

Profile of Sustainability in some Mediterranean Tourist Destinations



Summary: the Tetouan coastal destination in Morocco
Based on a case study by Mohamed Berriane

Loïc Bourse
Final version

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Introduction

The case study on the Tetouan coastal area (Morocco) as a tourist destination by Mohamed Berriane is part of the Plan Bleu project on the “Profile of Sustainability in some Mediterranean Tourist Destinations”. The purpose is to measure and assess the impacts of tourism using an experimental methodology specified in the Mediterranean Strategy for Sustainable Development (MSSD), in other words, a methodology that accommodates environmental parameters alongside the social and economic parameters for the destinations being studied. A “sustainability profile” was drawn up using the DPSIR (Driver-Pressure-State-Impact-Response) approach in eleven tourist destinations¹ located in eight Mediterranean countries.

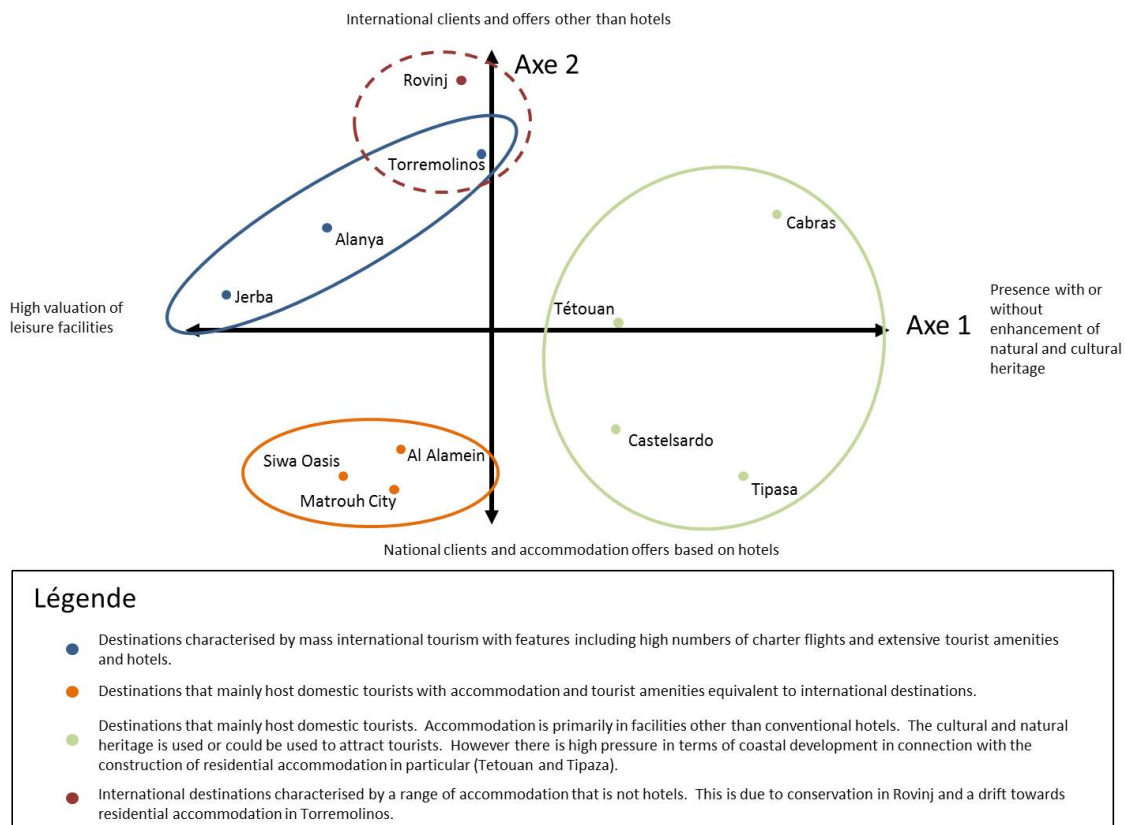
In the first stage, destination sustainability was studied using economic performance indicators, e.g. accommodation occupancy rate, and territorial, demographic and sociological indicators such as the effects of seasonality on employment, the income level of the local populations, the quality of the infrastructure and essential services, and the environmental indicators such as landscape degradation connected to coastal “artificialisation”. In the second stage, thought and discussion focused on the policy measures that could increase the destination’s sustainability. This systemic and territorial approach was used to study the destination, (which is the basic tourism unit), various scales (local, national and regional), and the many different players working in the area, all the while examining the relation between the Mediterranean tourism system and the other MSSD priority sectors such as water, transport, waste, energy, etc.

To decide which destinations to study, Plan Bleu imposed the following requirements: each destination had to incarnate a coastal administrative unit in the Mediterranean region, with significant international and/or national tourism activity, and a resident population, but had to be smaller than a big city. Using variables based on data from experts who prepared the case studies, the following typologies were proposed (Figure 1):

- The first type, international destinations that are well equipped with tourism infrastructure (Torremolinos, Alanya and Djerba), especially hotel accommodations, (often 4 and 5 star hotels), and recreational activities (thalassotherapy, marinas, golf, casino, etc.) that often rely heavily on tour operators. The main attraction of these mass tourist destinations, known as the 3S for “Sea, Sand and Sun”, are their seaside location, beaches and beach activities.
- The second type, the national destinations that are well equipped with tourism infrastructure (Al Alamein, Siwa Oasis and Marsa Matrouh) mainly offer 4 and 5 star hotel accommodations with high-quality recreational facilities (thalassotherapy centres, marinas, golf, casino, etc.) and many cultural, e.g. historical sites. The difference between these tourists and those in the preceding group is the origin: domestic demand vs. foreign tourists.
- The third type, national destinations with character (Cabras, Castelsardo, the Tetouan coast, Tipaza) refers to destinations whose national clientele are usually accommodated in places other than hotels, e.g. host families or residential lodgings, farmhouse inns, camping site, etc. These destinations are also known for their cultural and natural heritage (markets offering local products, natural parks, etc.), which attract tourists.
- The fourth type, destinations “in rejuvenation” (Rovinj in Croatia), mainly attract an international clientele. The tour operators play a major role and the tourists are usually accommodated in facilities other than hotels.

¹ Torremolinos (Spain), Castelsardo and Cabras (Sardinia, Italy), Rovinj (Croatia), Alanya (Turkey), Al Alamein, Marsa Matrouh and the Siwa Oasis (Egypt), Jerba (Tunisia), Tipaza (Algeria), and the Tetouan coast (Morocco).

Figure 1 - Graphic representation of types of tourism destinations studied



Source: Principal component analysis drawn up by Loïc Bourse using data produced by experts and processed by Ioannis Spilanis, 2011.

Explanatory guide: (also see Figure 16 in Annexes): Axes 1 and 2 account for 64% of the variance in information.

Axis 1 explains 39% of the information:

- on the right, it depicts tourism consumption composed of a domestic clientele that stays in facilities other than hotels (residential lodgings or campsites), is interested in cultural products (markets selling local products, sharing information on practices) and/or natural products (natural parks, protected areas, including marine sites);
- on the left, it depicts the international character of tourism consumption, characterised by charter flights (influence of tour operators), major tourism infrastructure and a large number of hotels in the administrative area;

Axis 2 explains 25% of the information:

- on the right, it depicts tourism consumption mainly composed of an international clientele and a type of non-hotel accommodation;
- on the left, it depicts tourism consumption with major tourism infrastructure, historical sites and essentially a domestic demand.

The Tetouan coastal area falls under the “mainly domestic clientele” type, a destination with an offer for non-hotel accommodation, important cultural and natural heritage sites and a mainly domestic demand. Since we lacked information on tourism consumption in terms of overnight stays, we were not able to place this destination in Butler’s Tourism Area Life Cycle (TALC) model (BUTLER 1980). However, using the qualitative data provided by Berriane, we were able to position the Tetouan coastal area in a development phase, as we did for other destinations of this type, e.g. Tipaza (Algeria) and Cabras and Castelsardo (Italy), although the tourism being developed in the Tetouan coastal destination is a special type. In the 1960s, the State encouraged the creation of a tourism product we can call beach activities for an international clientele. Despite the major investments made by the public authorities in this development plan (95% of the beds created during the 1965-1967 plan period were funded by the State), the international agencies ignored this destination for a decade (1973-1983). Towards the end of the 1980s, this destination was finally resuscitated, both in terms of number of guests and investment projects. The international clientele was replaced by a domestic clientele (23% in 1978, 38% at the beginning of the 1990s and 61% at present). The change in the clientele was accompanied by a change in the tourism products that attracted private sector investment. Instead of new hotels, residential lodgings were built (apartments, studios, villas, etc.). A historical dimension explains the special position of this destination in the principal components analysis since the dot representing the Tetouan coastal area is very close to Axis 1 thanks to the presence of amenities that are typical of international 3S destinations.

The case study summary, with reference to these observations and with focus on the sustainability profiles of this destination, is structured into three chapters – that cover the three major variables identified in the MSSD² (PLAN BLEU 2009), – that we use to develop various indicators (SPILANIS and VAYANNI 2011), namely:

- for the economic variable: the number of hotel beds, the number and size of the accommodations, the occupancy rate, the effects of seasonality and the earnings per bed;
- for the socio-territorial variable: population trends, the complete representation of tourism in relation to local employment and gender, the type of employment contract and the unemployment figures;
- for the environmental variable: consumption of natural and energy resources, solid waste and wastewater management, land tenure and biodiversity.

As a conclusion, we will cross these three variables to prepare a graphic representation and to evaluate the state of destination sustainability. We will then submit Berriane’s proposals for “policy measures” to improve the sustainability of the Tetouan coastal destination.

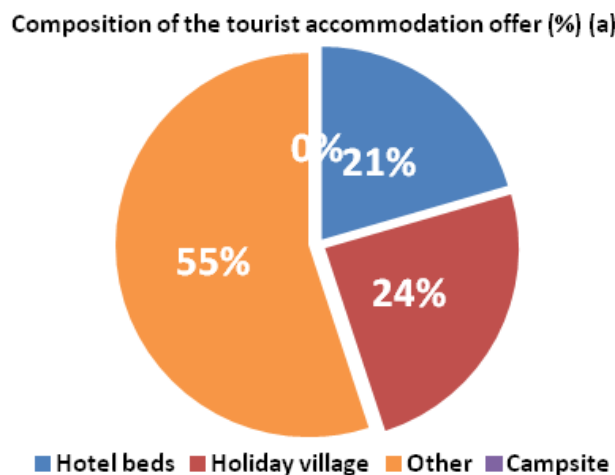
I. Tourism and economic development

To summarise the economic impacts and results of tourism on the Tetouan coastal destination, we will use data produced by Berriane and will focus on the evolution of the tourism product and tourism revenue.

1. Evolution of the tourist product and demand

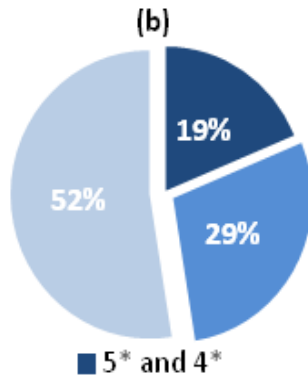
With regard to the evolution of the tourism product, in the first phase we will concentrate on the accommodation offer. Figure 2(a) is very clear: 55% of the “other” accommodation offer is “non-hotel”, 21% is in hotels and 24% is holiday villages. This “other” offer is largely composed of residential lodgings, i.e. 52% apartments and 17% villas (Figure 2 (c)). The hotel offer is mainly composed of inexpensive hotels (53%) plus a bottom-of-the-range offer (29%) and a high-end offer (18%) (Figure 2(b)). Trends for projects currently underway and in the planning stage are not expected to change in the coming years.

Figure 2 - Trends in the tourism accommodation offer for the Tetouan coastal area, based on the number of beds and places



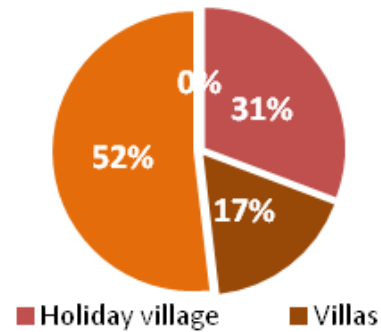
² The MSSD is composed of four axes: economic, social, environmental and governance. Since we do not have enough data to analyse the exercise of governance in the Tetouan coastal area, we decided to avoid all hypotheses which would reduce the relevance of the other elements in the sustainability profile analysis.

Changes in the hotel accommodation offer



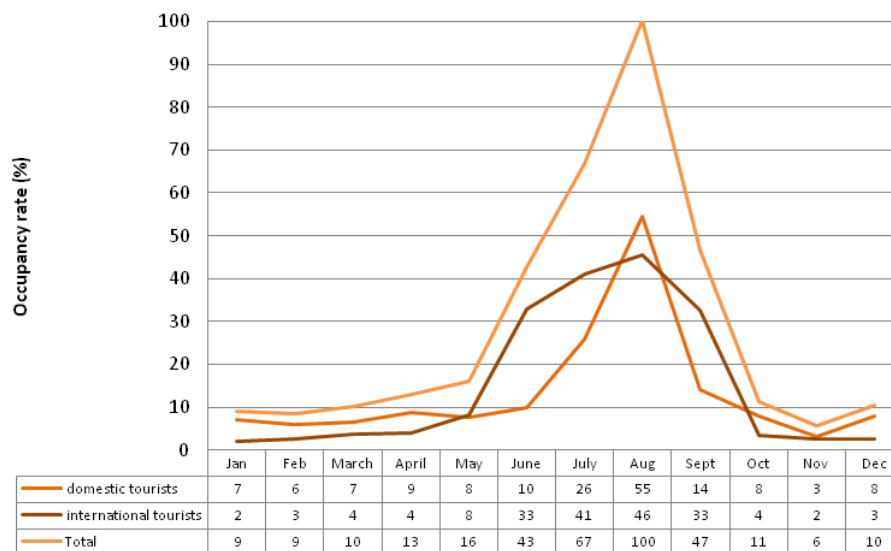
Source: Data provided by Berriane, 2011.

Changes in the accommodation offer other than hotels (c)



The mechanisms of the tourism demand will be considered via seasonality. The Tetouan coastal destination is open four months a year (June, July, August, September) with maximum occupancy in August (Figure 3). This means that certain stations such as Cabo Negro have to close down in the low season, and some of the Moroccan-run hotel complexes have to cut back. The holiday villages are closed from October to May. Figure 3 shows that the presence of foreign tourists in May and October affects this seasonal “spread”.

Figure 3 - Monthly occupancy rate in the Tetouan coastal destination

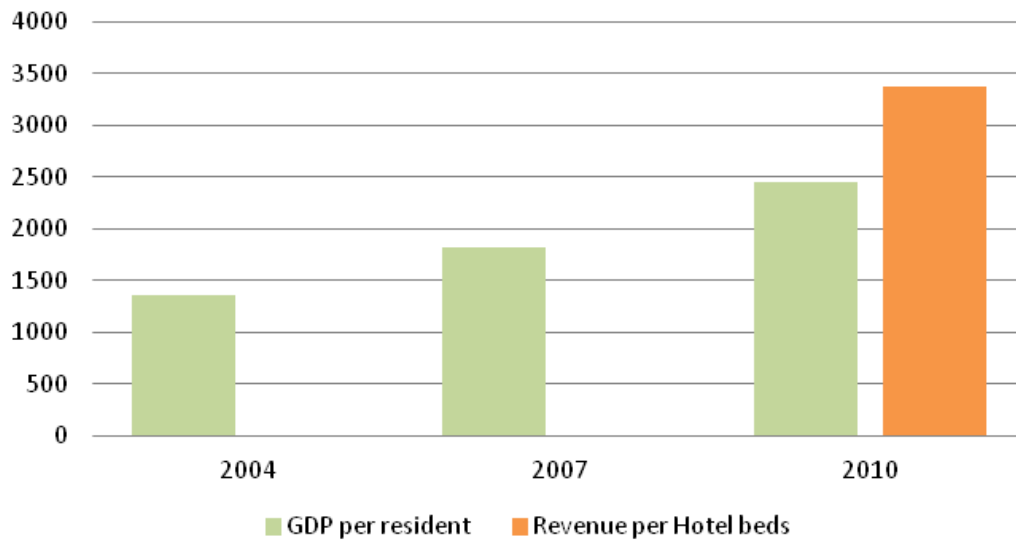


Source: Data provided by Berriane, 2011

2. Revenue from tourism

According to estimates provided by Berriane, revenue from tourism in 2008 amounted to 3,380 euros/bed in the hotel sector, which is the easiest sector to measure since the residential lodgings are more informal. This amounts to an average daily expenditure per tourist of about 71 euros. If we compare the level of wealth generated by the hotel sector with the per capita GDP (Figure 4) we see that the wealth generated by tourism is well above the per capita GDP (3,380 euros against 2,400 euros), which is indicative of a severe economic setback from this source of revenue.

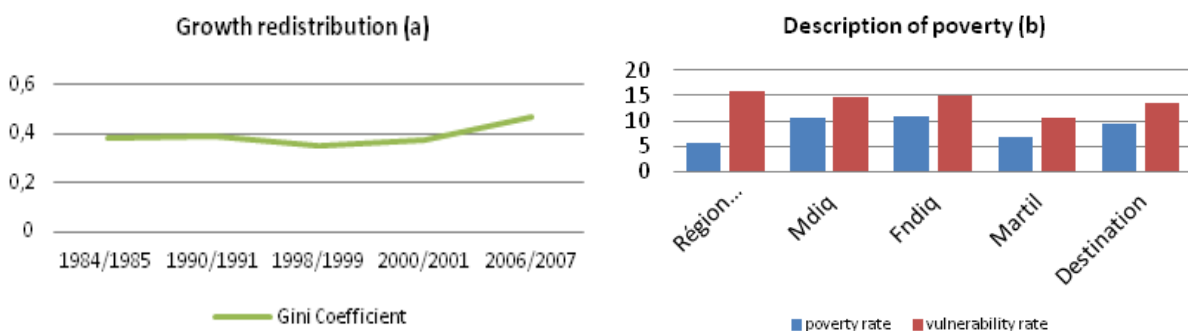
Figure 4 - Comparison of revenue (€) from tourism (2008)



Source: Data provided by Berriane, 2011

Actually, “a close look at the purchase centres for supplies (food, maintenance and artisanal products, laundry, etc.) provides information on the part of the money that is spent locally and the part that ‘escapes’ the region. Only 25% of the money spent by some of the holiday village type establishments that belong to national or international chains is used to buy vegetables, fruit and some of the eggs from wholesalers in Tetouan. All the other purchases are made from the wholesale suppliers in Casablanca. Some of these establishments even go to Agadir to buy fish! Small amounts of maintenance products are often bought in Tetouan and Tangiers. Laundry services are carried out within the establishments. The ones that belong to a national or international chain often use a central purchasing service that pools their orders and deals with one single suppliers for all the establishments, regardless of their geographic location. All the Club Med villages, for instance, order through their representative in Casablanca who buys locally and has the supplies delivered regularly” (BERRIANE 2011). This makes it very difficult to find evidence that the region benefits from the economic repercussions of tourism. Despite the growth of tourism alongside other economic activities, since the middle of the 1980s the income gap has become wider (Figure 5 (a)) and the poverty rate in the Tetouan coastal destination is higher than in the Tangiers-Tetouan region (Figure 5 (b)), according to data from the High Commission for Planning. It is important to nuance this assertion by explaining that the vulnerability rate is lower in this destination than in the region as a whole.

Figure 5 - Impacts of economic leakage on the redistribution of wealth

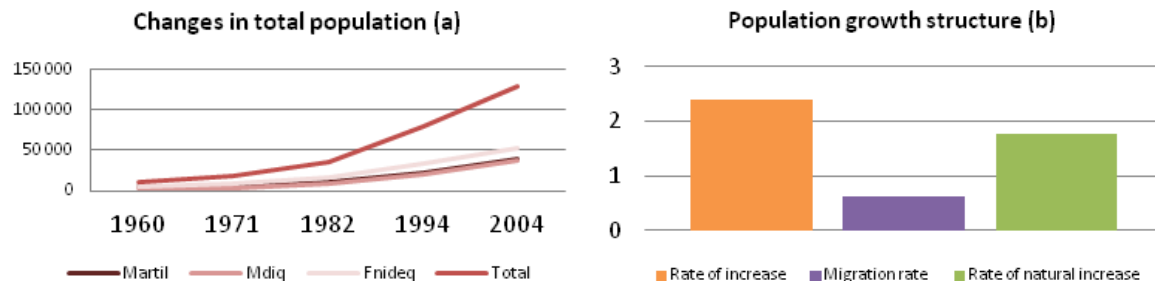


Source: the General Population and Habitat Census (RGPH) 2004 and the High Commission for Planning

II. Tourism and socio-territorial development

The population in the three Tetouan coastal sites form a destination that has enjoyed spectacular growth since the 1960s; the population has risen from 11,082 inhabitants in 1960 to 129,166 inhabitants in 2004 (Figure 6).

Figure 6 - Population growth in the Tetouan coastal destination

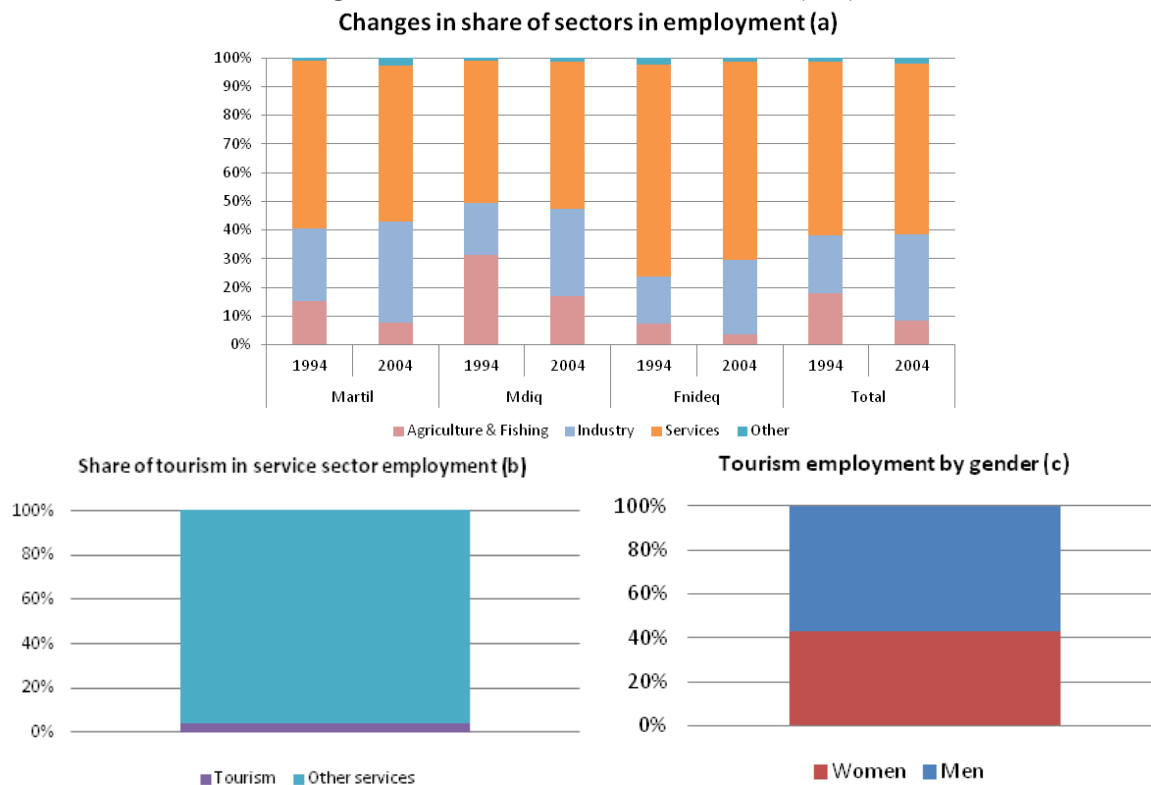


Source: Data provided by Berriane and the General Population and Habitat Census (RGPH) 2004.

Population dynamics are the result of a natural average increase of 1.77% and positive migration of 0.6%. Martil, M'diq and Fnideq, for instance, recorded the highest growth rates in the Tetouan *wilaya*, not only through natural population growth but also through internal migratory flows. For Martil and M'diq, this situation can be traced, in part, to tourism since the main coastal tourist stations are located in these administrative areas. In Fnideq, population figures have soared as a result of activities along the border, especially smuggling.

These observations are confirmed through an analysis of the labour market in the Tetouan destination where tourism only accounts for about 4% of the jobs in the tertiary sector, and most (about 60%) of the employees are men (Figure 7 (b)). Another important explanation for this situation is the significant growth in industry between 1994 and 2004 in the three sites: Matrtil, M'diq and Fnideq: 20% of the jobs in 1994, and 30% in 2004. As the area became more industrialised, the agricultural sector (-9%) and, to a lesser extent, the services sector (-1%) shrank (Figure 7 (a)).

Figure 7 - Tourism as a % of the labour market (2004).



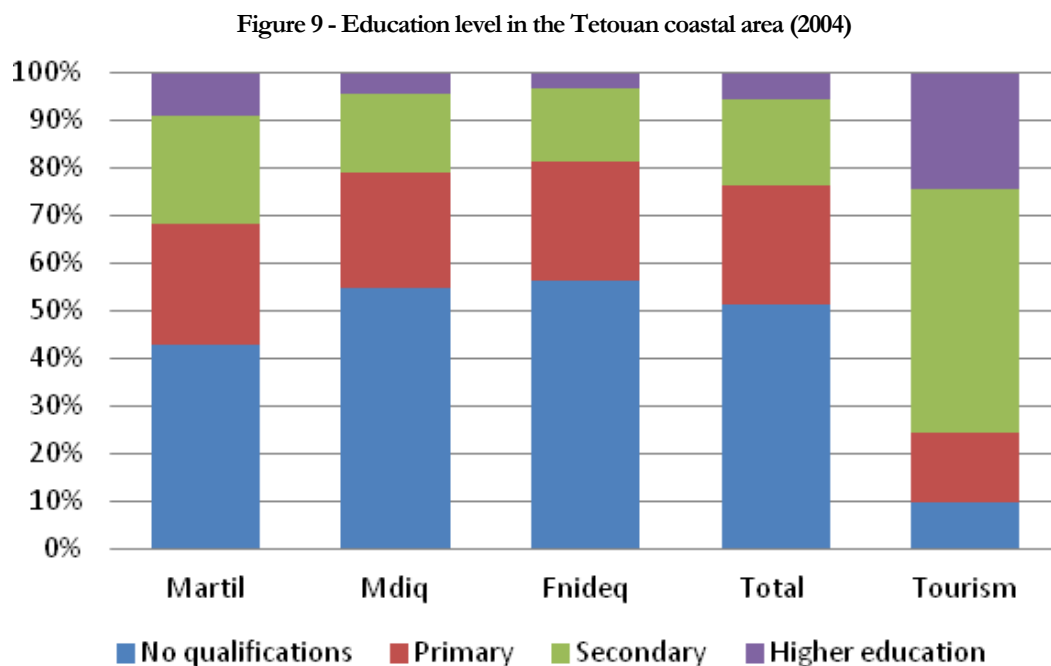
Source: Data provided by Berriane and the General Population and Habitat Census (RGPH) 2004.

Hence, this destination's economy does not depend on tourism. Has this situation led to certain stability in the labour market? Figure 8 supports the hypothesis that industrialisation has contributed to reducing the unemployment rate in this area between 1999 and 2010.



Source: Data provided by the Moroccan High Commission for Planning, 2011.

To understand tourism-related employment, two phenomena need closer attention: high seasonality and the recruitment of workers from outside the region and even the country. To reduce costs, tourist establishments prefer to hire low-skill local labour but, for the more highly qualified jobs, rotate the skilled employees they hire from outside the region to various tourist sites throughout the country or the Mediterranean basin, depending on the season. Figure 9 clearly shows that the qualification level of the Tetouan coastal area's residents is far below what the tourism sector requires, which means that the sector is hiring people with little training at low salaries. These low-skill workers only find jobs during the tourism season and become very dependent on the sector. International chains such as ClubMed, for instance, hire staff from France or elsewhere in Europe for the managerial duties and only hire local Moroccan seasonal employees for menial tasks. Tourism, thus, has little effect on job creation for the local workers.



Source: Data provided by Berriane and the General Population and Habitat Census (RGPH) 2004.

III. Tourism and environment

The following assertions are based on the indicators used to study the economic and socio-territorial variables:

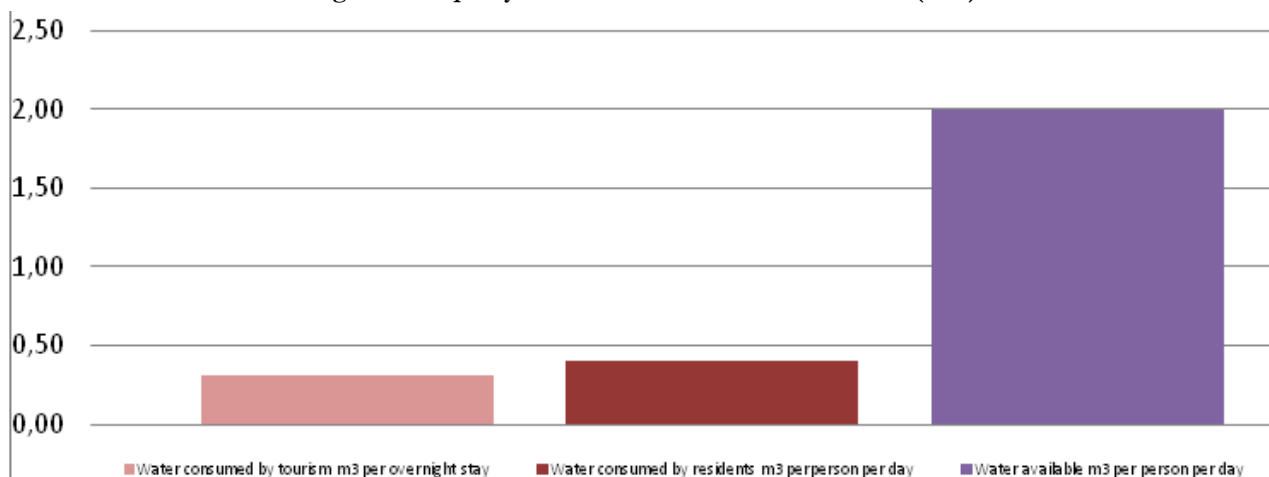
- the population doubles in the summertime;
- the land is subjected to heavy pressure because of the construction of residential accommodations;
- the total population living in the Tetouan coastal destination has risen.

This situation leads to questions on the effects of tourism on the environment via three components: the consumption of water and energy resources and the production and management of solid waste and wastewater; land used for tourism; and the state of biodiversity in this destination.

1. Water and energy consumption, the production and management of solid waste and wastewater

Water supply to the Tetouan coastal area is not a problem since considerable resources are available to meet the needs of tourism and the resident population (Figure 10). Water consumption for tourism is estimated at an average 0.32 m³/night spent and for the local population, 0.41 m³/day/inhabitant while the water supply potential is close to 2 m³/day/inhabitant. In other words, even if tourism increases the water consumption rate during the – water-short – summer period, the supply of water will not be a problem before the year 2030. The main problem is water quality since the development of construction work, especially residential accommodations, is harmful to the quality of both the groundwater aquifers and the surface waters.

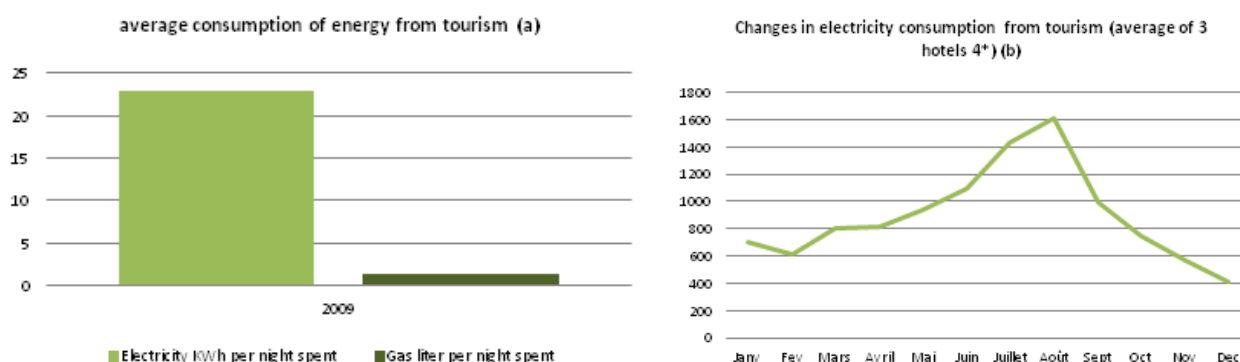
Figure 10 - Capacity to meet the water demand for tourism (2009)



Source: Data provided by Berriane, 2011.

Energy consumption: the fast growth in energy consumption for tourism and the other sectors of the Moroccan economy makes it difficult to project usage levels. Electricity is not only needed for lighting, but also for air conditioning (warm and cold), heating water, cooking and the whole cold storage chain. According to estimates reported by Berriane, the average energy consumption in the hotels is 23 kWh/night spent and 1.3 litres of gas per night spent (Figure 11 (a)). Similar to the water sector, energy consumption reaches a peak in the summer, which is the main tourism season (Figure 11 (b)). To quote Berriane, the problem is not the quantity of water consumed for tourism, “but the way in which these resources are consumed”.

Figure 11 - Energy consumption for tourism in the Tetouan coastal area



Source: Data provided by Berriane, 2011.

The sustainability of the Tetouan coastal destination is threatened by leaks and wastage due to inefficiency that can be traced to the non-application of water conservation and energy eco-efficiency principles.

The production of solid waste is managed in the same way as in the rest of Morocco. Because collection schedules are sometimes irregular, garbage cans accumulate at the entrance to the hotels and lead to public health problems. The problems are aggravated by the uncontrolled dumping of garbage that can pollute the groundwater tables and the water courses. The waste, estimated 0.73 kg per tourist per day in 2009, (**Erreur ! Source du renvoi introuvable.**) is collected by the Tetouan municipal services and transported to its main landfill without treating any of it.

Supplying water was not a major problem, but the production of wastewater is a very serious one. Although wastewater production in the tourism sector has reached 1372 m³/day, (**Erreur ! Source du renvoi introuvable.**), M'diq has the only water purification plant. This mean that unprocessed wastewater is poured directly into the sea from the Martil and Fnideq stations and is only pre-processed in M'diq before being poured in the Smir lagoon. The capacity of the M'diq purification station is highly insufficient. The station was built to treat the wastewater produced by 5,000 inhabitants while the population in the summertime is between 20 and 25,000.

Table 1 - Natural resources consumption and waste production in the Tetouan coastal area

	Unit	Value
Water (2009)	m ³ /night spent	0.32
Average consumption of electricity (2009)	kWh/night spent	23
Waste production (2008)	kg/tourist/day	0.73
Wastewater production (2009)	m ³ /day	1372

Source: Data provided by Berriane, 2011.

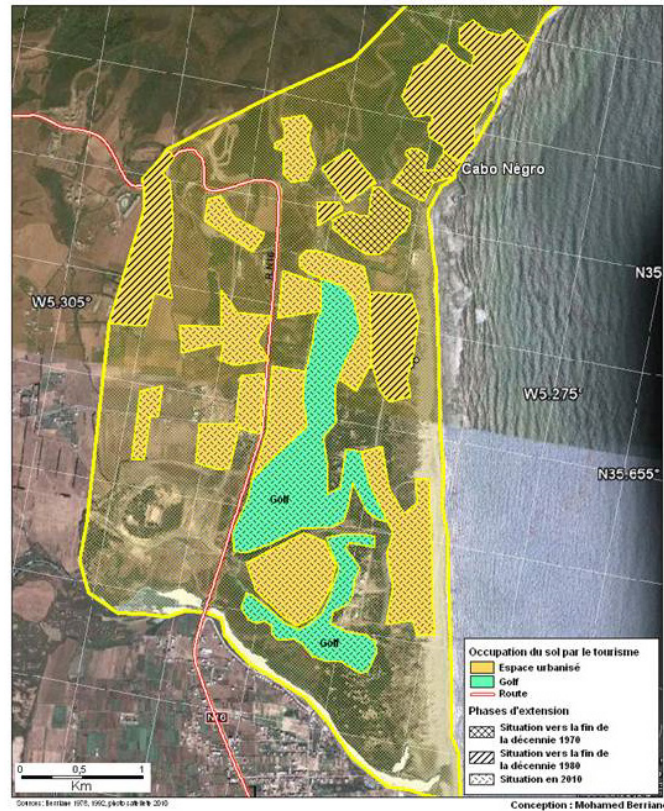
2. Pressure from tourism on the land

Pressure on the land is the greatest threat from tourism to the environment. Surface areas and landscapes have qualities that are important for tourism which, with an eye on the seashore, has taken over large swathes of the coast areas. The result is accelerated *hardening* of the coastal area.

To measure the impacts of tourism on real estate, Berriane compared the tourism infrastructure at three different dates: 1978, 1992 and 2010. He studied two parts of the coastal area: the coastal strip between Martil and Cabo Negro in the southern part (Figure 12 top) and the coastal strip between M'diq and Fnideq in the northern part (Figure 12 bottom). The results are telling. In Martil, the urban sprawl along the coast and now more inland accounts for 41.5% of the land area consumed by tourism. Urbanisation occurred mainly in the 1990s and the first decade of 2000 through major projects that were structured around a golf course and residential accommodations, i.e. villas. Saturation, connected to the “artificialisation” of the southern part of the destination’s coastline led to an increase in the projects along the northern coastline, which was already saturated. Only 12.5% of the natural coastline still exists. Tourist installations have

“crossed the main road” and are being built closer to the freeway. At least the northern slopes of Koudiat Taifour are still just about intact and free of construction. But even in this area of natural beauty, plans are being made to build 156 villas and an upscale hotel.

Figure 12 - Land occupied by tourism infrastructure in the Tetouan coastal area



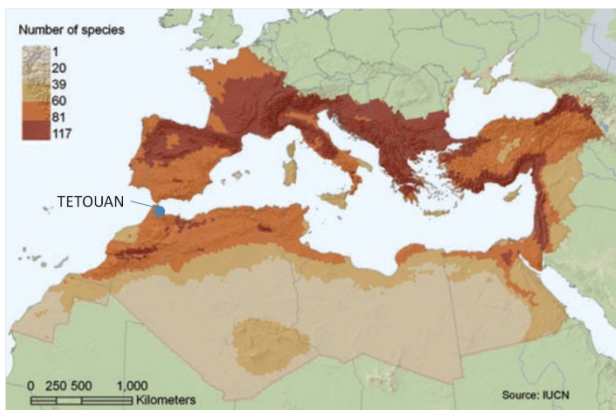
Source: Map produced by Berriane, 2011

3. The state of biodiversity

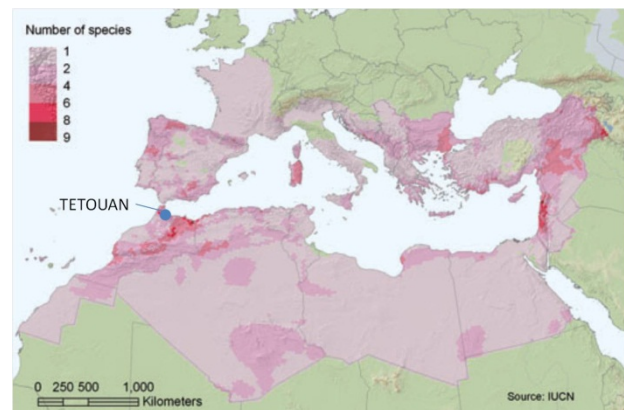
The Tetouan coastal destination is located in a site rich in of land animal species; some are endangered (Figure 13 (a) and (b)). The northern slopes of the Cap are home to colonies of yellow-legged gulls, peregrine falcons, rock pigeons, and blue rock thrush that are being threatened by the “Koudiat Taifour tourism and residential accommodation” project, which might wipe out the last natural land areas, even the farmlands, and destroy the habitats for species conservation. Further, replacing the wetlands located in the drought-stricken region with infrastructure, hotel projects and residential housing would hasten the demise of a habitat for migratory bird species such as the Ardeidae, Anatidae, Rallidae and the Sparrow species as well as endemic species such as the Marsh Owl *Asio capensis*, the Moustached Warbler *Acrocephalus melanopogon*, and the Reed Bunting *Emberiza schoeniclus*. The site has never been recognised as an internationally important wetland. Despite several proposals to delineate a protected area, the site has never been classified. The marine environment does not seem to have great biodiversity, according to IUCN (Figure 13 (c) and (d)). Furthermore, ever-more intensive fishing thwarts any hopes for protecting even a part of the marine area. Intensified fishing is made worse by the harvesting techniques e.g. the use of explosives, which are disproportionate to both needs and results. The *Office National des Pêches* in M'diq, however, has taken some steps like prohibiting the use of drift nets. But much still needs to be done.

Figure 13 - Geographic representation of the Tetouan coastal destination in relation to the location of biodiversity in the Mediterranean as defined by IUCN (CUTTELOD *et al* 2008)

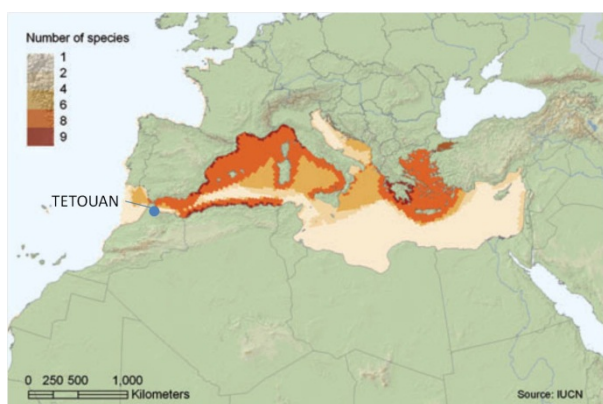
a - Species richness of terrestrial amphibians, mammals, reptiles and ladybugs in the Mediterranean Basin



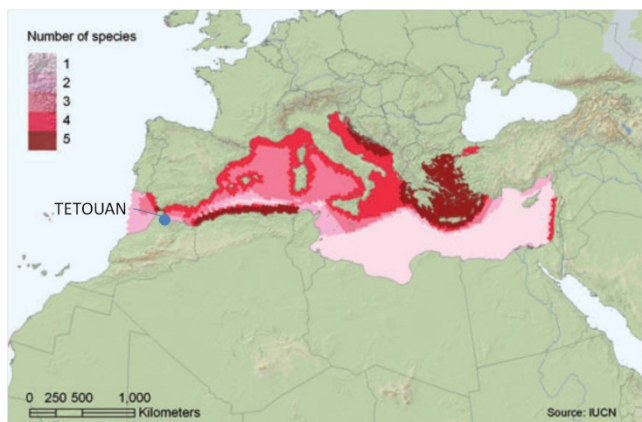
b - Species richness of threatened terrestrial amphibians, mammals, reptiles and ladybugs in the Mediterranean basin



c - Species richness of marine mammal species in the Mediterranean Sea.



d - Species richness of threatened marine mammal species in the Mediterranean Sea



Source: CUTTELOD, A. *et al.*, 2008. The Mediterranean: a Biodiversity Hotspot under Threat. The IUCN Red List of Threatened Species.

Conclusion

To summarise the results on the sustainability of the Tetouan coastal destination, we compared it with other destinations in the “Profile of Sustainability in some Mediterranean Tourist Destinations” by analysing a principal component that identifies the state of sustainability of each of the destinations in relation to the average and the standard deviation (the mean value between the largest and the smallest value) for all the sites studied and for each indicator selected. The indicators were all part of the economic, socio-territorial and environmental variables identified by the MSSD:

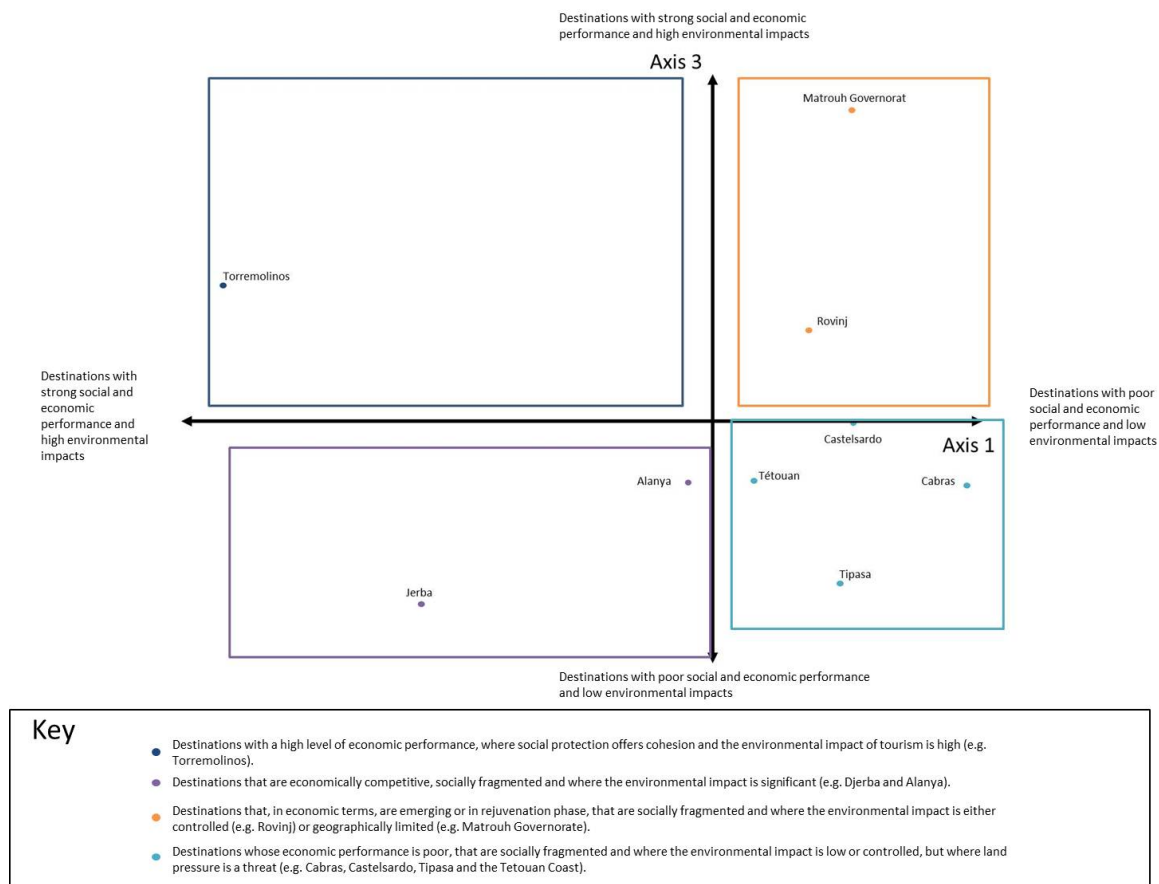
- for the economic variable: monthly occupancy rate, seasonality, earnings per bed in euros and money spent by the tourists;
- for the socio-territorial variable: population increases, migration rate, number of tourism-related jobs per number of beds available, overall unemployment rate, life expectancy, and number of individuals under 15 years of age and over 65 years of age in the total population (percentage of population that is dependent);
- for the environmental variable: water consumption for tourism expressed in cubic meters in relation to nights spent, amount of land area devoted to tourist infrastructure, daily production of wastewater expressed in cubic meters per tourist, and production of waste per tourist expressed in kilograms.

Considering the structure of the summary paper, we decided that the principal component analysis (PCA) should not include information on the exercise of governance at any level i.e. international, national or local. We felt that this variable gave considerable weight to a dimension that explained the economic, social, and environmental results obtained for the destinations, in other words that the results observed were closely correlated to the policy choices applied at the scale of the destinations under study. For instance, water may not be a problem in destination X because the public authorities invested in the appropriate infrastructure, such as dams, desalting plants, etc. Conversely, extremely heavy real estate pressure from tourist infrastructure and residential accommodations in destination Y can be explained by the local authorities' incapacity or even lack of determination to draft or apply rules and regulations, since they are motivated by financial gains from speculative real estate dealings.

Through this approach we obtained results that can be used to identify four categories of “sustainability” for the destinations under study:

- destinations with strong social and economic performance and high environmental impacts (Torremolinos);
- destinations that are economically competitive, socially fragmented, and have controlled environmental impacts (Djerba and Alanya);
- destinations that are economically emerging and/or “in rejuvenation” and socially fragmented, with controlled (Rovinj) or geographically limited (Matrouh Governorate) environmental impacts;
- destinations with poor social and economical performance and low environmental impacts (Cabras, Castelsardo, Tipaza and the Tetouan coastal area).

Figure 14 - Graphic representation of the sustainability profile of tourist destinations under study



Source: Principal component analysis (PCA) by Loïc Bourse, 2011.

Explanatory guide (see also Figure 17 in the Annexes): Axes 1 and 3 account for 61% of the variance in information.

Axis 1 explains 53% of the information:

- The more one moves to the right on Axis 1, the more the destinations are characterised by low environmental impacts, tempered by poor social and economic performance;
- The more one moves to the left on Axis 1, the more the destinations are characterised by strong economic and social performance, tempered by negative environmental impacts.

Axis 3 explains 8% of the information:

- The more one moves up Axis 3, the stronger the economic and social performance, but it is tempered by the major environmental impacts;
- The more one moves down Axis 3, the more the destinations are characterised by poor economic and social performances tempered by controlled environmental impacts.

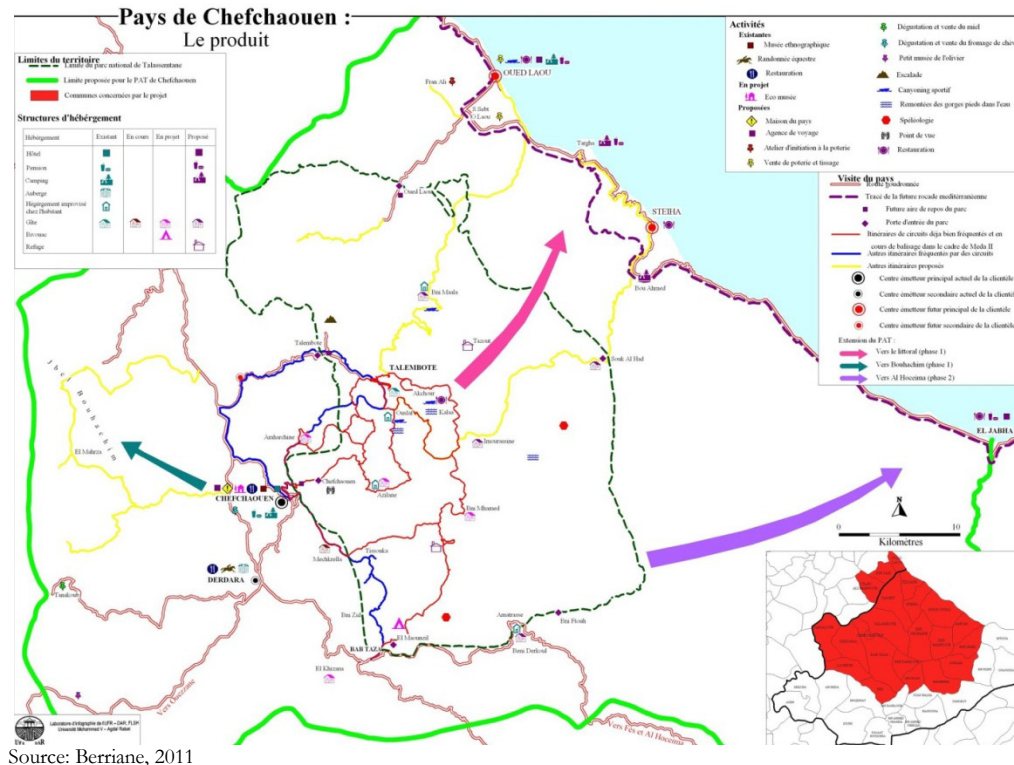
Hence, the Tetouan coastal destination, which mainly caters to a domestic clientele and offers a rich cultural and natural heritage, obtained results similar to those of Tipaza (Algeria) and Cabras and Castelsardo (Italy). The first conclusion is that destinations with a “domestic clientele” have a poor economic and social performance but their environmental impacts are less than those of other destinations. At the more individual level, (second conclusion), the Tetouan destination can be described as follows:

- an economic and social performance superior to that of Tipaza and Cabrase (more revenue per bed, less unemployment) which can be explained by Tetouan’s bigger hotel offer
- stronger environmental impacts than those of similar type destinations, especially because of the pressure on the land due to the development of residential housing.

Considering the observations on the level of sustainability of the Tetouan destination, we now need to focus on the policy proposals defined by Berriane. To organise these proposals, we will look at one of the findings unanimously supported by the project’s expert group: tourism should be a means to develop an area but should not be the final goal. It should be firmly rooted in the area, so that the area’s economic and social strengths can be used to improve the quality rather than the quantity of its tourism products. The author of the report feels that it is essential to face the risks stemming from the growing imbalance between accommodation types, dwindling natural areas, and the lack of attention to the hinterland (viewed together

with the seaside) to improve the sustainability of the destination (see Figure 15). The following sequence could be used for Berriane’s proposal for integrated sustainable territorial development: a proposal for local governance for the decision-making process, a proposal for policy measures for the economic, socio-territorial and environmental sector.

Figure 15 - Proposal for a territorial tourism project: the “Chefchaouen region”



1. Definition of local governance to improve the policy applied to tourism

To create a new product comprising both the coastal area and the hinterland will require the merger of two rather different but complementary tourism systems. The former (coastal area) stems from a modern economic sector while the latter (hinterland) refers to a local “grassroots” development model that was adopted by external players working in regions where conditions were difficult. The former is more economically effective but predicates on natural resources and the environment while the latter is more environmentally friendly but does not generate large-scale development. When we matched these two systems, each based on its own line of logic, we saw the value of merging them into a single system by creating a new product – the Jbala-Tamuda Bay product – that combines the two areas. In the final stage, we will construct a table in which all the players are working both on the coast and in the mountains. The parties seeking economic performance will join with the parties concerned mainly with environmental protection; this process could give birth to a more balanced system that goes farther in guaranteeing sustainability.

The two tourism systems do not apply to or represent the same territorial scale (Table 2) and hence, stand for interests that may, at times, seem dissociated. The development of tourism system based on the “hinterland” is mainly carried out by dynamic local operators such as the local population, neighbourhood and local development associations, investors, small project developers, etc. while the development of beach activities only concerns the local population through the hoteliers and the Ministry of Tourism’s local branches, i.e. the Tetouan provincial delegation, and its control activities.




At the regional level, activities are relatively unimportant although a major action is being carried out by the Regional Council together with the High Commission for Waters and Forests through decentralised

cooperation that brings together a French region (Provence-Alpes-Côte d'Azur) and the Tangiers-Tetouan region. The plan is to take an unprecedented initiative in Morocco by creating a regional park, the Bouhachem Park, which will be a considerable asset for rural tourism in the hinterland. The Regional Council for Tourism also impacts the development of tourism through the regional tourism development plan (PDTR), the Tamuda Bay concept and a few activities in this area.

At the national level, people frequently go to the coast, but they plan their trips on their own and rarely book their trip through a national travel agency. On the other hand, very few travellers visit the hinterland, the exception being the environmental protection associations that are trying to create awareness. Another group of people who, at the national level, are extremely active in the coastal area, is the investors. Most of the large-scale projects that we analysed in this paper were mainly funded by national investors from the large cities such as Casablanca, Rabat and Fez. During the second development phase, the coastal area attracted investors from other sectors such as real estate and trade, while the current phase draws most investment from large private (Sté FADESA MAROC) and semi-public (CDG *Caisse de Dépôt et de Gestion* and its subsidiary MADAEF) financial groups.

Table 2 - Players in the two tourism systems under study and their levels of involvement

Scale	Players	Coastal system	Hinterland system
Local	Population		
	Development associations		
	Environmental protection associations		
	Local authorities		
	Local communities		
	Local investors		
	Small project developers		
	Young guides		
	Hoteliers		
	Tourism delegations		
Regional	Regional authorities		
	Regional Council		
	Investors		
	Regional clientele		
	High Commission for Waters and Forests (Talassemiane Park)		
	Regional Tourism Council		
National	Ministry of Tourism		
	Ministry of Environment		
	High Commission for Waters and Forests (Bouhachem Park)		
	Tourism federation		
	National clientele		
	Investors		
	National tour operators		
	Environmental protection associations		
International	International NGOs		
	International tour operators		
	Clientele		
	Investors		
	International experts		
	Decentralised cooperation (Bouhachem Park)		

 Strong involvement
  Weak involvement
  Almost no involvement

Source: Berriane, 2011

At the international level, opposition between the two territorial areas is also very strong. In the inland mountain region, NGOs and international cooperation, as well as tour operators are very well represented and most of the clientele is international, but there are practically no foreign investors. In the coastal region, a growing number of foreign investors are joining financial groups that are attracted by the conditions offered by the Moroccan Government to the developers of large resorts, e.g. SIENNA that is working for the English Group "Ritz Carlton" to construct the Smir Laguna complex. These financial groups work with

a variety of experts: tourism planners, landscape artists to design the golf courses, and other architects and designers who leave their footprint on the coastal landscape.

To institutionalise the interaction between people involved with tourism products that connect the coast with the hinterland, Berriane suggested using a type of structure that is described in the region's PAT (*Pays d'Accueil Touristique**), namely, a regional association. The Jbala-Tamuda Bay regional tourism association will be created according to the rules and regulations on associations. It will mainly be composed of local people working in and managing lodges, inns, hotels, restaurants, and B&Bs; guides and bazaar vendors; and representatives of the tourism policy-makers and designers for the local level (Regional Tourism Council) and for regional development (regional council). This Association will help raise funds, and monitor, guide, supervise and assess the project. It will draw up technical specifications and update them regularly. The Bureau will be the executive branch of the Association's Board of Directors and will be responsible for carrying out the project.

The head office of the Association will also be a place to meet the tourist guides from outside the region and the rural guides from within the region. It will liaise with the park foresters, the lodge owners and the community presidents. **A regional tourism centre** should be established in an easily accessible central location within the area. Its task will be related to information, product promotion, reservations and support for owners of rural lodges, as well as the organisation of contacts with the hoteliers on the coast. The centre should have a small ethnography museum and a gift shop to sell local arts, crafts and food products such as olive oil, goat cheese, mushrooms, honey, pottery, etc. It should also sell postcards, books and publications on the region and distribute maps and pamphlets.

2. Policies for the economic sector

As concerns policies the economic sector, Berriane suggests merging the two tourism systems into a single product. This would require various types of activity:

- **Define, reconnoitre, test and circulate information on hiking routes that connect the coast with the hinterland.** The first step should be to make a detailed inventory of all the interesting places in the demarcated area. An inventory has already been made of the Tetouan coastal area under the Regional Tourism Development Plan (RTDP) and a local development association prepared, and published, an inventory of the Chefchaouen hinterland and coastal area. The areas need more reconnaissance work, testing, mapping and sign posting. One of the future actions will be to explain the routes in detail and prepare description sheets. All this information should be included in a small hiker's guide for the Jbala and Tamuda Bay region, which would be widely circulated in tourist stations in Tangiers and the Tetouan coastal areas, and should also be available in the ONMT (Moroccan national tourism office) and other tourism offices.
- **Organise accommodations along the hiking paths.** Efforts to encourage the tourist to stay longer by creating the right physical conditions as part of a formal offer, and by staking out the hiking path between the hinterland and the sea must be rounded out with an overnight accommodation offer. In order to complete the system of (mainly home-stay) accommodations in this area, the hotel capacity in Chefchaouen must be increased by adding facilities (small hotels, B&Bs) and camping sites on the southern coast, being careful, however, to avoid the development pattern of the north Tetouan coast.
- **Propose activities.** Although most visitors nowadays take a quick look at the landscape to satisfy their "cultural alibi", there is a market for theme-specific holidays that stress the mountain-and-coast cultural duo, and hence encourage tourists to stay longer and increase their understanding of the area. The themes can include the classical "passive" discovery (the socio-cultural context, traditional bee-keeping, traditional Mediterranean fishing, village life in the Jbala region, scientific themes connected to botany and geology, etc.). They can also include innovative "active" discovery themes such as training sessions

* PAT is the administrative and regulatory status given to an infranational territory.

that teach curious tourists about the local culture through: local cooking, local products, making and tasting goat cheeses and olive oil, cosmetics made from olive oil, the region's famous pottery, tapestry, *jabli* music, work in the fields, speleology, fishing, sports, etc..

To boost the sale of the Jbala-Tamuda Bay product, Berriane suggests that a special label be created to improve the quality of the services offered in this emerging tourism area. Product labelling should not be confused with a set of standards imposed by regulations. Quite the contrary. It should be part of an optional, incentive process that is applied to various types of activities. The label should also serve to identify the typical characteristics of a product being sold via the locations, the activities and the quality of the accommodation offer.

3. Policies for the socio-territorial sector

To improve the social sustainability of the destination in terms of employment, Berriane suggests policies be introduced to impact the type of offer since a residential accommodation, unlike a hotel, does not create many jobs. Actually the only real repercussion of residential housing on the regional economy is the jobs created on the construction sites and the local taxes that the local communities levy on secondary residences. Jobs are reduced to a strict minimum since they only entail security and upkeep and the effects on local trade are relatively slight since residents who come for a short period of time often bring their own supplies. The plan developed for the Tamuda Bay project stresses the need to strengthen the role of hotels by recommending an additional 8,400 beds to the present 2,600 existing ones. However, if we consider the construction work now underway, we see that in many cases residential buildings are being constructed first, and the construction of the hotel is not even scheduled ... or has been abandoned altogether. Perhaps the policies should include a proviso in the authorisation delivery process required for these projects. Couldn't the construction of part or all of the hotel component become a prerequisite to the construction of residential housing? The laws on tourism development in Morocco and in the region do not seem to give priority to this aspect, or else the control measures need to be revised.

Training could also contribute to employment in the Tetouan coastal destination. The idea is not to offer classical training on the development of tourism in professional training schools and institutes but rather well targeted actions and practices that are not taught in schools. First of all, the technical professionals and administrators of tourism who work with the development projects need to understand the concept of integrated territorial development, which is totally different from sectoral management of tourism. Then there are the awareness building campaigns for the local populations, working through local development associations as relays. More importantly, there are professionals of the traditional hotel sector and the present and future lodge and inn managers. The latter need basic training in sanitation, tourist welcome and security services. In the region we are studying, we need to remember what projects have already been – or are being – launched and take advantage of aid programmes that have been or are being adopted in order to avoid spreading our efforts too thinly.

In Chefchaouen, for instance, the Talassemtane Park was created under MEDA II, a major training programme that serves various categories of people: park technicians, certified guides who accompany the visitors, technical staff, associations and local population. The following thoughts on the contents and format of these training sessions must be kept in mind:

- It is important to be pragmatic, especially since many young people, who have either completed or interrupted their university studies, are available on the job market and could easily be upskilled locally. Young graduates could be selected and be given a short on-site training session. Since some of these young people already work in the tourist welcome and activities services, they could take diploma course.
- We feel it is essential for all categories of people concerned with rural tourism to receive maximum training on the basic elements of the rural tourism development strategy. Future development agents and their co-workers, members of the boards of directors, members of the regional association and the guides all need to be familiar with the main structural elements a PAT (*Pays d'Accueil Touristique*).

We still feel that making people familiar with environmental issues and best practices is the main challenge for the training component in this destination.

4. Policies for the environmental sector

Berriane approaches the question of the environmental sustainability of the Tetouan coastal destination by considering the policies on territorial planning and more specifically on coastal development planning. He emphasises the huge legal vacuum in regulations on land allocation for tourism and other anthropic activities, and expects pressure on the land to last.

There are no Moroccan laws or specific legal frameworks that apply to the coastal areas. There are no specific legal enactments for this area. The only policy measure that can be considered specific to the coastal area is the Prime Minister's circular no. 2007 dated 19 June 1964 to create an interministerial commission to draw up a development policy for tourism and the seaside and to decide on projects extending 5 km inland along the coast. This commission functions intermittently to examine large-scale projects that are sometimes submitted to it, but has never implemented the four tasks that are most important for the future of the coastal area, *viz.* defining a general policy for tourism and seaside development, planning development programmes, proposing methods for the implementation of these programmes, and suggesting methods for funding and for allocating lands. The commission, thus, has not published any directive or document that provides any sort of planning policy specifically for the coastal area. The only legal measures that, indirectly, apply to the coastal area come from regulations governing the use of the Public Domain, hence also the Maritime Domain, and the laws on the protection of the natural environment which fall under the government's waters and forests service

The Public Domain, thus, also includes the Maritime Domain demarcated by the 1914 Dahir (Royal Decree) as “the seashore out to the highest tides and a zone of six meters there beyond; the harbours, ports, havens and their dependencies; beacons, navigation lights, buoys and in general all installations for lighting and demarcating the coasts and their dependencies”. Although the Public Domain is inalienable, by virtue of the 1918 Dahir on the temporary occupation of the Public Domain, it can be allocated for private occupancy. Theoretically, private concessions in the Maritime Domain (often used for tourism and beach activities) are temporary, but they are renewed regularly. This system, thus, does not protect the Public Domain in general, and more specifically the Maritime Domain from long-term private occupancy with unregulated construction work. Furthermore, the laws on the Public Domain, on classified establishments for maritime fisheries, hydrocarbon deposits, housing estates and even the laws on the environment are not specific to the coastal area. Aquatic resources and marine areas are only dealt with in the Environment Law that provides for “legal provisions and regulations to prevent and terminate activities liable to decrease the quality of water and marine resources or harm human health, flora and wildlife, related interests and the marine and coastal environment in general”.

Morocco has signed and ratified many conventions. A law on coastal areas was presented and discussed in debates on territorial development and planning at the beginning of this century, but it has been pending for several years waiting for the approval of the Secretariat General of the Moroccan Government.

Because of the quasi-total legal vacuum in legislation on the coastal area, planners have never considered it as a natural, spatial unit or as a socio-economic entity. For many years, land planning in Morocco was strongly centralised; decisions, concepts and plans were sectoral rather than spatial, which means that there was no room for provisions on the coastal area in the planning process. In spatial planning, plans are designed for urban spaces or for regional territories but not for the coastal zone, i.e. the public maritime domain and the vulnerable adjacent areas that need protecting. The problem of demarcating the coastal strip has not been studied. At times, the width of the strip was increased to 50-60 km inland starting at the coast, at other times the strip was a stripe limited to the shoreline as such, in other words, the area where land meets sea. The numerous existing and forthcoming planning tools have been designed for urban spaces (framework for urban planning) or rural spaces (framework for rural structuring) or, last, at the regional level (regional development plan). Up to now, no planning tools have been specifically designed for coastal management. When studies on land planning for the coastal area are launched, their terms or reference seem very similar to those used in classical land planning tools.

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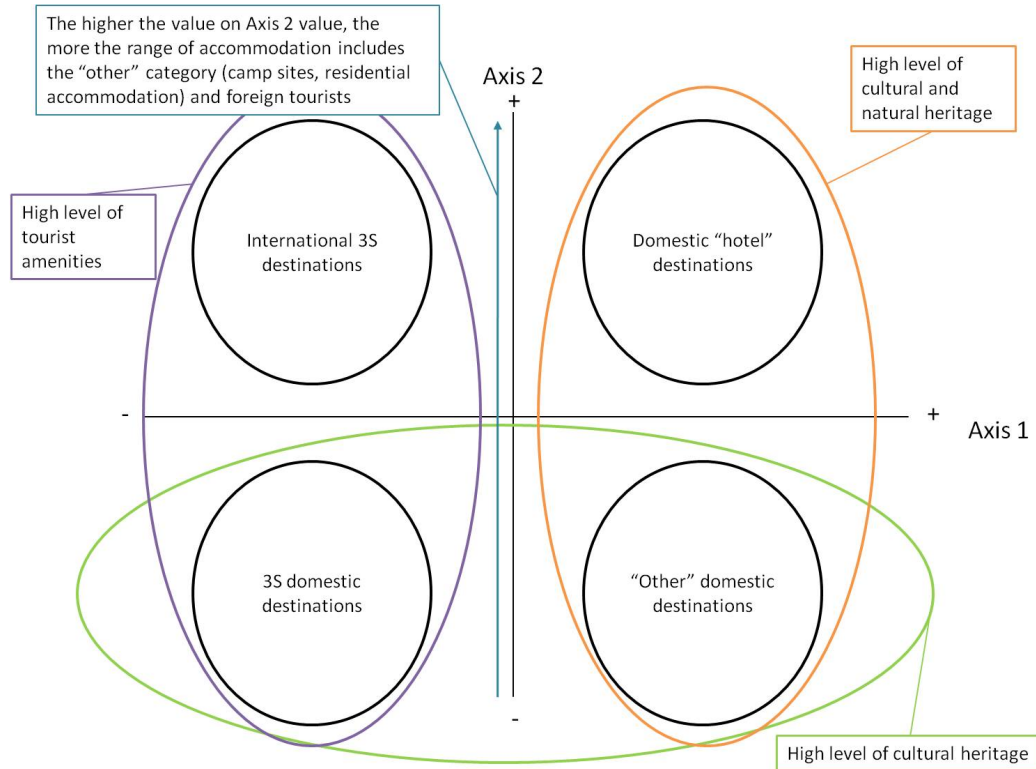
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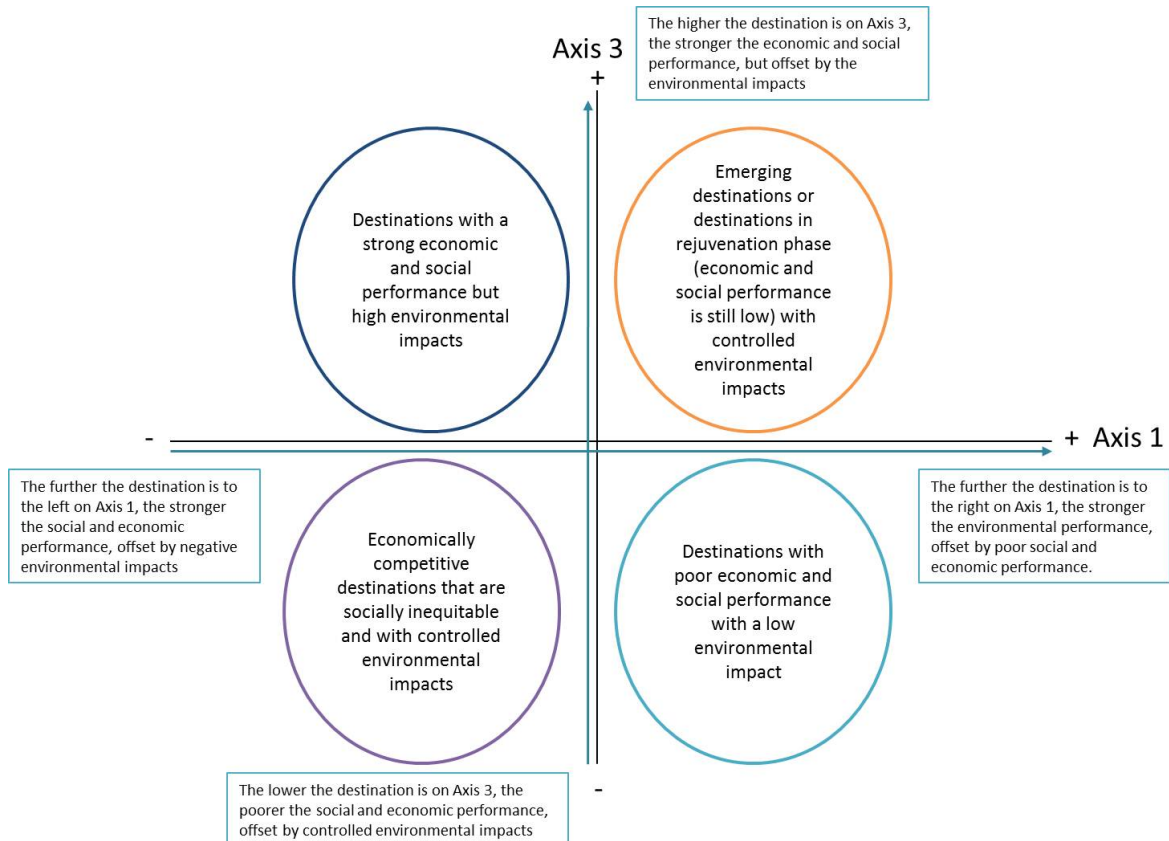
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Figure 16 - Explanatory diagram of the construction of the typology based on a principal component analysis



Source: Loïc Bourse, 2011.

Figure 17 - Explanatory diagram of the sustainability profile analysis based on a final principal component analysis



Source: Loïc Bourse, 2011.

Table 3 - Destination Datasheet of Tetouan Coastal

	Year	Value (1 : yes ; 0 : no)
Demand		
Residents (%)	2010	61%
Non-residents (%)	2010	39%
Charter passengers/total passengers	2010	0%
Airport	2011	1
Harbour	2011	0
Accommodation offer		
Number of beds	2010	7029
Hotel beds / total number of beds (%)	2010	20,49%
Holiday village beds (%)	2010	24,45%
Other beds (%)	2010	55,05%
Campsite spaces (%)	2010	0%
Leisure amenities		
Spas / health clubs	2011	1
Sports amenities	2011	1
Casino	2011	0
Golf courses	2011	1
Leisure parks	2011	0
Marinas	2011	1
Conference and exhibition centres	2011	0
Beaches	2011	1
Natural and cultural heritage		
Historic monuments	2011	1
Places of worship	2011	0
Museums	2011	1
Cultural events (festivals or traditional events)	2011	0
Nature reserves	2011	0
Places selling local products (craft markets)	2011	1
Cultural activities	2011	0
Economic performance		
Number of overnight stays	2009	151936
Daily spending per tourist (€)	2010	73
Revenue per bed (€)	2010	3380
Revenue per overnight stay (€)	2010	71
Seasonality		
Mean annual occupancy rate	2010	28,38%
Social performance		
Direct employment per bed (number of jobs)	2010	0,28
Unemployment	2010	9,2
Level of education of employees: higher education	2004	24,29%
Level of education of employees: secondary education	2004	51,32%
Level of education of employees: primary education	2004	14,62%
Level of education of employees: no qualifications	2004	9,78%
Demographic indicators		
Total population	2004	613506
Dependent population	2004	37,66%
Life expectancy	2004	70,5 yrs
Population growth rate	2004	2,40%
Migration rate	2004	0,63%
Environmental performance		
Water consumption	2009	0,32 m3/night spent
Energy consumption	2009	23 kwh/night spent
Waste production	2008	0,73 kg/tourist/day
Wastewater production	2009	1372 m3/day
Land area of tourist accommodation / total area governed by local authority	2010	25,47