – Graphic elaboration: authors

The positive trend was inverted again in 2009, affected from a general decrease in rates.

### III. Results and performance of tourism

#### 1. Introduction

The third chapter will show the performance of tourism activities in the Municipality of Castelsardo using the available data taken from the three pillars of sustainable development: economy (tourists' expenditure), society (tourism employment) and environment (energy consumption and land use change).

#### 2. Economy

In these paragraphs, we will see the economic impact of tourism analyzing tourism expenditure in Castelsardo.

About 150 questionnaires filled from tourists during last summer have been collected. Following data come from the result of the analysis of the questionnaires. The questionnaire has been designed in order to find out the motivations and characteristics of the average tourist in Castelsardo. This choice was also due to the lack of data.

##### 2.1. Tourist expenditure

This economic impact analysis assesses the contribution of tourism activity in the Municipality. The basic question an economy impact study usually addresses is: how much do tourists spend in the area? In 2010, tourists spent on average 89€ per capita and per day for their holidays.

In order to better understand how tourism influences the economic life of a destination, in the following paragraphs we will analyze the composition of tourist expenditure divided in two main parts:

- expenditure for the permanence;
- expenditure for the trip.

##### 2.2. How do tourists spend their money during their permanence?

Tourism activity involves economic costs, including direct costs incurred by tourists for their permanence. The composition of this type of expenditure is explained in the Figure 11.

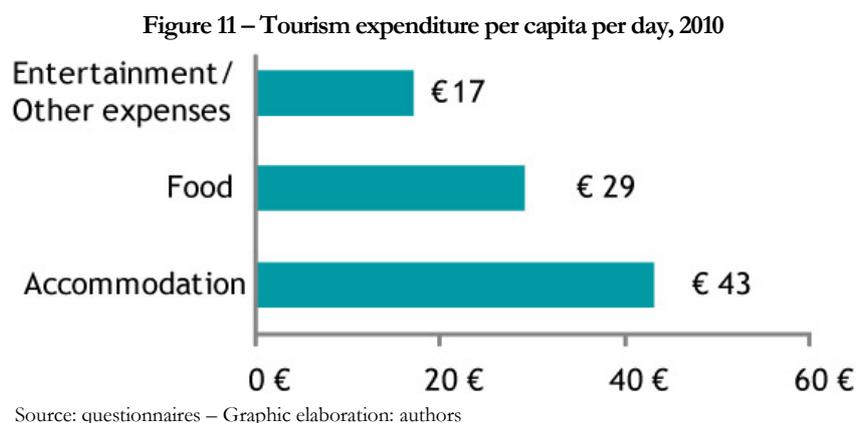


Figure 11 shows that the highest cost for the average tourist is the accommodation, 43€ per capita and per day. Survey result shows that tourists usually prefer booking hotel room only, instead of half-board formula. In fact, the 2<sup>nd</sup> major cost is for food; the daily average of food expenditure is 29€. Entertainment cost and other expenses are limited to 17€, due to the fact that the town does not really have much to offer in this field and tourists prefer to move to other locations near the area (i.e. Alghero).

## 2.3. Transport expenditure

To reach the destination from the rest of Italy and Europe, the ticket expenditure of the average tourist is 182€. Data taken from tourist questionnaires show that 61% of tourists go to Sardinia by airplane and 59% by ferry. The air transport for national and international travel reported significant growth in the last years. This growth is due mainly to an increase of low cost flights (Ryanair and Easyjet) from Cagliari and Alghero.

Further information regarding transports will be found on Chapter 6, paragraph 6.1.2 “Transports”.

## 3. Society

To be able to study the sustainability level of a tourist destination, it is very important to consider the social component. One of the essential points of the change in society is the employment rate that tourist industry can produce.

### 3.1. Tourism employment

Tourism sector is characterized by high variability due to the diversity of local realities and the remarkable influences exerted by economic and social forces that cause continuous fluctuations in the industry. This variability is forcing companies to adopt flexibility, even in the organization of human resources. The characteristic element of the tourism industry is the seasonality, which leads to an intensification of activities at certain times of the year to counteract downturns in demand for tourist services. Seasonal frame time is part of a bigger context of flexibility, and both have significant implications in the labour market sector.

**Table 2 – Tourism employment in 2008 and 2009**

Employees in tourism enterprises	2008	2009
Total employees in the tourism enterprises	380	394
Permanent	83	89
Seasonal	297	305

Source: Municipality of Castelsardo

The study found out that the seasonality, although it is seen as physiological for the labour sector, involves critical elements for both workers and businesses. The table shows how the number of seasonal workers is bigger than the permanent one and this is due to tourism seasonality.

In 2009, we can see that the number of employees increased by 14 people only (+3,7%), compared to 2008.

The only available data about the gender share in tourism activities is referred to the years 2001, when women, officially employed, were 106 (68%) and men were 50 (32%).

**Table 3 – Tourism economic sectors in 2009**

Economic branches	Permanent	Seasonal	Total
Hotels and restaurants	85	267	352
Art, sport and leisure	0	35	35
Merchandising	3	3	6
Rent a car and travel agencies	1	0	1

Source: Municipality of Castelsardo

The Table 3 shows that seasonal employment stayed higher against the permanent one, especially in hotels and restaurants.

## 4. Environment

Nowadays, in Sardinia, there is not a specific monitoring system that analyses the pressure of tourism on the environment. The available data collected for the study are aggregated and have been applied to tourism sector with specific estimation. We can resume data quality for each area of interest as follow.

**Table 4 – Data quality**

Area of interest	Type of data
Energy consumption	Data from energy company invoices collected at single user level and aggregated for the Municipality
Solid wastes	Aggregated direct data from the Municipality collected at local administration level
Water consumption	Lack of data at municipal level. Data based on Municipality estimations.

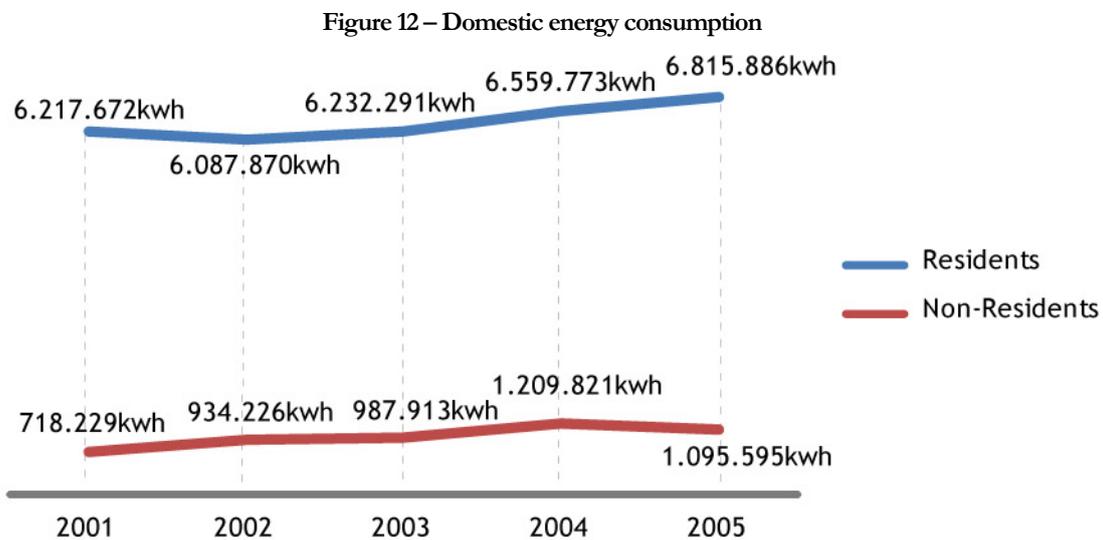
Elaboration data: Conservatoria delle Coste

Despite the lack of specific tourism data, we have used these data to understand how Castelsardo is acting to face the environment problems and what it is necessary to do in order to increase the sustainability of the area.

### 4.1. Energy consumption

The following data have been taken from the invoices issued by ENEL, the Italian Company which manages the electricity, and describe the domestic energy consumption from 2001 to 2005.

The amount of energy used per household changes widely depending on the type of residence, in fact we have two different data for residents and non residents.



In 2001, the total electricity demand for residents was 6.217.672 Kwh. The electricity consumption was cut down by 2,1% during 2002. From 2003 it started to grow reaching the maximum peak in 2005 with 6.815.886 Kwh to meet energy needs. The 2005 peak can be related with financial invoices adjustment for that year.

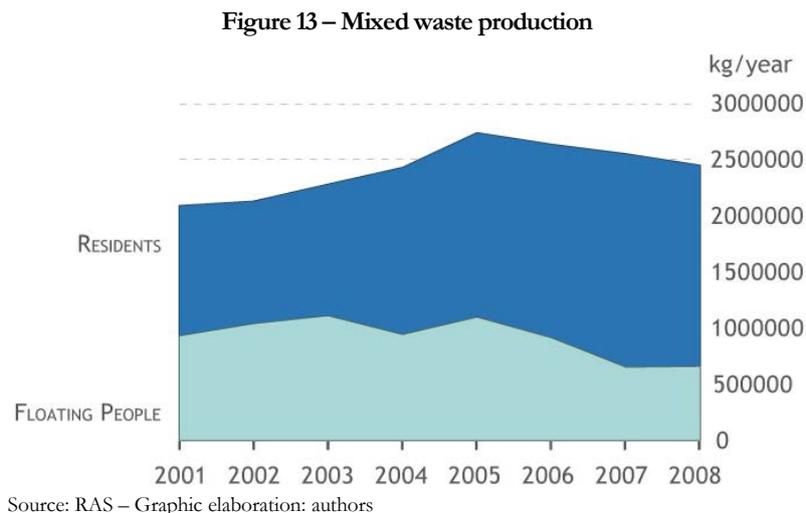
The situation for non residents is different. Starting from 718.229 Kwh in 2001, the energy consumption was characterized by a continued growth until 2004 reaching 1.209.812 kWh (+68%). From 2004 to 2005 we assist a softened reduction of electricity consumption of 9,4%.

To better understand how the electricity consumption is characterized and influenced Castelsardo, we considered two different variables: the growth of population and the climate change. We know that the

population had a steady growth over the study period. We have studied the variation of climate temperature from 2001 to 2005 and we found out that the climate was characterized by comfortable temperatures as usual. Considering the two different variables, we can assume that the growth of the electricity consumption was due to the rise in the number of rented houses.

## 4.2. Solid wastes

The Figure 13 analyses the domestic mixed waste production from 2001 to 2008, using two different data for resident population and floating people, and without considering the volumes of separated waste analyzed in the fifth chapter.



The residents’ production of solid waste grows from 2.085.951 kg in 2001, reaching the maximum in 2005 with 2.732.016 kg/year. After this rapid growth, we see a little decrease of mixed waste volume until 2008 (2.443.360 kg/year).

The production of solid waste of non residents is fluctuating during the last period: from 925.688 kg/year in 2001 up to 657.320 kg/year in 2008. The volumes reflect the structure of tourists and we can see that tourism produces a different amount of waste in the study period. From 2001 to 2003, there is a little growth with a peak of 1.104.408 kg/year in 2003. In 2004, there is a small decrease that is followed by a rise in 2005. From 2005 to 2007, the waste production scaled down drastically, followed by stabilization until 2008.

In 2008, the tourists overnights in all tourism accommodations was 117.439, so the solid waste production per tourist and per day should be around 5,60 kg, which is a real strange data. In fact, the average of tourist waste production per day is usually estimated to be around 1,5-1,8 kg so we can assume that there is a high percentage of unregistered tourist presences.

Further information on solid waste treatment on Chapter 5, paragraph 5.5 “Treatment of solid wastes”.

## 4.3. Water consumption

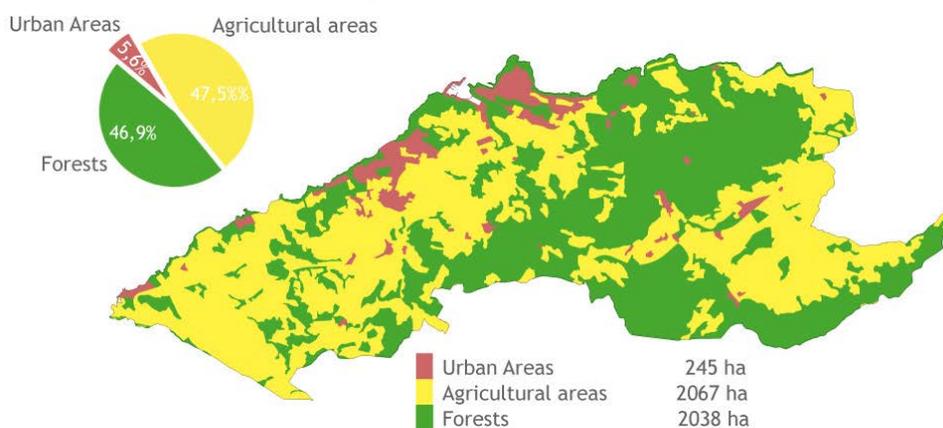
Using data taken from ABBANOIA, the private company that manages water in Sardinia, and following a study made by the Agency Conservatoria delle Coste to quantify the average water used in the touristic accommodations of Castelsardo, the research reveals that, in 2008, the percentage of water consumed by the tourism industry was 8,89%, in relevance to the total quantity of available water.

The percentage of non-treated waste water in Castelsardo is 0%. All the municipal waste water is treated and reused by the agricultural industry for irrigation, as well as by other economic activities.

#### 4.4. Urbanization and land use changes

The effect of population growth on land, as well as tourism growth, is direct in nature. When the population grows, its pressure on land increases, as land is limited, fixed and scarce. The pressure on land operates on various directions, as land has different uses. When population pressure on land increases, its effect reflects in the land use pattern and it changes accordingly.

**Figure 14 – Land use, 2008**



Source: Corine Land Cover – Graphic elaboration: authors

The Figure 14 shows that Castelsardo has 245 ha of urban areas, which is 5,5% of the total area. We can say that the destination is not characterized by an intensified urbanization and tourism development. In fact, the biggest part of the entire zone is composed by agricultural areas and forests (respectively 47,5% and 46,9%).

**Table 5 – Coastline artificialization**

Category	Length
Coastline	20.000 m
Artificial coastline	8.000 m
Natural coastline (not constructed)	12.000 m

Elaboration data: Conservatoria delle Coste  
Source: GIS

The Table 5 shows that the artificialization of the costal line (20 km) reaches 40%. Despite the small percentage of urbanization in the area, the entire shoreline has been significantly artificialized due to the development of tourism.

**Table 6 – Changes in Surface of Land Uses, 1990-2006 per category**

Category	Change in Surface, %
Artificial areas	27.1
Agricultural areas	-5.6
Forests	5.7
Wetlands	0,0
Water bodies	0,0

Source: Corine Land Cover – Elaboration: authors

The Table 6 describes the changes in surface of land uses per category, from 1990 to 2006. As we can see, urban areas have seen an increase of 27,1% while forests had an increase rate of 5,7%. Grassland for pasture and rocky areas didn't change, while agricultural areas were reduced by 5,6%.

## IV. Impacts of tourism on the destination

### 1. Introduction

The fourth report investigates the demographic and economic context where the tourism activity takes place, in an attempt to evaluate the role it assumes in the local wealth creation. Population data have been examined, as well as labour market, gross domestic product for economic sectors and environmental potentiality, in order to measure the attraction level of the destination.

### 2. Economy

The following paragraph analyzes the effects of tourism sector on Castelsardo's economy. The activities affected by tourism are those that provide essential services to travellers, as hotels and residence accommodations, travel agencies, tour operators, bathing establishments, boating facilities, etc. There are also those enjoyed by both residents and non-residents, as restaurants, bars, golf and tennis courts, swimming pools, parks, museums, etc. Indirectly, tourism affects sectors as agriculture, food industry, textile and furniture industry, production of tourism-related facilities and equipments, construction industry and so on.

#### 2.1. Gross Domestic Product

The analysis of the historical data is essential to plan strategies for the future. Unfortunately, we often deal with partial, conflicting and no updated data. All these difficulties don't allow defining clearly the effects of a sector that is becoming one of the most important economic activities in the Municipality.

Due to this lack of official data, we had recourse to five expert judgments.

Table 7 – GDP 2008

	CASTELSARDO	SARDINIA
GDP	74 mio €	34.035,9 mio €
GDP per capita	12.838 €	16.332 €
Tourism GDP	10,3 mio €	
Tourism Economic Importance	14%	

Source: Municipality and experts' judgment analysis

The GDP per capita in Castelsardo is equal to 12.838€ and is 3.500€ lower than the Sardinian average.

Tourism sector has made a strong progress over the 6 years and its influence on local economy is now equal to 14%, considering all the activities related with it. However, these data don't show the real economic importance of the sector because the percentages are calculated without considering the underground economy that is estimated, in the whole island, around 80%.

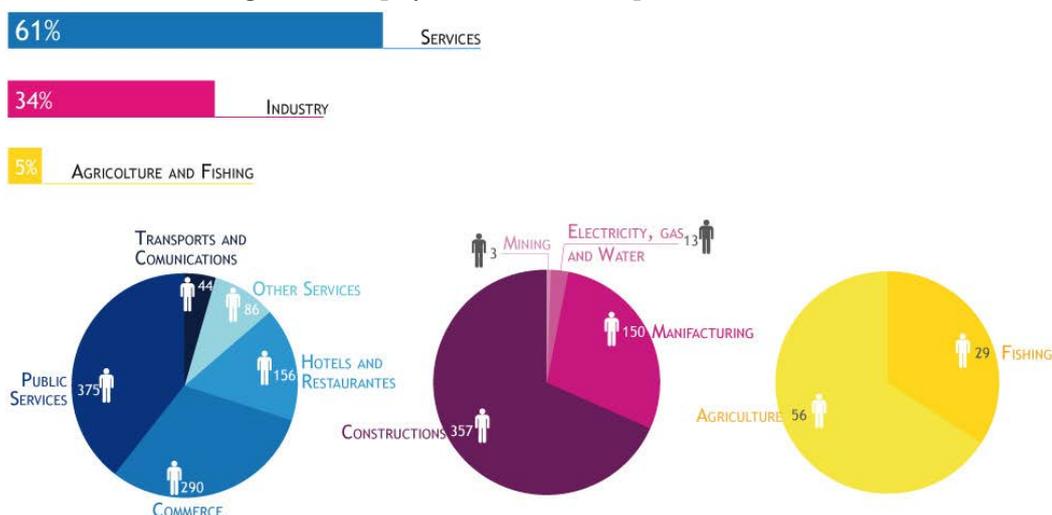
### 3. Society

An analysis of demography, age structure, behavior, dynamics and distribution of people in the territory is essential to get a more complete understanding of the socio/economic situation and to assess the level of development of the area. In fact, people represent at the same time the labor forces, responsible for the productive function, and demand factors, responsible for goods consumption.

### 3.1. Employment of the main economic sectors

The only available data about Castelsardo employees belong to the national census in 2001.

Figure 15 – Employment of the most important sectors, 2001



Source: ISTAT – Graphic elaboration: authors

The Figure 15 represents the employees' distribution in the 3 sectors: services, industry and fishing and agriculture. The most important economic sector is represented by services, with 951 employees; the second one is the industry, with 523 employed working mainly in constructions. The last one is the agriculture and fishing, with 56 workers on the first and 29 on the second one. Therefore, the number of people involved in tourism activities is expected to be much higher than the one shown in the graphic.

### 3.2. Population evolution and structure

Castelsardo population shows a steady increase during the last two decades. In 1991, the total population was estimated at 5.236, which increased to 5.815 by 2009, recording an increase of 11%. The population is concentrated in the urban area, extended for 0,2 sq km in the north side of the municipal territory.

Figure 16 – Population evolution, 1991-2009

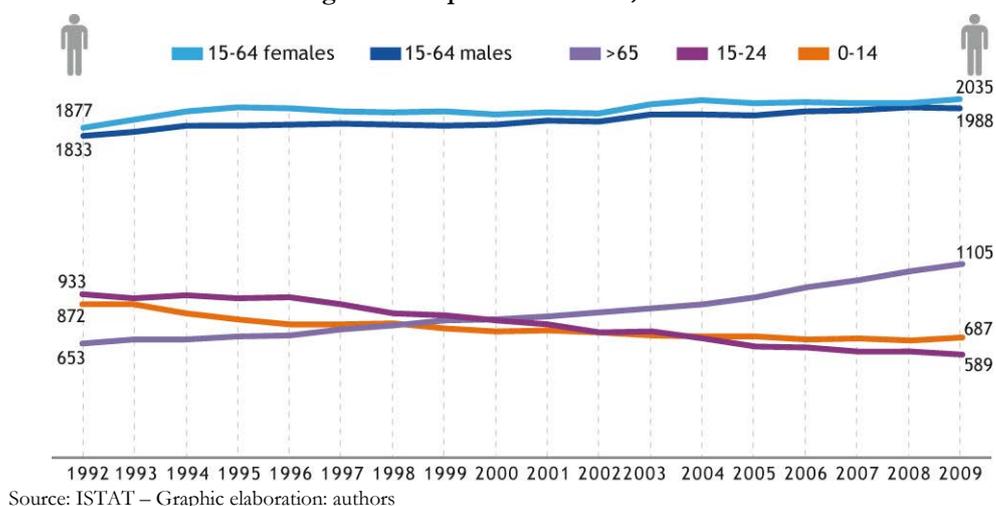


Source: ISTAT – Graphic elaboration: authors

The population studies show that the average lifetime in the region is very similar to the national one and is among the longest in the world. In 2008, men live an average of 79 years and women 85 years, with lengthening of life around 20 years compared to the Second World War period. Also in recent decades, the age pyramid has changed, with the increase of older demographic components and the decrease of youth.

Aging is undoubtedly one of the most remarkable events of demographic history in the country over the last decades. Few numbers are enough to express the significant role of the elders in the local scenario.

Figure 17 – Population structure, 1991-2009



As we can see from the Figure 17, people over 65 increased 69% in almost 2 decades, going from 653 persons in 1992 to 1105 in 2009.

An opposite trend concerned young from 0-24 yrs, during the same years they decreased 29%, 1805 people were registered in 1992 and 1276 in 2009.

In recent years, immigration is playing an important role on population changes, especially on the aging phenomenon, although these flows are still not able to change the proportions among the different age groups.

Table 8 – Natural movement and migration

	2002	2003	2004	2005	2006	2007	2008	2009
Natural Movement	1,35	1,06	1,08	1,06	0,98	1,24	1,31	1,49
Migration	1,55	1,54	1,37	1,62	1,58	1,63	1,50	1,20

Source: Osservatorio Economico – ISTAT data

### 3.3. Social cohesion

Analyzing the employment data, it is clear that the local population on working age does not get a job easily and it is demonstrated by the level of employment rate, which is around 40%.

Table 9 – Employed and unemployed people, 2001

2001	Employed	Unemployed	Active	Employment rate*	Unemployment rate**
Male	1.154	182	1.915	0,30	0,05
Female	405	224	1,963	0,10	0,06
Young 15-24	143	113	757	0,04	0,28

Source: Osservatorio Economico – ISTAT data

\*(n° unemployed/Total active population) - \*\* (n° of unemployed/Total active population)

A relevant problem in the local labour market is the young unemployment. All the studies regarding this topic have highlighted the difficulties of young people to find employment that matches their interests, aspirations and education levels. Youth unemployment is a problem that concerns the entire region but have more relevance in small municipalities like Castelsardo.

The low rate of women employment is explicable by the high number of housewives, 939 on a total of 1.963 active women, as we can see in the following table. The rate of women unemployment is low as well because housewives are not considered a labor force. We can assume that housewives increase the underground economy working for activities as B&B that are not considered as businesses by the Italian law.

**Table 10 – Active population, 2001**

	Labor force			Not in labor force		
		Students	Housewives	Retired	In other conditions	Total
Male	1.336	160	1	486	302	949
Female	629	230	939	200	409	1.778

Source: Osservatorio Economico – ISTAT data

## 4. Environment

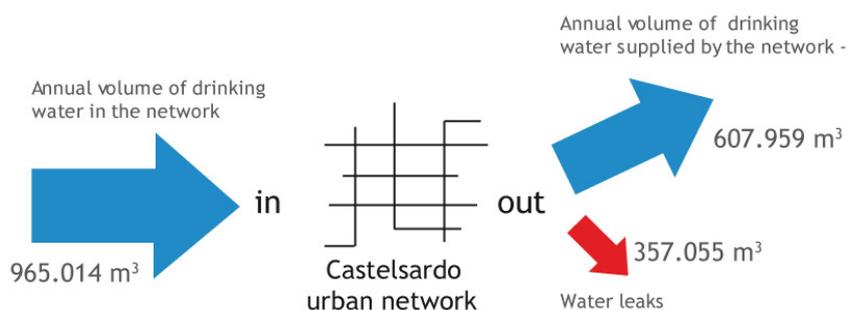
Environment and people are mutually interrelated and inter-dependent for their sustainable development and the land is the main natural resource of any country for the sustenance of the population. Though it is a fixed, scarce, tangible and immovable resource, it is a degradable and transferable entity that could be sustainable only if properly used by people. The increase of human pressure due to tourism is an important issue that can change the land uses.

### 4.1. Water availability

In Sardinia, almost the whole territory is seriously affected by water shortages and the scarcity of the resource highlights the need to plan a strategy that limits the inconveniences caused by drought, increasing the efficiency of the service provided.

Sardinian water system, characterized by a remarkable structural complexity, is mainly based on the collection of water in many reservoirs that supply water for agricultural uses, industrial and drinking water.

**Figure 18 – Drinking water consumption**



Source: Abbanoa RAS – Graphic elaboration: authors

The fragmentation of responsibilities about water management increases the significant problems already existing. Only few years ago, after more than a decade since its promulgation, the law 05/01/1994, n° 36 (Galli Law) “Regulations on water resources”, has been really applicable in the island. The law is based on the concept of water balance, which is the balance between resources availability and needs of different uses and integrated water service.

The Figure 18 shows the water balance on the Municipality of Castelsardo. As we can see, the water leaks in the network in 2008 are more than 357 thousand m³, which means 37% of the total drinking water supplied by the network. It’s important to say that the water is not treated before entering the urban network.

## 4.2. Sea water

In order to monitor and protect coastal bathing water from any pollution or abnormal situation, and prevent health hazards, Sardinia complies with European laws on bathing water quality. The classification of bathing waters is defined on the basis of concentrations of intestinal Enterococci and Escherichia coli that are reported under the Directive 2006/7/EC. In Castelsardo the 100% of the coastal bathing waters met the mandatory water quality, which is excellent as reported by the 13 sample water stations located along the 20 km of coast.

Monitoring takes place once a month during the bath season and the monitoring calendar is uploaded to the website for easy public access.

## 4.3. Soil

In 2000, the Agro-meteorological Service of Sardinia started to develop a Geographic Information System for assessing and monitoring Environmentally Sensitive Areas to Desertification using two methodologies: “Desertification Prone Areas” (Pimenta et al.,1997) and “Environmentally Sensitive areas (ESAs) to desertification” (MEDALUS Project (UE) Kosmas et al., 1997) and they draw a map of Sensitive areas (scale 1:100.000) in 2004.

The Environmentally Sensitive Areas methodology has been elaborated in order to identify the sensitivity to desertification according to four indexes: Soil Quality Index, Climate Quality Index, Vegetation Quality Index, and Management Quality Index.

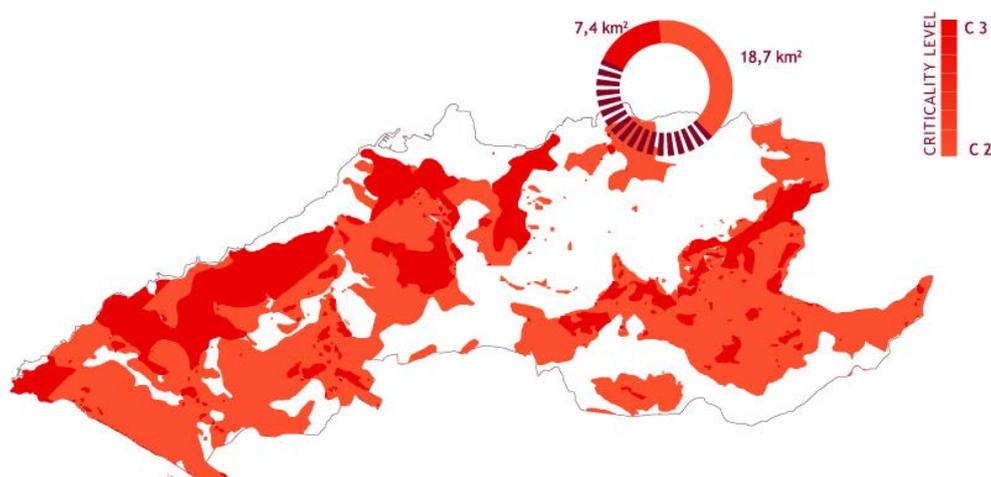
This study classifies the territory in 4 categories: Non-sensitive areas, Potential areas, Fragile areas and Critical areas. The municipal territory has an extension of 43,5 km<sup>2</sup> and 26,1 km<sup>2</sup>, which means 60%, and is classified as critical. The map shows two different level of criticality: C3 (highest) and C2, and represent the most degraded parts of the territory because of soil bad use and a danger for the surrounding areas’ environment.

**Table 11 – Soil quality**

Soil Use	Weight	Extension km <sup>2</sup>	%	Soil Quality
Cultivations	1	20,7	47,6	0,48
Forests	0,8	18,0	41,4	0,33
Grassland for pasture	0,5	2,0	4,6	0,02
Artificial areas	0,2	2,5	5,7	0,01
Rocky areas	0	0,3	0,7	0,00

Source : Authors Elaboration on Corine Land Cover data

**Figure 19 – Environmentally Sensitive Area Index in the study area**



Source: Authors Elaboration on ARPAS data

## V. Policy measures to improve sustainability of the destination

### 1. Introduction

The fifth chapter describes the national, regional and local policies that influence the results and the impact of tourism in the destination. The role of governments in forming tourism policies on sustainable development and promoting tourism is also explored.

### 2. Policy measures at national level for environmental sustainability

In the last decades, the awareness on environmental matters by the Italian Government has grown. Currently, the Ministry of Environmental Affairs is responsible for promoting a sustainable environmental development of the Italian society.

With regard to the coastal and marine deterioration theme, a series of urgent actions have been identified in the following fields: waste water management, solid waste management, sand extraction and erosion management, marine ecological protection and institutional strengthening.

Italian Legislative Decree n. 152/2006 is the consolidated text on environmental protection. It includes rules on waste management (including hazardous wastes), environmental impact assessment and strategic environmental assessment procedures, water protection and environmental damage. Pursuant to such decree, waste management is under the responsibility of all the involved subjects, such as producers, transporters and waste management sites' operators. This decree sets forth all the relevant rules concerning the waste management such as, for instance, documents for the transport, declaration of waste production, competent authorities, sanctions, etc.

Since 1995, the Italian Ministry for the Environment Land and Sea has implemented the “National System on Environmental Information, Training and Education” (INFEA). The aim is to raise public awareness and promote sustainable energy production and use among individuals and organizations, private companies and public authorities, professional and energy agencies, industry associations and NGOs. This objective is reached through the functional coordination of public structures and cooperation with public and private subjects, and with associations upholding research, trial and promotion in the field of environmental information and education.

Agenda 21, an action plan of the United Nations (UN) related to sustainable development, is a comprehensive blueprint of actions to be taken globally, nationally and locally by organizations of the UN, governments and major groups in every area in which humans directly affect the environment.

### 3. Policy measures at regional and local level

The Autonomous Region of Sardinia provided an operative program (POR) at regional level, carried out from 2007 until 2013, to manage strategic actions for the environmental, economic and socio-cultural sustainability.

The programme is divided in four specific sectors:

- **Energy:** specific actions carried out in order to use renewable energy, to manage energy conservation and to support the research in the renewable energy field in order to ameliorate the sustainable development.
- **Environment, natural and cultural attractiveness and tourism:** actions established for the environmental conservation addressed to the economic development, as well as to the soil protection, the management of waste production and water availability, the biodiversity valorization and the conservation of the SIC (Site of Community Importance).
- **Urban development:** actions established in order to adopt green building and green architecture standards; measures to increase the quality and environmental sustainability of products and urban services, and to improve urban environmental systems.

- **Competitiveness:** strategies addressed to SMEs to reach high levels of technological innovations; policies for the use of eco-products, systems to save water and energy and to reduce waste production, environmental certification and the creation of an environmental services consortium.

Programs and plans indicating guidelines for a sustainable development of the territory have been developed for each sector. Following the main plans of the operative program POR 2007-2013 concerning the environmental sphere:

- The **Sardinia Landscape Plan (PPR)** represents the first unitary Plan concerning the regional landscape and it is characterized by an innovative approach towards urban development and coastline. It is the first Landscape Plan that involves the whole regional territory in a single process of knowledge and management of strategic resources. The plan identifies 27 homogeneous areas, according to the landscape's components (landscape types, buildings, valuable or degraded areas, etc.) and sets specific quality targets for each area defining standards for urban development and new constructions, as well as for buildings renovation.
- The adoption of the **Regional Plan for Sustainable Tourism Development (P.R.S.T.S.)**, in 2007, demonstrates the government purpose to strengthen one of the most strategic sectors of Sardinian economy. The main strategy of the plan is to develop a "high quality tourism" based on the attractiveness of natural and cultural heritage, and supported by prices that distinguishes the region from those destinations characterized by strong tourism pressures and uncontrolled urbanization. The Plan also expresses the needs of specific management instruments in order to control the development and the transformation processes focusing on tourism. According with the EU guidelines on Carrying Capacity Assessment (CCA), the models to estimate Tourism Capacity have been selected as the most appropriate tools to evaluate the environmental sustainability of government decisions. The Plan is a general guidelines tool addressed to the tourist areas in Sardinia and it is implemented through local activities and projects managed by the different municipalities. In Castelsardo, such projects focus on more qualified and differentiated tourism offer to meet tourists and yachtsmen needs through a better sleeping accommodation capacity and a higher quality of services.
- The **Hydro-geological system Plan (P.A.I.)** is a planning tool for soil conservation and aims to ensure adequate levels of security and protection from geological events and to develop interventions in order to reduce risk conditions. The plan identifies four classes of landslide and plumbing risk on the territory defining for each one the guidelines for protective measures, actions of structural risk mitigations and an estimation of the necessary costs.
- The **Forestry Environmental Regional Plan (P.F.A.R)** related to the regional forestry identifies 25 districts characterized by physical affinities, similar vegetation, natural and cultural identities. The plan provides a detailed operative planning at regional, local and department level.
- The **Water Protection Plan aims to (P.T.A.)** has been formulated in order to protect and conserve water resources and water demands connected with the development of productive and tourism activities. The plan aims to achieve the balance between water needs and availability: conservation measures, energy saving, recycling and reuse of water resources through infrastructure measures, in order to mitigate the impacts on environmental ecosystems.

In the last five years, Sardinian regional government has speed up the implementation of sustainable development policies. An articulated strategy, taking into account landscape planning, natural resources planning and management, have already shown its first results especially in waste management and in containing the "irrational" building of coastal areas of the late 90's. Once approved, the Regional Plan for Sustainable Tourism has not been followed by a real implementation. Sustainable tourism strategies are not yet unframed under a regional coordination. Local initiatives are mostly autonomous and often contradictory compared to other regional policies.

More coordination is needed and just recently, in the end of 2010, the organization of a regional meeting of tourism stakeholders in Sardinia (Stati Generali del Turismo) have represented a concrete step toward regional integrated strategy for tourism development.

At the same time, the local administrations showed a higher awareness of the real territorial condition, its potentials and its problems in all sectors.

All these things represent a big step forward for an island like Sardinia, where relation between tourism and environmental protection is so important and where there is a strong necessity of new management philosophies that combines tourists' desires and their needs with the safeness of the environmental and cultural heritage.

The next step should probably happen at local level. Starting from the indications of these plans, the municipalities must adopt a long-term strategic planning and calibrated it on the effective needs of the community. If at regional level the sustainable planning practice has considerably increased over the last years, the municipalities are still far from the implementation of these strategies and after years many municipalities, including Castelsardo, have not provided yet a urban or a tourism plan.

In this context, the European Eco-label for tourist accommodation service can be a helpful tool for raising the environmental quality of tourism. In order to improve the sustainability of Sardinian tourism structures, and to increase the small number of eco-labeling enterprises, the Regional Administration, along with 11 other partners, joined the project Shmile –“Sustainable Hotels in Mediterranean Islands and Area”, a demonstrative project aimed at promoting Europe-wide label.

#### 4. Protected areas

In Castelsardo there are no protected areas or monuments.

#### 5. Environmental quality systems

Nowadays, the whole municipal territory is missing an environmental monitoring system. There are no non-government organizations and environmental information centres.

Recently, the beach “Spiaggia di Ampurias”, located in the southern coast of Castelsardo, received the Blue Flag accreditation, together with other five Sardinian beaches. It's important to notice that all the Sardinian beaches that applied to the accreditation got the Blue Flag. Notwithstanding, the Blue Flag mechanism is still not widespread in Sardinia as in other Italian destinations due to several reasons. First of all, because the accreditation is expensive for the municipalities since they have to do at least two samples per month on bathing water (not necessary according to Italian law). Secondly, because the evaluation basically regards services and beaches' safety, environmental management and environmental education rather than environmental and nature quality, which is usually considered the most important parameter. And lastly, the fact that the accreditation is voluntary reduces the interest of municipalities which prefer other types of accreditations that evaluate the entire coast.

As a matter of fact, Sardinian beaches are so far considered the most beautiful and attractive in Italy. According to another Italian accreditation called “Goletta verde”, conducted by Lega Ambiente and Touring Club, Sardinia is the best Italian region for bathing water quality, landscapes and beaches, for the promotion and preservation of the environment and the implementation of sustainability policies.

The classification is based on the number of Blue Sails, assigned by Lega Ambiente to the Italian coastal municipalities. Five Sails is the highest award. Among 295 Italian destinations that got the blue sails, 35 destinations are located in Sardinia, 3 of them reached Five Sails and other 11, got Four Sails and 22 destinations, including Castelsardo, got Three Sails.

**Table 12 – Environmental centre**

Environmental monitoring system	Environmental Information Centres	Number of NGO	Existence of spatial planning & management system
NO	NO	0	YES

Source: Municipality

Regarding the existence of a spatial planning and a management system, we can mention the Strategic Plan called “Castelsardo nel 2020”. This strategic plan has been written in 2003/2004 by large stakeholder groups from the Municipality of Castelsardo. The goal of the programme was, and continues to be, to develop strategic action plans that will have an impact in the restructuring of local economic development policies at municipal level. A special sector of the programme is related to the development of the tourism system that aims at reaching four strategic objectives:

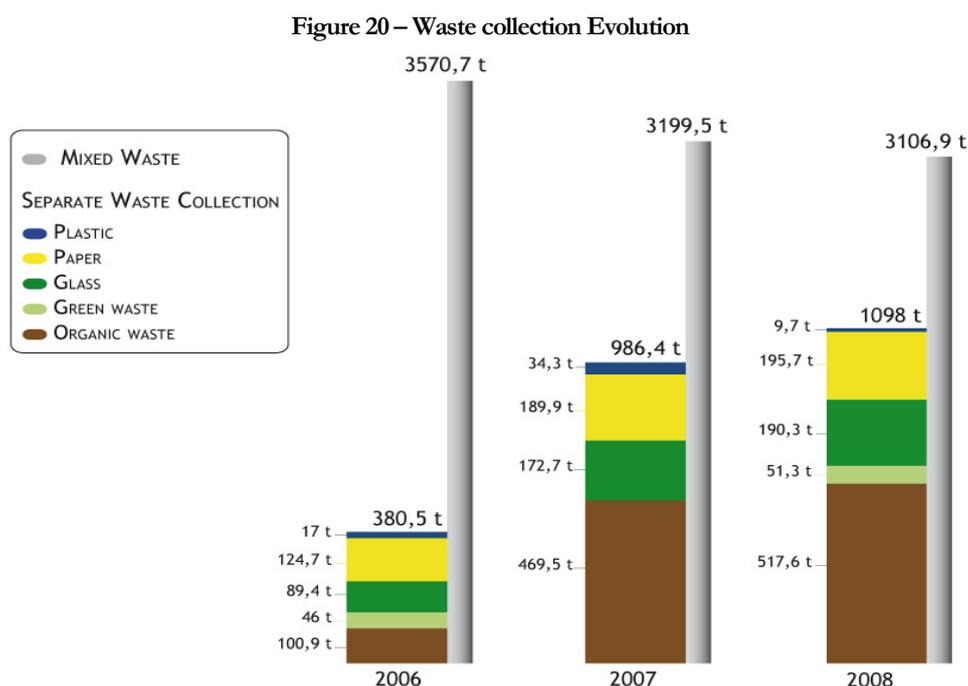
- 1) urban renewal of the old town centre in order to strengthen the importance of the Medieval Village;
- 2) development of economic activities linked to fishing, handcraft and all related products;
- 3) increase the value of the marina;
- 4) definition of an “environmental rating” of the city and classification of its role in a large system (included the Asinara Marine Protected Area and the Province of Sassari) in order to develop marketing strategies and activities linked to sea sports and sports in open space, as well as to the local culture.

## 6. Treatment of solid wastes

Sardinia, in recent years, has been almost the only region in the central and southern Italy to make significant progresses in integrated waste management, trying to reach the objective set by the Italian and European legislation. The increase of recycling percentage has been possible thanks to the wide diffusion of the separate collection, accelerated by policies of bonus and penalties introduced by Sardinian government to penalize disposal by landfills and incentivize recycling programs. Despite this virtuosity at regional level, Castelsardo is not an efficient municipality in waste management practices.

Looking at the Figure 20, we can see that in 2006 the quantity of mixed waste is high despite the introduction of separate collection. The share of mixed waste decreased a little bit in 2007 and 2008, while the recycling percentage increased. In 2007 and 2008, organic waste collection increased compared to 2006, while paper waste percentage is more or less the same. Plastic collection increased in 2007 and decreased in 2008. Glass collection increased in 2007 and keeps the same percentage in 2008. In 2007 we don't have any data regarding green waste collection.

The production of waste in Castelsardo is generally too high, probably because the Municipality didn't raise the awareness of the population regarding the importance of the waste management practices for the environmental endurableness.



Source: ARPAS – Graphic elaboration: authors

## VI. Systemic analysis of the tourism destination

### 1. Introduction

The specific objective of the systemic analysis is to frame roles, influences and interactions of external and internal actors of the tourism destination. With respect to the lack of direct knowledge, a specific survey has been carried out during summer 2010 and the main outputs are presented in this report.

To complete the study, a SWOT analysis approach has been chosen. The main outputs of the research will be explained through strengths, weaknesses, opportunities and threats.

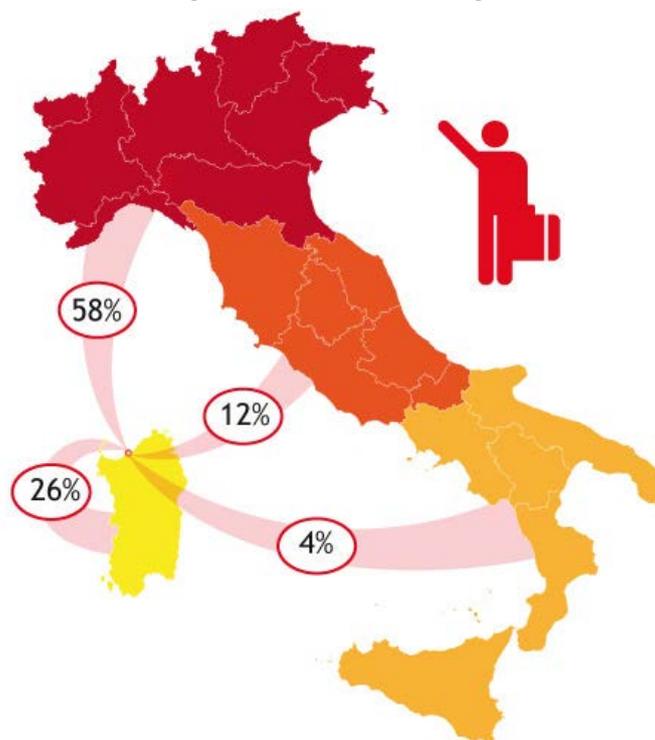
### 2. The role of external actors: tourists

This section describes the results of the tourist survey conducted on a sample of 150 tourists in the Municipality of Castelsardo. This activity aimed to collect direct information in order to describe the current Castelsardo tourism system framework.

#### 2.1. Tourists' survey

The following data describe the characteristics of the average tourist interviewed.

Figure 21 – Italian tourists' origin

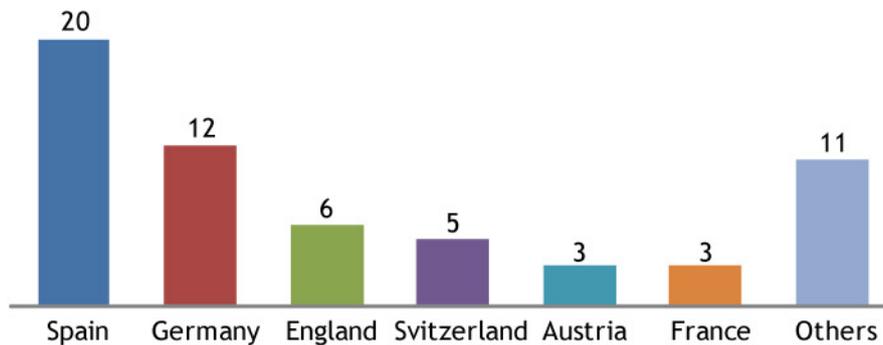


Source: questionnaires – Graphic elaboration: authors

Regarding tourists nationality, Castelsardo traditionally attracts Italian people coming from the rest of Sardinia or Italy, especially during the high season. In fact, the interviewees sample shows that 60% of tourists in the destination are Italian and they mainly come from north of Italy.

Despite the high percentage of Italian tourists, in recent years foreign travelers are gaining ground. Spanish tourists are on the top (33%), followed by tourists from Germany and England (respectively 20% and 10%).

Figure 22 – Foreign tourists' origin

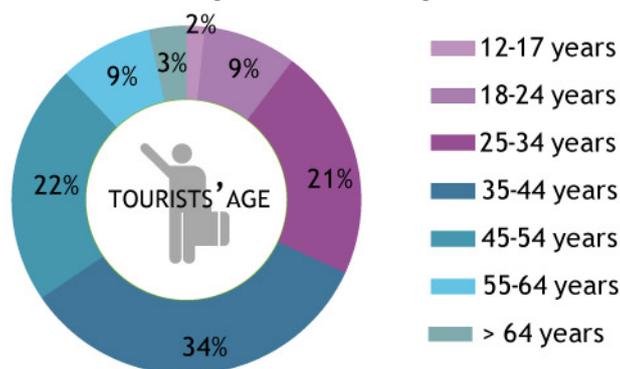


Source: questionnaires – Graphic elaboration: authors

The natural and cultural resources of Castelsardo are the main attractions of the town, with its historic architecture, handicrafts, wine and gastronomic traditions, its beaches, itineraries in woodlands shrubs and natural parks.

The destination is attractive for different categories of tourists.

Figure 23 – Tourists' age

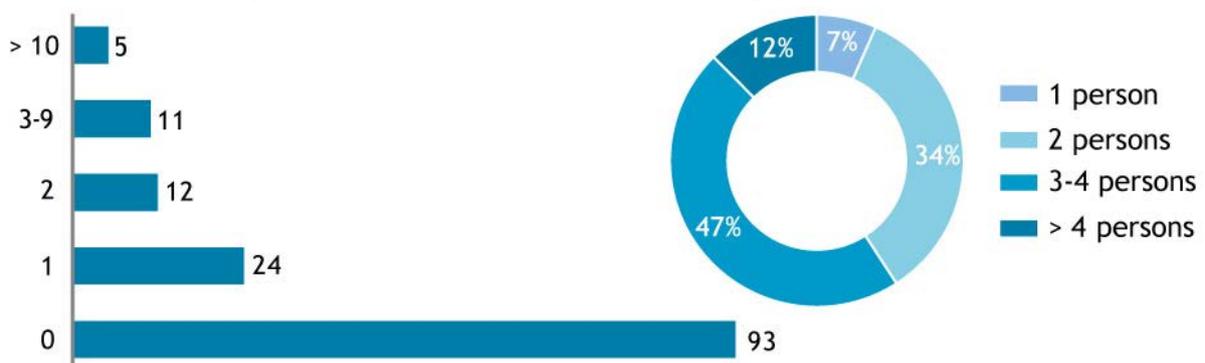


Source: questionnaires – Graphic elaboration: authors

Considering the age profile, as we can see from the Figure 23, 34 % of interviewees are aged between 35 and 44. We have the same percentage of tourists aged between 24-34 and 45-54 (21%), while the youngest and the oldest tourists are the lowest percentage in our survey.

The majority of interviewees (64%) were visiting the location for the first time. A total of 24 tourists, which means 17% of the sample, went back to Castelsardo for the second time while 8% of tourists have been in the village more than 2 times. Only 11% are affectionate tourists and have been in this destination more than 3 times.

Figure 24 – N° of times in Castelsardo and travelling groups' composition

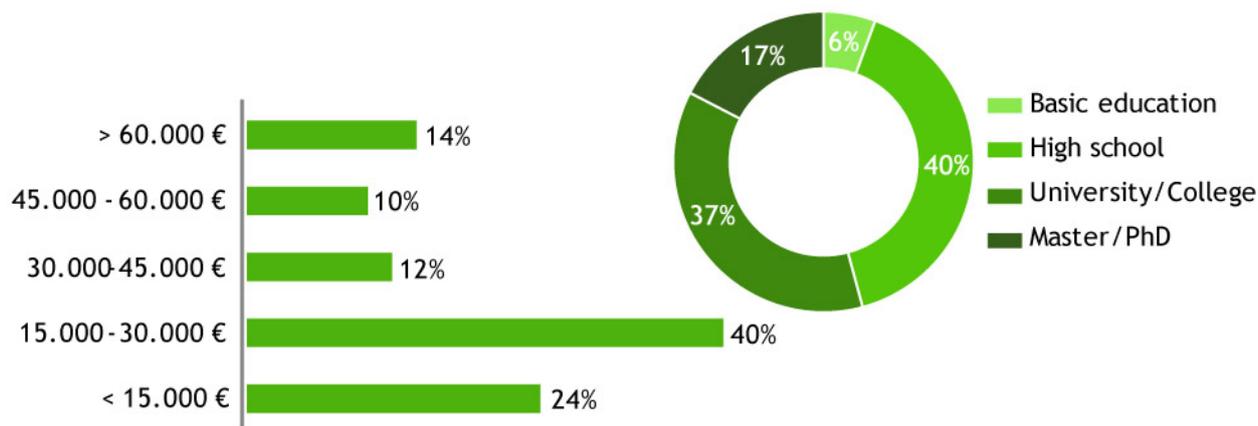


Source: questionnaires – Graphic elaboration: authors

On the Figure 24, the graph on the right shows another important information: Castelsardo is not a destination for individual travellers (only 7%). In fact, travellers are moving mostly in pairs or small family groups of maximum 4 components. Only 12% of the sample travels in groups of more than 4 people.

The survey confirms, as expected, that the type of tourists who preferred Castelsardo as a destination for their holidays are medium budget tourists; 40% of respondents have an annual income between 15 and 30 thousands euro per year, while 24% earn less than 15 thousands euro per year. The majority of tourists have a high school education, followed by a university education. Only 17% have a Master degree or a PhD. Considering the low percentage of tourists aged between 12 and 17 years, only 6% of tourists have a basic education.

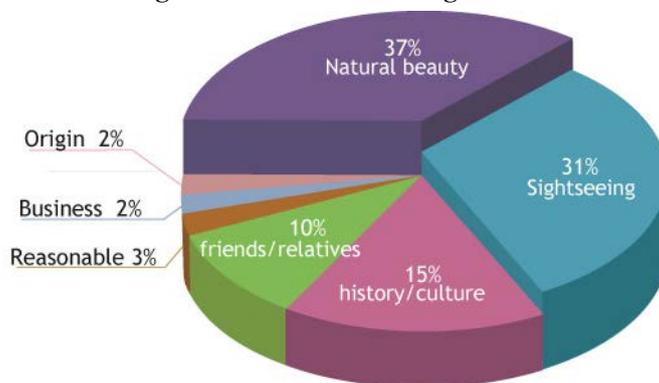
Figure 25 – Tourists’ income and tourists’ educational level



Source: questionnaires – Graphic elaboration: authors

The Figure 26 shows different reasons to choose Castelsardo as a touristic destination.

Figure 26 – Reasons for visiting the area

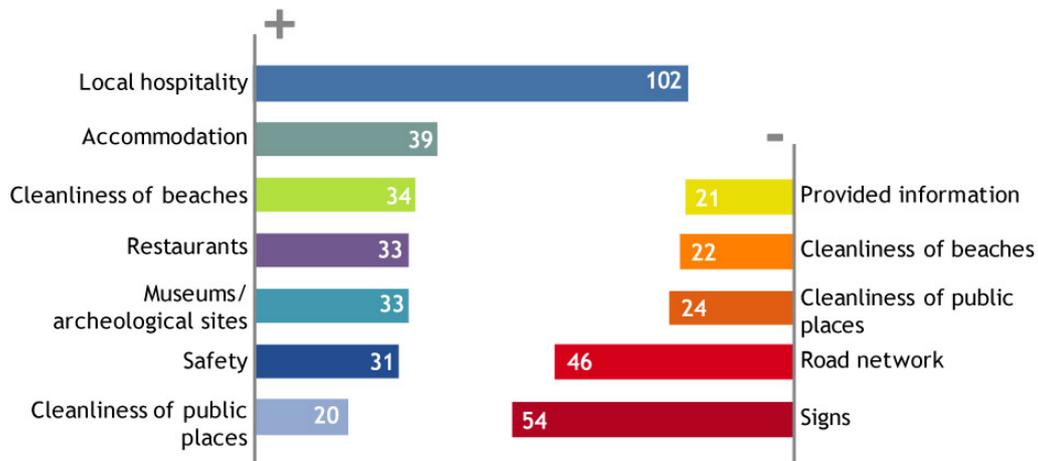


Source: questionnaires – Graphic elaboration: authors

Basically, the main reasons for choosing Castelsardo are connected with environment and landscape. In fact, the first reason is its natural beauty and the second one is the sightseeing of the place. Around 15% chose Castelsardo for its history and culture, while 10% visit their friends and relatives. A small percentage of tourists chose Castelsardo for business and it probably depends on the fact that interviews were done over summer.

In order to formulate strategic tourism plans, it's important to analyze the tourist feedback about the experience. For this reason, one of the final questions asked in the questionnaire was about the level of satisfaction and dissatisfaction of the trip; interviews were asked to express a maximum of three choices on both aspects.

Figure 27 – Tourists' level of satisfaction and dissatisfaction



Source: questionnaires – Graphic elaboration: authors

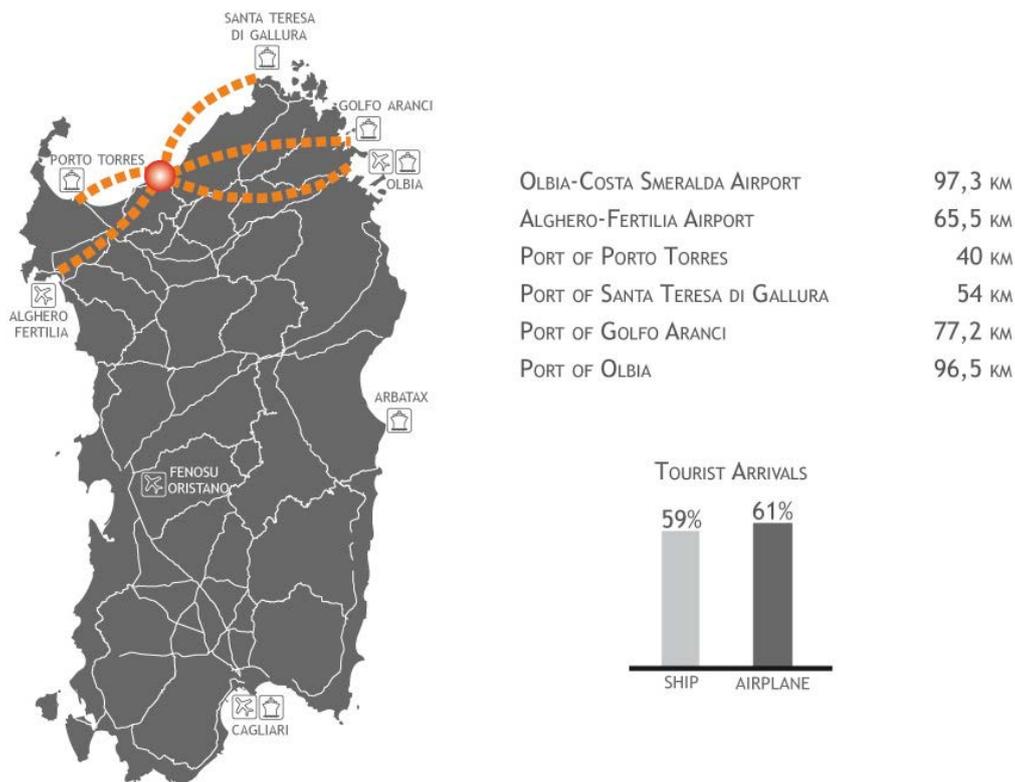
By the total number of votes, we can clearly see that the majority of respondents were very satisfied with their experiences.

The local hospitality is the characteristic tourists appreciate the most and represents a sign of distinction; then there is the quality of accommodations followed by the cleanliness of beaches and sea, the quality of restaurants and the museums and archaeological sites.

Concerning the level of dissatisfaction, we can see that it is high when tourists classify signs and road network. With almost the same votes, cleanliness of public places and beaches and provided information are the aspects that interviewees like the least.

## 2.2. Transports

Figure 28 – Means of transports to reach Sardinia



Source: questionnaires – Graphic elaboration: authors

Survey conducted shows that 61% of tourists reached Sardinia by plane, while 59% by ferry.

Castelsardo is located in the north of Sardinia and can be easily reached by plane or ferries. The area is well served with 2 airports and 4 ports.

The Alghero Fertilia airport, managed by the company SO.GE.A.AL, is about 65 km from Castelsardo. It is very famous for its international flights that are not expensive thanks to the low cost companies based in it. There are bus connections between the airport and Castelsardo. The following list shows the national and international airlines and the names of companies that fly to and from Alghero. Some flights are seasonal.

- **National flights**

- Ancona (Ryan Air)
- Bari (Ryan Air)
- Bergamo (Ryan Air, Travel Service)
- Bologna (Air One)
- Brescia (Ryan Air)
- Genova (Ryan Air)
- Milano Linate (Air One)
- Milano Malpensa (ItAli airlines)
- Parma (Ryan Air)
- Pisa (Ryan Air)
- Roma Ciampino (Ryan Air)
- Roma Fiumicino (Air One)
- Torino (Air One)
- Treviso (Ryan Air)
- Venezia (Air Dolomiti)
- Verona (Air Dolomiti, Seagle Air)

- **International flights**

- Billund (Ryan Air)
- Brema (Ryan Air)
- Bruxelles Charleroi (Ryan Air)
- Copenaghen (Tuifly)
- Dublino (Ryan Air)
- Dusseldorf (Ryan Air)
- Eindhoven (Ryan Air)
- Francoforte (Ryan Air)
- Graz (Ryan Air)
- Helsinki (Tuifly)
- Liverpool (Ryan Air)
- Londra Gatwick (Tuifly)
- Londra Stansted (Ryan Air)

- Lubecca (Ryan Air)
- Madrid (Ryan Air)
- Monaco Memmingen (Ryan Air)
- Oslo (Ryan Air)
- Parigi Beauvais (Ryan Air)
- Stoccolma (Ryan Air and Scandinavian airlines)

The Costa Smeralda airport in Olbia, managed by Geasar, is about 100 kilometers far from the town. Castelsardo is connected to the airport by daily coach and/or private transfers.

Regarding ferry connections, the port of Porto Torres is the closest one and it is only 40 km far from Castelsardo. It is the best connected port at national level. The following list shows how foreign tourists can reach this destination:

- **Porto Torres**

- Propriano – Marsiglia (La Mériidionale)
- Barcelona (Grimaldi Lines)
- Ajaccio (SNCM)
- Genova (Tirrenia, Moby Lines)
- Civitavecchia (Grimaldi Lines)

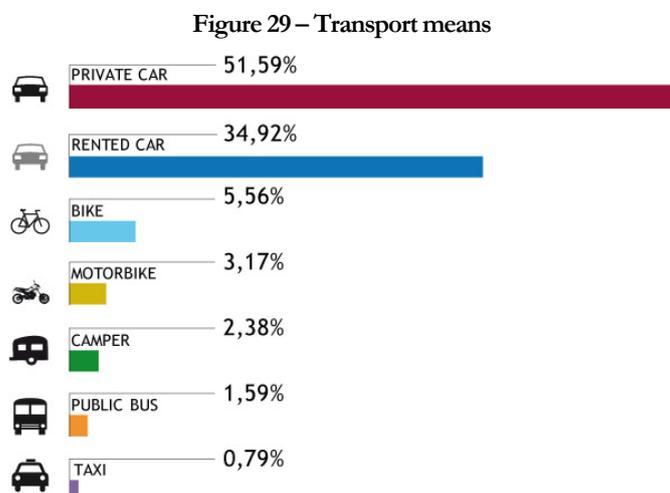
Port of Santa Teresa di Gallura is 54 km far from Castelsardo but is connected only to Napoli and Bonifacio.

Port of Golfo Aranci, 70 km far from Castelsardo, offers only national connections for the transport of passengers from and to Civitavecchia, Fiumicino, Livorno and Napoli. The navigation companies are Corsica-Sardinia Ferries and Dimaio Lines.

Port of Olbia is the farthest port and it is about 100km far from Castelsardo. It is connected to Genova, Civitavecchia, Livorno, Piombino and Arbatax.

### 2.3. How do tourists go around Castelsardo?

The tourist mobility within the area is an essential point to better understand the tourism development in the study area. Using the questionnaires, we have asked tourists what kind of means of transport they prefer to travel around Castelsardo and Sardinia. The result of the interviews is explained in the Figure 29.



Source: questionnaires – Graphic elaboration: authors

In the Figure 29, we see that more than 50% of tourists prefer using their own car to reach and visit the town of Castelsardo. Tourists who don't have their own car prefer to rent a car instead of using public transports. This means that Castelsardo doesn't have a good organization regarding public transports and it doesn't satisfy tourists' needs. In fact, questionnaires show that only 1,59% of tourists uses public transports, while only 0,79% uses taxis. We can also say that travel around Sardinia by public transports is not easy.

Due to its particular location on a hill, Castelsardo it is not easily reachable by bike; that's why only 5,56% of interviewed people choose this option.

### 3. SWOT Analysis and conclusions

The SWOT analysis intends to summarize the main findings of the report proposing recommendations and room for improvement.

#### *Strengths*

- The growing of tourism in Castelsardo not only affects hotels and restaurants, but it gives also an important support to the fisheries sector and the handicraft. The huge mass of tourists in the coastal areas generates, in fact, an additional demand for fishery products helps to promote an important traditional production sector and creates new jobs.
- Seaside medieval town.
- High quality of project management for the territorial development.
- High capacity in attracting structural funds for the requalification of the historical centre and for the development of nautical tourism.
- Strong endorsement of the Castelsardo policy makers in networking activities at regional and international level;
- Castelsardo belongs to a national and international touristic circuit promoting the area.

#### *Weaknesses*

- The lack of available statistics, despite the large number of sectors involved directly and indirectly in tourism, makes it difficult to assess the impact of tourism on the socio/economic situation.
- Tourism is basically related to beach and sea, which determines a concentration of tourism flows during summer time and especially during July and August; the short and strong seasonality obviously creates environmental problems and affects tourist sustainability.
- Lack of a valorization strategy addressed to the coast and the inland.
- Lack of a regional, national and international communication strategy.
- Concerning the environmental sphere, it is necessary to enhance the policies on waste management.

#### *Opportunities*

- The growing of cultural tourism demand at national and international level.
- The potential development of the marina.
- The variety of the area.
- National and regional funding for the urban system development.

- Local economic system focused on fishing and handicraft.
- The international airport of Alghero and the growing of low cost flights.
- The future development of the Asinara's island ecotourism and the role of Castelsardo as a crucial spot in the Gulf of Asinara;
- It is important to foster the marketing strategies in order to create and transmit a favourable image to potential tourists in target markets and, obviously, monitoring destination capacity in providing experiences that corresponds to the image expected by travellers.
- It is necessary to have an adequate road network to manage traffic flows in summer, appropriate connections with the closest ports and airports, an efficient and competitive public transport network able to reduce the necessity of private vehicles.
- Voluntary instruments are still necessary to improve environmental excellence and eco-efficiency, and to gain greater market visibility.
- It is necessary to improve local tourist policies, which means guarantee a qualified staff, operators with good knowledge of foreign languages, large choice of services focused on individual and family needs; clean and accessible spaces and other services able to accommodate tourists.

### *Threats*

- During the last decades, the lack of institutional organism and monitoring system on coastal planning generated a rapid escalation of disparate and divergent development strategies and territorial models. Only in the last few years, the government started to understand the necessity of new policies in order to control this phenomenon.
- Transport network appears as one of the biggest threat for the area in terms of connection with the main airports and ports, as well as the public transports within the destination.
- Tourism only related with beach and sea.
- Similarities with other destinations close to Castelsardo.
- A high percentage of the labor force working for building trade.

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