

Land use changes in Costa de Caparica and Albufeira (Portugal): an input to coastal management *

Alterações ao uso do solo na Costa de Caparica e Albufeira (Portugal): contributos para a gestão costeira

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ABSTRACT

Artificial areas in coastal zones have grown in the last decades in Portugal mainly due to urbanization, leisure and tourism practices. The paper aims to identify changes in urban and tourism occupation in Costa de Caparica and Albufeira's parishes by discussing public and private space uses with regard to coastal management tools.

The main transformations from 1991 to 2001 in those coastal areas are related to changes of number of residents, buildings and tourist establishments, which has contributed to space reconfiguration and land use change. The findings show that Costa de Caparica has a greater representation of isolated travels associated with leisure on the coast, while Albufeira as a destination has been marked by conflicts involving public space use and the availability of natural resources. Moreover, the application of the 500 meter strip planning exercise from the Portuguese Coastal Plan proved that the enforcement of measures and actions towards an equitable public space use can be done in a smaller scale (local). Managing and monitoring second home landscapes, beach concession licenses and resort private beach appropriation can be accomplished within the coastal strip planning strategy.

Keywords: tourism, urbanization, public/private space, coastal management

RESUMO

Nas últimas décadas em Portugal têm-se assistido a um crescente fenómeno de artificialização das áreas costeiras, em particular para o lazer e para as práticas turísticas, bem como pela urbanização. Este artigo tem como objectivo identificar as grandes mudanças urbanas e turísticas nas freguesias da Costa de Caparica e de Albufeira e discutir as questões relacionadas com os usos públicos e privados do espaço, face aos instrumentos de gestão costeira.

O período considerado centrou-se na década de 1991 a 2001, considerando as grandes linhas da mudança relativamente aos residentes, aos edifícios e aos estabelecimentos turísticos que contribuíram para uma reconfiguração dos usos e do espaço. A Costa de Caparica detém uma grande representatividade no que se refere às visitas isoladas associadas com os lazeres costeiros, enquanto Albufeira como destino tem sido marcada por conflitos que envolvem o uso do espaço público e a disponibilidade de recursos naturais, como são os casos dos resorts e das concessões de praia, que são ambas formas de segmentação e privatização do espaço.

A aplicação do exercício de planeamento com a faixa dos 500 metros (proveniente dos POOC) revela que a aplicação de medidas e acções que promovam um uso equitativo do espaço público é possível a uma escala menor (local). Gerir e monitorizar as paisagens de segundas residências, as licenças das concessões de praia e a apropriação privadas das praias pelos resorts, é possível através da aplicação de estratégias de planeamento da faixa costeira.

Palavras-chave: turismo, urbanização, espaço público/privado, gestão costeira.

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1. INTRODUCTION

Coastal areas take place in the waterfronts context due to its bathing use that in the Portuguese culture is a widely spread practice, mainly in the spring and summer. In the beginning of the nineties, market dynamics allowed a significant wave of second home holders, located in coastal areas where beaches, leisure activities and also a number of services were available. Tourism and leisure are two of the most popular activities that benefit from waterfront interventions, which generate economic revenues that contribute to produce land use changes and to differentiate territories.

Over the last two decades, urbanization and tourism processes evolved significantly, transforming host locations into more attractive tourism destinations. The role played by coastal zones in recreation and leisure activities is noticeable by coastal population (residents), by visitors and tourists (Nobre, 2009). The economic value generated from hotels, restaurants and tourism activities brings together residents, tourists and second home owners. These tourism and property market dynamics are influenced by land price speculation

and lack of planning, though the significant range of laws and plans available for coastal management.

Portugal is located in the Iberian Peninsula in Western Europe. It has a total area of 92.000 km² (9.200.000 ha), where 950 km² (95.000 ha) are in the mainland (Figure 1). Portugal has one of the largest Exclusive Economic Zone in Europe with about 1.700.000 km² (170.000.000 ha). The Portuguese coast is very diverse in terms of habitats: it has 591 km of sandy beaches with long extension of dunes with greater relevance for biodiversity protection; rock beaches represent an extension of 348 km, and comprises of important habitats for fauna and flora, which make them vulnerable to urban and touristic pressures. The majority of Natura 2000 Network sites are located in the coast, *e.g.* Arriba Fóssil da Costa de Caparica (Cliff of Costa de Caparica) in the municipality of Almada (Área Metropolitana de Lisboa - Metropolitan Area of Lisbon; Ria Formosa (Estuary area in Faro municipality, Algarve). Therefore, the most important conservation sites overlap tourism areas.

The majority of the population is concentrated in the coastal zone (Plano Nacional da Política de Ordenamento do



Figure 1. Geographical context of Portugal and the two study areas.

Figura 1. Contexto geográfico de Portugal e das duas áreas de estudo.

Território - PNPOT, 2007:55). Amongst many other types of equipment, services and facilities, the coastal zone offers a wide range of destinations and leisure activities related to water uses. The most significant share of hotel capacity is registered in Lisbon, Oporto, Algarve region and Madeira Island: 90% of the foreign tourists stay in coastal destinations (Turismo de Portugal, 2010).

The land use planning tools defines the purpose of this paper, which aims to explore the major changes of urban transformations and tourism uses in two destinations in Portugal: Lisboa and Algarve regions. It was chosen for analysis only one touristic parish from each case study. The intention is to identify patterns of coastal interventions and also to discuss the impacts of coastal tourism in urbanization processes and local residents. Results are organized in three main issues, which also guide the discussion. This subdivision helped to identify changes in residents, buildings and dwellings and in tourism uses and their impacts in land use transformation.

Conflict typologies allowed discussion topics concerning the relation between activities and uses, and environmental interests. In order to complement a coastal planning instrument, an in-depth analysis of a 500 meter buffer along coastal areas in each case study was defined, which will also provide a wider perspective of what it contains. Finally, Costa de Caparica and Albufeira case studies will be analyzed taking the public space uses and touristic space privatization into consideration.

2. TOURISM AND URBANIZATION IN THE COAST

Rafaelli and Hawins (1996) affirm that coastal zones face a variety of pressures, mainly because they are being squeezed by centuries of intensive use. Concepts such as coastal zone and coastal tourism have many definitions. Accordingly to Gomes (2007:85), the coastal zone is the “territorial plot that is directly and indirectly influenced by the marine biophysical aspects (waves, tides, winds and salinity) and that can have a land strip correspondence side by side with the sea, until the continental shelf limit (translated from Portuguese). The concept of coastal tourism embraces the full range of tourism, leisure and recreationally orientated activities that take place in the coastal zone and the offshore coastal waters. These include coastal tourism development (accommodation, restaurants, food industry, and second homes), and the infrastructures supporting coastal development (e.g. retail business, marinas, and activity suppliers) (Hall, 2001:2)

First of all, it is important to define *conflict* and to contextualise it in different settings. The context defines the conflict's typology and also the source, pressures, parties involved and responses that should be taken forward. As it is expressed by Cleaves *et al.* (1992), a conflict can be defined for its natural or human features. Within a conflict there are at least two interdependent parties involved in a competition for a specific resource. Bennett *et al.* (2001) and White *et al.* (2009) discuss the definition of conflict, whether it should be addressed as a biodiversity conflict when it refers to a biodiversity competition (Bennett *et al.*, 2001) or when the conflict refers to natural resources in general. Both group of

authors state that the conflicts arise from incompatible goals and interests, scarce resources or through the interference of another interested part. Based on these definitions, a conflict implies that resources and entities disagree about the uses that each party want or should make of the resource. A specific resource could serve different purposes, but dealing with diverse stakeholders' interests may bring the exclusion of one or other uses, according to Reed *et al.* (2009). Conflicts and its typologies are the result of territorial transformations because the input of some conditions (new conflicts arise with the increase of artificial area at the coast), outcome in the majority of cases, from the output of others (these may be environmental and resources conflicts, or conflicts for space use)

Pitkänen (2008) in her work about second home landscapes in Finland identifies three main approaches of landscapes analysing: physical, experiential and cultural. In the physical approach, the author refers to a geographical and geomorphologic disintegration of the landscape, appealing to the natural resources and its form and position in the natural environment. The other two approaches, the experiential and the cultural, are closer to human geography's interpretation of landscapes. It tries to view the landscape as a social constructed space, where individual experiences contribute to these constructions, either in the viewpoint of being a tourist or a resident. History is also a relevant aspect of the cultural approach of the landscapes analysis, reflecting indirectly into the choice of being just a tourist *en passage* or becoming a second home owner. Later these decisions have an influence in how tourists or residents perceive natural resources and in using the limits of public space.

Regarding housing, Krausse (1995) identified three levels of tourism impacts in relation to the residents perception of tourism. Those impacts depend on the interaction's type between visitor and host (residents), on the economic relevance of tourism activity and on the volume of tourists that are acceptable for residents (tolerance). The author focuses the nature of the contact that is developed between residents and tourists. Elements such as frequency, intensity, seasonality and duration are indicators of their perception level due to the capacity of affecting negatively resident's sensitivity in the tourism acceptance. Economic development and commercial transactions are still the most credible opportunities for residents and tourist understanding (Krausse 1995). Krausse (1995) and Sairinen & Kumpulainen (2005) bring two distinct ideas: environmental, residential and tourism uses are highlighted due to their connection towards conflicts of interests. Tourism and leisure can find a place of acceptance or generate great stresses among environmental resilience and also between residents and tourists. Krausse (1995) identifies conflict issues that compromises the relationship and the tolerance towards tourist activities: “(...) current traffic conditions, inadequate parking, lack of privacy, commercial, (...) intrusion into neighbourhoods” (Krausse, 1995:180). (...) “Research indicates that each location has a stress point for tourism; if that point is exceeded, the cost of tourism may outweigh the benefits” (Krausse, 1995:184).

Leisure and touristic places concentrate a range of support structures for sport, recreation and for cultural activities, which can be permanent or ephemeral. The public or private

function (housing, tourism, condominiums, offices, leisure) associated with places is also related with the commercial motivation of consumption attached to the site experience, namely held by tourists who search for new places to express their socio-economic status. It is in this point that both concepts overlap, intercepting one of the greatest questions in coastal tourism - how can touristic programmed activities, spaces or facilities can be democratic enough and publicly accessed?

Some authors have discussed space privatization in cities, enterprises and even human relations, and associate these aspects with the dematerialization of public space due to economic and social processes (Jacobs, 1961; Lynch, 1982; Soja, 2000; Alves 2003). Castells (2007) and Sassen (2004) argue that the technological advances as well as new forms of organization associated with it, transformed the social construction of space, where new actors take place, as observed by Meyer & Versluys (1999:90): “(...) *an increasing number of private spaces has come to serve public or semi-public purposes, while (...) traditional public spaces are constantly undergoing processes of privatization (...)*”.

The argument stands on the fact that several transformations in key aspects of the territory organization, such as tourism and its uses, also urbanization and the residents, may interfere in the coastal zone especially allowing for space privatization or not. Therefore, conflicts may arise between the two groups of users, competing against each other for the availability and use of natural resources, and for the right of use the space.

3. MATERIALS AND METHODS

This part refers to the methodology used to identify changes in tourism and urbanization. The goal is to establish a comparison between two territories that play an important role as leisure and touristic places in their catchment area and in which these activities are related to coastal uses.

It is important to highlight the Portuguese planning tools such as macro strategic plans and micro operational plans. The National Plan of Territorial Management - PNPOT (Law No.58/2007) is the main national plan that provides assessment and orientation guidelines to other plans; it follows special and sector plans; regional plans which have a territory application, since administrative regions are inexistent in Portugal; bottom in the hierarchy are the inter municipal plans and the municipal plans and site plans, which are the narrowest intervention scales of the planning tools, providing guidance for the local scale.

The Domínio Público Marítimo (Maritime Public Domain) is the base for coastal policy. The legal framework was defined in 1864 and redefined in 1971 (e.g., Bomes, 2007; Pereira, 2007). It defines a territorial stripe of 50 meter, which is State property. In this area, private owners can have their property rights recognized if they comply with the legal proceedings. Likewise the public plots, the use of private shore lands are regulated by territorial management tools, being subject to easements and restrictions of public utility (Maritime Public Domain, RCM No. 468/71). Through laws No. 54 and 58 (2005), regarding water uses and the ownerships of water resources, the previous legal

diploma gained a consubstantial framing. The Coastline Urban Management Plan appeared in 1990, establishing guidelines for coastline land use in a 2 km area wide, but it was only in 1993 (Law No.309/93) that specific plans for the coast assessment and management began to be developed (Plano de Ordenamento da Orla Costeira - POOC). POOC (Coastal Zone Management Plans) operates on a pre-defined stripe of 500 meter, in order to improve natural resources and to protect landscapes. These management plans aim to outline different uses and activities, classifying beaches and regulating their predominant use (bathing), as well as assuring environmental protection. Moreover, coastal areas have also a tool which allows their framing in a European Union common vision for coastal zones – Integrated Coastal Zone Management. The ENGIC (for the Portuguese territory) gathers a 20 years vision for the coastal zone to become sustainable and be developed harmoniously; it also envisages that natural resources and identity values are protected and valued correctly, based on a systemic approach. This integrated coastal management is built on some remarkable principles, which are: sustainability and intergeneration solidarity; cohesion and equity; prevention and precaution; systemic approach; scientific and technical knowledge; subsidiarity; participation; co-responsibility and operability.

The majority of the data referenced in this paper was collected from census from 1991 and 2001. Additionally, other censuses from 1940 to 1981 were used to provide a wider perspective of the population's growth. With regard to population and urbanization data that is inquired in the census' statistics, it is possible to analyze a smaller scale of territory, providing detailed information about the specific parishes in the study. Comparisons between surrounding municipalities and parishes of the same municipality allowed an understanding of the changes in a ten-year period. Tourism data available is from 2002 and 2009 to the municipalities scale and focus both on supply and demand. For this paper it would be better detailed data for tourism activities in parish scale, but these are the available data at the moment.

In order to provide a clear vision of territorial changes, maps were developed according to the information in the census, mainly based on the perception of densities and on the evaluation of buildings, dwellings and resident population mobility and changes. Seasonal occurrences, as the proportion of seasonal dwellings were also mapped. The lack of satellite images from the same date of censuses (1991 and 2001) unable visual analysis. Therefore, a correct perception of the construction densities evolution and other territorial transformations was compromised. Therefore, images from 2005 were used in order to provide a sound evaluation linking data from 2001 regarding urbanization and population, and tourism data from 2002 (supply and demand data). Aiming to identify and understand tourism and urbanization shifting uses in the coastal zone, the Corine Land Cover images were tested, but they were not used because the scale of analysis provided (0,25 km²) did not have the detail needed.

The methods used for mapping were not the same for both cases. It was necessary to make adjustments to the indicator that was represented in order to display it better

in the territory. Manual classification was the most used method. An equal interval was defined, from 4 to 5 classes, based in the mean, divided by the number of classes, always attending the maximum value.

It was established a territorial guide line analysis based in the POOCs (Coastal Zone Management Plans), where a buffer application from GIS (ArcGis 9.3) was made with the intention of limiting the territory for future policies, management and actions. As established by the legislation, the 500 meter strip corresponds to the coastal assessment plans developed by the Instituto de Conservação da Natureza e da Biodiversidade - Institute for Nature and Biodiversity Conservation (ICNB), in the case of Costa de Caparica, and by the Instituto Nacional da Água - Water National Institute (INAG) in the case of Albufeira. Environmental issues are the main focus of these plans and their role is to provide directives and procedures which guide municipality strategic plans. Despite their restrictions and permissions, these plans lack of ongoing processes of urbanization and tourism development.

A deeper land use analysis and updated data is needed in order to monitor specific aspects of these vulnerable but resilient territories: coastal human occupation, urban construction trends, economic activities and touristic occupation patterns. Only a combination of these multiple

aspects will be able to provide environmental preservation and conflicts' mitigation. For this study ortophotomaps from 2005 were used: the coordinate system used was Datum 73 – Hayford Gauss_IPCC in the ECW format; the source type is continuous, the pixel type is unsigned integer and the pixel depth is 8 bit.

4. RESULTS

Metropolitan Area of Lisbon (MAL) is the main urban region in Portugal and has the country's largest population concentration. In 2001, MAL had 2.7 million inhabitants and in 2009 about 2.9 million. Population density is also one of the highest: 959 inhab/km² in 2009. The greater concentration of population is related with a sort of developed economic activities and high patterns of urbanization. Almada municipality is located within the MAL and is comprises of eleven parishes that are organized along the south shore of Tagus River, two of them face the Atlantic Ocean. It has 70,2 km² and registered 160.825 inhabitants on the year 2001. The significant population and urban growth had its origins in a specific political and economic period of Portugal, resulting from the end of the colonies in Africa, in 1974, from where the main part of the population returned. Almada municipality gained 51,3% of population, while Lisbon, by contrast, slowly loses population since

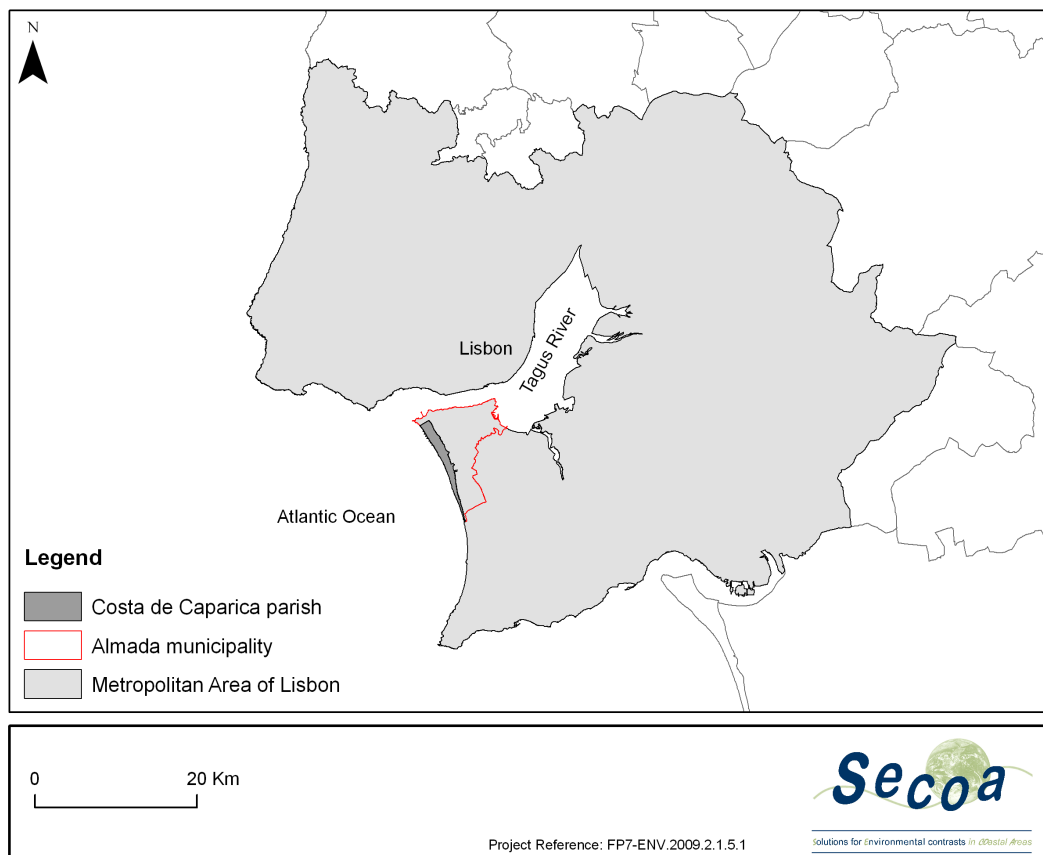


Figure 2. Metropolitan Area of Lisbon, Almada municipality and Costa de Caparica parish geographical context.

Figura 2. Contexto geográfico da Área Metropolitana de Lisboa, do município de Almada e da freguesia da Costa de Caparica.

1981. Almada parish is the main urban centre of Almada, although Costa de Caparica plays an important role as a habitation and entertainment satellite of Lisbon.

Albufeira parish is located in the Albufeira municipality in the Algarve region. The Algarve is the most southern region of Portugal and has been the main catchment region for “sun and sea” tourism since the late 1960’s. In 2001, the Algarve had 400,000 inhabitants from which 8% live in the municipality of Albufeira. This coastal village is one of the oldest tourist destinations in the Algarve and has been successively growing as a touristic place.

4.1. Residents

Costa de Caparica outstands in the resident’s population growth rate, which contributed to be progressively a less visiting/tourist destination and a more residential area. Residential buildings started to be constructed, increasing the population and buildings’ density. In addition, the needs for better accessibilities stated to arise in order to reduce the urban sprawl and rudimentary housing that were the former fishermen communities. The total number of classic family has doubled in 2001, as well as family dwellings that grew 38%. As far as Albufeira is concerned, resident population increased moderately (44,5%), with families and population density increasing in the same proportion. Present population (24.826) in 2001 was higher than resident population

(16.237), conversely to what happened in Costa de Caparica where residents were more 4.798 persons than the present population. Tourists can be considered partly as present population; they reproduce locally their consuming patterns, contributing significantly to the economy and, therefore, to pressures in the natural resources and in the land use.

4.2. Buildings and dwellings

A strong presence of fishermen’s communities in Costa de Caparica with low income and bad urban and public space conditions, contributed to higher values of rudimentary housing. In Albufeira there was some housing relocation policies in order to abolish shanty, mainly due to tourist affluence; shanty and rudimentary housing represent 0,4% of total dwellings in Albufeira, while it represents almost 6% in Costa de Caparica. Buildings in Costa de Caparica grew more than in Albufeira. Nevertheless, dwellings increased 53% in the last one, whereas the same proportion of buildings and dwellings were constructed in Costa de Caparica, showing the predominance of single-family housing (67% of total family-housing buildings in 2001, growing 6% since 1991). Construction dynamics in Albufeira is higher when compared with Costa de Caparica. In 1995, licensed buildings in Albufeira were almost eleven times higher than in Costa de Caparica, being 71% for family housing, while in Costa de Caparica they were all for

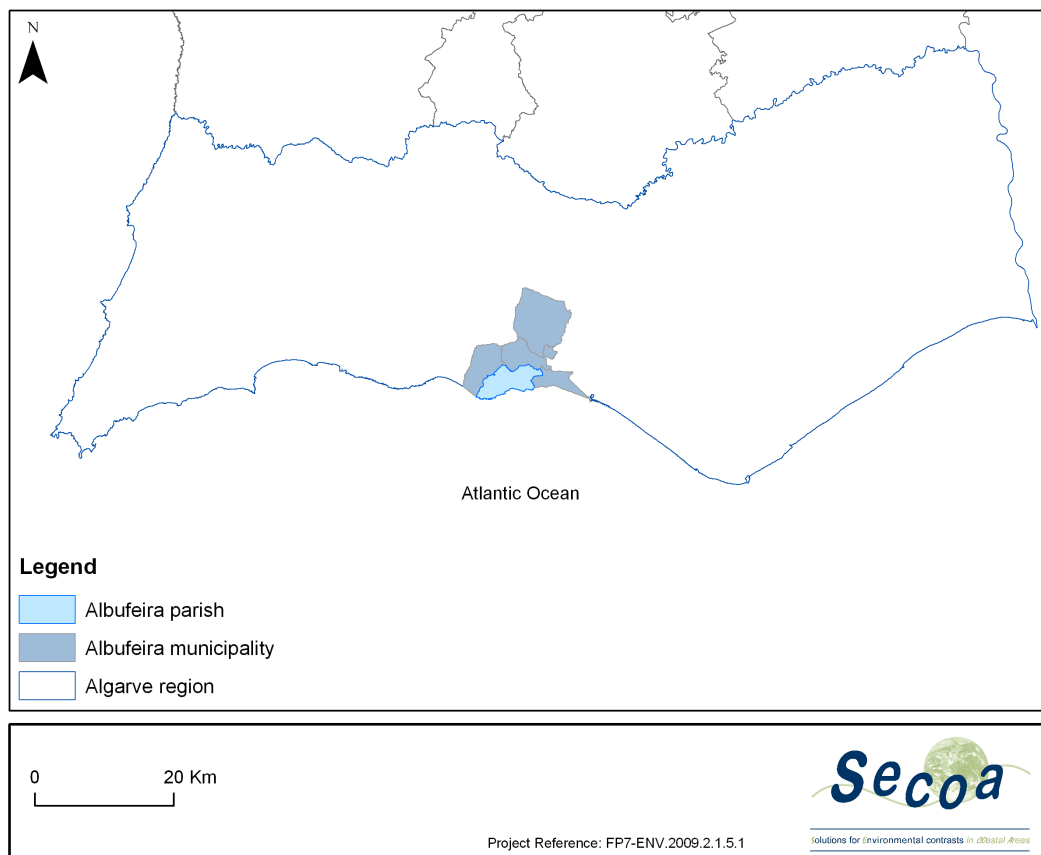


Figure 3. Algarve region, Albufeira municipality and Albufeira parish geographical context.

Figura 3. Contexto geográfico da região do Algarve, do município de Albufeira e da freguesia de Albufeira.

this purpose. Analysing the year 2009, the construction and licensing dynamic had retreated possibly due to the global financial crises that slowed down the housing market. In Costa de Caparica there were no building licenses in 2009 and in Albufeira it decreased significantly.

4.3. Tourism

Second home owners are one of the most interesting indicators of this paper, since they are able to provide information about space use dynamics, change the housing strategy and place intervention policies. This relates specially to second home tourism.

According to Pedro (2005), second-home tourism is an emerging market segment in nowadays societies, namely in southern Europe, where tourists try to seek environmental quality, seaside, lakes, or rural landscapes, and establish a narrow connection with the place, for inheritance reasons or related to owners origins. The aspect that distinguishes these tourists from residential tourists is the long time-period spent in the chosen destination, and the recurrently returning to the place. "Second-home tourism has a considerable impact on the local economy through the economics of the building industry" (Pedro, 2005:87), but less impact on hotels and restaurants economic group, implying though other types of consume related to own cooking, own entertainment programming and closer relation to local retail.

Analyzing the two coastal case studies, both have higher second-home rates, measured by the proportion of seasonal dwellings. The existence of beaches and other leisure and sports activities related to the sea and sun tourism package, allowed second-homes to grow in a context of holidays (mostly in Albufeira) or short-breaks/weekend use (Costa de Caparica). Proximity to Lisbon and other urban centres provide a significant rate of seasonal dwellings in Costa de Caparica. In Albufeira there is a lower proportion of seasonal

dwellings, despite a growth of 1% between 1991 and 2001. Conversely, hotel dynamics is the most significant in Albufeira as a destination, indicating a tourism occupation type associated with holiday spending and not in an ownership system. In this context, apart-hotels and tourist apartments assume great importance in the accommodation capacity increase, representing 27% of the total Algarve (2009). Still, hotels have the higher occupation rate, but the average night spent is superior in resorts and tourist apartments. In Costa de Caparica the hotel type dominates the offer, despite the construction of 1 resort in 2009. The tourism in Costa de Caparica concerns mostly second-home and camping.

5. DISCUSSION

Despite structural differences regarding urbanization patterns, distribution of seasonal occupation and tourism accommodation issues, the presented case studies share several similarities. The results lead to some relevant questions that are important to discuss: what has changed in terms of urbanization and tourism uses? Which aspects distinguish Costa de Caparica and Albufeira? Which typologies of conflicts are associated with uses in tourism and urbanization? What can be done in terms of planning? Is the coastal space public? Does tourism development emphasize space privatization?

With regards to impacts of coastal tourism on urbanization process the results show that residents are local actors responsible for place growing and housing's dynamics; tourism and tourists are simultaneously vehicles for changing in uses as a cause and a consequence; finally, buildings and dwellings are the product for both tourist and residents needs satisfaction in different ways.

These aspects guide through the second discussion topic, in which conflicts typologies are associated with uses in tourism and urbanization, Bennett *et al.* (2001); Pitkänen (2008) and White *et al.* (2009) refer inconsistency in goals

Table 1. The synthesis of population and buildings data, 1991-2001.

Tabela 1. Síntese dos dados da população e edifícios, 1991-2001.

Variables	Region	Municipality	Parish		Region	Municipality	Parish
	MAL	Almada	Costa da Caparica		Algarve	Albufeira	Albufeira
<i>Resident population growth rate (%), 91-01</i>	5,5	5,9	69,3		15,7	50,5	44,5
<i>Households growth rate (%), 91-01</i>	16,7	19,1	92,7		26,4	64,9	56,4
<i>Population who lived in other municipality in the last 5 years (%), 2001</i>	13,1	12,4	19,3		12,0	17,6	18,5
<i>Buildings density (No./ km²), 2001</i>	133	428	304		32	99	239
<i>Buildings growth rate (%), 91-01</i>	10,2	15,8	38,4		14,9	44,1	32,9
<i>Dwellings growth rate (%), 91-01</i>	20,2	24,9	38,0		30,7	66,4	53,4
<i>Shanty (No.), 2001</i>	6810	637	215		551	85	51
<i>Proportion of seasonal dwellings (%), 2001</i>	12,6	25,4	63,2		38,5	54,4	59,0

Source: based on Censuses 1991 and 2001, INE.

Fonte: baseado nos dados dos Censuses 1991 e 2001, INE.

Table 2. The synthesis of tourism data, 2002-2009.**Tabela 2.** Síntese dos dados de turismo, 2002-2009.

Variables		Tourism accommodation growth by type (%), 02-09				Bed occupation rate (%), 2009			
		Hotels	Apart-hotels	Tourist resort	Tourist apartments	Hotels	Apart-hotels	Tourist resort	Tourist apartments
Region	Algarve	2,8	2,1	-1,4	-6,3	45,9	43,8	36,1	37,4
Municipalities	Albufeira	4,9	4,2	0,0	-15,3	49,7	45,3	41,2	41,9
	Faro	15,0	0,0	0,0	0,0	35,5	no data	x	no data
	Loulé	1,6	6,5	-1,6	-6,5	42,0	48,4	no data	24,7
	Portimão	-3,4	0,0	0,0	-3,4	52,4	no data	no data	35,9
	Tavira	12,5	-6,3	-6,3	6,3	46,0	no data	29,2	no data
Region	MAL	5,3	-0,9	0,6	0,3	42,8	39,4	no data	34,4
Municipalities	Cascais	-3,5	-1,6	0,4	0,2	40,2	no data	no data	28,6
	Lisboa	9,1	-0,7	0,0	1,0	44,6	40,9	x	35,8
	Almada	-3,3	0,0	10,0	0,0	29,4	x	29,4	x
	Sesimbra	16,7	-16,7	0,0	0,0	38,6	x	x	x

Source: based on Tourism Statistics 2002 and 2009, INE.

Fonte: baseado nas Estatísticas do Turismo 2002 e 2009, INE.

and interests towards resources and landscape segmentation, adding a wide perspective of conflicts structuring, applied to the presented case studies. Hence, there are three distinguish typologies of conflicts that are simultaneously present in Costa de Caparica and Albufeira, however in different scales and intensities: structural conflicts; environmental conflicts; physical, social and cultural conflicts. All the three groups of conflicts relate to each other in a causal way, yet they can individually exist. To better understand these groups of conflicts, it is important to illustrate with examples adjusted to touristy and urban uses of each case study. If residential, urban and tourism aspects were thought in a conflict research perspective, the relation between the three groups of conflicts would be set in motion by structural conflicts, meaning urban pressure and parking and accesses issues. Structural conflicts are responsible for a territorial conflict within uses and users, focused in buildings and dwellings – the main base for housing and living conditions; and accessibilities that are able to shrink distances and provide a more democratic access to places, or on the contrary contribute to remoteness of the places or to a crossroad city. Urban pressure is an existing conflict in both Costa de Caparica and Albufeira, generating a greater necessity of access and parking spaces for residents and tourists (beach users). Ultimately, it connects the other two conflicts: environmental conflicts and physical, social and cultural conflicts, since they represent the anchor conflicts for these spaces.

Regarding to what White *et al.* (2009) defined as natural resources, environmental conflicts are represented by the coastline resource and every aspects of its existence, considering water, dunes, cliffs, waves and so on. The two main environmental conflicts are coastline erosion and the use of natural resources. Coastal erosion in Costa de Caparica relates to sea retreat cycles and also to the process of silting in Tagus Estuary. Additionally, storm events originate also episodes of sand removal, which leads to one more conflict with residents and users. Moreover, erosion in Albufeira comprise touristic uses (e.g. beach activities and water leisure), urban pressure, related with seasonal housing growth, as well as an environmental conflict emerged from the touristic consumption of resources such as water and land.

Finally, second residences landscapes and the questioning of space privatization in opposition to public space fruition it's related to the third group of coastal conflicts, named physical, social and cultural conflicts. As Pitkänen (2008) demonstrated, the way people shape their landscapes through cultural practices have implications both in natural and built environment, transforming places and habits. Housing seems to be the key aspect that links conflicts typologies from the base (structural conflicts) to the top (physical, social and cultural conflicts). It bounds with environmental conflicts in coastal areas because housing brings users to the varied range of coastal activities, namely tourists, visitors and residents. When housing is combined with tourism in coastal areas,

such as a beach waterfront, it can be considered a conflict between environmental protection, urban use and people's safety. Although residential use is very common in waterfronts interventions, it not only provides points of conflict, but also bounding relations between people and environmental resources, like water elements, air and soil pollution or green spaces care.

Tourism activities must be considered in a global perspective, evaluating benefits and costs, as well as monitoring social impacts, in order to avoid massive occupation of tourists as second-residents or as hotel urban pressure, as proposed by Sairinen and Kumpulainen (2005). These situations become clear with the analysis of the Costa de Caparica and Albufeira's orthophotomaps and statistic data, which grant suitable information for a comparison exercise. The 2011 censuses that are currently being held by the Portuguese Statistics Institute, will accommodate future updates, namely at the parish scale.

Considering the 500 meter coastal strip defined by the Coastal Zone Management Plans since 1993, it was held a micro scale exercise, in which the coastal parishes in study gained a buffer limit from the low tide until 500 meter inlands. The lack of operational measures and its regulation features led to the necessity of applying the POOC as a territorial guideline to a smaller scale, meeting the local planning instruments. Municipal Plans need to incorporate coastal planning in the urban project, which can be achieved by a 500 meter strip alongside the coastal zone, making a specific in-depth analysis of the sites available for planning, management and monitoring and providing, therefore, local authorities a better knowledge of the conflicts.

Through the analysis of the Figure 4, the limit is defined by the blue line. In the case of Albufeira, almost 50% of the urban centre is within the 500 meter; this allows decision makers and planners to articulate strategically residential and commercial areas with the beach uses, transportation, accesses and parking availability. Environmental conflicts associated with the erosion of fossil cliffs would also be integrated in this suggestion of space division in coastal parishes. Therefore, a range of tourism facilities would be contained and better regulated and monitored: for example, the Marina of Albufeira, apartments for tourists and second-home market. Additionally, a varied range of hotels and tourism apartments located in the beach have exclusive beach concession, meaning that, despite being public, the use made is mainly private. Also, there are resorts with a private use of the beach because its access is indirectly limited by the price of the accommodation.

The same happens with Costa de Caparica (Figure 5), although having a lower touristic pressure in terms of hotels and resorts with licensed beaches. However, second residences and camping parks mark strongly the coastal landscape. In addition shanty and rudimentary housing located in the dunes and the presence of a green protected area in the coastal border are aspects that fall within the limit set. Seventy percent of the Costa de Caparica's urban centre and the total of the urban beaches are perfectly integrated; gathering a great amount of environmental stresses and need for coastline defence. Besides, single family houses are mixed up with seasonal dwellings, reflecting a second residence landscape, privatizing in a certain way the space use.

Public space emerges more divided into restricted areas that in sensing terms belong to a specific social group, which in turn avoids the contact with other different groups, through the physical space and through a sort of social practices. See the case of neighbourhood gangs or condominiums. Taking a closer look, to residential condominiums and touristic resorts of Costa de Caparica and Albufeira they represent examples of space privatization. Among many other cases, when a public use is captivated for restrictive users, like beach concession by hotels or the touristic resorts private beaches, space is being privatized.

Applying these concepts to tourism, resort amenities attract a specific group of people (tourists) whose touristic practice can lead to the withdrawal from others. Hence, resorts contribute to the segmentation of space. Meyer & Versluys (1999) explain that space privatization can assume different levels and forms, for example the construction of walls around neighbourhoods or living in an architectural pre-defined neighbourhood, which visually distinguishes residents. These cases happen frequently in second residence neighbourhoods, often defined as condominiums.

Newig (2000), quoted by Hall & Müller (2004), defines the type, structure and buildings/vehicles of the second home as: non-mobile like houses and apartments (cottages, villages, apartment buildings); semi-mobile as camping (tents, caravans, recreational vehicles); and mobile as boats. Second homes are part of the contemporary tourism context and contribute to national and international mobility. Hall and Müller (2004) refer to the complexity of the second homes theme, because it is not only an interest domain of tourism studies, but also marketing, planning and economy, being a part of regional development strategies. Despite this phenomenon be illustrated in the censuses, in the Portuguese case it enquires only about the existence of a second home, excluding important details such as the age, main features of the house, frequency, or even how it was acquired. The personal attachments to the place, childhood memories or inheritance are also reasons that influence the preference for certain second home (location). Additionally, other characteristics such as the natural environment of the place, the existence of beaches (like Costa de Caparica and Albufeira), good accessibility or socio-economic reasons, such as status or privacy (in the case of resorts, for example), may affect the decisions regarding the place for tourism (second home), as stated by Hall & Müller (2004:14): *"However, they also represent some of the broader tensions which exist in present-day understanding of tourism and travel access issues and social equality. To some second homes represent access to low-cost holidays and a more authentic experience, to others they are increasingly expressions of elitism and exclusion."*



Figure 4. Ortophotomap of Albufeira 500 meter buffer – example of a beach in a resort – private use. Source: IGP, Ortophotomap, 2005.

Figura 4. Ortofotomapa do buffer de 500 metros em Albufeira – exemplo de uma praia inserida num resort turístico – uso privado. Fonte: IGP, Ortofotomapa de 2005.



Figure 5. Ortophotomap of Costa de Caparica 500 meter buffer – example of second residence, urban beaches and shanty. Source: IGP, Ortophotomap, 2005.

Figura 5. Ortofotomapa do buffer de 500 metros na Costa de Caparica – exemplo de segundas residências, praias urbanas e área de barracas. Fonte: IGP, Ortofotomapa de 2005.

6. CONCLUSION

Tourism and urbanization represent the two foundations of the current touristic framework, namely in the two presented destinations. Costa de Caparica is perfectly settled in a metropolitan area and its population and tourism flows are quietly influenced by its central location. Its dynamics are fed mainly by residents of Lisbon and others from the metropolitan area. Albufeira parish is one of the oldest and most popular recreation and bathing places of the Algarve, having also a great important residential population. Its territory is mostly influenced by a seasonal present population throughout the summer and holidays, contributing to greater stresses both in environment (beach quality, cliffs erosion, water availability and others) and in public space management. The commonalities of these two parishes are related with having coastal beaches, high levels of seasonal occupation, retail and services related to day and night leisure and also a growing resident population. Data revealed that these two parishes started to be attractive not only for tourists but also for residents, increasing significantly its resident and present population. Costa de Caparica has a greater representation concerning day trips, or isolated movements associated with leisure on the coast. Therefore, it has been assuming a more residential function, predominantly because Costa de Caparica had emerged as a satellite of Almada, the greater southern suburb of Lisbon. Albufeira had always had a touristic background, gaining also resident population especially from foreign residents.

In these scenarios, the conflict typology stands on both sides of the equation: in one hand, more residents and tourists increase the pressure through natural resources; on the other hand, environmental conflicts emerge because the scarcity of resources increases conflicts, especially in the coastal zone. Additionally, there is also a conflict involving public space use and the natural resources availability, as it can be verified in the case of hotels, tourism-apartments and resort beach concession, which are forms of both space segmentation and privatization. These have been marking significantly the touristic development of Albufeira as a destination, contributing indirectly to an emphasis of space privatization, namely when the access to a beach located in a area with outstanding natural resources and landscape, is exclusive for use of the resort, golf or hotel guests. The same happens when second home private condominiums offer a package of limited beach use.

In terms of planning, the key is related with applying better tools for diagnosing, monitoring and managing the coastal zone, particularly in urban-touristic places. The application of the 500 meter strip planning exercise proved that providing a profound knowledge, further proper measures and actions towards public space use can be applied. Managing and monitoring second home landscapes, beach concession licenses and resort private beach appropriation can be accomplished within the coastal strip planning strategy. As tools for national territory management, Coastal Zone Management Plans (POOC) aim to assess and protect coastal resources and, therefore, they materialize the ICZM. Coastal management should be closer to local power, e.g. incorporate the assessment and management of tourism,

leisure and the activities resulting from these uses in the Municipal Master Plan. Thus, statistics from tourism and urbanization processes could be updated faster and the territory could have a more equitable access.

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